

OPTICAL NETWORK CONTRACT

**AGREEMENT
for
SYNCHRONOUS OPTICAL NETWORK (SONET) DESIGN, INSTALLATION, SUPPORT AND MANAGED
SERVICES**

BETWEEN

CITY AND COUNTY OF DENVER

AND

CENTURYLINK COMMUNICATIONS, LLC d/b/a LUMEN TECHNOLOGIES GROUP

**AT
DENVER INTERNATIONAL AIRPORT**

AGREEMENT

THIS AGREEMENT FOR DESIGN, INSTALLATION, SUPPORT AND MANAGED SERVICES RELATED TO A SYNCHRONOUS OPTICAL NETWORK (SONET) (Contract Number PLANE-201950468-00) ("Agreement"), made and entered into as of the date set forth on the signature page below (the "Effective Date") by and between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado ("City or "Customer"), Party of the First Part, and **CENTURYLINK COMMUNICATIONS, LLC d/b/a LUMEN TECHNOLOGIES GROUP**, a limited liability company organized under the laws of Delaware and authorized to do business in Colorado, and its affiliates ("Contractor" or "CenturyLink" or "Lumen"), Party of the Second Part;

WITNESSETH:

WHEREAS, the City owns and operates Denver International Airport ("DEN" or the "Airport"), and desires to purchase hardware, software, software upgrades, support, maintenance and related equipment for a Synchronous Optical Network (SONET) at Denver International Airport, and will require professional services for the design and installation of the same, and such other work as may be requested by the City; and

WHEREAS, the Contractor is qualified and ready, willing and able to provide the requested hardware, software and professional services to the City, in accordance with the terms of this Agreement;

NOW, THEREFORE, for and in consideration of the premises and other good and valuable consideration, the parties hereto agree as follows:

OPTICAL NETWORK CONTRACT

1. LINE OF AUTHORITY:

The City's Chief Executive Officer for the Department of Aviation, her designee or successor in function (the "CEO of Aviation" or the "CEO") authorizes all work performed under this Agreement. The CEO hereby delegates her authority over the work described herein to the Airport's Senior Vice President - Technologies (the "SVP - Technologies") as the CEO's authorized representative for the purpose of administering, coordinating and approving work performed by the Contractor under this Agreement. The SVP - Technologies' authorized representative for day-to-day administration of the Contractor's services under this Agreement is the Project Manager. The Contractor shall submit its reports, memoranda, correspondence and submittals to the Project Manager. The CEO and the SVP - Technologies may rescind or amend any such designation of representatives or delegation of authority and the SVP - Technologies may from time to time designate a different individual to act as Project Manager, upon notice to the Contractor.

2. SCOPE OF WORK:

A. The Contractor, under the general direction of, and in coordination with the CEO, or other designated supervisory personnel as set forth herein, shall diligently perform any and all authorized services provided under this Agreement. The Contractor shall provide the goods and services described in the attached **Exhibit A-1 and A-2, "SCOPE OF WORK"**.

B. Additional Services: The Contractor may also perform services, hereinafter referred to as "Additional Services," which relate to the subject matter of this Agreement, but which the SVP - Technologies determines to be not described in the Scope of Work or in excess of the requirements of the Scope of Work. Change orders and/or additional Statements of Work ("SOWs") will be mutually agreed by the parties as needed to document work and fees associated with the work beyond that identified in **Exhibit A-1 and A-**

2. The total amount of fees and reimbursable expense costs for Additional Services shall not cause this Agreement to exceed the Maximum Contract Liability set forth herein, and in no event shall the approval of Additional Services and the cost of performing them be deemed to constitute an agreement by the City to an increase in the Maximum Contract Liability.

C. This is a non-exclusive Contractual Agreement. In the City's best interests, the City reserves the right to purchase the same materials and services through other procurements.

D. The Contractor shall faithfully perform the work required under this Agreement in accordance with standards of care, skill, training, diligence and judgment provided by highly competent service providers who perform work of a similar nature to the work described in this Agreement.

E. The Contractor will provide the services ("Services") in the Scope of Work attached to this Agreement as **Exhibit A** (numbered consecutively as A-1, A-2) and the service exhibits ("Service Exhibits") attached to this Agreement as **Exhibit B** (numbered consecutively as B, B-1, B-2, etc.).

3. TERM:

The Term of this Agreement shall commence on the Effective Date, and shall terminate eight years after the Effective Date, unless sooner terminated as provided herein ("Initial Term"). The Initial Term of this Agreement may be extended for one period of two (2) years (a "Renewal Term"), by written amendment to this Agreement. Collectively, the Initial Term and any Renewal Term(s) are referred to as the "Term." Notwithstanding any other extension of term under this paragraph 3 the term of this Agreement may be extended by the mutual agreement of the parties, confirmed by written notice from the City to the Contractor, to allow the completion of any work which has been commenced prior to the date upon which this Agreement otherwise would terminate. However, no extension of the Term shall increase the Maximum Contract Liability stated herein; such amount may be changed only by a duly executed written amendment to this Agreement.

4. COMPENSATION AND PAYMENT:

A. Fee: The City agrees to pay to the Contractor, and the Contractor agrees to accept as its compensation for services rendered and costs incurred under this Agreement, the rates set forth on **Exhibit A-3, "COST PROPOSAL, RATES, AND CHARGES"** and as may be further described herein, including Taxes and Fees described in Section 5, which are not listed on Exhibit A-3.

B. Reimbursement Expenses: There are no reimbursable expenses allowed under this Agreement, unless approved in writing, in advance, by the SVP - Technologies, provided, however, that City

OPTICAL NETWORK CONTRACT

will pay applicable charges for any services outside of the scope of SOWs under this Agreement.

C. Invoicing:

(i) Contractor shall provide the City with a monthly invoice in a format and with a level of detail acceptable to the City. The City shall pay any undisputed amounts in accordance with its obligations under the City's Prompt Payment Ordinance.

(ii) Progress payments are authorized in this procurement. If agreed by the parties in writing, progress payments will be made based on the negotiated implementation schedule, professional services rendered, and bill of materials. The managed services component for follow on services will be invoiced on a monthly basis.

(iii) Final Inspection: Should final inspection reveal that work accomplished under Agreement is incomplete, or has not been made in accordance with drawings, specifications and authorized changes thereto, then the vendor shall be required to correct or complete the project before final payment will be made. Final payment for work accomplished will not be considered until final inspection and approval by the City, which shall not be unreasonably withheld.

D. Maximum Contract Liability:

(i) Any other provision of this Agreement notwithstanding, in no event shall the City be liable to pay for services rendered and expenses incurred by the Contractor under the terms of this Agreement for any amount in excess of Fourteen Million Eighty-Four Thousand Nine Hundred Seventy-Three Dollars and Twenty-Four Cents (\$14,084,973.24) (the "Maximum Contract Liability"). Funding under the provisions of this paragraph 4.D. may be payable from the City's Airport System Capital Replacement Fund and/or Airport Operations and Maintenance Fund. The Contractor acknowledges that the City is not obligated to execute an Order, agreement or an amendment to this Agreement for any services and that any services performed by Contractor beyond that specifically described in an Order are performed at Contractor's risk and without authorization under this Agreement.

(ii) The Parties agree that the City's payment obligation, whether direct or contingent, shall extend only to funds appropriated as stated herein and encumbered for the purpose of this Agreement. The Parties agree that (a) the City does not by this Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years and (b) this Agreement is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City; provided, however, that for each fiscal period for the City: (1) the City agrees to include in its budget request appropriations sufficient to cover the City's obligations under this Agreement; (2) the City agrees to use all reasonable and lawful means to secure these appropriations; (3) the City agrees it will not use non-appropriations as a means of terminating this Agreement in order to acquire functionally equivalent products or services from a third party. In the event that the City is appropriated insufficient funds, by appropriation, appropriation limitation or grant, to continue payments under this Agreement and has no other funding source lawfully available to it for such purpose, the City may terminate this Agreement without incurring any termination charges by giving Contractor not less than 30 days' prior written notice. Upon termination and to the extent of lawfully available funds, the City will remit all amounts due and all costs reasonably incurred by Contractor through the date of termination.

(iii) The total Maximum Contract Liability of this Agreement shall be allocated among the Service Exhibits and the Term of the Agreement in the following manner (the "Service Exhibit Allocated Maximum Contract Liability"), with each allocation comprising the total portion of the overall contract Maximum Contract Liability which may be utilized to procure the service defined in each individual Service Exhibit:

Exhibit	Allocated Amount of Overall Agreement Maximum Contract Liability (in Dollars) (the "Service Exhibit Allocated Maximum Contract Liability") Years 1-8	Optional Years 9 -10
Exhibit B-1, Custom Solutions and Services Schedule	\$9,129,456.56	\$1,751,343.35
Exhibit B-2, Lumen CPE Service Schedule and Exhibit B-3, Lumen CPE Service Guide	\$3,204,173.33	

OPTICAL NETWORK CONTRACT

5. TAXES AND COSTS:

A. The Contractor, at its own expense, shall promptly pay, when due, all taxes, bills, debts and obligations it incurs performing work under this Agreement and shall allow no lien, mortgage, judgment or execution to be filed against land, facilities or improvements owned by the City.

B. The City shall provide to Contractor, at no cost, all necessary clearances and permits necessary to install and/or deliver the products and/or services under Agreement. Where such clearances, permits, leases, or fees of a similar nature are required to be obtained and paid for directly by Contractor, the City shall reimburse Contractor the actual cost of such items.

C. The City affirms that it is a tax-exempt entity under the Laws of the State of Colorado and this purchase qualifies for the Denver and Colorado sales tax exemption for sales to the United States government, the State of Colorado, its departments and institutions, and its political subdivisions (county and local governmental, school districts and special districts); is a government purchase used only in an official governmental capacity; and will be paid directly by a government agency. Taking into account the City's status, Contractor confirms that all charges are exclusive of all taxes, levies, duties and assessments of every nature in effect as of the Effective Date and due in connection with its performance of its obligations under this Agreement. Contractor is responsible for payment of such Taxes to the appropriate governmental authority. Notwithstanding the foregoing, excluding taxes based on Contractor's net income, City is responsible for all taxes and fees arising in any jurisdiction imposed on or incident to the provision, sale or use of Service. This includes value added, consumption, sales, use, gross receipts, withholding, excise, access, bypass, ad valorem, franchise or other taxes, fees, duties or surcharges (e.g., regulatory and 911 surcharges), whether imposed on Contractor or a Contractor affiliate, along with similar charges stated in a Service Attachment (collectively "Taxes and Fees"). Some Taxes and Fees, and costs of administering the same, are recovered through imposition of a percentage surcharge(s) on the charges for Service. If City is required by law to make any deduction or withholding of withholding Taxes from any payment due hereunder to Contractor, then, notwithstanding anything to the contrary in this Agreement, the gross amount payable by City will be increased so that, after any such deduction or withholding for such withholding Taxes, the net amount received by Contractor will not be less than Contractor would have received had no such deduction or withholding been required. Charges for Service are exclusive of Taxes and Fees. City may present Contractor with an exemption certificate eliminating Contractor's liability to pay certain Taxes and Fees. The exemption will apply prospectively.

6. STATUS OF CONTRACTOR:

It is agreed and understood by and between the parties hereto that the status of the Contractor shall be that of an independent contractor retained on a contractual basis to perform professional or technical services for limited periods of time as described in Section 9.1.1(E)(x) of the Charter of the City and County of Denver, and it is not intended, nor shall it be construed, that the Contractor or its personnel are employees or officers of the City under Chapter 18 of the Revised Municipal Code for any purpose whatsoever.

7. NO AUTHORITY TO BIND CITY TO CONTRACTS:

The Contractor has no authority to bind the City on any contractual matters. Final approval of all contractual matters which obligate the City must be by the City as required by Charter and Ordinance.

8. PERSONNEL ASSIGNMENTS:

A. The Contractor shall assign a Project Manager to this Project that has experience and knowledge of Services that are custom in the industry. The Project Manager shall be the contact person in dealing with the City's Project Manager on matters concerning this Project. Contractor's designated Project Manager shall remain assigned on this contract during the entire contract term, while in the employ of the Contractor.

B. The Contractor may submit a notice to reassign a Project Manager, should the Contractor deem it to be in the best interest of the City, the best interest of the Contractor's organization or in the best interest of the Contractor's Project Manager.

OPTICAL NETWORK CONTRACT

C. The City and Contractor shall work cooperatively to facilitate the removal of a Project Manager and choose the replacement Project Manager, who must have, at least, similar or equal experience and qualifications to that of the original Project Manager.

D. All key professional personnel identified by the Contractor will be assigned by the Contractor or subcontractors to perform work under the Work. The SVP - Technologies must approve additional personnel in writing. It is the intent of the parties hereto that all key professional personnel be engaged to perform their specialty for all such services required by the Work, and that the Contractor's and the sub-Contractor's key professional personnel be retained for the life of this Agreement to the extent practicable and to the extent that such services maximize the quality of work performed hereunder.

E. If the Contractor decides to replace any of its key professional personnel, it shall notify the SVP - Technologies in writing of the changes it desires to make.

F. If, during the term of this Agreement, the SVP - Technologies determines that the performance of approved key personnel is not acceptable, he shall notify the Contractor, and he may give the Contractor 30 days' notice to correct such performance, unless such unacceptable performance arises from a breach of Paragraph 38, Airport Security; Sensitive Security Information, in which case notice shall be effective immediately and Contractor shall take such steps as to correct such performance as soon as reasonably possible. If the SVP notifies the Contractor that certain of its key personnel should be reassigned, the Contractor will consider the request in good faith based on specific, reasonable and lawful objections or concerns as to the key personnel member's performance or performance failures.

G. The vendor shall not employ, retain, hire or use any individual that has been convicted of any felony charges as the same is defined under the laws of the State of Colorado in the performance of the services to be rendered and materials to be provided to the City under this Agreement.

9. SUBCONTRACTORS:

A. The City understands that Contractor has retained, hired and contracted with outside subcontractors to assist with performing the Services. The SVP - Technologies or his authorized representative hereby consents to Contractor's use of such subcontractors listed on **Exhibit E**, which includes a description of the nature and extent of the services to be provided, the name, address and professional experience of the proposed subcontractor

B. The Contractor shall not retain any subcontractor to perform work under this Agreement if the Contractor is aware, after a reasonable written inquiry has been made, that the subcontractor is connected with the sale or promotion of equipment or material which is or may be used on work related to or following on from this Agreement, or that any other conflict of interest exists.

10. NO EMPLOYMENT OF A WORKER WITHOUT AUTHORIZATION TO PERFORM WORK UNDER THE AGREEMENT:

A. This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the "Certification Ordinance").

B. The Contractor certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with a worker without authorization who will perform work under this Agreement, nor will it knowingly employ or contract with a worker without authorization to perform work under this agreement in the future.

(2) It will participate in the E-Verify Program, as defined in § 8 17.5-101(3.7), C.R.S., a confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

OPTICAL NETWORK CONTRACT

(3) It will not enter into a contract with a subconsultant or subcontractor that fails to certify to the Contractor that it shall not knowingly employ or contract with a worker without authorization to perform work under the Agreement.

(4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and it is required to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights

(5) If it obtains actual knowledge that a subconsultant or subcontractor performing work under the Agreement knowingly employs or contracts with a worker without authorization, it will notify such subconsultant or subcontractor and the City within three (3) days. The Contractor shall also terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or subcontractor does not stop employing or contracting with the worker without authorization, unless during the three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with a worker without authorization.

(6) It will comply with a reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S., or the City Auditor, under authority of D.R.M.C. 20-90.3. It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S. or the City Auditor under authority of Den. Rev. Mun. Code §20-90.3.

C. The Contractor is liable for any violations as provided in the Certification Ordinance. If the Contractor violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the City. Any termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying the Contractor from submitting bids or proposals for future contracts with the City.

11. NO DISCRIMINATION IN EMPLOYMENT:

In connection with the performance of work under this Agreement, the Contractor agrees not to fail or refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation, terms, conditions or privileges of employment against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability; and the Contractor further agrees to insert the foregoing provision in all subcontracts hereunder.

12. DSBO GOALS:

The Contractor may be subject to the City's ordinance, Den. Rev. Mun. Code Chapter 28, Article III (MBE/WBE Ordinance) which prohibits discrimination in the awarding of contracts and subcontracts and directs the DSBO Director to establish goals for MBE and WBE participation in the preconstruction and construction of City-owned facilities. The goal for this Agreement is **10%**. If it is determined that project goals apply, such project goals must be met with certified MBE and WBE participants or by demonstrating good faith efforts under the MBE/WBE Ordinance. The Contractor must comply with the terms and conditions of the MBE/WBE Ordinance in soliciting and contracting with its subcontractors in administering the performance of the work hereunder. It shall be an ongoing, affirmative obligation of the Contractor to maintain, at a minimum, compliance with the originally achieved level of MBE/WBE participation upon which this Agreement was awarded, for the duration of this Agreement, unless the City initiates a material alteration to the scope of work.

