**E-Path Wireline Service Schedule**

**(Silver, Gold & Platinum)**

This E-Path Wireline Service Schedule #{{ScheduleId}} (“**E-Path Wireline Service Schedule**” or “**Service Schedule**”), upon the E-Path Schedule Effective Date (defined below), is made a part of the Frontier or Master Services Agreement dated {{FSA\_StartDate}} by and between Frontier and {{Subscriber\_Name}} (“**Customer**”) (which may be referred to in this Service Schedule as either “**FSA**” or “**MSA**”). The MSA and this Service Schedule are collectively referred to as the “**Agreement**.” Frontier and Customer are each a “Party” and collectively the “Parties.” In this Service Schedule, “days” means calendar days unless otherwise specified.

This Service Schedule is effective on the date of the last signature by a Party set forth on the signature page to this E-Path Wireline Service Schedule (“**E-Path Schedule Effective Date**”). Capitalized terms used but not otherwise defined in this E-Path Wireline Service Schedule shall have the meanings given such terms in the MSA. Subject to the terms and conditions of the Agreement, including this E-Path Wireline Service Schedule, Customer will order from Frontier, and Frontier will provide to Customer E-Path Services.

1. **Service Prerequisites**
   1. This E-Path Wireline Service Schedule is for the supply of Ethernet access services for customers that: (a) have executed a services agreement with Frontier, which may be entitled Frontier or master services agreement; (b) have executed a Non-Disclosure Agreement (“**NDA**”) in a form acceptable to Frontier; and (c) possess the capability to submit service orders, to mean Access Service Requests (“**ASRs**”), unless otherwise stated (“Service Orders”), electronically, either via electronic bonding (“e-bonding”) or the Frontier Graphical User Interface (“**GUI**”) Virtual Front Office (“**VFO**”). This E-Path Wireline Service Schedule shall apply to all Service Orders submitted pursuant to this Service Schedule throughout the lifecycle of the MSA, as further described in the MSA, except as described in Section 5 below for non-standard elements or configurations (“**Non-Standard Service**”).
2. **General Service Description; Exhibits; Lists**
   1. E-Path Silver, Gold and Platinum is a Quality of Service (“**QoS**”) enabled Service. It is an interLATA-interstate and intraLATA-intrastate, point-to-point full duplex Service within a Frontier Ethernet QoS-enabled wire center within specific exchanges (“**Exchanges**”). Exchanges are identified on the Frontier wholesale website and are subject to change. E-Path Silver, Gold and Platinum reflect the level of service. Rates vary by the pricing tier assigned by Frontier (“**Tier Rate Structure**”). Rates and tiers structure are subject to change. Service to cell sites, cell towers or wireless switches is not available pursuant to this E-Path Wireline Service Schedule, and Customer shall not order such Service under this Service Schedule.
   2. The following Exhibits are made part of this E-Path Wireline Service Schedule:
      1. Exhibit A: Rates and charges for E-Path Services available under this Service Schedule
      2. Exhibit B: Technical specifications for E-Path Services available under this Service Schedule
      3. Exhibit C: Service level agreement (“**Service Level**” or “**SLA**”) for E-Path Services available under this Service Schedule
   3. On or within two (2) business days after the E-Path Schedule Effective Date, Frontier will provide to Customer the following then-current lists (generally via a link to a website or a spreadsheet sent by email), which are subject to change. Frontier may in its sole discretion update the lists at any time, except as set forth in Section 8.1 below regarding certain changes that may be made quarterly.
      1. **“Ethernet-Enabled Service Wire Center (“SWC”) List”** means a list of Common Language Location Identifier (“**CLLI**”) codes for Frontier SWCs that are Ethernet-enabled. While each SWC on the Ethernet-Enabled SWC List has the capability to support Ethernet service, an Ethernet-enabled switch may not reside in every SWC on this list. After Customer submits an ASR, the SWC for the Customer location and the Ethernet Switch to which Frontier is bringing the Service are provided via a Firm Order Confirmation (“**FOC**”).
      2. **Building Location List** means a list of building addresses which identifies the tier by Customer’s end-user address.
      3. **SWC List** means a list of SWCs to be used when an address is not on the Building Location List and which identifies the tier by SWC of Customer’s end-user address.
3. **Service Availability and Service Term**
   1. The E-Path Service is available only within Frontier Ethernet-enabled (Silver) and QoS-enabled (Gold and Platinum) wire centers and where facilities are available. If facilities are not available and Customer desires to proceed with a Service Order, Customer must use the process described below in Section 5.
   2. Frontier will provide Services over such routes and facilities as Frontier may choose. Frontier shall in its sole discretion determine when to design, provision and implement Service over dedicated copper and/or existing readily available fiber facilities.
   3. **Service Term**
      1. The minimum term for a Service ordered pursuant to this Service Schedule shall be the length of the service term that Customer specifies in the Variable Term Agreement (“**VTA**”) field of the Service Order (“**Service Term**”).
      2. The Service Term and billing for the Service shall begin upon the earlier of (i) Customer’s use of the applicable Service(s) or (ii) upon the completion date provided by Frontier (e.g., populated in the completion date field of the completion notification) (the applicable Service Term “Commencement Date”).  If Customer does not renew a Service Term for a period of more than one (1) year by submitting an ASR forty-five (45) days or less prior to the end of the Service Term and neither Party provides the other with written notice of its intent to terminate a Service at least sixty (60) days prior to expiration of the Service Term, the Service Term of each Service will automatically renew for additional one-year periods at the same rate, except such rate may be changed at any time by Frontier in its sole discretion upon thirty (30) days’ notice (each a “Renewal Service Term”).
