

**OCTOBER 2020 UNE ORDER AMENDMENT
TO THE
INTERCONNECTION AGREEMENTS
BETWEEN
THE VERIZON PARTIES
AND
THE CHARTER FIBERLINK, LLC PARTIES**

This October 2020 UNE Order Amendment (this “Amendment”), by and between each of the Verizon incumbent local exchange carrier (“ILEC”) affiliates (individually and collectively “Verizon” or the “Verizon Parties”), and each of the Charter Fiberlink, LLC competitive local exchange carrier (“CLEC”) affiliates (individually and collectively “Charter Fiberlink, LLC” or the “Charter Fiberlink, LLC Parties”; Verizon and Customer may be hereinafter referred to individually as a “Party” and collectively as the “Parties”). This Amendment, upon execution by both Parties, shall be effective as of the last date of signature by a Party where indicated below (“Amendment Effective Date”). Attachment 1 hereto lists, to the best of the Parties’ knowledge, the Interconnection Agreements in effect between the Parties as of the Effective Date (the “Agreements”).

WITNESSETH:

WHEREAS, Verizon and Customer, whether as original parties or as a result of Customer’s adoption of an agreement pursuant to 252(i) of the Communications Act of 1934, as amended (the “Act”), are Parties to Agreements under Sections 251 and 252 of the Act; and

WHEREAS, on October 28, 2020, the Federal Communications Commission (the “FCC”) released a Report and Order in WC Docket No. 19-308, Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services (the “2020 UNE Order”), related to unbundled access to network elements, which became effective on February 8, 2021; and

WHEREAS, the Parties, each without waiving any rights or arguments it may have with respect to whether an amendment is required to effectuate the 2020 UNE Order under the existing terms of the Agreements, wish to amend the Agreements as set forth herein; and

NOW, THEREFORE, in consideration of the mutual promises contained herein, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Amendment to Agreements. The Agreements are amended to incorporate the terms and conditions set forth in this Amendment, all of which shall apply to and be a part of the Agreements (hereinafter referred to as the “Amended Agreements”) notwithstanding any other term or condition of the Amended Agreements, a Verizon tariff or a Verizon Statement of Generally Available Terms and Conditions (“SGAT”).

2. Definitions.

2.1 For purposes of this Amendment, the following terms shall have the meanings indicated below:

“**Alternative Fiber Wire Center**” is a wire center that is within a half mile of an alternative source of fiber, as listed in an August 1, 2019 Public Release of the FCC’s Wireline Competition Bureau in WC Docket 18-141 (including any subsequent additions or modifications made to such list from time to time).

“Competitive County” means a county included in the FCC’s list of “Counties Deemed Competitive” that is available as of the Amendment Effective Date at <https://docs.fcc.gov/public/attachments/DOC-344863A1.pdf>, or any updated version of such list issued by the FCC from time to time. Once a county meets (or has met) the definition of a “Competitive County,” any future change in that status shall not result in the resumption of any unbundling obligation that previously ceased or any new unbundling obligation where none previously existed.

“Applicable Law” means 47 U.S.C. § 251(c)(3) and the FCC’s implementing orders and rules under 47 C.F.R. Part 51

“Dark Fiber Transport” means optical transmission facilities, that Verizon has not activated by attaching multiplexing, aggregation or other electronics, between Verizon switches or wire centers.

“DS0 UNE Loop” means an unbundled digital copper UNE Loop, or an unbundled two-wire or four-wire copper UNE Loop conditioned to transmit digital signals, and includes subloops thereof, but does not include an UNE Analog Loop as defined below.

“DS1 UNE Loop” means a UNE Loop suitable for the transport of 1.544 Mbps digital signals. DS1 UNE Loops include, but are not limited to, two-wire and four-wire copper loops capable of providing high-bit rate digital subscriber line services, including T1 services.

“DS3 UNE Loop” means a UNE Loop suitable for the transport of 44.736 Mbps digital signals.

“Grandfathered 64 kbps Voice-Grade Channel” means a 64 kbps voice-grade channel over a fiber loop as defined by the FCC in 47 C.F.R. §51.319(a)(3)(iii)(C) as in effect immediately before the effectiveness of the 2020 UNE Order, such 64 kbps voice-grade channels having been grandfathered by the FCC in WC Docket No. 14-192, Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) from Enforcement of Obsolete ILEC Legacy Regulations That Inhibit Deployment of Next Generation Networks, Memorandum Opinion and Order (rel. December 28, 2015).