13. PREVAILING WAGES AND MINIMUM WAGES:

A. Payment of Prevailing Wages: Employees of the Contractor or its subcontractors may be subject to the payment of prevailing wages pursuant to Den. Rev. Mun. Code §20-76, depending upon the nature of the Work. By executing this Agreement, the Contractor covenants that it is familiar with this Code Section and is prepared to pay or cause to be paid prevailing wages, if any, applicable to the work conducted by the Contractor's or its subcontractor's employees. The schedule of prevailing wage is periodically updated, and Contractor is responsible for payment of then current prevailing wage. The Contractor may obtain a current schedule of prevailing wage rates at any time from the City Auditor's Office.

OPTICAL NETWORK CONTRACT

B. Payment of City Minimum Wage: Contractor shall comply with, and agrees to be bound by, all requirements, conditions, and City determinations regarding the City's Minimum Wage Ordinance, Sections 20-82 through 20-84 D.R.M.C., including, but not limited to, the requirement that every covered worker shall be paid no less than the City Minimum Wage in accordance with the foregoing D.R.M.C. Sections. By executing this Agreement, Contractor expressly acknowledges that Contractor is aware of the requirements of the City's Minimum Wage Ordinance and that any failure by Contractor, or any other individual or entity acting subject to this Agreement, to strictly comply with the foregoing D.R.M.C. Sections shall result in the penalties and other remedies authorized therein.

14. PROMPT PAY:

The Contractor is subject to Den. Rev. Mun. Code §20-112 wherein the Contractor is to pay its subcontractors in a timely fashion. A payment is timely if it is mailed to the subcontractor no later than seven days after receipt of any payment from City. Any late payments are subject to a late payment penalty as provided for in the prompt pay ordinance (Den. Rev. Mun. Code §§20-107 through 20-118).

15. CITY REVIEW OF PROCEDURES:

The Contractor agrees that, upon reasonable request of the SVP - Technologies, at any time during the term of the Agreement or three years thereafter, it will make reasonable disclosure to the City of the means, methods, and procedures used in performance of services hereunder.

16. COORDINATION OF SERVICES:

The Contractor agrees to perform its work under this Agreement in accordance with the operational requirements of DEN, and all work and movement of personnel or equipment on areas included within the DEN site shall be subject to the regulations and restrictions established by the City or its authorized agents.

17. INSURANCE:

A. The Contractor shall obtain and keep in force during the entire term of this Agreement, including any warranty periods, all of the minimum insurance coverage forms and amounts set forth in **Exhibit C**, which is incorporated into this Agreement by this reference. The Contractor shall submit to the City fully completed and executed certificates of insurance (ACORD form or equivalent approved by the City) which specifies the issuing company or companies, policy numbers and policy periods for each required form of coverage. The certificates for each insurance policy are to be submitted to the City at the time the Contractor signs this Agreement.

B. All certificates and any required endorsements must be received and approved by the City before any work commences. Each insurance policy required by this Agreement must be in effect at or prior to commencement of work under this Agreement and remain in effect for the duration of the project, including any warranty periods. Failure to maintain the insurance policies as required by this Agreement or to provide evidence of renewal is a material breach of the Agreement. All subcontractors' certificates and endorsements must be received and approved by the Contractor before work commences. The City reserves the right to request copies of these certificates at any time.

C. All certificates required by this Agreement shall be sent directly to Denver International Airport, Risk Management, Airport Office Building, Room 8810, 8500 Pena Boulevard, Denver, Colorado 80249.

D. The City's acceptance of any submitted insurance certificate is subject to the approval of the City's Risk Management Administrator. All coverage requirements specified in the certificate shall be enforced unless waived or otherwise modified in writing by the City's Risk Management Administrator.

E. The Contractor shall comply with all conditions and requirements set forth in the insurance certificate for each required form of coverage during all periods in which coverage is in effect.

F. The insurance coverage forms specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Contractor under the terms of this Agreement, including the Indemnification provisions herein. The Contractor shall maintain, at its own expense, any additional kinds and amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

OPTICAL NETWORK CONTRACT

18. DEFENSE AND INDEMNIFICATION; LIMITATION OF LIABILITY:

A. Contractor hereby agrees to defend, indemnify, and hold harmless City, its appointed and elected officials, agents and employees against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or relating to the work performed under this Agreement ("Claims"), unless such Claims have been specifically determined by the trier of fact to be the sole negligence or willful misconduct of the City. This indemnity shall be interpreted in the broadest possible manner to indemnify City for any acts or omissions of Contractor or its subcontractors either passive or active, irrespective of fault, including City's concurrent negligence whether active or passive, except for the sole negligence or willful misconduct of City.

B. Contractor's duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether Claimant has filed suit on the Claim. Contractor's duty to defend and indemnify City shall arise even if City is the only party sued by claimant and/or claimant alleges that City's negligence or willful misconduct was the sole cause of claimant's damages.

C. Contractor will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City shall be in addition to any other legal remedies available to City and shall not be considered City's exclusive remedy.

D. Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Contractor under the terms of this indemnification obligation. The Contractor shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.

E. This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

F. LIMITATION OF LIABILITY: Regardless of the basis on which the City is entitled to claim damages from Contractor (including, without limitation, breach of contract, negligence, misrepresentation, or other contract or tort claim), Contractor's entire liability for all claims in the aggregate arising from or related to services provided pursuant to a Service Exhibit to this Agreement will not exceed an amount equal to THREE times (3X) the Maximum Contract Liability, it being understood that the damages available under this paragraph 17.F which arise from or relate to services provided under a specific Service Exhibit will not exceed damages up to three times (3x) the Service Exhibit Allocated Maximum Contract Liability of the Service Exhibit under which the claim for damages arises. By way of example, for any damages arising from services provided under Service Exhibit B-1, the amount of damages shall not exceed three times (3x) the Service Exhibit Allocated Maximum Contract Liability for Service Exhibit B-1, and so on for each Service Exhibit. The following amounts are not subject to a cap on the amount of damages:

- 1) payments referred to in section 19 Intellectual Property Indemnification, below.
- 2) damages for bodily injury (including death) and damage to real property and tangible personal property caused by the negligence or willful misconduct of Contractor.

19. COLORADO GOVERNMENTAL IMMUNITY ACT:

The parties hereto understand and agree that the City and County of Denver, its officers, officials and employees, are relying on, and do not waive or intend to waive by any provisions of this Agreement, the monetary limitations or any other rights, immunities and protections provided by the Colorado Governmental Immunity Act, §§24-10-101 to 120, C.R.S., or otherwise available to the City and County of Denver, its officers, officials and employees.

20. INTELLECTUAL PROPERTY INDEMNIFICATION AND LIMITATION OF LIABILITY:

Contractor shall (i) defend City against any third party claim that the Work, or materials provided by Contractor to City infringe a patent, copyright or other intellectual property right, and (ii) pay the resulting costs and damages finally awarded against City by a court of competent jurisdiction or the amounts stated in a written settlement signed by Contractor. The foregoing obligations are subject to the following: the City (a) notifies the Contractor promptly in writing of such claim, (b) grants the Contractor sole control over the defense and settlement thereof subject to the final approval of the City Attorney, and (c) reasonably cooperates in response to request for assistance. Should such a claim be made, or in the Contractor's opinion be likely to

OPTICAL NETWORK CONTRACT

be made, the Contractor may, at its option and expense, (1) procure for the City the right to make continued use thereof, or (2) replace or modify such so that it becomes non-infringing. If the preceding two options are commercially unreasonable, then Contractor shall refund the portion of any fee for the affected Work. The Contractor shall have no indemnification obligation to the extent that the infringement arises out of or relates to: (a) the use or combination of the subject Work and/or materials with third party products or services, (b) use for a purpose or in a manner for which the subject Work and/or materials were not designed in accordance with Contractor's standard documentation; (c) any modification to the subject Work and/or materials made by anyone other than the Contractor or its authorized representatives, if the infringement claim could have been avoided by using the unaltered version of the Work and/or materials, (d) any modifications to the subject Work and/or materials made by the Contractor pursuant to the City's specific instructions, or (e) any technology owned or licensed by the indemnitee from third parties. THIS SECTION STATES THE INDEMNITEE'S SOLE AND EXCLUSIVE REMEDY AND THE INDEMNITOR'S ENTIRE LIABILITY FOR THIRD PARTY INFRINGEMENT CLAIMS.

21. INTELLECTUAL PROPERTY RIGHTS; OWNERSHIP OF HARDWARE AND SOFTWARE:

A. Ownership: The City and Contractor intend that all property rights to any and all materials, text, logos, documents, booklets, manuals, references, guides, brochures, advertisements, music, sketches, plans, drawings, prints, photographs, specifications, software, data, products, ideas, inventions, plans, drawings, reports, other submittals and any other work or recorded information originally created by the Contractor specifically and exclusively for the City pursuant to this Agreement and explicitly identified in a mutually agreed Statement of Work as "City-Owned Intellectual Property", in preliminary or final forms and on any media (collectively, "Materials"), shall belong to the City. The parties shall describe and disclose with specificity all such Materials in a mutually agreed Statement of Work. For avoidance of doubt, the Materials shall not include any of Contractor's rights to intellectual property created by Contractor prior to the effective date of this Agreement or otherwise created by Contractor outside the scope of this Agreement. To the extent permitted by the U.S. Copyright Act, 17 USC § 101, et seq., the Materials are a "work made for hire" and all ownership of copyright in the Materials shall vest in the City at the time the Materials are created. To the extent that the Materials are not a "work made for hire," the Contractor hereby sells, assigns and transfers all right, title and interest in and to the Materials to the City, including the right to secure copyright, patent, trademark, and other intellectual property rights throughout the world and to have and to hold such copyright, patent, trademark and other intellectual property rights in perpetuity. Upon the City's written concurrence that the hardware and software are satisfactorily installed and payment to the Contractor by City under the terms of this Agreement, title to the hardware shall automatically pass to the City.

B. License Grant: Subject to the terms and conditions of this Agreement, Contractor grants City the license set forth in **Exhibit D**, the Fujitsu and Tellabs End User License Agreements

C. Reservation of Rights: Contractor reserves all rights not expressly granted to City in this Agreement. Except as expressly stated, nothing herein shall be construed to: (1) directly or indirectly grant to a receiving party any title to or ownership of a providing party's intellectual property rights in services or materials furnished by such providing party hereunder, or (2) preclude such providing party from developing, marketing, using, licensing, modifying or otherwise freely exploiting services or materials that are similar to or related to the Work or materials provided hereunder. Notwithstanding anything to the contrary herein, City acknowledges that Contractor has the right to use any City provided materials solely for the benefit of City in connection with the Work performed hereunder for City.

22. COMPLIANCE WITH PATENT, TRADEMARK, COPYRIGHT AND SOFTWARE LICENSING LAWS:

A. The Contractor agrees that all work performed under this Agreement shall comply in all material respects with all applicable patent, trademark, copyright and software licensing laws, rules, regulations and codes of the United States. The Contractor will not knowingly utilize any protected patent, trademark or copyright in performance of its work unless it has obtained proper permission and all releases and other necessary documents. If the Contractor prepares any design documents which specify any material, equipment, process or procedure which is protected, the Contractor shall disclose such patents, trademarks and copyrights in the construction drawings or specifications.

23. DISCLAIMER OF WARRANTIES:

OPTICAL NETWORK CONTRACT

EXCEPT AS MAY BE SPECIFICALLY SET FORTH IN THIS AGREEMENT, ALL SERVICES AND PRODUCTS ARE PROVIDED "AS IS." CONTRACTOR DISCLAIMS ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ALL WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. NO ADVICE OR INFORMATION GIVEN BY CONTRACTOR, ITS AFFILIATES, AGENTS, OR CONTRACTORS OR THEIR RESPECTIVE EMPLOYEES WILL CREATE A WARRANTY. Contractor is not responsible for any Services defects or damages resulting from mishandling, abuse, misuse, accident, electrical power surges or current fluctuations, improper storage, or operation, including use in conjunction with equipment electrically or mechanically incompatible with or of inferior quality to the supplied equipment or failure to maintain the environmental conditions specified by the manufacturer or licensor.

24. ADVERTISING AND PUBLIC DISCLOSURES:

The Contractor shall not include any reference to this Agreement or to work performed hereunder in any of its advertising or public relations materials without first obtaining the written approval of the CEO. Any oral presentation or written materials related to DEN shall include only presentation materials, work product, and technical data which have been accepted by the City, and designs and renderings, if any, which have been accepted by the City. The CEO shall be notified in advance of the date and time of any such presentations. Nothing herein, however, shall preclude the Contractor's use of this contract and its component parts in GSA form 254 or 255 presentations, or the transmittal of any information to officials of the City, including without limitation, the Mayor, the CEO, any member or members of City Council, and the Auditor.

25. COLORADO OPEN RECORDS ACT:

The Contractor acknowledges that the City is subject to the provisions of the Colorado Open Records Act, Colorado Revised Statutes §24-72-201 et seq., and the Contractor agrees that it will fully cooperate with the City in the event of a request or lawsuit arising under such act for the disclosure of any materials or information which the Contractor asserts is confidential and exempt from disclosure. Any other provision of this Agreement notwithstanding, including exhibits, attachments and other documents incorporated into this Agreement by reference, all materials, records and information provided by the Contractor to the City shall be considered confidential by the City only to the extent provided in the Open Records Act, and the Contractor agrees that any disclosure of information by the City consistent with the provisions of the Open Records Act shall result in no liability of the City.

26. DATA CONFIDENTIALITY:

A. For the purpose of this Agreement, confidential information means any information, knowledge and data marked "Confidential Information" or "Proprietary Information" or similar legend, it being understood that this does not include the information, data or materials that the City transmits, receives, stores or processes through its use of the Services. All oral and/or visual disclosures of Confidential Information shall be designated as confidential at the time of disclosure, and be summarized, in writing, by the disclosing Party and given to the receiving Party within thirty (30) days of such oral and/or visual disclosures.

B. The disclosing Party agrees to make known to the receiving Party, and the receiving Party agrees to receive Confidential Information solely for the purposes of this Agreement. All Confidential Information delivered pursuant to this Agreement:

(i) shall not be distributed, disclosed, or disseminated in any way or form by the receiving Party to anyone except its own employees, corporate partners, affiliates and alliance partners who have a need to know said Confidential Information;

(ii) shall be treated by the receiving Party with the same degree of care to avoid disclosure to any third Party as is used with respect to the receiving Party's own information of like importance which is to be kept confidential.

C. These obligations shall not apply, however, to any information which:

(i) is already in the public domain or becomes available to the public through no breach of this Agreement by the receiving Party; or

(ii) was in the receiving Party's possession prior to receipt from the disclosing Party;

or

OPTICAL NETWORK CONTRACT

(iii) is received by the receiving Party independently from a third Party free to disclose such information; or

(iv) is subsequently independently developed by the receiving Party as proven by its written records; or

(v) is disclosed when such disclosure is compelled pursuant to legal, judicial, or administrative proceeding, or otherwise required by law, subject to the receiving Party giving all reasonable prior notice to the disclosing Party to allow the disclosing Party to seek protective or other court orders.

D. Upon the request from the disclosing Party, the receiving Party shall return to the disclosing Party all Confidential Information, or if directed by the disclosing Party, shall destroy such Confidential Information.

27. EXAMINATION OF RECORDS AND AUDITS:

A. Any authorized agent of the City, including the City Auditor or his or her representative, has the right to access, and the right to examine, copy and retain copies, at City's election in paper or electronic form, any pertinent books, documents, papers and records related to Contractor's performance pursuant to this Agreement, provision of any goods or services to the City, and any other transactions related to this Agreement. Contractor shall cooperate with City representatives and City representatives shall be granted access to the foregoing documents and information during reasonable business hours and until the latter of three (3) years after the final payment under the Agreement or expiration of the applicable statute of limitations. When conducting an audit of this Agreement, the City Auditor shall be subject to government auditing standards issued by the United States Government Accountability Office by the Comptroller General of the United States, including with respect to disclosure of information acquired during the course of an audit. No examination of records and audits pursuant to this paragraph shall require Contractor to make disclosures in violation of state or federal privacy laws. Contractor shall at all times comply with D.R.M.C. §20-276.

B. Additionally, Contractor agrees until the expiration of three (3) years after [the final payment under the Agreement, any duly authorized representative of the City, including the CEO or his or her representative, shall have the right to examine any pertinent books, documents, papers and records of Contractor related to Contractor's performance of this Contract, including communications or correspondence related to Contractor's performance, without regard to whether the work was paid for in whole or in part with federal funds or was otherwise related to a federal grant program.

C. In the event the City receives federal funds to be used toward the services performed under this Agreement, the Federal Aviation Administration ("FAA"), the Comptroller General of the United States and any other duly authorized representatives shall have access to any books, documents, papers and records of Contractor which are directly pertinent to a specific grant program for the purpose of making audit, examination, excerpts and transcriptions. Contractor further agrees that such records will contain information concerning the hours and specific services performed along with the applicable federal project number.

28. INFORMATION FURNISHED BY CITY:

The City will furnish to the Contractor available information concerning DEN and any such other matters that may be necessary or useful in connection with the work to be performed by the Contractor under this Contract.