      3. Available Service Terms associated with User Network Interfaces (“**UNI**”), Network to Network Interfaces (“**NNI**”), and Ethernet Virtual Connections (“**EVC**”) are one (1), two (2), three (3) and five (5) year terms, as established by the length of Service Term that Customer selects within the VTA field of the Service Order.
      4. Customer may order UNIs, NNIs, and EVCs on a month-to-month (“**MTM**”) basis. And then current MTM rates shall apply.
4. **Standard Service.**  Subject to facilities availability as described in Section 5 below, Customer may request any of the following elements or configurations for E-Path Service, each of which is standard
   1. **UNI**. A UNI is available in either of the configurations set forth in Sections 4.1.1 and 4.1.2 below.
      1. A single UNI serving a location, using a hub and spoke topology with one or multiple point-to-point EVCs terminating to an NNI.
      2. The use of two (2) UNIs to complete a point-to-point Service (“**Point-to-Point UNIs**”). Each UNI must be established at an approved in-franchise POP, Out-Of-Franchise aggregation location, or end user premise with an address on the Building Location List.
   2. **NNI**. An NNI is generally a service multiplexed port for the aggregation of EVCs from multiple UNIs, and it is the point of hand-off of Services to Customer.
      1. **NNI Port-Only**. The port only NNI provides a port interface connection from a carrier's colocation arrangement to a Frontier Ethernet switch or within one of the Out-Of-Franchise (“**OOF**”) interconnect partnerships approved by Frontier (e.g., an approved carrier hotel).
      2. **NNI Port and Access**. The NNI port with access consists of a link from an interexchange carrier’s network or other service provider’s POP to a Frontier Ethernet switch.
      3. **In-Service NNI**. In-service NNIs installed under a previous Frontier product offering that has not reached end-of-life, excluding Access Switched Ethernet (“**ASE**”) and Optical Ethernet Metropolitan Area Network (“**OPT-E-MAN**”) in Connecticut, can be used to connect an E-Path EVC to an E-Path UNI as specified in this Service Schedule.
   3. **EVC**. An EVC provides an Ethernet point-to-point virtual connection between the two UNIs or between a NNI and the UNI.
      1. Customer may order port or Virtual Local Area Network (“**VLAN**”) based EVCs.
      2. EVCs must be established between two UNIs or between a UNI and an NNI supporting the requested bandwidth (aka Committed Information Rate or “**CIR**”).
      3. Frontier may provision, change or limit the maximum amount of Media Access Control (“**MAC**”) addresses per EVC and assign a single Class of Service.
      4. Customer must shape all CIR to the bandwidth ordered.
5. **Non-Standard Service; Facilities Not Available; Special Construction**
   1. Any element or configuration not set forth in Section 4 above is Non-Standard Service for purposes of this Service Schedule.
   2. Notwithstanding anything that may be to the contrary in this E-Path Wireline Service Schedule and the MSA, for Non-Standard Service and whenever facilities (e.g., conduit, riser, local loop route, minimum point of entry (“**MPOE**"), space, power, etc.) are not available, including when facilities are discovered to be not available during a site visit, Services are not available via this Service Schedule. To obtain Non-Standard Service and when facilities are not available, Customer must use the process described in Section 5.3.
   3. **Process for Non-Standard Service and When Facilities are Not Available**
      1. To order Non-Standard Service, Customer must submit to Frontier a request, including any pertinent information needed by Frontier to respond to the request.  If Customer submits an ASR for a Service and receives a notification that special construction is required, Frontier will provide a quotation for special construction, unless Customer cancels its request before receipt of a quotation.
      2. Frontier will provide quotations for non-standard Services and pricing via its applicable process, which may be referred to as Frontier’s Business Decision Tool (“**BDT**”) process. Using the BDT process, Frontier will identify applicable charges, such as Capital in Aid to Construction (“**CIAC**”) charges related to construction of facilities at Customer’s request. Frontier may require Customer to pay charges in advance of commencing construction.
      3. When Customer elects to proceed, Customer must accept the quotation in a signed acceptance letter on or before the later of: (a) the date provided by Frontier in its quotation; or (b) sixty (60) days after the date on which Frontier provides a quotation to Customer (“Quotation Expiration Date”).  Alternatively, before the Quotation Expiration Date, the Parties may enter into a written agreement to reflect the Parties’ understanding. The agreement may be in the form of an amendment to this Service Schedule.
      4. If, after receiving a quotation, Customer elects not to proceed, Customer shall cancel any associated Service Order.  If Customer has not responded to a quotation or canceled its ASR by the Quotation Expiration Date, Frontier may cancel the Service Order.
6. **Moves**
   1. “Inside Moves” means any relocation of a UNI or NNI port and access within the same address. To request an Inside Move, Customer must submit an ASR with a Move (“**M**”) Activity (“**ACT**”). For Inside Moves, Customer may also need to request a Disconnect (“**D**”) and New (“**N**”) ACT, when required by Frontier’s process. Before submitting an Inside Move ASR, the Customer must email Frontier at the address specified by Frontier, which as of the E-Path Schedule Effective Date is Demarc.Move@ftr.com.
   2. “Outside Moves” means moving a circuit to a different address. To request an Outside Move, Customer must submit disconnect and new ASRs (i.e., a D ACT ASR followed by an N ACT ASR). Customer must populate the Related PON (“**RPON**”) fields on the ASRs (i.e., D and N ACT ASRs).
7. **Standard Intervals**
   1. Standard intervals commence with Customer’s timely submission of an accurate ASR. Standard intervals are no less than the interval posted on the Frontier Wholesale website unless Customer receives a non-standard interval via an Expedite as defined in Section 8.4.7.
   2. If Customer populates the Desired Due Date (“**DDD**”) field of the ASR with a date that is less than the applicable standard interval posted on the Frontier Wholesale website, the standard interval shall nonetheless apply, unless the Customer also requests an expedite of the due date by populating the expedite (“**EXP**”) field of the ASR with “Y” to request an expedited due date and the date is expedited, as further described in Section 8.4.7.