“House and Riser Cable” means a distribution facility in Verizon’s network, between the minimum point of entry (“MPOE”) at a multiunit premises where an end user customer is located and the demarcation point for such facility, that is owned and controlled by Verizon.

“Hybrid Loop” means a UNE Loop composed of both fiber optic cable and copper wire or cable. The term “Hybrid Loop” includes a spare home-run copper loop when provided in lieu of access to a hybrid loop but does not include UNE Analog Loops as defined below.

“Multiunit Premises Subloop” means any portion of a loop that it is technically feasible to access at a terminal in Verizon’s outside plant at or near a multiunit premises. For the avoidance of any doubt, Multiunit Premises Subloop includes, but is not limited to, House and Riser Cable.

“Network Interface Device” or “NID” means any means of interconnection of customer premises wiring to Verizon’s distribution plant, such as a cross-connect device used for that purpose.

“Operations Support System Functions” means pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by Verizon’s databases and information.

“Tier 3 Wire Center” means a Verizon wire center that Verizon has not designated as a Tier 1 or Tier 2 wire center (such tiers being defined in 47 C.F.R. 51.319(d)(i) and (ii)) in a wire center list that Verizon makes available (or has made available) by notice or by publication on Verizon’s wholesale website. As of the Amendment Effective Date, the list of Tier 1 and Tier 2 wire centers is available at https://www22.verizon.com/wholesale/attachments/verizonwirecentersexempt_1.12.2020.xlsx.

“UNE” means unbundled network element, which refers to network elements provided on an unbundled basis under 47 U.S.C. § 251(c)(3) and 47 C.F.R. Part 51.

“UNE Analog Loop” means any unbundled two-wire or four-wire analog voice-grade copper UNE Loops as defined in the FCC’s UNE Loop/Resale Forbearance Order (by whatever name the Agreement or Verizon tariff or SGAT may use to refer to such loops), which, pursuant to such FCC order, were previously discontinued subject to a limited transition period.

“UNE Loop” means a loop, as the term is defined in 47 CFR § 51.319(a), that is provided as an unbundled network element: (a) whether provided or used as a stand-alone UNE, in combination with other UNEs, or commingled with non-UNE services or other arrangements; and (b) whether originally ordered as a UNE or created through the conversion of private line or special access circuits or other services or arrangements.

“UNE Loop/Resale Forbearance Order” means the FCC’s Memorandum Opinion and Order in WC Docket Nos. 18-141 et al., Modernizing Unbundling and Resale Requirements in an Era of Next-Generation Networks and Services (rel. Aug. 2, 2019).

“Urbanized Census Block” means any census block that is determined by the United States Census Bureau to be located in an urbanized area.

2.2 The definitions of various discontinued UNEs in this Amendment are intended to apply to all UNEs described by those definitions, regardless of the names used to refer to them in other provisions of the Agreement or a UNE tariff or SGAT. By way of example and not limitation, the term “UNE Loop” includes network elements that may sometimes be referred to as “links.”

3. Discontinuation of DS1 and DS3 UNE Loops in Competitive Counties.

3.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreements or a Verizon tariff or SGAT, and subject to the transitional provisions set forth in Subsections 3.2 and 3.3 below, Customer shall not order or obtain DS1 or DS3 UNE Loops from Verizon (whether via new orders or conversions of existing special access circuits or other services), and Verizon shall not be obligated to provide DS1 or DS3 UNE Loops to Customer (whether via new orders or conversions of existing special access circuits or other services) in any case in which the end user served by such loop is located in any Competitive County.