29. TERMINATION:

A. The City has the right to terminate this Agreement with or without Cause (defined below) on thirty (30) days' written notice and Contractor has the right to terminate this Agreement with Cause on thirty (30) days' written notice. As used in this Section, the term "Cause" means the failure of a party to perform a material obligation under this Agreement, which failure is not remedied: (a) in the event of a payment default by the City, within five days of separate written notice from Contractor notifying the City of such default; or (b) in the event of any other material breach, within thirty (30) days of written notice (unless a different notice period is specified in this Agreement).

OPTICAL NETWORK CONTRACT

B. If the Agreement is terminated by the City or Contractor for Cause, the Contractor shall be paid only for those services satisfactorily performed prior to the time of termination.

C. If this Agreement is terminated, the City shall take possession of all materials, equipment, tools and facilities owned by the City which the Contractor is using and the Contractor shall deliver to the City all drafts or other documents it has completed or partially completed under this Agreement, together with all other items, materials and documents which have been paid for by the City, and these documents and materials shall be the property of the City.

D. Upon termination of this Agreement by the City without Cause, all Services are deemed terminated, and the Contractor shall be entitled to the termination charges in accordance with each Service Exhibit, in addition to any and all charges that are accrued but unpaid as of the termination date. With the exception of the foregoing, the Contractor shall have no claim of any kind whatsoever against the City by reason of such termination or by reason of any act incidental thereto.

E. Either party may terminate an individual Service: (a) in accordance with the applicable Service Exhibit's term requirements with 60 days' prior written notice to the other party, or (b) for Cause. If an individual Service is terminated by the City for any reason other than for Cause or by Contractor for Cause prior to conclusion of the applicable Order Term or Service Term (as those terms are defined by the applicable Service Exhibit), then Customer will pay the termination charges in accordance with each Service Exhibit, in addition to any and all charges that are accrued but unpaid as of the termination date.

30. RIGHTS AND REMEDIES NOT WAIVED:

In no event shall any payment by the City hereunder constitute or be construed to be a waiver by the City of any breach of covenant or default which may then exist on the part of the Contractor, and the making of any such payment when any such breach or default shall exist shall not impair or prejudice any right or remedy available to the City with respect to such breach or default; and no assent, expressed or implied, to any breach of any one or more covenants, provisions or conditions of this Agreement shall be deemed or taken to be a waiver of any other breach.

31. SURVIVAL OF CERTAIN CONTRACT PROVISIONS:

The parties understand and agree that all terms and conditions of this Agreement, including any warranty provision, which by reasonable implication contemplate continued performance or compliance beyond the termination of this Agreement (by expiration of the term or otherwise) shall survive such termination and shall continue to be enforceable as provided herein.

32. NOTICES:

All City notices for Service disconnect, termination, non-renewal and other routine operational notices will be provided to its Contractor sales representative unless otherwise provided for in a Service Exhibit. Failure to provide disconnect, termination and non-renewal notices in accordance with the terms of this Agreement may result in continued charges, and Contractor will not credit charges for such noncompliance. All other notices required under this Agreement, including notices concerning termination of this Agreement, notices of alleged or actual violations of the terms of this Agreement, and other notices of similar importance shall be made as follows:

by Contractor to: Chief Executive Officer
Department of Aviation
Denver International Airport
8500 Peña Boulevard, 9th Floor
Denver, Colorado 80249-6340

And by City to: Lumen
Attn: Notice Coordinator
931 14th Street, Suite 900
Denver, CO 80202
Fax: 888-778-0054

Said notices shall be delivered personally during normal business hours to the appropriate office above or by prepaid U.S. certified mail, return receipt requested. Mailed notices shall be deemed effective three days after

OPTICAL NETWORK CONTRACT

deposit with the U.S. Postal Service. Either party may from time-to-time designate substitute addresses or persons where and to whom such notices are to be mailed or delivered, but such substitutions shall not be effective until actual receipt of written notification thereof.

33. NO THIRD-PARTY BENEFICIARIES:

It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement and all rights of action relating to such enforcement shall be strictly reserved to the City and the Contractor, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other or third person on such Agreement. It is the express intention of the City and the Contractor that any person other than the City or the Contractor receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

34. ASSIGNMENT:

The Contractor shall not assign, pledge or transfer its duties and rights under this Agreement, in whole or in part, without first obtaining the written consent of the CEO, which shall not be unreasonably withheld; provided, however, that no written consent is required for an assignment, in whole or in part, (a) in the event of a merger in which Contractor is not the surviving entity; (b) in the event of a sale of all or substantially all of its assets; or (c) to any affiliate of Contractor. In the event of an assignment in whole or in part occurring under the conditions set forth in the immediately preceding sentence, if such assignment results in the transfer of Contractor's duties and rights under this agreement to any entity that is currently debarred by the City in accordance with D.R.M.C. §20-77, such assignment shall, at the option of the CEO, automatically terminate this Agreement and all rights of the Contractor hereunder. Except as allowed above, any attempt by the Contractor to assign or transfer its rights hereunder without such prior written consent shall, at the option of the CEO, automatically terminate this Agreement and all rights of the Contractor hereunder.

35. CONFLICT OF INTEREST:

The Contractor agrees that it and its subsidiaries, affiliates, subcontractors, principals, or employees will not engage in any transaction, activity or conduct which would result in a conflict of interest. The Contractor represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities, or conduct that would affect the judgment, actions or work of the Contractor by placing the Contractor's own interests, or the interest of any party with whom the Contractor has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, shall determine the existence of a conflict of interest and may terminate this Agreement if such a conflict exists, after it has given the Contractor written notice which describes such conflict. The Contractor shall have thirty days after the notice is received in which to eliminate or cure the conflict of interest in a manner which is acceptable to the City.

36. GOVERNING LAW; BOND ORDINANCES; VENUE; DISPUTES:

A. This Agreement is made under and shall be governed by the laws of Colorado. Each and every term, provision or condition herein is subject to the provisions of Colorado law, the Charter of the City and County of Denver, and the ordinances and regulations enacted pursuant thereto. Venue for any action arising hereunder shall be in the City and County of Denver, Colorado.

B. This Agreement is in all respects subject and subordinate to any and all City bond ordinances applicable to the Denver Municipal Airport System and to any other bond ordinances which amend, supplement, or replace such bond ordinances.

C. All disputes between the City and Contractor regarding this Agreement shall be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. §5-17.

37. COMPLIANCE WITH ALL LAWS AND REGULATIONS:

All of the work performed under this Agreement by the Contractor shall comply in all material respects with all applicable laws, rules, regulations and codes of the United States and the State of Colorado, the charter, ordinances and rules and regulations of the City and County of Denver, and all Denver International Airport Rules and Regulations.

38. FEDERAL PROVISIONS:

OPTICAL NETWORK CONTRACT

This Agreement is subject and subordinate to the terms, reservations, restrictions and conditions of any existing or future agreements between the City and the United States, the execution of which has been or may be required as a condition precedent to the transfer of federal rights or property to the City for airport purposes and the expenditure of federal funds for the extension, expansion or development of the Denver Municipal Airport System, including DEN. In the event any future agreements between the City and the United States as contemplated by this Paragraph 37 result in a materially adverse effect upon the rights or obligations of Contractor or City under this Agreement, the parties shall have the right to terminate the agreement for convenience upon ninety (90) days written notice from the terminating party to the non-terminating party. The provisions of the attached Appendix 1 Federal Aviation Administration Required Contract Provisions is incorporated herein by reference.

39. AIRPORT SECURITY; SENSITIVE SECURITY INFORMATION:

A. It is a material requirement of this Contract that the Contractor shall comply in all material respects with all rules, regulations, written policies and authorized directives from the City and/or the Transportation Security Administration with respect to Airport security. The Contractor shall conduct all of its activities at the Airport in compliance with the Airport security program, which is administered by the Security Section of the Airport Operations Division, Department of Aviation. Violation by the Contractor or any of its employees, subcontractors or vendors of any rule, regulation or authorized directive from the City or the Transportation Security Administration with respect to Airport Security shall be grounds for immediate termination by the City of this Contract for cause.

B. The Contractor shall promptly upon notice of award of this Contract, meet with the Airport's Assistant Security Manager to establish badging and vehicle permit requirements for the Contractor's operations under this Contract. The Contractor shall obtain the proper access authorizations for all of its employees, subcontractors and vendors who will enter the Airport to perform work or make deliveries and shall be responsible for each such person's compliance with all Airport rules and regulations, including without limitation those pertaining to security. Any person who violates such rules may be subject to revocation of his/her access authorization. The failure of the Contractor or any subcontractor to complete any required services hereunder shall not be excused on account of the revocation for good cause of access authorization of any person.

C. The security status of the Airport is subject to change without notice. If the security status of the Airport changes at any time during the term of this Contract, the Contractor shall take immediate steps to comply with security modifications which occur as a result of the changed status. The Contractor may at any time obtain current information from the Airport Security Office regarding the Airport's security status in relation to the Contractor's operations at the Airport.

D. The Contractor shall return to the City at the expiration or termination of this Contract, or upon demand by the City, all access keys or access badges issued to it or any subcontractor for any area of the Airport, whether or not restricted. If the Contractor fails to do so, the Contractor shall be liable to reimburse the City for all the City's costs for work required to prevent compromise of the Airport security system. The City may withhold funds in the amount of such costs from any amounts due and payable to the Contractor under this Contract.

E. SENSITIVE SECURITY INFORMATION

IN THE COURSE OF YOUR PERFORMANCE OF THIS AGREEMENT YOU MAY BE PROVIDED RECORDS, DOCUMENTS AND/OR ELECTRONIC MEDIA ("INFORMATION") THAT CONTAINS SENSITIVE SECURITY INFORMATION ("SSI") DISCLOSED TO YOU PURSUANT TO 49 C.F.R. § 1520.11, "PERSONS WITH A NEED TO KNOW". FURTHER DISCLOSURE OR DISSEMINATION OF THIS INFORMATION IS GOVERNED BY THE PROVISIONS OF 49 C.F.R. §1520.9, "RESTRICTIONS ON THE DISCLOSURE" OF SSI; 49 C.F.R. §1520.13, "MARKING SSI"; AND 49 C.F.R. §1520.15 "SSI DISCLOSED BY TSA OR THE COAST GUARD". ANY FURTHER DISCLOSURE OR DISSEMINATION OF THIS INFORMATION MUST BE APPROVED IN WRITING BY TSA, THE COAST GUARD OR THE SECRETARY OF DOT. ANY REQUEST FOR FURTHER DISCLOSURE OR DISSEMINATION OF THIS INFORMATION MUST BE REFERRED TO TSA OR THE APPLICABLE COMPONENT OR AGENCY WITHIN DOT OR DHS.

40. USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS:

OPTICAL NETWORK CONTRACT

The Contractor and Contractor's agents shall cooperate and comply with the provisions of the City and County of Denver Executive Order No. 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in the City's barring the Contractor and Contractor's agents from City facilities or participating in City operations.

41. CITY SMOKING POLICY:

Contractor acknowledges that smoking is not permitted in Airport buildings and facilities except for designated Airport Smoking Concessions, and so agrees that it will prohibit smoking by its employees and the public in indoor areas and within 15 feet of entryways of the Airport Premises, except as may otherwise be permitted by the Colorado Clean Indoor Air Act, C.R.S. §§ 25-14-201 to 209. Contractor and its officers, agents, and employees shall cooperate and comply with the provisions of the Denver Revised Municipal Code, §§ 24-301 to 317 et. seq., the Colorado Clean Indoor Air Act, C.R.S. §§ 25-14-201 to 209, City's Executive Order No. 99 dated December 1, 1993, and Executive Order No. 13 dated July 31, 2002.

42. PARAGRAPH HEADINGS:

The captions and headings set forth herein are for convenience of reference only and shall not be construed so as to define or limit the terms and provisions hereof.

43. CONTRACT DOCUMENTS; ORDER OF PRECEDENCE:

This Agreement consists of Sections 1 through 49 which precede the signature page, and the following attachments which are incorporated herein and made a part hereof by reference (the "Contract Documents"):

Appendix 1:	Federal Aviation Administration Required Contract Provisions
Exhibit A1 & A-2:	Scope of Work
Exhibit A-3:	Cost Proposal, Rates, and Charges
Exhibit B1, B-2 & B-3	Lumen Service Exhibits
Exhibit C:	Certificate of Insurance
Exhibit D:	EULA
Exhibit E:	LUMEN SUBCONTRACTORS

In the event of an irreconcilable conflict between a provision of Sections 1 through 49 and any of the listed attachments or between provisions of any attachments, such that it is impossible to give effect to both, the order of precedence to determine which document shall control to resolve such conflict, is as follows, in descending order:

- Appendix 1
- Sections 1 through 49 hereof
- Exhibit A-1 and A-2
- Exhibit A-3
- Exhibit B-1, B-2 and B-3 (including any additional terms and conditions, accessible via internet/web, referenced in any Exhibit B document)
- Exhibit C
- Exhibit D
- Exhibit E

44. AGREEMENT AS COMPLETE INTEGRATION; AMENDMENTS:

This Agreement is intended as the complete integration of all understandings between the parties. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written amendatory or other agreement properly executed by the parties. This Agreement and any amendments shall be binding upon the parties, their successors and assigns.

45. INUREMENT:

The rights and obligations of the parties herein set forth shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns permitted under this Agreement.

46. FORCE MAJEURE:

Neither party shall be liable for any failure to perform any of its obligations hereunder due to or caused by, in whole or in part, fire, strikes, lockouts, unusual delay by common carriers, unavoidable casualties, war, riots, acts of terrorism, acts of civil or military authority, acts of God, judicial action, or any other causes beyond the control of the parties. Both parties shall have the duty to take reasonable actions to mitigate or prevent further delays or losses resulting from such causes.

47. SEVERABILITY; ENTIRE AGREEMENT:

If any part, portion or provision of this Agreement shall be found or declared null, void, or unenforceable for any reason whatsoever by any court of competent jurisdiction or any governmental agency having applicable authority, only such part, portion, or provision shall be affected thereby and all other parts, portions and provisions of this Agreement shall remain in full force and effect. The Contract Documents form the entire agreement between the parties and are fully binding on the parties. No oral representations or other agreements have been made except as specifically stated in the Contract Documents.

48. COUNTERPARTS OF THIS AGREEMENT:

This Agreement may be executed in counterparts, each of which shall be deemed to be an original of this Agreement.

49. ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS:

Contractor consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

50. CITY EXECUTION OF AGREEMENT:

This Agreement is expressly subject to and shall not be or become effective or binding on the City until it has been approved by City Council, if so required by law, and fully executed by all signatories of the City and County of Denver.

[SIGNATURE PAGE FOLLOW]

Contract Control Number: PLANE-201950468-00
Contractor Name: CENTURYLINK COMMUNICATIONS LLC d/b/a
LUMEN TECHNOLOGIES GROUP

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at
Denver, Colorado as of:

SEAL

CITY AND COUNTY OF DENVER:

ATTEST:

By:

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

Attorney for the City and County of Denver

By:

By:

By:

Contract Control Number: PLANE-201950468-00
Contractor Name: CENTURYLINK COMMUNICATIONS LLC d/b/a
LUMEN TECHNOLOGIES GROUP

DocuSigned by:
Dennis Fisher
By: 5913602349EE459...

Name: Dennis Fisher
(please print)
Title: Director, Offer Management
(please print)

ATTEST: [if required]

By: _____

Name: _____
(please print)

Title: _____
(please print)

APPENDIX 1

Federal Aviation Administration Required Contract Provisions

ALL CONTRACTS – NON-AIP FUNDED

Federal laws and regulations require that recipients of federal assistance (Sponsors) include specific contract provisions in certain contracts, requests for proposals, or invitations to bid.

Certain provisions must be included in all sponsor contracts, regardless of whether or not the contracts are federally-funded. This requirement was established when a sponsor accepted the Airport Improvement Program (AIP) grant assurances.

As used in these Contract Provisions, “Sponsor” means The City and County of Denver, Department of Aviation, and “Contractor” or “Consultant” means the Party of the Second Part as set forth in Contract / Lease / Agreement to which this Appendix is attached.

GENERAL CIVIL RIGHTS PROVISIONS

The contractor agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractor and subtier contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

Compliance with Nondiscrimination Requirements

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

- 1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- 2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- 3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.

APPENDIX

Federal Aviation Administration Required Contract Provisions

ALL CONTRACTS – NON-AIP FUNDED

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

APPENDIX

Federal Aviation Administration Required Contract Provisions

ALL CONTRACTS – NON-AIP FUNDED

- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq.*).

Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the Sponsor pursuant to the provisions of the Airport Improvement Program grant assurances.

- A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add “as a covenant running with the land”] that:
1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a Federal Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and

APPENDIX

Federal Aviation Administration Required Contract Provisions

ALL CONTRACTS – NON-AIP FUNDED

services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Pertinent List of Nondiscrimination Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, Sponsor will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the Sponsor will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of Sponsor and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

Title VI Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by Sponsor pursuant to the provisions of the Airport Improvement Program grant assurances.