8. **Rates and Charges; Standard Service Rate Elements**
   1. **Tier Rates**. The applicable rate per the Tier Rate Structure (“**Tier Rate**”) is applied at the time the Customer submits an ASR. Billing at the new Tier Rate shall commence upon the completion date provided by Frontier (e.g., populated in the completion date field of the completion notification). Frontier may, in its sole discretion, change building locations between or among tiers in the Building Location List and SWC List and will do so no more frequently than on a quarterly basis. Any changes to the Building Location List or the SWC List shall apply prospectively to new install Services submitted after the E-Path Schedule Effective Date. After a circuit is installed, any changes to the SWC List shall only apply when Customer submits a records order to re-term the circuit no earlier than forty-five (45) days or less prior to the end of the Service Term, excluding change orders (e.g., EVC bandwidth changes and EVC level of service changes).
      1. The Tier Rates in Exhibit A do not include any taxes, fees or surcharges, which are separate and may be applicable to the Service.
      2. The Tier Rates, terms and conditions of this Service Schedule are available only for new orders and shall not apply to any pending orders, upgrades, moves, rehomes or re-terms of existing circuits ordered prior to this E-Path Schedule Effective Date. In the event Customer orders Services under this Service Schedule that do not qualify (including new orders that replace disconnected circuits ordered under previous products or contracts), the Tier Rates, terms and conditions of this Service Schedule shall not apply to such orders and Frontier, at any time after discovering the error, may adjust billing retroactively and prospectively, as applicable, to apply the correct Tier Rates for the entire period for which Customer incorrectly received the benefits of this Service Schedule, subject to the applicable statute of limitations.
      3. An address associated with a particular UNI must be an exact match to the address in the Building Location List. If two (2) UNIs have different addresses, the rate will be determined by the higher tier.
   2. Monthly Recurring Charges (“**MRC**”) and any Non-Recurring Charges (“**NRC**”) will be applied per rate element, as set forth in Exhibit A and Section 8.3 and 8.4 below. Additional NRCs not listed in Exhibit A (e.g., additional labor, out of hours charges) are set forth in Frontier’s FCC tariff or Interstate Service Guide (“**ISG**”), as applicable.
   3. **Rate Elements for MRCs.** For a rate element to qualify for the rates and terms under this Service Schedule, Customer must order the rate element to comply with the requirements of this Service Schedule, including the requirements set forth in Section 4 above. The rate elements for MRCs under this Service Schedule are:
      1. **NNI**
      2. **EVC**
         1. If the Customer’s end user address on the UNI is set forth in the Building Location List, the Tier Rate for the EVC shall be the Tier Rate for the end user address on the Building Location list.
         2. If the Customer's end user address on the UNI is not set forth in the Building Location List, the Tier Rate for the EVC shall be the Tier Rate for the EVC associated with the SWC List that serves the end user address of the UNI.
      3. **UNI**
      4. **Bandwidth Speed**
         1. Customer may order the bandwidth speeds set forth in Exhibit B (Technical Specifications) to this Service Schedule. The EVC bandwidth speed cannot exceed the interface speed.
   4. **Rate Elements for NRCs**
      1. **Additional labor charges** (such as out-of-hours charges), in addition to the NRCs described in this Section 8.4, may apply.
      2. **Build Fee**. When applicable, the Build Fee is identified in the Building Location List.
      3. **Cancellation Charge**. Notwithstanding Section 4a of the MSA, if Customer cancels any Service or Equipment prior to delivery of Equipment or installation of the Service or Equipment, Customer shall pay a cancellation charge equal to the NRC and one (1) month of the MRC for the Service, plus the total costs and expenditures of Frontier in connection with establishing the Service prior to Frontier’s receipt of notice of cancellation, including, but not limited to any Equipment restocking fees.
      4. **Capital in Aid to Construction (CIAC) Charge**. “Capital in Aid of Construction” or “CIAC” is a non-recurring charge for design, engineering, and construction of facilities requested by Customer, as described in Section 5 above.
      5. **Circuit Extension Charge (aka NID Annexation Charge).** Means any extension beyond the designated MPOE requested on UNI and NNI ASRs (by populating the inside wire (GETO) field with “W” on activity N, C or M Service Orders). Anything beyond certain parameters (e.g., up/down risers/floors, restrictions set forth in Table B to Exhibit A, etc.) is a Non-Standard Service subject to the process set forth in Section 5.
      6. **Early Termination Liability (“ETL”) Charge**. In the event a disconnect order is received after the Service Term Commencement Date but prior to expiration of the Service Term or any subsequent Renewal Service Term (when the extension is greater than month-to-month and other than as a result of a breach by Frontier) (collectively referred to as “**Commitment Period**”), Frontier shall assess ETL charges. Notwithstanding anything that may be to the contrary in the Agreement, Customer shall immediately pay Frontier an ETL charge equal to one hundred percent (100%) of the MRC charges for such disconnected Service multiplied by the number of months remaining in the Commitment Period.
      7. **Expedite Charge**. “Expedite” means the ability to improve a delivery date to a date earlier than Frontier’s standard interval or confirmed delivery date. Customer may request an Expedite by populating the EXP field of the ASR with a “Y.” This does not guarantee a reduced interval. When Frontier is able to Expedite Service delivery, the Expedite NRC applies per each UNI, NNI and EVC on a per-day basis (i.e., for each day the delivery interval was improved upon).
         1. Special construction requires a separate ICB cost, as further described in Section 5 above. Additional information about Frontier’s construction due date improvement process is available on the Frontier wholesale website.
      8. **Installation Charge NNI**. A charge for installation of an NNI.