- 3.2 New purchases of DS1 UNE Loops that are precluded under Section 3.1 above, but that would otherwise be available to Customer under the Agreement, may be made for installations occurring through February 7, 2023, but may not be made for installations occurring after such date. No special access circuits may be converted to DS1 UNE Loops after February 8, 2021. Any DS1 UNE Loops purchased as such or created by conversion in a Competitive County at any time up to February 8, 2021, or any new installations (not conversions) purchased through February 7, 2023, will continue to be provisioned through August 7, 2024 at the rates that apply under this Agreement, unless discontinued by Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After February 7, 2023, Verizon will no longer provide or maintain any DS1 UNE Loop in a Competitive County.
- 3.3 Any DS3 UNE Loops purchased as such or created by conversion in a Competitive County at any time up to February 8, 2021 will continue to be provisioned through February 7, 2024 at the rates that apply under this Agreement, unless discontinued by Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After February 7, 2024, Verizon will no longer provide or maintain any DS3 UNE Loop in a Competitive County.
- 3.4 For the avoidance of any doubt, the limitations on availability of DS1 and DS3 UNE Loops set forth herein apply regardless of whether the DS1 or DS3 UNE Loop is ordered or used as a stand-alone UNE, in combination with another UNE (e.g., as part of loop-transport combination), or commingled with a non-UNE service or other arrangement.
4. DS0 UNE Loops and Associated UNE Copper Subloops.
- 4.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreement or a Verizon tariff or SGAT, and subject to the transitional provisions set forth in Subsection 4.2 below, DS0 UNE Loops and their associated subloops are not available from Verizon on or after February 8, 2021 in any Urbanized Census Block. For the avoidance of any doubt, any subloops meeting the definition of "Multiunit Premises UNE Subloop" are governed by Section 5 below, and not by this Section.
- 4.2 New purchases of DS0 UNE Loops that are precluded under Section 4.1 above may be made for installations occurring through February 7, 2023. Any DS0 UNE Loops purchased before February 7, 2023 ("Grandfathered DS0 UNE Loops") will continue to be provisioned through February 7, 2025, unless discontinued by Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After such date, Verizon will no longer provide or maintain any DS0 UNE Loop in any Urbanized Census Block. Grandfathered DS0 UNE Loops will be provided at the rates that apply under this Agreement through February 7, 2024. Such loops will be provided at 125% of the rates that apply under this Agreement from February 8, 2024 through February 7, 2025; provided, however, that Verizon may at any time during such period specify a lower rate by providing written notice to Customer and/or by publishing such lower rate on Verizon's wholesale website or an applicable Verizon tariff.
5. Hybrid Loops and Grandfathered 64 Kbps Voice Grade Channels.
- 5.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreement or a Verizon tariff or SGAT, and subject to the

transitional provisions set forth in Subsection 5.2 below, Hybrid Loops and their associated subloops are not available as UNEs from Verizon on or after February 8, 2021. For avoidance of any doubt, subloops of UNE Analog Loops were previously discontinued pursuant to the FCC's UNE Loop/Resale Forbearance Order and are not available from Verizon where UNE Analog Loops are not available from Verizon.

- 5.2 Any Hybrid Loops or Grandfathered 64 kbps Voice-Grade Channels purchased before February 8, 2021 will continue to be provisioned through February 27, 2024 at the rates that apply under the Agreement, unless discontinued by Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After February 7, 2024, Verizon will no longer provide or maintain any Hybrid Loops or Grandfathered 64 kbps Voice-Grade Channels.

6. Multiunit Premises Subloops.

- 6.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreement or a Verizon tariff or SGAT, and subject to the transitional provisions set forth in Subsection 6.2 below, Multiunit Premises Subloops are not available as UNEs from Verizon on or after February 8, 2021.
- 6.2 Any Multiunit Premises Subloops purchased as UNEs before February 8, 2021 will continue to be provisioned through February 7, 2024 at the rates that apply under this Agreement, unless discontinued by Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After February 7, 2024, Verizon will no longer provide or maintain any Multiunit Premises Subloops as UNEs.

7. Network Interface Devices.

- 7.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreement or a Verizon tariff or SGAT, and subject to the transitional provisions set forth in Subsection 7.2 below, NIDs are not available as UNEs from Verizon on or after February 8, 2021.
- 7.2 Any NIDs purchased as UNEs before February 8, 2021 will continue to be provisioned through February 7, 2024 at the rates that apply under this Agreement, unless discontinued by Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After February 7, 2024, Verizon will no longer provide or maintain any NIDs as UNEs.

8. Dark Fiber Transport.

- 8.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreement or a Verizon tariff or SGAT, and subject to the transitional provisions set forth in Subsection 8.2 below, UNE Dark Fiber Transport is not available as a UNE from Verizon on or after February 8, 2021 unless at least one end of the transport route is a Tier 3 wire center that is not an Alternative Fiber Wire Center.
- 8.2 Any Dark Fiber Transport precluded by Section 8.1 above but purchased as a UNE before February 8, 2021 will continue to be provisioned through February 7, 2029 at the rates that apply under this Agreement, unless discontinued by

Customer or terminated by Verizon for any reason permitted under this Agreement or any tariff referenced herein (e.g., for non-payment). After February 7, 2029, Verizon will no longer provide or maintain any such Dark Fiber Transport as a UNE.