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, “as a covenant running with the land”) that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the List of discrimination Acts And Authorities.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above nondiscrimination covenants, Sponsor will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above nondiscrimination covenants, Sponsor will there upon revert to and vest in and become the absolute property of Sponsor and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if

APPENDIX

Federal Aviation Administration Required Contract Provisions

ALL CONTRACTS – NON-AIP FUNDED

given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The [*contractor / consultant*] has full responsibility to monitor compliance to the referenced statute or regulation. The [*contractor / consultant*] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

Exhibit A-1
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

OVERVIEW

This Statement of Work ("SOW") sets forth the scope of work and terms and conditions of the Services to be provided to City and County of Denver ("Customer" or "DEN") by CenturyLink Communications, LLC d/b/a Lumen Technologies Group or its affiliates ("CenturyLink"). This SOW is effective upon the last date signed below ("Effective Date"). This SOW incorporates by reference and is governed by the CenturyLink Master Service Agreement or other service agreement executed between the parties and the Custom Solutions and Services Schedule, or the then current standard CenturyLink Master Service Agreement and Custom Solutions and Services Schedule if not executed as of the Effective Date of this SOW, copies of which will be made available upon request. This SOW, any attached or incorporated documents, and the applicable service agreement between CenturyLink and Customer, Custom Solutions and Services Schedule and SOW Change Requests collectively comprise the agreement between the parties ("Agreement"). Capitalized terms not defined in this SOW are defined in the Agreement.

DESCRIPTION OF WORK

2.1 Scope of Work. Under this SOW, CenturyLink will provide the services as identified and described below ("Services"). Any services not identified in this SOW are out of scope and would require another SOW or a SOW Change Request to be signed between the parties. CenturyLink will perform the Services at the Customer locations identified in the Customer site list provided by Customer and stored by CenturyLink. ("In Scope Locations"). CenturyLink's internal records will control for purposes of determining In Scope Locations. The Services being provided under this SOW are collectively the "Project".

2.1.1 Equipment Installation. CenturyLink will install the new equipment listed below ("New Equipment") at the In Scope Locations. CenturyLink will perform the installation services and activities described below. CenturyLink will:

Provide professional and consultative services.**Provide installation services as follows:**

- Site Survey Services
- Equipment Relocation Services
- Inventory Control Services
- Hardware Shipping and Delivery Services
- Installation of Electrical infrastructure
- Hardware Installation Services
- Equipment Removal Services

Professional Consultative Service

- Validation and guidance regarding proposed architecture design
- Transfer of knowledge of Customer environment
- Propose or validate recommended migration
- Attend meetings as required

Project Service

- Security clearances for new staff if required
- In coordination with Customer Project Implementation, CenturyLink will schedule and perform Site Surveys at (13) installation locations to help determine the physical status of the site itself to include:
 - Sufficient rack space for new equipment
 - Equipment relocation of existing equipment

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Analysis of the site conditions and recommend placement and concerns of each location
- Warehousing, Insurance and Inventory Control Service
 - Provide warehouse and insurance to receive shipping for all materials Customer is ordering
 - Develop spreadsheet to inventory all equipment received to include Part Number, Serial Number, Date Received, Document if box or equipment is damaged, verify all parts are received from overall BOM received from CenturyLink.
 - Sort product by location based on equipment list and update tracking spreadsheet
 - Provide final tracking spreadsheet once all equipment has been received, documented, sorted, and signature of receipt
- Deliver equipment to location following project plan that is developed after Site Surveys are completed.
- Installation Labor
 - Install equipment for each location outlined in project plan that will be developed after completion of Site Surveys
 - Installation of electrical infrastructure including two 30a 2 pole circuits to each IDF per site surveys
 - Coordination of Power Permits

The work to be provided by CenturyLink to Customer shall consist of professional services ("Services") in accordance with the following: test, turn-up and migration of the DC power system.

The following locations will have new DC Power plants or augment to existing DC Power plan. The below outlines the professional services and requirements for implementation.

CenturyLink will perform the following:

A1C07
AntFarm
B1C07
B7E02
C1C07
MT51C14
NorthHut
South Campus Data Center
South Hut

1. Verify there are no alarms present on old system
2. Install new power system
3. Verify new power plant is working
4. Run new DC cables for the Fujitsu and Tellabs equipment
5. Verify all new plant alarms are working prior to moving circuits over
6. Install new batteries into new power plant
7. Migrate all DC circuits from old plant to new plant
8. Remove old power plant
9. Verify there are no alarms

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

10. Clean site
11. Job complete

45A01/POI

1. Verify there are no alarms present DC system
2. Verify room for new breakers
3. Install new fuse alarm panels, one in 45A01 the other in the Point of Interface ("POI").
4. Run new DC cables from new breakers to new fuse alarm panels for Fujitsu and Tellabs. This includes running DC cables from 45A01 to POI
5. Turn on new breakers and verify new fuse alarm panels are working
6. Verify there are no alarms
7. Clean site
8. Job complete

MT51D14

1. Verify there are no alarms present on the DC system
2. Verify room for new breakers
3. Install new fuse alarm panels
4. Run new DC cables from new breakers to new fuse alarm panels for Fujitsu and Tellabs
5. Turn on new breakers and verify new fuse alarm panels are working
6. Verify there are no alarms
7. Clean site
8. Job complete

Timing Installation

- a. CenturyLink will replace Building Integrated Timing Source (BITS) Clock to support legacy Voice circuits (the "BITS Replacement").
- b. The BITS Replacement will consist of the following task sets:
 - i. Install new network timing equipment where required, synchronized with source timing for telco circuits; Identify sites/locations where network timing equipment is required.
 - ii. Install, turn-up and test (1) OSA BITS clock in TR-B (35C51)
- c. Bits Clock Deployment Services include: Security Clearances for staff; Site Survey; Installation material; Warehousing; Installation Labor; and Test and Turn-up of the new clock.

TR-B's clock will be connected to the CTL Reg Fujitsu FLM150 to the Brighton CO.

CenturyLink will provide installation and turnup of Tellabs 1000 equipment in support of the modernization and expansion of the network.

- Provide a complete proposed solution with documentation to include:
 - Logical drawing that depicts the overall solution
 - Rack and frame elevations; identifying components per Telco Room ("TR")
 - Typical copper, fiber and DC power cabling diagrams (within the TR)
 - Description of all components, include part numbers and costs in BOM format (placed in the pricing section of the response form)

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- If the solution requires AC power and UPS, a backup power solution must be defined, with power calculations demonstrating a minimum 24-hour standby runtime
- Panorama Integrated Network Manager (“INM”) Installation Services server will require AC power and dedicated rack.
- Load the operating system and database as required (see End Customer responsibilities)
- Install Panorama INM application on customer supplied server, shipped to Tellabs Dallas facility
- Ship server to site and assist with addition of network element following installation and turn-up
- Tellabs 1000 Deployment Services
- Connect to a provided DC Plant (to support the new equipment) or install adequate Uninterruptible Power Supply UPS to support a 24-hour runtime of all optical network electronics.
- Install new network timing equipment where required, synchronized with source timing for telco circuits cabled to the Oscilloquartz BITS clock in 45A01.
- Install new equipment to replace the function of each location equipped with Fiber In The Loop (“FITL”) equipment.
- Configure new equipment to replicate DS-0 and DS-1 services at each location.
- Schedule cutover and testing of circuits from old equipment to new on an after-hours basis to provide minimal disruption of service to circuit users.
- Optical Network and DLC replacement equipment provided as part of this work shall support all existing DS-0 and DS-1 circuits.
- Provide project management
- Provide a Single point of contact
- Schedule resources, track and report job progress to Tellabs team as well as End Customer management team.
- Provide biweekly status reports
- Gain final Customer acceptance and project sign off
- Ensure finished service is complete by contacting CenturyLink NOC and following test and turnup of delivered NOC service. Provide Customer with any test and turnup information to assist in NOC enablement of managing device and alarms.
- CenturyLink will follow Customer badging process for installation and migration teams.

CenturyLink will install hardware equipment for base network as follows:

- L100 for Reconfigurable Optical Add-Drop Multiplexer (“ROADM”)
- S100 for GigE Transport
- T310 for 10GE Data Center Interconnection
- FW4100ES for T1 & Tellabs Transport
- Spares and Growth Pool
- Miscellaneous support hardware

Project Services

CenturyLink shall provide Network Engineering and Installation Services as follows:

- Fiber Characterization Services
- Site Survey Services
- Engineering Design and Engineering Design Package (“EDP”) Services
- Installation Material Services

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Hardware Installation Services
- Equipment Removal Services
- Installation Supervisor Services

CenturyLink shall provide Network Provisioning and Migration Services as follows:

- Equipment Turn Up and Test
- Network Discovery
- Network Analysis
- Network Migration

Project Scope Details

Fiber Characterization Service

Scope of Services: CenturyLink will perform Fiber Characterization services for Customer including but not limited to, fiber performance testing, analysis of measurements to identify and isolate potential faults and/or incompatibilities with engineering specifications or network applications requirements, Customer notification of findings, and comprehensive recommendations to the Customer regarding corrective actions and next steps in order to improve fiber performance.

Fiber Testing

This includes the following testing measurements for ROADM and OC192 networks:

- Bi-directional optical time domain reflectometer ("OTDR") at 1310 nm and 1550 nm
- Bi-directional optical insertion loss ("OIL") readings at 1310 nm and 1550 nm
- Bi-directional optical return loss ("ORL") readings at 1310 nm and 1550 nm
- Chromatic dispersion ("CD") readings from 1310 nm and 1550 nm
- Polarization mode dispersion ("PMD") readings at 1310 nm and 1550 nm

Fiber Analysis

This includes the following activities:

- Pass/Fail Measurements Validation
- The fiber testing results are compared against engineering specification thresholds and/or network applications requirements, to determine whether they pass or fail.

Fault Analysis

Engineering analysis is used to determine the probable location, type, and cause of the fault.

Recommendations for Corrective Actions

Engineering analysis is used to determine recommended corrective actions to address the fiber fault and/or failed measurement.

Fiber Pre-Qualification

Qualification of fiber network as 'ready' or 'not ready' to support the required application. Includes validation or measurements against current CenturyLink design and hardware specification, and recommendations for design changes as applicable.

- Component quality checks and corrective actions such as visual inspections, cleaning connectors, patch panel bulkhead adapters and fiber end faces, are also included in this service and will be performed on the spot by CenturyLink. All other corrective actions will be properly captured in the Results and Recommendations report provided to the Customer.
- Customer Notification
- The Customer will be immediately notified by CenturyLink of the following:

Exhibit A-1 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Any conditions preventing the test measurements from taking place (i.e. no test light passing through the span, etc.)
- Failed measurements that cannot be addressed by the simple cleaning and quality checks included in this service. This allows the Customer to address some of these issues while CenturyLink is still on site or assign another fiber.

Site Survey Services

In coordination with CenturyLink and Customer Project Implementation Plan, CenturyLink will schedule reasonably in advance, and perform Site Surveys so as to determine the physical status of the site itself to include a determination of suitability for the installation of Network Element ("NE"), cable and rack placements.

The proposal Site Survey Services provided by CenturyLink includes the following services:

- Perform a site survey at (13) installation site locations and (20) sites with Tellabs equipment.
- An itemized work task summary for site preparation and NE installation.
- Analysis of the site conditions and recommended NE placement.
- Preliminary BOM for site specific installation material.
- Identification of site installation challenges. (Material delivery issues, gate codes, access restrictions, etc.)
- Digital photographs of work location as required.
- Marked drawings associated with the scope of work will include: floor, high cable, low cable, grounding, power attributes, DFE, AC, fiber and front equipment. Marked drawing will be provided by CenturyLink.
- Revised redlines to existing drawings, as required, for to-build information.

Engineering Design and Engineering Design Package (EDP) Services

The Engineering Design and Engineering Design Package (EDP) Services provided by CenturyLink includes the following services based on the physical Site Survey report. The EDP will consist of Project Description, engineering contact information, overview of work activity, site location address, equipment lists and detailed engineering information.

CenturyLink will utilize the completed Site Survey report to develop a complete Engineering Design Package (EDP) that contains the information below:

- All network equipment and installation materials associated with (13) Customer install sites and (20) Tellabs and discontinued Fujitsu removal sites.
- Create and/or update rack face, cable plan and floor plan drawings within the original site survey package to reflect the final installation location of all installed equipment and shall provide to Customer.
- Detailed physical installation steps and procedures for all CenturyLink and associated support equipment and material.
- Detailed physical removal steps and procedures for identified Tellabs equipment.
- Method of Procedures (MOP) and appropriate back out plans.

Installation Material Services

The Installation Material Services provided by CenturyLink includes the following services per the physical Site Survey and approved site-specific Engineering Design Package. (EDP)

- The completed physical Site Survey and approved site-specific Engineering Design Package (EDP) will determine all required installation materials. Material quantities will be determined after Site Survey completion.
- CenturyLink will provide (6) DS1 panels for the installation build. This may be adjusted after Site Surveys are completed.
- All other required site equipment and/or materials will be provided by Customer.

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- An additional site materials quote can be provided by CenturyLink to identify additional materials at Customer's request.
- Major CenturyLink provided equipment and associated materials supporting the design (fibers, Ethernet cables, fuse panels, GMT fuses and DS1 cables) are in the main Equipment BOM provided by CenturyLink.
- Common consumables will be provided by CenturyLink.

Hardware Installation Services

The Equipment Installation Services provided by CenturyLink includes the following services per the physical Site Survey and approved site-specific Engineering Design Package (EDP)

- CenturyLink Engineering will provide installation MOP for each location as required.
- Install Blades/shelves in existing rack space.
- Install up to (2) Fuse panels in existing rack space.
- Connect power harness from each Blade/shelf to newly installed fuse panel.
- Install and provide (1) DSX-1 panel in existing rack space as required
- Install all intra-blade/shelf fiber jumpers / cables to provide OSC and LCN ports connectivity.
- Provide, pull and connect housekeeping, alarm and timing cables up to 50ft in existing cable management to existing termination ports.
- Provide and pull DS1 Cables up to 50ft, in existing cable management to existing DSX-1 panel with available ports.
- Provide and pull Network side fiber jumpers in existing fiber management from new equipment to existing fiber panels with available ports up to 20m.
- Pull client-side fiber jumpers in existing fiber management from new equipment to existing fiber panels with available ports up to 20m.
- Power harness, DS-1 cables, fuse panels, GMT fuses, Ethernet cables, Network and client-side fiber jumpers and all intra blade/shelf fibers included in the system BOM.

Equipment Removal Services

The Equipment Removal Service provided by CenturyLink includes the following removal and disposition services of identified Tellabs hardware installed at (20) sites and discontinued Fujitsu removal sites per the completed Engineering Design Package. (EDP)

- Site will remove (23) Tellabs equipment per Engineering Design Package (EDP)
- (15) Sites will remove (1) Tellabs equipment per Engineering Design Package (EDP)
- (4) Sites will remove (2) Tellabs shelves per Engineering Design Package (EDP)
- CenturyLink will remove and retire (2) FW4300's, (3) FW4100's, and (22) FLM150 ADM shelves.
- CenturyLink will be transferred title of all Fujitsu equipment from Customer in exchange for credit on this portion of removal services.
- Removal Work Items include:
 - Remove all supporting shelf cables per Engineering Design Package (EDP)
 - Cut back all supporting shelf cables to top of the rack only. No cable mining is included in the quote.
 - Remove chassis ground to framework only if the rack is to be removed.
 - Remove required Power circuits and lugs & terminating material, including the Direct Current (DC) Power Circuits, BDFB or Fuse Panel.
 - Update stenciling assignments on rack
 - All plug ins/circuit packs will be placed in static bags in prep for shipment.

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- All equipment removed will require an inventory list containing documentation of manufacturer, model number, serial number, quantity and location removed from as applicable.
- All packing material will be provided by CenturyLink.
- All shipping costs will be included in price.
- CenturyLink will insure proper disposal of all removed equipment.

Installation Supervisor Services

The Proposal Installation Supervisor Services provided by CenturyLink include the following services to review and monitor the equipment installation at (13) sites.

- Provide (1) Installation Supervisor during installation phase of project.
- If required, additional Installation Supervisor support can be requested, and CenturyLink will provide separate quote using change control process.
- Work Tasks Include:
 - Project Preparation and review project documentation before project start.
 - Contact local Operations Manager/Engineer to inform that tech is on site.
 - Installed inventory of equipment. Includes a final retrieval of Equipment/Facilities and service states of the equipment installed in the shelf.
 - Maintain and review Generic MOP for the installation.
 - Provide As-Built - Final installation drawings with any red-line corrections for all site.
 - Manage site clean-up at end of each working day.

Note: Review Test Results / Documentation for production of final project documentation will be part of the CenturyLink Network Migration Supervisor responsibilities not the installation supervisor and may not be on site every day. It includes documentation of all test results, power measurements, light readings, and provisioned system parameters.