      9. **Installation Charge EVC**. A charge for installation of an EVC.
      10. **Installation Charge UNI**. A charge for installation of a UNI.
      11. **No Trouble Found Administration Charge**. Whenever trouble is reported in Customer’s network and no Frontier-caused trouble is found, Customer shall pay a No Trouble Found Administration charge.
      12. **Supplement Administrative Charge**. For any and all activity populated as a new due date (“2”), other change to a post-FOC request (“3”) or correction to a pre-FOC request (“4”), within the supplement (SUP) field of the administrative section of an ASR, Customer shall pay a Supplement Administrative charge per SUP ASR. For all activity populated to indicate that the pending order is to be cancelled in its entirety (“1”) within the SUP field of the Administrative Section of the ASR, Customer shall pay a cancellation charge per occurrence.
9. **Customer Site Readiness and Trouble Reporting**
   1. Customer must be ready at the time of Ethernet installation. Customer must follow the Ethernet Site Ready Requirements, which are available on the Frontier wholesale website.
   2. Customer shall report performance issues (“**trouble**”) with Service. Customer must follow Frontier’s trouble reporting procedures, which are available on the Frontier wholesale website.
      1. Frontier’s Out of Hours Routine Network Maintenance Window is between 12:00 a.m. and 6:00 a.m. Eastern Standard Time (“**EST**”), beginning on Monday at 12:00 a.m. EST and ending at Friday at 6:00 a.m. EST, provided, that Frontier will use commercially reasonable efforts to start such work no earlier than 12:00 a.m. local time.
10. **Ordering Requirements**
    1. Ordering Period. All Orders must be placed by Customer during the period beginning on the E-Path Schedule Effective Date and ending at 11:59PM on the one-year anniversary of the E-Path Schedule Effective Date (“Ordering Period”). The Ordering Period does not include any Service Orders in progress or existing as of the E-Path Schedule Effective Date. The Ordering Period shall be automatically extended on a one-year basis on each one-year anniversary of the E-Path Schedule Effective Date, until terminated by either Party on at least sixty (60) days’ prior written notice.
    2. Customer remains responsible in all respects for ensuring the accuracy of orders for Services pursuant to this Service Schedule, as well as for post-ordering verification, including use of the appropriate Contract identification number (“**ID**”), to be eligible for the Tier Rates, terms and conditions under this Service Schedule. Customer must, when submitting new or subsequent Service Orders, populate the Service Order accurately, including populating the PNUM field of the Service Order (e.g., ASR) with the following Contract ID (or “**PNUM**”): **EPAV001999{{ScheduleId}}**. If Customer fails to use the Contract ID provided in this Section in Customer's Service Order, Customer shall submit a Service Order to correct the Contract ID within ninety (90) days from the Service's in-service date. When Tier Rates associated with the corrected Contract ID are lower, Frontier will correct the billing on a prospective basis, beginning with the next billing period after the date on which Frontier receives and processes Customer’s “change” Service Order. If Customer orders Service with an incorrect Contract ID on the Service Order resulting in Customer being under-billed for Service, Frontier may subsequently correct the Contract ID and retroactively bill Customer the appropriate charges associated with the correct Contract ID for the full period for which Customer was under-billed subject to the applicable statute of limitations, and Customer shall pay such charges.
       1. Notwithstanding the PNUM provided in Section 10.2 above, for Point-to-Point UNIs available pursuant to Section 4.1.2 above, when submitting new or subsequent Service Orders requesting a Point-to-Point UNI, Customer must populate the Service Order with the following Contract ID (or “**PNUM**”):  **EPAV001999{{ScheduleId}}**.
    3. Customer shall not use this Service Schedule’s Contract ID to order or modify service arrangements not covered by this Service Schedule (e.g., circuits ordered under a different contract before the E-Path Schedule Effective Date) but instead shall use the correct Contract ID (e.g., the Contract ID associated with the pre-existing contract under which the circuit was initially ordered). If Customer, inadvertently or otherwise, uses this Service Schedule’s Contract ID for Service to any locations not listed in the Building Location List or SWC List of this Service Schedule or other service arrangements and/or terms not available to Customer under this Service Schedule, the rates, terms and conditions nonetheless shall be those that apply under the Customer’s pre-existing contracts for such Service, and Frontier, at any time after discovering the error, may adjust billing retroactively and prospectively, as applicable, to apply to the correct pre-existing contract rates for the entire period for which Customer incorrectly received rates from this Service Schedule, subject to the applicable statute of limitations, and Customer shall pay such charges.
    4. When a UNI is ordered under this Service Schedule, Customer must order any associated EVC(s) from this Service Schedule (and vice versa). Customer shall order both UNI and EVC using the same PNUM (set forth in Section 10.2) and, when Customer requests changes (e.g., disconnection) to the UNI, Customer must also request the same change to the associated EVC (and vice versa). The VTA for the associated UNI and EVC must be the same.
    5. Customer shall order E-Path Silver, Gold and Platinum pursuant to Frontier’s ordering guidelines found on Frontier’s wholesale website.
    6. Customer is responsible for, and shall manage, any oversubscription.
11. **Service Schedule Modification**
    1. No modification of this Service Schedule shall be effective or binding unless it is made in writing and signed by an authorized representative of each Party.
12. **Entire Agreement**
    1. This Service Schedule, and all terms and conditions of the MSA, is the entire agreement between the Parties with respect to the Services ordered under this Service Schedule and supersedes any and all prior or contemporaneous agreements, representations, statements, negotiations, and undertakings written or oral with respect to the subject matter of Services ordered under this Service Schedule.