9. Operations Support Systems Functions

- 9.1 Effective as of February 8, 2021, notwithstanding any other term or condition of the Amended Agreement or a Verizon tariff or SGAT, and subject to the transitional provisions set forth in Subsection 9.2 below, unbundled access to Operations Support Systems Functions will not be available from Verizon on or after February 8, 2021, except when such functions are used to manage other UNEs that remain available from Verizon, local interconnection, or local number portability.
- 9.2 Any unbundled access to Operations Support System Functions eliminated pursuant to Section 9.1 above will continue to be provisioned for the period in which unbundled access is available to the UNE managed through the use of such functions, but not after such period.

10. Embedded Base and Replacement Arrangements.

- 10.1 Where Verizon is permitted (or has been permitted) to cease providing a UNE under the Amended Agreement, a Verizon tariff, or Applicable Law (such UNE, a "Discontinued UNE") and Customer has not submitted a Local Service Request ("LSR") or Access Service Request ("ASR"), as appropriate, to Verizon requesting disconnection of the Discontinued UNE and has not separately secured from Verizon an alternative arrangement to replace the Discontinued UNE as of the end of the applicable transition period, then Verizon may disconnect the subject Discontinued UNE without further notice to Customer immediately following or anytime after the applicable transition period.
- 10.2 In lieu of disconnecting the subject Discontinued UNE in the foregoing circumstances, Verizon, in its sole discretion, may elect to apply any of the following until such time as Verizon elects to disconnect the Discontinued UNE: (a) convert the subject Discontinued UNE to an arrangement available under a Verizon access tariff (in which case month-to-month rates shall apply unless Verizon determines that the circuit is eligible for a different plan to which your company then subscribes), a resale arrangement, or other commercial arrangement that Verizon identifies in writing to Customer, or (b) in lieu of such a conversion, reprice the subject Discontinued UNE by application of a new rate (or, in Verizon's sole discretion, by application of a surcharge to an existing rate) to be equivalent to an arrangement available under a Verizon access tariff, a resale arrangement, or other commercial arrangement that Verizon identifies in writing to Customer (the rates, terms and conditions of such replacement arrangement that Verizon identifies under (a) or (b) preceding, the "Replacement Terms"). Without limiting Verizon's rights or Customer's obligations under this Section 10, Customer shall cooperate with Verizon in implementing the requirements of this Section 10 and shall promptly submit any LSR or ASR and take such other action that may be needed to implement such requirements.
- 10.3 Notwithstanding any other provision of the Amended Agreement, any negotiations regarding any replacement arrangement or other facility or service that Verizon is not required to provide under Applicable Law shall be deemed not to have been conducted pursuant to 47 U.S.C. § 252(a)(1), or 47 C.F.R. Part 51, and shall not be subject to arbitration pursuant to 47 U.S.C. § 252(b). Any

reference in this Amendment to Verizon's provision of a facility, service, or arrangement that Verizon is not required to provide under Applicable Law is solely for the convenience of the Parties and shall not be construed to require or permit arbitration of any rates, terms, or conditions for such facility, service, or arrangement pursuant to 47 U.S.C. § 252(b) or otherwise.