Equipment Turn Up and Test

General Requirements to be provided by CenturyLink:

- Project Preparation: review project documentation before project start.
- Contact local Operations Manager/Engineer to inform that tech is on site.
- Installed inventory of equipment. Performed by CenturyLink technician; includes a final retrieval of Equipment/Facilities and service states of the equipment installed in the shelf. FLASHWAVE Report Generator ("FWRG") reports will be provided to Customer staff.
- Visual inspection of Shelf installation and cabling. The CenturyLink technician will review the installation of equipment and work with the Customer to resolve any concerns/issues which impact the turn-up and testing of the equipment.
- Verify DC power to the power connections on the rear of the shelf. Performed by CenturyLink technician to ensure that power requirements are within specifications.
- Inventory/Unbox/Inspect/Slot. Includes verification of inventory on site versus the BOM, unpacking the units, inspection for damage, and slotting of the units.
- CenturyLink will provide Turn up and Test MOPs.
- Test Results / Documentation - Production of final project documentation. Includes documentation of all test results, power measurements, light readings, and provisioned system parameters.
- As Built - Final network drawings with any red-line corrections.
- Turn-Up & Test Procedure. CenturyLink will perform the following:
 - Install CPU/management/common cards and perform system level provisioning. Includes verification of installation of the unit, power measurements/recording on the test jacks located on the unit, alarm and condition verification, provisioning of SID, date and time, SW

Exhibit A-1 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

release verification, system contact and location, timers, TL1 response time, and System Synchronization

- Fan Unit Provisioning. Includes verification of installation of fan unit, provisioning of system operating environment, and filter timers.
- Provisioning of Service Units, and configuration. Includes verification of installation of units, provisioning of units/facilities, equipment protection switch testing, and local facility loopback testing where applicable.
- Includes verification of installation of line units, provisioning of units/facilities, recording of transmit and receive optical power levels, equipment/facility protection switch testing, and local facility loopback testing of the line units where applicable.
- Provisioning of Service Units including SFP's, work/protect configuration. Includes verification of installation of units, provisioning of units/facilities, recording of transmit and receive optical power levels as applicable, facility protection switch testing, and local facility loopback testing where applicable.
- End to End testing - testing ensures end to end continuity for each deployed service. Testing includes standard DS1 testing, 10GE Wave, and 1GE Ethernet service testing (VLAN), as well as measurement and recording of optical levels.
- Site Clean-up at end of each working day.

Network Migration Services Network Discovery

A network audit will be conducted by CenturyLink to determine migration requirements and will be performed in conjunction with the installation site survey as follows:

- Create MOP to perform on-site audit of network.
- Perform on-site audit of (99) DS1 and (325) GigE circuits both physical and logical
- Determine cable/fiber requirements and identify any ancillary migration material.

Network Analysis

CenturyLink will perform analysis of data gathered from the network discovery to generate the following:

- Create a detailed Method of Procedure (MOP) for migration of all DS1 and GigE traffic.
- Create detailed Master cut-sheet and cable run list for provisioning and wiring of all Non DS1 and Gig E circuits.

Network Migration. CenturyLink will perform the following:

- Migration of (99) DS1s circuits from DEN legacy network to newly installed 1Finity/FW4100ES network solution. Migration of (325) GigE circuits from Customer's legacy network to newly installed 1Finity/FW4100 network.
- Prior to migration, provision and test new systems with Customer circuit and traffic specific information across the newly installed 1Finity/4100 network.
- In conjunction with Customer and CenturyLink NOC verify status of traffic pre migration.
- Perform patch and prewire or lift and lay on targeted circuits.
- Migrate traffic to new network via hot cut methodology from the legacy network to the newly installed 1Finity/FW4100 network at the A and Z locations.
- In conjunction with Customer and CenturyLink NOC verify status of traffic post migration.

Project Deliverables. CenturyLink will provide the following deliverables:

Fiber Characterization Services

Results and Recommendations Report

Exhibit A-1 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- All tests, procedures and measurements performed, the analysis results and recommendations, as well as any relevant supporting data (e.g. screen captures, equipment calibration records, etc.), will be assembled into a comprehensive report and sent to the Customer upon project completion.
- Formal Report Delivery
- Upon Customer confirmation of receipt of the Results and Recommendations Report, the CenturyLink PM will schedule a one (1) hour conference call with the Customer. During this call, a CenturyLink employee will explain the findings and recommendations of the report in detail to the Customer.

Site Survey Services

A detailed report with pictures will be generated by CenturyLink. Trouble areas and recommendations for corrective action will be identified in such report. At Customer request, CenturyLink will hold follow up conference call to review the report and answer questions. All parties will receive the final copy of the EDP.

Engineering Design Services

A detailed Engineering Design Package (EDP) will be generated by CenturyLink. At Customer request, CenturyLink will hold follow up conference call to review the EDP and answer questions.

Installation Material Services

Site Material specified in the CenturyLink provided material BOM will be provided by CenturyLink.

Equipment Removal Services

Redlined Engineering Design Package (EDP) of all removed equipment

Network Migration Services

Review Test Results / Documentation for production of final project documentation will be provided to Customer. It includes documentation of all test results, power measurements, light readings, and provisioned system parameters of the successful migration.

Project Location(s)

45A01/POI. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
A1C07. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
AntFarm. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
B1C07. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
B7E02. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
C1C07. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
MT51C14. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
Mt51D14. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
NorthHut. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
South Campus Data Center. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
SouthHut. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249

2.2 Customer Responsibilities. Customer acknowledges and agrees that its failure to perform its obligations herein may result in CenturyLink's inability to perform the Project. CenturyLink will not be liable for any failure to perform in the event Customer fails to fulfill Customer's obligations. The following conditions must be met by Customer throughout the term of the SOW:

- a. Customer must provide a safe working environment. Customer's location must meet all applicable federal, city and local codes.
- b. Customer will, at its expense, secure CenturyLink and its vendor right of access to the In Scope Location(s) sufficient to complete the Project.
- c. Customer must provide a single point of contact ("Primary Contact"). The Primary Contact must be a technical point of contact with sufficient knowledge, authority, and access to address configuration issues, event notifications, system or infrastructure modifications, and authentication of applicable systems.
- d. Neither Customer nor its representatives will attempt in any way to circumvent or otherwise interfere with any security precautions or measures of CenturyLink relating to the Project.

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- e. Customer will have a representative on site at the In Scope Location(s) while CenturyLink resources are on site.
- f. Customer will provide, in advance, notification of any unique requirements, hazardous locations, security precautions, access restrictions or other extraordinary conditions that may exist and which may affect the execution of the Project.
- g. Customer will ensure private utilities, including but not limited to, underground sprinklers, cable, phone lines, and satellite television are clearly marker and identified prior to the start of the Project. If private utilities have not been clearly labeled and identified, and damage occurs during the execution of this scope of work, CenturyLink will not be held responsible for the costs of repair or replacement.
- h. At the completion of the Project as specifically set forth in this SOW, Customer hereby agrees to sign the Project Completion Form attached hereto as Appendix 1.
- i. Customer is also responsible for the following:
 - i. **Activation assistance** – Cooperation is essential during the activation period. Customer is responsible for providing complete and thorough details of the network environment to ensure an effective and efficient provisioning process.
 - ii. **Informing CenturyLink of changes or problems** – Customer is responsible for sharing with CenturyLink all information that might impact the Service or CenturyLink's ability to provide its Service as soon as the changes or problems are discovered. This includes informing CenturyLink of major network changes, firewall changes, problems with Internet connections, major vulnerabilities discovered, and unusual network activity.
 - iii. **Supplying a POC** – Customer is responsible for providing CenturyLink with a point of contact ("POC") who can serve as the central point of contact for all information exchanged with CenturyLink. This POC should be available 24 hours a day. This POC will be used in cases where cooperative measures are necessary. A minimum of one secondary POC is also recommended. POC contact information includes a valid e-mail address (including PGP if available), work telephone number, pager or mobile telephone number, and any other information that may be required to reach the POC during the workday or after hours. CenturyLink is not responsible for damages that may be incurred because the customer's POC is unreachable.

2.3 Special Project Assumptions

- Customer will provide additional racks if required to support equipment relocation or for new equipment for this project as documented from Site Survey Completion.
- CenturyLink on-site technicians and Servitech will relocate any existing equipment as outlined from Site Survey and Customer is responsible for additions costs associated with the relocation. Pricing includes relocation being completed during normal business hours, M-F 8:00 AM – 5:00 PM.
- After conducting site surveys and it is determined that power plants can be removed from existing locations, a new SOW will be written, and appropriate cost additions or reduction will be provided. This is part of the transition from the current architecture to new architecture where some of the power plants being managed under current MSA will be removed under new Optical Network project.
- If Customer requires the work to be stopped after a phase has been started, there will be an additional trip fee charged for the number of resources required for that phase using change order process
- Install Site records for floor plans, relay rack face drawings, DSX and Fiber Distribution Panels, circuit information, BDFB power panels and demarcation locations.
- Customer to provide floor plans and rack drawings that are current prior to site surveys. All drawing updates will be provided by CenturyLink for post-installation.
- Customer in cooperation with CenturyLink, shall be responsible for providing all current "CIRCUIT RECORDS" (PCR360) that are to be moved to new equipment. A representative of customer shall be responsible for updating the records "post installation" provided by CenturyLink.
- Customer shall be responsible for providing "all" dark fibers to be used as transmission/transport links. The fiber shall be available, identified, and certified by CenturyLink prior to connectivity.

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Customer shall provide available space for signal and/or circuit cable termination blocks\panels. These areas shall be free and cleared prior to the commencement of the installation.
- Prior to any additions or changes to the scope of work that are beyond the intent of the original scope of work will be discussed with the DEN in advance and could result in additional charges, utilizing change order process and updated SOW or BOM.
- Customer is responsible for providing monitor, keyboard and mouse for Panorama Integrated Network Manager.
- No live-traffic migrations or traffic rolls of any kind are included.
- For live-traffic fibers, it is Customer's responsibility to switch all live traffic off the fibers prior and during these tests.
- All glass-through sites within the span should be patched prior to the start of tests.
- Cable runs in 45A01 and the POI will exceed 25', other sites cable runs should be 25' or shorter.
- All new DC power systems will be located no farther way than (1) relay rack from current DC power systems.
- Customer has assumed and approved we can run DC between floors of 45A01 and POI floors that must meet code and may be inspected by Denver Fire and Customer's insurance company. Customer believes there is enough conduit to run DC between the floors. We will inspect this during our Site-Survey phase and if additional infrastructure, firestopping, sealant filling or core drills are required, Customer has the option to provide this service, or ask to have it quoted separately using change order process.
- All DC cabling is to existing equipment that has DC cable.
- CenturyLink is adding new fuse alarm panels at the sites where Fujitsu and Tellabs are adding the NexGen equipment.
- If new locations of DC equipment are required all infrastructure will already be in place by Customer for all new cable runs.
- Customer will have relay rack space for new DC equipment and batteries without requiring CenturyLink to make room.
- Customer will have relay racks and space for new equipment being installed.
- Customer will provide secure space for removal of Tellabs and Fujitsu equipment.
- All vendors will be badged or escorted.
- It is assumed that all Site Survey and Equipment Removal work will take place during regular business hours 8:00 AM to 5:00 PM.
- Quote is based on the information provided by Customer's original RFP and CenturyLink's knowledge of network. Any additional materials or labor cost needed to complete to Customer satisfaction shall be billed as extra as per the contractual condition of CenturyLink. If any of the materials or labor provided prior to site survey are not necessary or additional materials or labor costs are necessary after site survey is completed, CenturyLink will provide Customer with a change order.
- Any delays not the direct fault of CenturyLink will be billed as extra. Any work stoppages, not the direct fault of CenturyLink, in which CenturyLink has to remove personnel from site, will be billed an additional mobilization charge for each such work stoppage. Known blackouts are known with this project and will have project planned around those blackouts.
- The pricing is based on the racking and stacking being performed by others. CenturyLink will connect power to the existing Fuse panel in the rack or adjacent rack. CenturyLink will terminate subscriber lines to the backplane of the Tellabs equipment and the termination blocks if required based on site survey.
- Quote assume "each" equipment room where the new equipment racks are to be placed are on the same floor. No cable hole penetrations are required to made either through walls or between floors. No "fire stopping" materials or task are provided in this quote. This shall apply for all DC Power, Signal /Circuit cabling, Timing, and alarms.

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Customer will provide floor plans and rack drawings will be CenturyLink responsibility obtained during site survey and updated drawings provided to Customer.
- All drawing updates "post installation" are solely the responsibility of Customer. CenturyLink will provide finished documentation including drawings, test, turnup and any modifications made redlined to Customer. Customer will be responsible for providing the overall post installation documentation to Customer.
- Customer shall be responsible for providing all current "CIRCUIT RECORDS" that are to be moved to new equipment. A representative of Customer shall be responsible for updating the records "post installation" that CenturyLink provides Customer as final project completion.
- Customer shall be responsible for providing existing overhead cable ladder with sufficient space for all new cabling.
- Customer shall be responsible for providing "all" dark fibers to be used as transmission/transport links. The fiber shall be available, identified, and certified for use.
- Customer shall provide available space for signal\circuit cable termination blocks\panels. These areas shall be free and cleared prior to the commencement of the installation. Site survey to determine if blocks / FDP panels will be required in IDF's.
- Removal and/or relocation of "any" existing "equipment and/or cabling" for any reason has not been quoted. Should this be required "all" associated cost shall be billed as extra.

Fiber Characterization Services

CenturyLink will make the below assumptions regarding the Fiber Characterization Services.

- Implementation of any modifications is subject to Customer approval and may require pricing and project schedule adjustments. Reasons for a project change include, but are not limited to the following:
 - Customer is unable to provide any necessary escorts for the fiber characterization technicians.
 - Cancellation of a project within one week of scheduled start date.
 - An adjustment to the deliverables is required.
 - Customer requests additional service.
 - Adding additional fibers and/or spans to test that were not part of the initial test plan.
 - Adding span retests of previously tested spans.
 - Situations where the resolution includes activities outside the scope of the proposal
 - Delays outside CenturyLink control resulting in either idle time or additional work.
 - Service Prerequisites:
 - The following Customer responsible prerequisites are required prior to field deployment:
 - The tested fiber should be dark fiber, otherwise, CenturyLink will make arrangements with the Customer to switch all live traffic off the fiber during the tests. The Fiber Characterization service cannot be performed on live fiber.
 - All glass-through sites within the span should be patched prior to the start of tests.
 - Secure physical access to fiber sites.
 - The following information should be provided: contact names and phone numbers, site addresses, fiber identification, port assignments, initial meeting time and location for the first day, escalation path and phone number.
 - Method of Procedure ("MOP") should be provided by CenturyLink as required.
 - The above service pre-requisites have been met prior to project start.
 - Daytime hours: Three (3) spans per day on average.
 - Maintenance window: Two (2) spans per night on average.
 - A lead time of (minimum) two (2) weeks is allowed prior to starting the service. Rush service is available also for an additional fee.
 - Test equipment, PC and tools will be provided by CenturyLink.
 - CenturyLink resources will work business days only, according to Customer local time; no overtime is included. Tests performed in maintenance windows will be quoted separately.

Exhibit A-1 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- CenturyLink will execute the fiber characterization service on a span-by-span, market-by-market basis.
- Exclusions:
 - Network and traffic migrations: network and traffic migrations for the purpose of fiber characterization.
 - Fiber troubleshooting: cutting/replacing/splicing fiber, as well as any outside plant troubleshooting.
 - Formal, informal or on-the-job training by CenturyLink.
 - Unusual Access/Delivery: Unusual delivery conditions (e.g. special permits, etc.) and working site not accessible by normal methods of over-the-road transport.

Site Survey Services

CenturyLink will make the below assumptions regarding Site Survey Services.

To accomplish the Site Survey Services effort, as listed above, CenturyLink assumes the following will be completed by Customer prior to CenturyLink Site Survey Services:

- It is assumed that Customer will provide the necessary escorts to perform the Site Surveys during the day.
- Engineer(s) will be escorted and may not be badged.
- Site specific Installation Materials provided by CenturyLink are outlined in a separate installation material quote.
- All site super structure material will be provided by Customer. All site super structure material can be procured by CenturyLink but is not part of the installation quote and will require additional charges.
- Site specific Installation Materials provided by CenturyLink are outlined in a separate installation material quote.
- The Site Survey Services is a physical evaluation and does not include evaluation of the optical design of the Network Elements (NE) nor the operational status of existing alarms that may be in existing equipment.
- Please note the following:
 - SOW may be subject to change upon Scope of Work changes after site survey is completed.
 - All Site Survey work will take place during regular business hours 8:00 AM to 5:00 PM.
 - All locations (13) install sites and (20) removal sites will be assumed within same project and only one trip into the area is included. Additional trips will incur additional charges.

Engineering Design Services

To accomplish the Engineering Design and Engineering Design Package, as listed above, CenturyLink assumes the following will be completed by the Customer prior to CenturyLink Engineering Design and Engineering Design Package:

- Customer will supply the following site information to complete the installation design package as required:
 - Records Access: Customer shall provide CenturyLink records necessary for completing the EDP.
 - Customer shall provide install Site records for floor plans, relay rack face drawings, DSX and Fiber Distribution Panels, circuit information, BDFB power panels and demarcation locations.
- Site specific Installation Materials provided by CenturyLink are outlined in a separate Installation Material quote. Upon Site-Survey completion, CenturyLink will follow change order process and provide updated material BOM necessary and changes to SOW to complete project.
- Engineering Design Package to be used at specified location only.
- Please note the following:
 - SOW may be subject to change upon Scope of Work changes after project is awarded and the joint site survey is completed and Customer configurations and/or Scope of Work changes.
 - All (13) locations will be assumed within same project.