**[Signature Page Follows]**

SIGNATURE PAGE

Agreed as of the E-Path Schedule Effective Date: {{Effective\_Date}}

|  |  |
| --- | --- |
| **{{Subscriber\_Name}}** | **Citizens Telecom Services Company LLC,** on behalf of the Frontier Telephone Companies identified in Exhibit 1 to the MSA (“**Frontier**”) |
|  |  |
| By: {{Signer1Signature}} | By: {{Signer2Signature}} |
|  |  |
|  |  |
| Printed: {{Signer1FullName}} | Printed: {{Signer2FullName}} |
|  |  |
|  |  |
| Title: {{Signer1Title}} | Title: {{Signer2Title}} |
|  |  |
|  |  |
| Date: {{Signer1Date}} | Date: {{Signer2Date}} |

**Exhibit A**

**Rates and Charges: E-PATH SILVER, GOLD & PLATINUM PRICING SCHEDULE**

Rates, including tiers, are subject to change. Frontier may change the rates for new ordering and/or out-of-term Services from time to time in Frontier’s sole discretion upon thirty (30) days' notice. Regarding auto-renewal see Section 3.3.2.

A rate of $0 is available for a rate element (eg, UNI or an NNI) only when, and for so long as, that rate element is ordered and associated with a non-zero-rated element designated by Frontier. There are no standalone rate elements with a rate of $0.

**Table A – NNI, UNI, and EVC Charges**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **NNI** | **Description** | **NRC** | **MTM** | **1 Year** | **2 Year** | **3 Year** | **5 Year** |
| 1Gbps | 1Gbps E-Path NNI Tier Rate Structure- NRC | $2,300 |  |  |  |  |  |
| 1Gbps | 1Gbps E-Path NNI Tier Rate Structure- MRC |  | $0 | $0 | $0 | $0 | $0 |
| **NNI** | **Description** | **NRC** | **MTM** | **1 Year** | **2 Year** | **3 Year** | **5 Year** |
| 10Gbps | 10Gbps E-Path NNI Tier Rate Structure - NRC | $5,000 |  |  |  |  |  |
| 10Gbps | 10Gbps E-Path NNI Tier Rate Structure - MRC |  | $0 | $0 | $0 | $0 | $0 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **UNI** | **Description** | **NRC** | **MTM** | **1 Year** | **2 Year** | **3 Year** | **5 Year** |
| 100Mbps | 100Mbps E-Path UNI Tier Rate Structure | $0 | $0 | $0 | $0 | $0 | $0 |
| **UNI** | **Description** | **NRC** | **MTM** | **1 Year** | **2 Year** | **3 Year** | **5 Year** |
| 1Gbps | 1Gbps E-Path UNI Tier Rate Structure | $0 | $0 | $0 | $0 | $0 | $0 |