11. Miscellaneous Terms and Conditions

- 11.1 Nothing contained in this Amendment shall be deemed: (a) to obligate Verizon to offer or provide unbundled access to any UNE (whether as a stand-alone UNE, as part of a combination, or otherwise) that was not already available to Customer under the Agreement/s prior to this Amendment, (b) to obligate Verizon to offer or provide unbundled access at rates prescribed under Section 251(c)(3) of the Act to any facility that is or becomes a Discontinued UNE, whether as a stand-alone UNE, as part of a combination, or otherwise or (c) to limit any right of Verizon under the Agreement (independent of this Amendment), any Verizon tariff or SGAT, or otherwise, to cease providing a Discontinued UNE, whether as a stand-alone facility, as part of a combination, or otherwise.
- 11.2 Notwithstanding any other provision of the Agreement, and without limiting any existing rights Verizon may have to cease providing UNEs that are discontinued under Applicable Law, in the event that the FCC determines or has determined (whether by forbearance of existing rules, a rule change or otherwise) that Verizon is not required to provide any UNEs contained in the Amended Agreement/s beyond the UNEs specifically addressed in this Amendment, then Verizon (to the extent it has not already done so prior to execution of this Amendment) may implement such discontinuation by notifying Customer and/or by publishing notice of such discontinuation on Verizon's wholesale website, and no amendment to the Amended Agreement shall be required for such purposes. Any such notice that Verizon issues (or has issued) shall address, among other things, the date on which new orders are disallowed and any transition period that is required for the embedded base (which shall be at least 90 (ninety) days unless the FCC requires a longer transition period for the embedded base). After the end of any such transition period, Customer's embedded base of the subject UNE will be treated as a Discontinued UNE under Section 10 above.
- 11.3 Conflict Between this Amendment and the Agreements. This Amendment shall be deemed to revise the terms and conditions of the Agreements to the extent necessary to give effect to the terms and conditions of this Amendment. In the event of a conflict between the terms and conditions of this Amendment and the terms and conditions of the Agreements, this Amendment shall govern; provided, however, that the fact that a term or condition appears in this Amendment but not in the Agreements, or in the Agreements but not in this Amendment, shall not be interpreted as, or deemed grounds for finding, a conflict for purposes of this Section.
- 11.4 Capitalization. Capitalized terms used and not otherwise defined herein have the meanings set forth in the Amended Agreement.
- 11.5 Counterparts. This Amendment may be executed in one or more counterparts, each of which when so executed and delivered shall be an original and all of which together shall constitute one and the same instrument.
- 11.6 Captions. The Parties acknowledge that the captions in this Amendment have been inserted solely for convenience of reference and in no way define or limit the scope or substance of any term or condition of this Amendment.

- 11.7 Scope of Amendment. This Amendment shall amend, modify and revise the Agreements only to the extent set forth expressly in this Amendment and, except to the extent expressly set forth in this Amendment, the terms and conditions of the Agreements shall remain in full force and effect after the Amendment Effective Date. For the avoidance of any doubt, nothing in this Amendment shall be deemed to amend or extend the term of the Amended Agreement, or to affect the right of a Party to exercise any right of termination it may have under the Amended Agreement.
- 11.8 Joint Work Product. The Parties acknowledge that this Amendment is the joint work product of the Parties, that, for convenience, this Amendment has been drafted in final form by Verizon and that, accordingly, in the event of ambiguities in this Amendment, no inferences shall be drawn for or against either Party on the basis of authorship of this Amendment.
- 11.9 Amendments. No amendments or modifications shall be made to this Amendment unless in writing and signed by appropriate representatives of the Parties.
- 11.10 Waivers. A failure or delay of either Party to enforce any of the provisions of this Amendment, or any right or remedy available under this Amendment, or at law or in equity, or to require performance of any of the provisions of this Amendment, or to exercise any option that is provided under this Amendment, shall in no way be construed to be a waiver of such provisions, rights, remedies or options.
- 11.11 Electronic Signatures. For the avoidance of any doubt, this Amendment may be signed electronically, and the Amendment and the signatures may be recorded and stored in an electronic form.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to be executed as of the Amendment Effective Date.

THE CHARTER FIBERLINK, LLC PARTIES

THE VERIZON PARTIES

Signature: 
Michael Scanlon (Mar 3, 2021 13:41 CST)

Signature: 
Claudine Celestino (Mar 3, 2021 15:03 EST)

Name: Michael Scanlon

Name: Claudine Celestino

Title: VP, Circuit Operations

Title: Manager, Contract Management

Date: Mar 3, 2021

Date: March 3, 2021

Attachment 1

Customer Legal Entity Name	Verizon Legal Entity Name	Contract State	Agreement Effective Date	Agreement ID (for Verizon Use Only)	Amendment Agreement ID (for Verizon Use Only)
Charter Fiberlink - Maryland, LLC	Verizon Maryland LLC	MD	8/22/2017	00010473.0	00098422.0
Charter Fiberlink MA-CCO, LLC	Verizon New England Inc., d/b/a Verizon Massachusetts	MA	2/19/2004	00010478.0	00098423.0
Charter Fiberlink NC-CCO, LLC	Verizon South Inc.	NC	8/4/2005	00010481.0	00098424.0
Charter Fiberlink NY-CCO, LLC	Verizon New York Inc.	NY	2/12/2010	00010488.0	00098425.0
Charter Fiberlink VA - CCO, LLC	Verizon Virginia LLC	VAe	3/23/2007	00010495.0	00098426.0
Charter Fiberlink VA - CCO, LLC	Verizon South Inc.	VAw	3/23/2007	00010498.0	00098427.0