Exhibit A-1 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Prior to any additions or changes to the scope of work that are clearly beyond the intent of the original scope of work will be discussed with Customer in advance and could result in additional charges.

Installation Material Services

CenturyLink will make the below assumptions regarding the Installation Material Services.

- All (13) locations will be purchased together and only one trip into the area is included. Additional trips will incur additional charges.
- Prior to any additions or changes to the scope of work that are clearly beyond the intent of the original scope of work and required additional materials, will be discussed with the DEN in advance, and could result in additional charges.

Hardware Installation Services

To accomplish the Hardware Installation Services, as listed above, CenturyLink assumes the following will be completed by Customer prior to CenturyLink installation:

- All site super structure material will be provided by Customer. All site super structure material can be procured by CenturyLink but is not part of the installation quote and will require additional charges.
- Site specific Installation Materials provided by CenturyLink are outlined in a separate Installation Material quote. Upon Site-Survey completion, CenturyLink will follow change order process and provide updated material BOM necessary and changes to SOW to complete project.
- Customer is required for any new racks and installation of those racks. Installation of racks are not included in this quote.
- Customer to provide rack space and CenturyLink will provide DC power at the top of the rack for the new equipment and Customer to provide AC commercial power if needed.
- Vertical and horizontal cable and fiber management within and above the rack.
- If required, Customer to provide and install supplemental overhead cable ladder as required.
- CenturyLink will ensure the BDFB Fuse / Circuit Breaker positions are stenciled per agreed upon DEN requirements.
- CenturyLink will provide power cables that will be connected and tested to the new Fuse panels in the 13 IDF's on the DEN campus.
- Fiber distribution panels assumed to be existing at this location with available ports.
- If required, Customer to relocate all fiber runs.
- If required, Customer to relocate any existing equipment to make room for the new equipment. CenturyLink will only be responsible for the equipment listed under the current agreement between Customer and CenturyLink. All other equipment will be responsibility of Customer.
- Please note the following:
 - SOW may be subject to change upon receipt of scope of work after the joint site survey and EDP is completed.
 - SOW assumes that all installation work will take place during regular business hours 8:00 AM to 5:00 PM.
 - Maintenance windows are from 10:00 PM – 4:00 AM for production impacting work.
 - All (13) locations will be assumed within same project and only one trip into the area is included.
 - SOW does NOT include any equipment move, re-location of any equipment.
 - Prior to any additions or changes to the scope of work that are clearly beyond the intent of the original scope of work will be discussed with Customer in advance, and could result in additional charges. Any additional costs incurred as a result of conditions or actions beyond the control of CenturyLink will result in additional charges.
 - No grooming or traffic rolls of any kind included in this quote prior to migrating from existing network to new network. If any grooming or maintenance windows are required, additional charges will apply, and new quotes will be provided.
 - Installation Standards: All installations shall comply with the most current Customer Standards. Where the Customer Standards are NOT specified, OEM Documentation and Telcordia GR-1275-Core standards shall be used.

Equipment Removal Services

**Exhibit A-1
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

- To accomplish the Equipment Removal Services, as listed above, CenturyLink assumes the following will be provided by Customer prior to CenturyLink equipment removal:
 - Customer will provide an area within the site location to place removed equipment prior to final shipment. Current space of CenturyLink in 45A01 will not be large enough.
 - Equipment removals will not begin until written authorization is obtained by Customer to proceed.
 - All Fujitsu removed equipment must be transferred to Fujitsu Network Communications before removal credit of the Fujitsu equipment is issued.
- Please note the following:
 - SOW may be subject to change upon receipt of scope of work and the joint site survey and EDP is completed.
 - SOW assumes that all Equipment Removal work will take place during regular business hours 8:00 AM to 5:00 PM.
 - All (18) locations will be assumed within same project and only one trip into the area is included.
 - Any additional costs incurred as a result of conditions or actions beyond the control of CenturyLink will result in additional charges.
 - Removal Standards: All installations shall comply with the most current Customer Standards. Where the Customer Standards are NOT specified, OEM Documentation and Telcordia GR-1275-Core standards shall be used.

Installation Supervisor

To accomplish the Installation Supervisor Services, as listed above, CenturyLink assumes the following will be provided by Customer prior to CenturyLink installation:

- The Installation Supervisor proposal is for the duration of the installation interval.
- SOW may be subject to change upon receipt of scope of work and the joint site survey and EDP is completed.
- Any additional costs incurred as a result of conditions or actions beyond the control of CenturyLink will result in additional charges.

Turn-Up & Test Notes and Assumptions

This quotation is budgetary. Should the actual site and material requirements significantly or materially differ from the assumptions of this quotation, CenturyLink may provide a Change Notice for price and/or schedule changes. Such change will be mutually agreed, and work shall only begin upon receipt of the mutually agreed adjusted P.O.

- Upon completion of the work, CenturyLink will provide Customer for signature a Completion Notice for each site. A Customer signed Completion Notice will constitute site acceptance. Unless the Customer specifically states otherwise in writing, the site shall be deemed accepted thirty (30) dates from the Completion Notice date.
- Any out of scope work (e.g. additional testing, customer equipment pickup, etc.) or Customer caused delays (e.g. customer provided material shortages, customer provided facility changes, customer engineering changes, customer installation requirement changes.)
- Optional services such as software and hardware upgrades, live-traffic moves/adds/changes, DCN engineering, integration testing with other vendor equipment, etc. are not included, unless specifically identified in this scope of work.
- The quoted Test & Turn-Up work will be performed on consecutive business days, unless specifically identified in this scope of work.
- All fibers and spans shall be installed and tested for quality (e.g. connectivity, loss, ability to support required applications, etc.) prior to starting this service. The workmanship for running and terminating fiber should be compliant with Telcordia GR-1275 section 22, or similar standards.

Network Migration Services Assumptions:

- Pricing is based on circuits quantities listed above stated in the Scope, actual port and circuit counts may vary, if the actual number of circuits to be migrated varies more than +/- 10%, the price in this proposal may be adjusted.
- Pricing assumes all circuits to be migrated are currently wired to a DSX or LGX panel on both the legacy system side and the network element side and both are properly labeled.

**Exhibit A-1
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

- Pricing assumes that all DSX and LGX panels are on one floor with limited or no tie cables in the circuit path.
- Quoted migration materials are listed below. Any additional migration material identified at the time of the audit may result in an adjustment to the quoted price for said material.
- Quantity (7000') 5 conductor DSX-1 cross connect wire.
- Quantity (40) not greater than 15M in length, DS1 patch cords
- Maintenance windows are from 10pm till 4am - 10pm till 12am onsite prep time and 12am till 4am actual migration time.
- Quote assumes 5 maintenance windows per week.
- No limitations on number of circuits that can be migrated during a maintenance window.
- CenturyLink will provide final circuit layout and cut sheet information in the form of a final as built delivery package within 2 weeks of the project completion
- Customer will be responsible for updating all of the PCR360 records. (This service is available and can be quoted independently)
- Customer will be responsible for providing the status of traffic before, during, and after the migration, with the assistance of CenturyLink.
- Customer will be onsite to assist in the resolution of any problems during the Network Discovery and Migration Phases.
- Customer will perform a lockdown of the network being migrated 1 week prior to migration activities are scheduled to be performed. We understand mission critical changes could happen during the lockdown; documentation will be provided to CenturyLink by Customer if this happens.
- Customer will provide login credentials for all non-Fujitsu equipment or any required information from non-Fujitsu equipment.
- Customer will handle any technical issues that arise on the Customers' non-Fujitsu equipment.
- CenturyLink will provide circuit path information from the PCR360 records to assist the site surveys in coordination with Customer as required especially for Dark Fiber.
- CenturyLink will not be held responsible for any incorrect information provided by the Customer. Any additional scope of work that is not specifically spelled out in this proposal will be considered out of scope.

2.4 Standard Project Assumptions

1. The building and work area is assumed to be free from any hazardous materials.
2. CenturyLink will coordinate with Customer and onsite personnel as necessary to assure timely completion.
3. The CenturyLink project team will be the first point of contact for all questions and concerns.
4. Customer must provide CenturyLink with a project timeline.
5. Work will be performed during standard business hours only. Standard business hours are defined as Monday through Friday, 8am to 5pm in the time zone where the work is being performed ("Standard Business Hours").
6. Specific equipment may be included in the Description of Work section above. The cost for such equipment is not included in this SOW as it is purchased/obtained under a separate agreement or is Customer-owned.
7. CenturyLink is not responsible for the performance or quality of Customer's third-party vendors. Customer is solely responsible for all equipment and other facilities used in conjunction with the Service which are not provided by CenturyLink.
8. Customer will obtain all necessary permits, easements and/or permissions required for completion of work described in this SOW.

Exhibit A-1
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

PROJECT PRICING & TERM

3.1 Project Fees

Customer agrees to pay the following fees associated with this SOW as invoiced by CenturyLink within 30 days of invoice date. All prices are in US dollars. CenturyLink prices are quoted exclusive of expenses (such as travel expenses, tolls and parking), local permits and fees, and applicable taxes and fees. The CenturyLink invoices will reflect the amount of any expenses and applicable taxes and other fees due.

Program Manager	\$267,425.60
Installation of BITS Clock	\$6,071.59
Professional and Consultative Services	\$490,436.43
Tellabs Installation and Turnup	\$349,331.25
DC Power Plant installation:	
45A01/POI	
Test, Turn-up and Migration	\$6,842.76
Cable runs	\$3,542.81
Total	\$10,385.57
A1C07	
Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07
AntFarm	
Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07
B1C07	
Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07
B7E02	
Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07
C1C07	
Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07
MT51C14	

Exhibit A-1
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07

MT51D14

Test, Turn-up and Migration	\$4,145.05
Cable runs	\$2,142.83
Total	\$6,287.88

NorthHut

Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07

South Campus Data Center

Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07

South Hut

Test, Turn-up and Migration	\$9,655.00
Power plant install and cable runs	\$5,775.06
Total	\$15,430.07

Total DC Power Plant NRC **\$155,544.03**

Network Engineering and Installation Services **\$1,424,743.53**

Total Implementation Services **\$2,693,552.43**

3.2 Term and Termination

The Service Term will begin the date CenturyLink commences work and will end when Customer accepts the Project ("Service Term").

On completion of the Project, CenturyLink will notify Customer and Customer will provide formal acceptance by signing the Project Completion Form. Customer will respond within 5 business days of CenturyLink's notification, or the Project will be deemed accepted. If Services performed are in non-compliance with the requirements of this SOW, Customer must notify CenturyLink within 5 business days after CenturyLink notifies Customer that work has been completed and CenturyLink will make commercially reasonable efforts to cure the alleged deficiency.

Customer understands that if this SOW is terminated by Customer for any reason other than cause, Customer will pay a termination charge equal to the total amount paid and payable under this SOW, any termination liability payable to third parties resulting from the termination, and any incurred travel expenses not invoiced prior to termination, if any.

4. CHANGE CONTROL

**Exhibit A-1
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

If during the performance of the Services CenturyLink encounters (a) any concealed or unknown conditions, (b) a Customer responsibility contained in this SOW that is not met, (c) a delay caused by circumstances beyond CenturyLink's control including but not limited to adverse weather conditions and force majeure events or (d) a delay caused by Customer, then CenturyLink may require a SOW Change Request. Either party may request changes to this SOW by submitting a written change request ("SOW Change Request") which identifies in reasonable detail a summary of the requested change, why and when the change is needed, and any modifications to the SOW and pricing. CenturyLink will evaluate SOW Change Requests by Customer. CenturyLink will prepare a SOW Change Request documenting the revisions which will become effective when the SOW Change Request is executed by the parties. In the event of any conflicts or inconsistencies, the terms of an executed SOW Change Request prevail over those of this SOW. If the parties cannot agree to the SOW Change Request, CenturyLink will not be obligated to deliver the affected Services.

Any services not identified in this SOW are out of scope and would require another SOW or a SOW Change Request to be signed between the parties.

5 LIMITATIONS OF LIABILITY

The limitation of liability provisions in the Agreement shall govern any claims arising under this Exhibit.

6 MISCELLANEOUS

While CenturyLink will use reasonable efforts to perform in accordance with this SOW, any specific results, solutions, recommendations, timelines, or similar terms in this SOW cannot be guaranteed and Customer's payment is not contingent on CenturyLink's performance. Customer's sole remedy for Service performance claims or dissatisfaction with Services or a CenturyLink Resource is to terminate this SOW. Customer consents to CenturyLink's and its affiliates or subcontractors' use and transfer to the United States or other countries data or information (including Customer contact information such as names, phone numbers, addresses and/or email addresses) of the Customer for the sole purpose of fulfilling its obligations under the Agreement and providing information to Customer about CenturyLink's products and services.

**CENTURYLINK COMMUNICATIONS, LLC d/b/a
LUMEN TECHNOLOGIES GROUP**

City and County of Denver

Authorized Signature

Authorized Signature

Name Typed or Printed

Name Typed or Printed

Title

Title

Exhibit A-1
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

APPENDIX 1 – PROJECT COMPLETION FORM

Please sign below to confirm your acceptance that CenturyLink has completed the Project in accordance with this SOW.

COMPLETION DATE: XX/XX/XXXX

Acknowledged & Agreed:

City and County of Denver

Authorized Signature

Name Typed or Printed

Title

Date

Exhibit A-2
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

OVERVIEW

This Statement of Work ("SOW") sets forth the scope of work and terms and conditions of the Services to be provided to City and County of Denver ("Customer" or "DEN") by CenturyLink Communications, LLC d/b/a Lumen Technologies Group or its affiliates ("CenturyLink"). This SOW is effective upon the last date signed below ("Effective Date"). This SOW incorporates by reference and is governed by the CenturyLink Master Service Agreement or other service agreement executed between the parties and the Custom Solutions and Services Schedule, or the then current standard CenturyLink Master Service Agreement and Custom Solutions and Services Schedule if not executed as of the Effective Date of this SOW, copies of which will be made available upon request. This SOW, any attached or incorporated documents, and the applicable service agreement between CenturyLink and Customer, Custom Solutions and Services Schedule and SOW Change Requests collectively comprise the agreement between the parties ("Agreement"). Capitalized terms not defined in this SOW are defined in the Agreement.

DESCRIPTION OF WORK

2.1 Scope of Work. Under this SOW, CenturyLink will provide the services as identified and described below ("Services"). Any services not identified in this SOW are out of scope and would require another SOW or a SOW Change Request to be signed between the parties. CenturyLink will perform the Services at the Customer locations identified in the Customer site list provided by Customer and stored by CenturyLink. ("In Scope Locations"). CenturyLink's internal records will control for purposes of determining In Scope Locations. The Services being provided under this SOW are collectively the "Project".

2.1.3 Maintenance and NOC Services. CenturyLink will provide Maintenance and NOC Services for the new equipment listed in DEN - Optical Network Contract Package. CenturyLink will perform the Maintenance and NOC services and activities for the new Optical Network described below. CenturyLink will:

Managed Services

CenturyLink shall provide fault management services 24x7 network monitoring, management and provisioning with remote support, lifecycle support including software upgrades and patches, hardware replacement and routine preventative maintenance services.

Maintenance Support Packages is for 8 years with options for years 9-10.

CenturyLink Managed Network Service (MNS) Services is for 8 years with options for years 9-10.

DEN will pay for each service on an annual basis.

The work to be provided by CenturyLink to Customer shall consist of professional services ("Services") in accordance with the following:

- 24x7 monitor, notify & troubleshoot
- Automated notification of alarms
- Monthly reporting with customized reports
- Incident ticket management
- Program & project management
- Assigned service delivery manager (SDM)
- Remote break/fix with ownership to restoration
- Problem management/restoration
- OEM (Original equipment manufacturer) maintenance support & third-party escalation
- Software maintenance & upgrade subscription

During this time the CenturyLink Service Delivery Manager ("SDM") will work with Customer to develop/modify the Customer Specific Work Instructions (CSWI) which the frontline NOC personnel utilize to deliver the agreed upon services; and the Operational Level Agreement (OLA) which is a "living document" for use as

Exhibit A-2 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

the "Playbook" which details how CenturyLink will deliver all the services agreed upon. It also provides contact information for Customer for escalation purposes. The SDM will also work with Customer to capture all the details necessary to add to the CenturyLink database for ticketing and alarming requirements, identify all sites and network design and configurations for ensuring the Operational Support System (OSS) is configured to set up newly added network. The SDM will also lead efforts to on board the network, conduct baselines for existing network and perform operational readiness testing prior to going into the management/service assurance phase.