**Insert EVC Rates (0, 5, 10, 20) after Table A and before Non-Recurring Charges.**

**Table B to Exhibit A – Non-Recurring Charges\*\***

|  |  |
| --- | --- |
| **NRC Description** | **Rate** |
| Additional Labor Charges | See note \*\* below |
| Build Fee | See Section 8.4.2 above |
| Cancellation Charge | See Section 8.4.3 above  Installation NRC and one-month MRC |
| Capital in Aid of Construction (CIAC) Charge | See Section 8.4.4 above |
| Circuit Extension Charge aka NID Annexation Charge  Equal to or less than 15 feet of the MPOE  Greater than 15 feet of the MPOE and additional parameters per Section 8.4.11 | $680.00  See Section 8.4.5 above |
| ETL Charge | See Section 8.4.6 above |
| Expedite Charge  Per physical circuit, per day date is improved  Per virtual circuit, per day date is improved | $ 450.00  $ 50.00 |
| Installation of NNI Charge | See Table A above |
| Installation of EVC Charge | See Table A above |
| Installation of UNI Charge | See Table A above |
| No Trouble Found Administration Charge | $ 150.00 |
| Supplement Administrative Charge, per occurrence | $ 75.00 |

\*\*Additional NRCs not listed in Tables 1 and 2 of Exhibit A (such as additional labor, out of hours charges) are set forth in Frontier’s FCC tariff or Interstate Service Guide (“ISG”), as applicable.

**Exhibit B**

**Technical Specifications**

1. Service Specifications
   1. E-Path Silver, Gold and Platinum will accept and carry untagged (no pre-established VLAN) and/or tagged (pre-established VLAN) traffic as described per IEEE 802.1Q networking standard and specific to Frontier’s ordering guidelines for this Service, which are available on the Frontier wholesale website.
   2. E-Path Silver, Gold and Platinum IEEE 802.3 interfaces are available on the Frontier wholesale website and are subject to change. As of the E-Path Schedule Effective Date, currently supported IEEE 802.3 interfaces are

|  |  |
| --- | --- |
| Interface | Definition |
| 100Base - TX | 100Mbps Baseband signaling over 2 wire pairs CAT-5 cabling |
| 1000Base - T | 1000Mbps Baseband signaling over 2 four wire pairs CAT-5 cabling |
| 1000Base – SX | 1000Mbps Baseband signaling over 2 strands of multi-mode fiber |
| 1000Base – LX | 1000Mbps Baseband signaling over 2 strands of single-mode fiber |
| 1000Base – ZX | 1000Mbps Baseband signaling over 2 strands of single-mode fiber |
| 10GBase - LR | 10000Mbps Baseband signaling over 2 strands of single mode fiber |
| 10GBase - SR | 10000Mbps Baseband signaling over 2 strands of multi-mode fiber |

* 1. E-Path Silver, Gold and Platinum throughput connections are available on the Frontier wholesale website and are subject to change. As of the E-Path Schedule Effective Date, currently supported throughput connections are:

|  |  |
| --- | --- |
| Throughput Interface | Available Best Effort EVC Increments  (Megabits per second “Mbps”) |
| 100Mbps | 5Mbps, 10Mbps, 20Mbps, 50Mbps and 100Mbps |
| 1Gbps | All of the above and 200Mbps, 500Mbps, and 1000Mbps |

* 1. Frame Size
     1. Standard Frame size supported across network is 1600 Bytes. If Maximum Frame size of 9000 Bytes (Jumbo Frame) is required, Customer must submit a Service Order with Maximum Service Frame Size, MSFS field set to 9000 to accommodate support of 9000 Bytes across network.
        1. When Customer requests full fiber for UNI service, Customer shall populate the MSFS field of the ASR with 9000 to signify full fiber. When Customer requests full copper for UNI service, Customer shall populate the MSFS field of the ASR with 1600 to signify full copper.
  2. Committed Information Rate (“**CIR**”) and Committed Burst Size (“**CBS**”) Parameters:

|  |  |
| --- | --- |
| **CIR (M)** | **CBS (KB)** |
| 5, 10, 20, 50 | 128 |
| 100-200 | 256 |
| 500, 1000 | 512 |

1. Tag Protocol Identifier (“**TPID**”)
   1. Customer must set the method of encapsulation at 0x8100, unless the Parties agree otherwise on an ICB basis.
      1. When the Parties agree that Customer may set the method of encapsulation at 0x88A8 on an ICB basis, Customer shall document that it is enabled within the remarks field of the Service Order and communicate the same to the Customer-assigned implementation project manager.

**Exhibit C**

**FRONTIER E-PATH GOLD & PLATINUM**

**SERVICE LEVEL AGREEMENT**

1. **Service Level Agreement (“SLA”)**

This SLA applies to Frontier’s E-Path Gold and Platinum Service only. This SLA provides Customer’s sole and exclusive remedy for Service interruptions and Service deficiencies. There are no SLAs or measurements associated with the Silver E-Path Service.