Five phases for Customer Activation of new network will be provided by CenturyLink as follows:

- Kick-off to gather all required details and provide CenturyLink operational details of Customer.
 - Reoccurring meetings will be scheduled and conducted.
 - Scheduling and implementing network connectivity of new network to the NOC.
 - Development/modification of CSWI and OLA based on operational deliverables and listed details below.
 - Not all details will be required for all projects.
- Onboarding to connect and bring all managed devices into the OSS database for management.
 - Implemented after network connectivity is in place.
 - NOC has not placed managed devices in Managed Take-Over (MTO) state and has not taken responsibility for the network at this time.
- Baseline to understand all alarms or inconsistent network behavior-based on the engineered design.
 - Specific time to monitor the network for operations and abnormalities.
- Operational Readiness Testing (ORT) to confirm all devices are responding, all OSS tools and processes are operating correctly and as required.
 - Validation testing to ensure all developed processes, tools and contact points are correct and operational.
- Managed Take-Over (MTO) after the CenturyLink Platform and Operational teams accept the first four (4) steps highlighted above, CenturyLink will schedule a date for acceptance of the network/device. This includes working with Tellabs and Power Product Services equipment which is part of the NOC Managed Services.

Upon completion of MTO, the NOC will be responsible for monitoring and management of the network.

Operational processes developed will be implemented.

Maintenance Support Program (MSP)

The following pricing is for CenturyLink MSP services will be in effect for 8 years with two 1 year renewal options., which may be exercised by mutual agreement between the parties after cotermious extension if such extension is necessary for renewal.

i. Supported Network

This MSP will only support the selected quantities for Network Elements (NEs) below.

NE TYPE	QUANTITY
FW 4100ES	12
1FINITY L110	12
1FINITY T310	4
1FINITY S100	48
Total NEs	99

ii. Tier Offering

1. Product Services (SE.1-2368A)

Exhibit A-2
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

- Remote Technical Assistance¹
 - Software Maintenance and Upgrade Subscription
 - Advance Hardware Replacement (AHR) Next Business Day (NBD)
 - Routine Preventative Maintenance (4 per year)
2. NETSMART Services (SE-NS1500)
- 24x7 Remote Technical Assistance
 - NETSMART 1500 Software Maintenance & Upgrade Subscription
 - On-Site Technical Support Visit
 - New Features and Enhancements Webinars
 - No Hassle Upgrade Portal
 - Access to Web-based tutorials
 - Monthly Call Reports

Project Location(S)

- 45A01
- 45A01 POI
- 35C51 CADC
- SCDC
- MT51C14
- MT51D14
- A1C07
- B1C07
- B7E02
- C1C07
- Nhut
- S-Hut
- ANTFarm1

Deliverables shall be delivered by CenturyLink to Customer POC prior to the submittal of a final invoice unless requested earlier by POC.

Deliverables shall include before and after project photos, daily work log, permits and drawings if applicable, and any other documentation related to the Services that is requested by Customer.

- Fault Management

¹ Remote technical assistance will be replaced with MNS service. If the MNS service is discontinued at any time, customer must purchase RTA.

Exhibit A-2 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

Encompasses detecting, isolating, and restoring incidents back to the equipment and device specifications. It is the process of locating problems on the managed device or external to the managed device. This could include discovering the existence of the problem, identifying the source, and possibly repairing (or at least isolating the device from) the Incident through traffic restoration. Fault Management Services include:

- Incident Monitoring and Notification. CenturyLink will provide near real time remote monitoring of the supported devices for vendor defined fault-related Incidents through its device management software tools, 24x7x365. Device monitoring is achieved utilizing Simple Network Management Protocol (SNMP) or Transaction Language (TL1). CenturyLink will monitor one (1) designated target identification (TID), or Hostname associated with each managed device.
- Incidents will be identified automatically by CenturyLink's device management software tools. Incidents may also be reported by the Customer network management personnel to CenturyLink by telephone.
 - Incident Classifications
 - Priority level of device indicates the role of the device in the Customer Network. Incident severity is defined as device condition and the degree of immediacy for diagnostics and resolution.
 - CenturyLink uses Siebel to log all Incident reports per the severity listings based on Telcordia GR-929 Standards (Critical, Major, Minor).
 - Critical Alarm Incident - All or any combination of the following: (i) fiber cut or loss of service path that results in a total loss of traffic, (ii) a system condition that results in a total loss of traffic, (iii) if CenturyLink or Customer have to reroute all traffic to establish service due to environment, weather or interconnections to other service providers outside of this Network, or (iv) failure of communication with the EMS server where visibility to the entire Network is lost, or (v) complete loss of routing capabilities.
 - Major Alarm Incident - All or any combination of the following: (i) fiber cut or loss of service path and the system engages the automatic protection switch with a loss of redundancy or protection switching capabilities, but no loss of traffic, (ii) equipment failure on a redundancy path that will inhibit any protection switching capabilities and no traffic loss occurs, or (iii) partial failure of communication with the EMS server where a portion of the Network still has visibility, or (iv) partial loss of routing capabilities.
 - Minor Alarm Incident - All errors not otherwise included in, or defined as, critical errors or major errors where all services and system integrity are maintained. Examples may include air filter Alarms to change the air filter.
 - All Network trouble tickets will remain open until resolution is complete.
 - Incident Troubleshoot, Traffic and Problem Restoration
 - CenturyLink will correlate and filter incoming Alarms and Incident information will be provided to the Customer personnel.
 - Incident Restoration includes the remote means of restoring Network traffic or devices in the event of an outage to operational productivity. However, if the Incident is caused by the original equipment manufacturers (OEM's) engineering or development issues, then the OEM will need to be engaged for final resolution.
- Automated notification of alarms
 - Notifications can be in multiple formats
 - Automated ticket notifications: Incidents are captured and logged into the incident management application. Once the NOC acknowledges the incident, the system can generate an email to be sent to a predefined list of recipients. The automated notification includes specific incident details including location of the event, system generating the event, date and time of the event, a short alarm description of the event and other relevant details. An automated email notification can also be sent upon the incident ticket being set to Restored and Closed.

Exhibit A-2 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- Automated SMS text messaging: (For Smartphones only) Similar to the ticket notifications, an SMS text message can be sent to predetermined list of contacts.
 - Phone contact: The NOC personnel can make a phone call to prearranged contact to inform the contact that an incident occurred and the immediate plans the NOC has for troubleshooting and rectification of the event.
 - Manual email: Once the NOC personnel notifies the prearranged contact by phone, the NOC personnel can follow up with an email that contains more detailed information of the event than the automated ticket notification.
- Reporting.
 - CenturyLink will deliver specific weekly, monthly, quarterly, and annual reports. Reports may be used in determining volume, growth plans, support issues, and potential regional issues.
 - The NOC can also provide automated reports once or twice daily, weekly or monthly that lists all incidents reported and ticketed within the specific timeframe between reports, lists all tickets that remain open and all tickets that were reported as critical in the same period of time.

- Problem Management.

CenturyLink will identify Incidents and problems caused by the end-user, Network infrastructure or equipment issues, and recommend actions to prevent reoccurrences. NOTE: An Incident is an isolated event that disrupts normal operation. A problem is an underlying issue that could lead to multiple Incidents.

- OEM maintenance support & third-party escalation

During troubleshooting efforts, if the NOC personnel identify that the trouble is outside the CenturyLink product line, the NOC personnel will contact the original equipment manufacturer, carrier or contracted support group for escalated support on behalf of Customer based on the established maintenance agreement Customer has with the OEM, carrier or provider. The NOC will work with the contact through restoration of the identified event.

- Configuration Management.

CenturyLink will provide Configuration Management as required to support our Incident restoration obligations as part of Fault Management. This will include configuration information maintenance.

- Inventory/Asset Tracking.

CenturyLink will provide detailed recording and updating of information that captures hardware and software configuration details.

- Circuit Resource Tracking.

CenturyLink will record and update information that captures circuit configuration details. Such information typically includes the design, configurations and setup of circuits or routing tables within the Network or devices. All details are captured from the device, management application, or engineering documentation.

- Provisioning.

- CenturyLink will implement Customer logical requests for move, add, change, and deletes (MACD) to the managed network. All MACDs are characterized by the complexity of the requests and are performed remotely from the CenturyLink's NOC. All MACD requests will be for currently managed network devices, circuits, termination points, routing tables and proxies. Any requests for adding new devices to the managed network will be supported through the Service Request process and managed as a project.

- Provisioning (aka Move, Add, Change, Delete, or MACD)

- CenturyLink will provide remote provisioning services, as necessary. CenturyLink and DEN has first right of refusal to implement any provisioning change. If CenturyLink and DEN would prefer FNC make the change, CenturyLink and DEN will process the change request

Exhibit A-2 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

through the Change Control process established during the new customer on boarding process.

- When a Change Request is processed, a Service Request or Maintenance ticket will be generated for tracking and notification. When the Service Provisioning team receives the ticket, the assigned engineer will review the Change Request for validity to ensure that the change will not affect operations of the network, and that the network or device is capable of the requested change. If any concerns or questions need to be answered, the assigned engineer will contact the requestor for answers and direction. Once everything is approved, the change is scheduled with CenturyLink and DEN.
- All requested changes are considered MACDs (Move, Add, Change, Delete) and are defined as remote configuration changes to a managed device, an appliance or network.
- A MACD is counted as a single instance when used to make a change to a single managed device, a single device or appliance, a group of devices or appliances or the entire network
 - Single MACD Examples:
 - Single (1) change to a device or appliance – Group configuration changes, port activations, threshold changes, etc...
- Same change to a multiple (>1) devices or appliances - Group configuration changes, port activations, threshold changes, etc...
- Same change to the entire Network - Group configuration changes, port activations, threshold changes, etc...
- MACDs are not calculated when inserting or removing a device or appliance to/from the managed network. Inserting/Removing a device or appliance to/from management are managed by a scheduled project and shall not be associated with MACDs.
- MACD requests shall be submitted through an established process integrated into the CenturyLink and DEN process.
- MACDs shall be logged (ticket), reviewed by the engineering team for completeness and capability to implement without causing adverse conditions to the operations of the network.
- Connectivity
 - Customer provides dedicated and redundant IPSec VPN Tunnel connections from the Customer network to the two (2) geographically diverse Microsoft Azure Cloud access points accessing the CenturyLink NOC management platform. CenturyLink currently manages the existing network and will utilize current access for Customer's new network using prior establishment of MNS services of Customer's existing SONET network and will be modifying existing practices and using pre-established IPSec VPN Tunnel connections.
 - Customer is responsible for maintaining the internal connectivity of the Customer infrastructure to the CenturyLink demarcation point.
 - CenturyLink is responsible for maintaining all operations and connectivity issues with Microsoft Azure Cloud services and the CenturyLink NOC platform.
- Technical Resources
 - CenturyLink operates a shared customer environment and implements staffing based on volumes.
 - The NOC is staffed to support three shifts per day covering 7x24x365. All shifts have overlap for shift hand-off.
 - The CenturyLink NOC is staffed by experienced telecom and data engineers, who not only have an average of more than ten years of experience in troubleshooting CenturyLink optical equipment, but all NOC engineers also have Tier II level skills and are certified to support various third party equipment providers.

Exhibit A-2 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- A Service delivery manager (SDM) will be assigned to Customer. The SDMs role is to be the single point-of-contact for any business related issues, questions, or escalations. The SDM will be the point-of-contact to provide monthly reports; conduct routine business reviews; monitor, track and resolve any financial issues; escalate operational issues and will maintain the Operation Level Agreement (OLA) document that is the playbook containing all the operational processes developed during the new customer on-boarding process.
 - U.S. Citizenship or permanent U.S. residency will be verified for any CenturyLink employees performing services on the Customer Network.
 - CenturyLink will ensure that each CenturyLink employee supporting Customer shall perform services in accordance with the terms and conditions of this SOW and the Agreement.
- Managed Service SLA

Severity	Typical Customer Impact	NOC Notification	DEN/CTL Support Team Communication
Critical/1	Complete loss/critical failure of customer impacting service with no available workaround.	Within 15 Minutes	. Within 30 minutes of event initiation . At each escalation point and/or status change . Within 15 minutes of restoration
Major/2	Intermittent loss, degraded performance of a customer impacting service	Within 60 Minutes	. Within 1 hour of event initiation . At each escalation point and/or status change . Within 15 minutes of restoration
Minor/3	No immediate customer impact and/or administration requests users.	8Hrs	. Not Required for non-service affecting questions. . Within 1 hour of event initiation . At each escalation point and/or status change . Within 15 minutes of restoration

Description of Maintenance Services Program (MSP)

iii. Remote Technical Assistance (RTA).

During the applicable term of this Service, CenturyLink will provide unlimited Remote Technical Assistance through CenturyLink's Technical Assistance Center (TAC) telephone support to Customer on all Products covered under the SLA applicable to the purchase of this Service. To optimize CenturyLink 's ability to thoroughly troubleshoot and analyze Customer reported concerns and suggest or initiate corrective action, Customer should allow CenturyLink remote access to its network via secure Virtual Private Network (VPN) or a commercially available web conferencing tool mutually agreed upon by the parties. Any such access will at all times remain under the control of Customer.

RTA telephone support includes:

- 7 x 24 x 365 phone access to a CenturyLink TSE (technical support engineer)
- Escalation to higher levels of expertise after reasonable investigation time
- Escalation to an applicable PSE (product support engineer) after reasonable investigation time by Tier II or Tier III TSEs
- Automated escalation notifications to management (via e-mail)
 - Overdue CSR (Customer Service Request) state
 - Outage CSR logged
 - Outage CSR change of state

Exhibit A-2
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC
➤ Others

- Engineering Investigation Request (EIR)
- Unit Investigation Request (UIR)
- Automatic monthly call statistic reports
- Access to knowledge base and tools for online technical information and customer service request management
- Customized reports based on customer requirements
 - CSR Reporting
 - Volume
 - Status
 - Duration (Open, Addressed, Restored and Closed)

iv. Software Subscriptions:

This service describes Software Subscriptions that are available from CenturyLink for software Products licensed to Customer and identified by a CenturyLink -designated part number.

1. Software Access and License Fee. Users may obtain the Software by downloading a copy from the CenturyLink website or a CD or entering the applicable machine line code ("TL1 Command") on equipment preloaded with the Software. The fee for the applicable software Product is payable upon the earlier of: (i) time of purchase, (ii) access of the Software, or (iii) activation of the Software using the TL1 Command.

2. NE Software Subscription. The NE Software Subscription grants Customer the right to receive all Major, Minor, and Maintenance release level software that becomes generally available for the base software and individually licensed features on NE Software Products Customer is currently using and for which Customer has paid CenturyLink the applicable annual license fee or other consideration as determined by CenturyLink. If Customer is not on the most recent Release of software for applicable NEs when this subscription is purchased, Customer may be required to update to that Release before being eligible for subsequent software updates. The software updates may be made available to the Customer to download from a CenturyLink website. Customer is responsible for implementing any software update or upgrade provided by CenturyLink under this subscription.

3. Element Manager (Craft Interface) Software Subscription. The Element Manager (Craft Interface) Software Subscription permits Customer to download from an CenturyLink website copies of element manager (craft interface) software (e.g. NETSMART^{®2} 500) applicable to the Products covered as indicated in the quotation document provided at the time of purchase. CenturyLink may track the type and number of copies of element manager (Craft Interface) software that Customer downloads to ensure the number of copies of such downloaded software is reasonable and applicable to the Products covered by this subscription.

v. Advance Hardware Replacement - Within A Mutually Agreed Time.

1. Scope of this Service. During the applicable term of this Service, CenturyLink will, subject to the below terms and conditions of this provision and within a response time mutually agreed upon and entered on the SLA applicable to the purchase of this Service, provide advance replacement equipment to the location designated by Customer for Products identified on the applicable SLA. Only active equipment (e.g.

² NETSMART[®] is a trademark of Fujitsu Network Communications, Inc. (USA) All Rights Reserved.

Exhibit A-2
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

circuit packs, shelves, and rectifiers) are eligible for this service. Unless otherwise documented on the SLA, passive equipment (e.g. cables, fibers, filters, attenuators, batteries, passive units, and other miscellaneous hardware) is not supported. Unless otherwise agreed by the parties and noted on the applicable SLA, a "day" or "business day" is defined as the customary working hours, Monday through Friday, at the Customer location, excluding mutually agreed holidays.

2. Prerequisite to Providing This Service. Before CenturyLink can implement this Service for the Products identified on the applicable SLA, Customer must advise CenturyLink, in writing, of the specific location(s) to be covered by this Service and the types and quantities of each Product at each location. After receiving all such information, CenturyLink will have up to 45 days to arrange warehousing of applicable Product in various locations to meet Customer's requirements. CenturyLink will not be obligated to provide Product within the mutually agreed upon response time until the sooner of (a) CenturyLink advising Customer that it has completed all warehousing requirements for applicable Products; or (b) the 45 day period has elapsed. However, while CenturyLink is arranging warehousing requirements, CenturyLink will make every commercially reasonable effort to provide applicable advance replacement Product as soon as possible. During the applicable term of this Service, if Customer deploys CenturyLink furnished equipment of a type other than what Customer has previously identified for coverage under this Service to a site already identified pursuant to this section or deploys any type of CenturyLink furnished equipment to a site other than one already identified pursuant to this section, until CenturyLink is notified of the type, quantity and location of such equipment pursuant to the terms of this section, CenturyLink will not be obligated to provide advance replacement equipment within the agreed upon response time and then CenturyLink's obligation will not begin until the sooner of (a) CenturyLink advising Customer that it has completed all warehousing requirements for applicable Products; or (b) the 45 day period has elapsed.