1. **Service Level Guarantees (“SLGs”) and Missed Performance Credits (“MPCs”)**
   1. Performance attributes and operational attributes are based on definitions and recommendations provided by the Metro Ethernet Forum (“**MEF**”) and International Telecommunication Union (“**ITU**”) standards. **Performance Attribute Monitoring** PT1 (Metro PT): derived from typical Metro distances (< 250 km,). If the Customer end user location and NNI are served out of the same exchange, PT1 will be used.
   2. PT2 (Regional PT): derived from typical Regional distances (< 1200 km,). If the Customer end user locations are served out of different exchanges but are within the same State and both locations are on-net, Frontier will use PT2.
   3. PT3 (Continental PT): derived from typical national/continental distances (< 7000 km). If the Customer end user locations cross state lines, or if one or both locations are off-net, Frontier will use PT3. Subject to the Exclusions set forth in Section 8 below, the following measures will be calculated as Frontier’s SLGs and available MPCs.

Circuit Performance (“Performance Attributes”): Platinum

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Performance Tiers/Names\* | | | **PT1 (Metro)** | **PT2 (Regional)** | **PT3 (Continental)** | **Missed Performance Credits.** |
| **Frontier's SLO Names** | | **Description** | **CITY** | **STATE** | **NATIONAL** | 15% of impacted Rate Elements |
| Platinum Performance MEF H (1-way) | FD (ms) | One-way Frame Delay (FD) | 10 | 25 | 77 |
| IFDV (ms) | One-way Inter-Frame Delay Variation (IFDV) | 3 | 8 | 10 |
| FLR (%) | One-way Frame Loss Ratio (FLR) | .01 | .01 | .025 |

\*Performance Attributes are per MEF H 23.1 performance parameters.

Circuit Operational Performance (“Operational Attributes”): Platinum

|  |  |  |  |
| --- | --- | --- | --- |
| Circuit Availability |  | Copper to Copper – 99.9% | ≥ 43.1’ (50% of PTP Circuit Path MRC) |
| Fiber to Fiber – 99.95% | ≥ 21.7’ (50% of PTP Circuit Path MRC) |
| Hybrid – 99.9% | ≥ 43.1’ (50% of PTP Circuit Path MRC) |
| Mean Time To Repair (MTTR) | Guarantee | 0-3 Hours, 59’59” | 0% of PTP Circuit Path MRC |
| Anything > 4 hours | 30% of PTP Circuit Path MRC |

Circuit Performance (“Performance Attributes”): Gold

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Performance Tiers/Names\* | | | **PT1 (Metro)** | **PT2 (Regional)** | **PT3 (Continental)** | **Missed Performance Credits.** |
| **Frontier's SLO Names** | | **Description** | **CITY** | **STATE** | **NATIONAL** | 5% of impacted Rate Elements |
| Gold Performance MEF M (1-way) | FD (ms) | One-way Frame Delay (FD) per | 20 | 75 | 115 |
| IFDV (ms) | One-way Inter-Frame Delay Variation (IFDV) | 8 | 40 | 40 |
| FLR (%) | One-way Frame Loss Ratio (FLR) | .01 | .01 | .025 |

\*Performance Attributes are per MEF H 23.1 performance parameters.

Circuit Operational Performance (“Operational Attributes”): Gold

|  |  |  |  |
| --- | --- | --- | --- |
| Circuit Availability |  | Copper to Copper – 99.9% | ≥ 43.1’ (30% impacted Rate Elements (or service elements) |
| Fiber to Fiber – 99.95% | ≥ 21.7’ (30% impacted Rate Elements (or service elements) |
| Hybrid – 99.9% | ≥ 43.1’ (30% impacted Rate Elements (or service elements) |
| Mean Time To Repair (MTTR) | Guarantee | 0-3 Hours, 59’59” | 0% of impacted Rate Elements (or service elements |
| 4-5 Hours, 59’59” | 10% of impacted Rate Elements (or service elements |
| Anything > 6 hours | 25% of impacted Rate Elements (or service elements |

Circuit Performance (“Performance Attributes”): Silver

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Performance Tiers/Names\* | | | **PT1**  **(Metro)** | **PT2**  **(Regional)** | **PT3 (Continental)** | **Missed Performance Credits.** |
| **Frontier's SLO Names** | | **Description** | **CITY** | **STATE** | **NATIONAL** | 5% of impacted Rate Elements |
| Silver Performance  MEF M (1-way) | FD (ms) | One-way Frame Delay (FD) | 20 | 75 | 115 |
| IFDV (ms) | One-way Inter-Frame Delay Variation (IFDV) | 8 | 40 | 40 |
| FLR (%) | One-way Frame Loss Ratio (FLR) | .01 | .01 | .025 |

\*Performance Attributes are per MEF H 23.1 performance parameters.

Circuit Operational Performance (“Operational Attributes”): Silver

|  |  |  |
| --- | --- | --- |
| Circuit Availability | All – 99.9% | ≥ 43.1’ 20% impacted Rate Elements or service elements MRC |
| Mean Time To Repair (MTTR)  Guarantee | 0-3 Hours, 59’59” | 0% of impacted Rate Elements or service elements MRC |
| Anything > 4 hours | 10% of impacted Rate Elements or service elements MRC |

1. **Missed Performance Credits (MPCs, “SLA credit” or “credit”).** To be eligible to receive any SLA credit, Customer must:
   1. Report the Service Interruption, deficiency and/or degradation in Service via a trouble ticket within forty-eight (48) hours of commencement of the event; and
   2. Request credits using Frontier’s wholesale billing claim process, which is described on the Frontier wholesale website.
2. **Billing Cycle.** Frontier billing cycle is measured as a thirty (30) calendar day assignment.
3. **Performance Attributes: Frame Delivery, Jitter and Packet Loss**
   1. Missed performance credit for the attributes of Frame Delay, Jitter and Packet Loss may apply only one time, per month, per paired EVC when due to a fault caused solely by the acts or omissions of Frontier or Frontier’s agents or subcontracts and shall not apply if credit for any other attribute (e.g., Operational Attribute) is applied.
   2. “Frame Delay” or “FD” or “Latency” means the amount of time (in milliseconds) it takes for a service frame to be sent from one UNI to another UNI or in a hub and spoke environment, to the NNI.
   3. “Jitter” means the variance in service frame delay (in milliseconds) between an ingress UNI and an egress UNI/NNI, to be referenced via the Inter-Frame Delay Variation (“IFDV”) attribute.
   4. “Packet Loss” a measure of the number of lost frames between ingress UNI and egress UNI expressed as a percentage as captured within the Frame Loss Rate (“FLR”) attribute.
4. **Operation Attributes: Service Interruptions**
   1. “Service Interruption” means an unscheduled duration of Service unavailability, due to a fault caused solely by the acts or omissions of Frontier or Frontier’s agents or subcontractors, resulting in nonuse of a the Service identified in the Operation Attributes table in Section 2.3 above for more than sixty (60) seconds within a fifteen (15) minute period.
   2. “Mean Time to Repair” or “MTTR” or “TTR” means the elapsed time between the opening of a trouble ticket, assessment of the trouble ticket and a return to complete service availability, as the result of a confirmable Service Interruption.
   3. “Circuit Availability” or “CA” means the percentage of time within a calendar month that E-Path Gold and Platinum is available for use by Customer.
   4. Full Diversity will apply to paired EVCs that have end to end logical and physical separation. MPC will only apply to the fully diverse portions of each Service, when both of the paired Services are interrupted.
5. **Calculations.** Performance “misses” shall be calculated as set forth in this Section 7.
   1. Performance “misses”:
   2. are cumulative in nature and shall not be considered individually;
   3. are counted once regardless of whether the instance may be categorized in more than one way (e.g., counted once as either a Performance Attribute or an Operational Attribute, but not both);
   4. are allowed only one (1) instance per calendar month; and
   5. may be pursued congruently when an outage has left a circuit unavailable for use.
6. **Exclusions.** Service Interruptions and Service deficiencies shall be excluded from calculation of any measure and shall not count toward any “miss” in performance when any of the criteria set forth in this Section 8 are met (each, an “**Exclusion**”).
   1. A Service Interruption or Performance Attribute miss when the service elements, in question, are incapacitated or unavailable due to any of the following:
      1. A complete circuit path that has not been fully tested and/or accepted, following the provisioning of a new installation order, or the change to an existing circuit path, or newly circuit path through no fault of Frontier or Frontier’s agent or subcontractors;
      2. Provisioning based on incorrect, inaccurate and/or incomplete information, with respect to network specifications received on an ASR or other Service Order for the delivery of ethernet frames;
      3. Any power failure associated within an end user premise that Frontier determines is the result of inadequate power supply or agreed upon appropriate battery backup per this E-Path Wireline Service Schedule;
      4. Any time period for which Frontier has notified Customer of scheduled maintenance or the need for an emergency rearrangement provided, however, that in the event downtime associated with scheduled maintenance results in an interruption period longer than the period of scheduled maintenance or scheduled downtime, any such interruption period commencing after the close of the scheduled maintenance window in excess of the MTTR SLA shall not be excluded from calculation of any measure and shall count toward any “miss”;
      5. A Force Majeure event as defined in the MSA;
      6. Any and all service troubles not reported in a manner consistent with the guidelines and procedures as set forth in this E-Path Wireline Service Schedule and the Frontier wholesale website;
      7. Frontier was not afforded access to the necessary premises to access all physical and/or virtual elements associated with termination or an agreed upon demarcation point; and/or
      8. During any period of oversubscription initiated by Customer that results in congestion that affects circuit performance.
      9. Customer must request credit pursuant to Section 3.2 of this Exhibit C within ninety (90) business days of the date on which Customer submitted the trouble ticket associated with the missed performance metric. No requests will be reviewed or considered and no credit for events will be provided, outside of this 90-day timeframe.