3. Contacting TAC to Report a Network Affecting Issue. During the applicable term of this Service, if Customer encounters a network failure condition that Customer believes is caused by equipment that is covered under the applicable terms of this Service, Customer should immediately contact CenturyLink's TAC to log a CSR.

4. TAC Troubleshoots the Problem. If TAC concurs that CenturyLink furnished equipment has caused a network-affecting problem, CenturyLink will, at CenturyLink's expense, ship advance replacement equipment to Customer to arrive within the mutually agreed upon time after CenturyLink confirms such a problem. CenturyLink's obligation to respond in a time that is shorter than "next business day" is subject to fulfillment of **Prerequisite to Providing This Service 2** of this provision for the applicable Product. A "next business day" response is subject to (a) if CenturyLink received Customer's request and confirms the problem before 4:00 PM (central time) on the business day the request was received the advance replacement equipment will be shipped to arrive the next business day; (b) if CenturyLink received Customer's request and confirms the problem after 4:00 PM (central time) on the business day the request was received the advance replacement equipment will be shipped to arrive within 24 hours after the beginning of the next business day.

5. Customer Must Return the Replaced Equipment. Customer agrees that it will, at its sole expense, return the equipment replaced by the advance replacement equipment shipped by CenturyLink within 15 days after receiving the advance replacement equipment.

6. Disqualified Equipment, or Failure to Return Replaced Equipment. If, upon receipt of the replaced equipment, CenturyLink determines it (a) has not been installed, operated, or maintained, in accordance with the applicable specifications, documentation, and instructions provided by CenturyLink, or packed for return in accordance with instructions provided by CenturyLink or using reasonable care (e.g. avoiding the possibility of electrostatic discharge damage when packing equipment); (b) has been subjected to accident, disaster, neglect, abuse, misuse, or damage (e.g. burned, cracked, etc.); (c) has been repaired or modified in any respect by anyone

**Exhibit A-2
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

other than CenturyLink or its authorized service representatives without CenturyLink's prior consent; or (d) has been adversely affected by materials, equipment, software or services provided by an entity other than CenturyLink without Customer having first received approval from CenturyLink in writing; the returned equipment will not qualify for repair or replacement "at no additional charge" under this Service and Customer agrees to be billed and pay CenturyLink as set forth below. If the replaced equipment is not returned to CenturyLink within the time period stated above, Customer will be billed, and agrees to pay, an amount equal to the purchase price of the advance replacement equipment, as quoted by CenturyLink, plus shipping charges.

7. Transfer of Title: Replaced and Replacement Equipment. Title to the advance replacement equipment CenturyLink ships to Customer will pass to Customer the earlier of (a) the date CenturyLink receives the equipment that was replaced; or (b) the date CenturyLink receives payment for the advance replacement equipment pursuant to CenturyLink invoicing Customer as set forth above.

8. Installation of Advance Replacement Equipment. Unless Customer has purchased a Service from CenturyLink that includes on-site support, Customer is responsible for installation of the advance replacement equipment and de-installation of the equipment being replaced.

vi. Routine Preventative Maintenance (RPM).

CenturyLink will provide routine procedures to detect potential trouble conditions before they affect service. Based upon Customer requirements, a series of non-service affecting tasks will be developed to test, clean and backup critical network data. Correction of minor discrepancies can be scheduled and addressed during the site visit. Major discrepancies will be reported and addressed by Customer's specified maintenance organization. This service is a reoccurring series of events which may be scheduled quarterly, biannually, or annually.

Maintenance Support

CenturyLink Maintenance Support is included for years 1 to 8 and optional years 9 and 10. The following services are included.

Types of Services	Description of Services
TAC Support	Provides 24x7x365 access to the TAC for remote Support on technical issues and consultation on Supported Product operation
Online Remote Technical Support	Provides registered users with Web access to Support tools and technical Documentation

Exhibit A-2
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

Access to Software Updates (Bug Fix)	Provides access to the latest generally available Upgrades and Updates, if and when available, for the applications licensed from CenturyLink for Supported Products
Hardware Repair	Provides for the testing, priority repair, revision updating and return of in/out-of-warranty Hardware with a Turnaround Time of fifteen (15) Business Days.
Advance Replacement	Provides a replacement Hardware unit required for critical resolution of a Supported Product issue prior to returning a faulty Hardware unit to CenturyLink.
On-Site Support	Provides for the dispatch of a CenturyLink technical engineer to Customer's site after the TAC determines that a Supported Product issue cannot be diagnosed remotely.

Project Location(s)**Denver International Airport**

45A01/POI. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
A1C07. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
AntFarm. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
B1C07. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
B7E02. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
C1C07. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
MT51C14. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
Mt51D14. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
NorthHut. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
South Campus Data Center. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249
SouthHut. Denver International Airport. 8500 Pena Boulevard, Denver, CO 80249

2.1.3 Network Management – Dedicated Field Operations (staffing)

- a. Management Staffing : Optical Network Manager – (dedicated for a total of 20 hours per week) (a) is responsible for design, documenting and consulting issues associated with voice, data and video networks ; (b) interface with upper-level Department of Aviation management; (c) monitor day to day health of voice, data and video networks; (d) coordinate troubleshooting and repair of advanced problems ; (e) established PWCS “after hours” procedures will be followed for Emergency and non-Emergency situations and (f) provide risk and network recommendations for the Optical Network infrastructure.
- b. Dedicated Technicians: Two full time Dedicated Technicians perform: (a) audits; (b) provide daily surveillance / maintenance for the Optical network, Tellabs systems, Symmetricom / Oscilloquartz synchronization clocks and the various power plants on the DEN campus. These positions require experience with Fujitsu, Tellabs DISC*S (COT/RDT/FITL), Symmetricom (DCD-400/DCD-523), Oscilloquartz OSA 5548C, along with the Emerson, Lorain and Valere DC power plant practices. Hours of availability: Monday through Friday 8:00am – 5:00pm. At a minimum, the dedicated technicians will be on site eight (8) hours a day Monday through Friday or as negotiated between CenturyLink and the City and County of Denver. Established PWCS “after hours” procedures will be followed for Emergency and non-Emergency situations
- c. Customer acknowledges that two full-time dedicated technician coverage includes time away from work concessions such as planned time off, sick leave, bereavement, and other similar events. In the event that a dedicated technician is unable to perform their assigned duties due to a scheduled or unscheduled event, CenturyLink has developed a model that leverages a

Exhibit A-2 STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

broader technical resource pool to ensure committed coverage level equivalent to two full time technicians.

If additional temporary or as-needed technician support is needed, Customer may request additional resources. The following parameters would apply to Customer's request for additional resources:

- Based on CenturyLink technician workload availability
- Customer will provide a minimum of 24-hour advance notice from the time the resource is needed
- CenturyLink will make reasonable efforts to accommodate emergency support when justified - Minimum of 4-hour commitment to include drive time is required for emergency support
- Customer will provide a written request detailing the work effort requested - Optical Manager and Account Team will assist with developing these details
- Pricing for temporary or as-needed technician support will be priced at current rates

If the parties determine that a permanent third full-time dedicated technician is required for ongoing support, a change order will be processed documenting the justification for the increase and will be mutually agreed to by DEN and CenturyLink. A monthly rate of \$12,252,28 will be used as the pricing structure for any additional resources required in year 2021 with a 3% price increase Year over Year to that rate for years 2022 – 2028 as well as the two options years of 2029 and 2030.

2.1.4 Spare Parts Management

CenturyLink will recommend the appropriate level of maintenance spares to be on hand for emergency repair situations. The City and County of Denver will purchase the necessary spare inventory through City procurement mechanisms and turn over to CenturyLink for parts management. The contractor is to maintain maintenance agreements with Fujitsu, Tellabs, PPS to ensure that firmware or software upgrades, engineering change order compliance and upper Technical Support is required. The repair or replacement of defective components, batteries and other ancillary units are billable to the City and County of Denver. Century Link is to track all network inventory, including both active components and spares on customer premise and provide recommendation to changes in levels and reports on inventory levels as requested.

2.1.5 Optical Managers Tasks

- The OSA BITS clock is the new clock, the Symmetricomm clocks (two) are the old clocks
 - Oscilloquarts OSA 5548C TSG, 2016 Digital Clock Distribution
 - BITS Clock: Netbotz alarm monitoring.
 - Manufacturer preventive maintenance inspections as required.
 - Symmetricomm Digital Clock Distribution
 - BITS Clock network: Netbotz alarm monitoring.
Product has been manufacture-discontinued and needs to be coordinated with CenturyLink to ensure compatibility when they replace the BITS clocks in their synchronization network. Copper, Fiber, Pair Gain Management, and support
- Projects Support:
 - Sales Order: CCD Projects, SONET / New Optical Network, Digital Loop Carrier, DC Power Plants upgrades, repairs, spare parts, etc.
 - Notification Process: AskIT Change Management, Shut Down, MCC, Service Desk letter/client notification processes.
 - CCD PMO: Planning Document Form Initiation, update, and completion.
 - Project Managers: Review sales order survey information w/manager if necessary

Exhibit A-2
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

- CCD Technologies: CCD, tenant and or contractor request for network information.
- CenturyLink Test Sets: Order, repair, and calibration per manufacture specifications.
- Annual Inventory: CenturyLink Repair cage. (Fujitsu, Tellabs, Telus / Symmetricom / Oscilloquartz, etc.).
- **Dedicated Technician Tasks (related to circuits that utilize the Optical Network solution for transport)**
 - a. Report directly to DEN CenturyLink work location at designated work schedule time.
 - b. Identify and maintain circuits from regulated telco points of presence for ingest and transport on the New Optical Network, DISC*S or PWCS facilities.
 - c. Perform various audit and or maintenance duties as directed by the Optical Network Manager.
 - d. Auditing circuit designs, move, add, change, disconnect, testing and or assisting in the trouble shooting of:
 - 1. Copper cable, termination, Fiber Optic cable, termination, D/C power cable, termination associated with the Optical Network.
 - 2. Circuit types include but are not limited to: ISDN, Analog Data- 56K, 9.6, 64K, T1, DS3, 1FB, RTNA, Brief Net, Crash Net (NETA), LADA, ELAN, Breach Alarm, HDSL, DSL, VOIP, DIA TV, DID trunks, ring down circuits and ground start trunks.
 - 3. DEN circuit types: BANA, BCTV, CCTF, CCTP, CCFX, CCTX, CLCK, EFXS, ELAN, ELRE, ELXT, ESXT, EZXT, HCxx, LADA, NETA, OSNA, PAOR, RTNA, ADSL, SDSL, TVTK, TV06, TV11 and VOIP.
 - 4. Peripheral equipment: DSX panels, repeater shelves, fiber bays and patch panels, +24V / -48V DC power plant components and batteries, AC inverter and fuse panels that is associated with the Optical Network.
 - 5. Work with the Business Technologies Division and CenturyLink team to maintain operational capability of Optical Network synchronization clocks and dc power plants that are owned by the City and County of Denver (CCD).
 - 6. Maintain Inter-building and backbone telephony cabling and cable configuration documentation in support of the Optical Network infrastructure with support from CCD, their contractors, and or CenturyLink staff.
 - 7. Be available for on-call duty on a continuously rotating basis, response time to site is 1 ½ hours from time of notification to commencement of trouble shooting effort.
 - e. Billing – Activities herein are authorized under the managed service offering and will perform tasks outlined above toward the operation and maintenance of the legacy Optical Network solution. Optical Network Manager and Dedicated Technician staff will be billed on a monthly basis. Dedicated staff tied to the legacy SONET/DISC*s managed support offering shall not be allowed to “double bill” their time against operations and maintenance activities toward the legacy SONET/DISC*s solution and migration efforts tied to the new optical network transport solution.

2.2 Customer Responsibilities. Customer acknowledges and agrees that its failure to perform its obligations herein may result in CenturyLink’s inability to perform the Project. CenturyLink will not be liable for any failure to perform in the event Customer fails to fulfill Customer’s obligations. The following conditions must be met by Customer throughout the term of the SOW:

- j. Customer will, at its expense, secure CenturyLink, and its vendor right of access to the In Scope Location(s) sufficient to complete the Project.
- k. Customer must provide a single point of contact (“Primary Contact”). The Primary Contact must be a technical point of contact with sufficient knowledge, authority, and access to address configuration issues, event notifications, system or infrastructure modifications, and authentication of applicable systems.

**Exhibit A-2
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

- l.** Neither Customer nor its representatives will attempt in any way to circumvent or otherwise interfere with any security precautions or measures of CenturyLink relating to the Project.
- m.** Customer will have a representative on site at the In Scope Location(s) while CenturyLink resources are on site.
- n.** Customer will provide, in advance, notification of any unique requirements, hazardous locations, security precautions, access restrictions or other extraordinary conditions that may exist and which may affect the execution of the Project.
- o.** Customer will ensure private utilities, including but not limited to, underground sprinklers, cable, phone lines, and satellite television are clearly marked and identified prior to the start of the Project. If private utilities have not been clearly labeled and identified, and damage occurs during the execution of this scope of work, CenturyLink will not be held responsible for the costs of repair or replacement.
- p.** At the completion of the Project as specifically set forth in this SOW, Customer hereby agrees to sign the Project Completion Form attached hereto as Appendix 1.
- q.** Customer is required to maintain a hardware maintenance agreement and software subscription agreements with the respective vendors for the applications under this SOW and associated Build of Materials (BOM).

2.3 Special Project Assumptions

Managed Network Services (NOC) Assumptions:

- Pricing is based on prior establishment of MNS services of Customer's existing SONET network and will be modifying existing practices and using pre-established IPsec VPN Tunnel connections.
- This SOW may not be altered, amended, or revoked unless by written instrument, signed by each party hereto. Any attempts to otherwise alter, amend or revoke all or any portion of this SOW shall be null and void, and the terms of the original Statement of Work shall be in full force and effect.
- This SOW supersedes any prior SOW's and understandings, oral or written, relating to the subject matter hereof.
- If Customer requires the work to be stopped after a particular phase has been started, there will be an additional trip fee charged for the number of resources required for that phase using change management process

Power Plant maintenance services for Years 1-8 and includes option years 9-10 if Customer signs contract for the two optional years.

- Regular inspections, maintenance, and testing of equipment at scheduled intervals – CenturyLink will proactively schedule preventative maintenance visits with Customer twice a year for inspection as detailed below.
- CenturyLink will audit the DC Power Plants annually, Group A (Spring) and Group B (fall). The groups consisting of the following:

Group A Sites include:

- Main Terminal Room 45A01
- Main Terminal Room 45A01 – POI
- Concourse A Room A1C07
- Concourse B Room 1C07
- Concourse B Room 7E02
- Concourse B Room 7W02
- Concourse C Room 1C07
- Antennae Farm
- North Hut
- South Hut
- Airfield Maintenance Center

**Exhibit A-2
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC**

Groups B Sites include:

- ARFF1
- ARFF3
- Concourse A Room 14E02
- Concourse A 5th Level Room A-5CEL
- Joint Cargo
- Main Terminal Room 51C14
- Main Terminal Room 51D14
- Main Terminal Room 54C14
- Main Terminal Room 54D14
- SE Hut

2.4 Standard Project Assumptions

9. The building and work area is assumed to be free from any hazardous materials.
10. CenturyLink will coordinate with Customer and onsite personnel as necessary to assure timely completion.
11. The CenturyLink project team will be the first point of contact for all questions and concerns.
12. Customer must provide CenturyLink with a project timeline.
13. Work will be performed during standard business hours only. Standard business hours are defined as Monday through Friday, 8am to 5pm in the time zone where the work is being performed ("Standard Business Hours").
14. If required, any changes to this SOW or additional services to be added, will follow change control process.

PROJECT PRICING & TERM

3.2 Project Fees

Customer agrees to pay the following fees associated with this SOW as invoiced by CenturyLink within 30 days of invoice date. All prices are in US dollars. CenturyLink prices are quoted exclusive of expenses (such as travel expenses, tolls, and parking), local permits and fees, and applicable taxes and fees. The CenturyLink invoices will reflect the amount of any expenses and applicable taxes and other fees due.

The following fees are paid on an annual basis.

NOC Years 1-8

Part Number	Yearly Price	8 Year total Price
MNS-S-FM-O	\$29,292.31	\$234,338.48
MNS-S-FM-E	\$50,215.38	\$401,723.04
MNS-S-FM-A	\$35,569.23	\$284,553.84
MNS-S-PROV10	\$6,015.38	\$48,123.04
Total	\$121,092.30	\$968,738.40

Optional NOC Years 9-10

Part Number	Yearly Price	2 Optional Year total Price
--------------------	---------------------	------------------------------------

Exhibit A-2
STATEMENT OF WORK
R187706 DEN Optical Network Maintenance and NOC

MNS-S-FM-O	\$29,292.31	\$58,584.62
MNS-S-FM-E	\$50,215.38	\$100,430.76
MNS-S-FM-A	\$35,569.23	\$71,138.46
MNS-S-PROV10	\$6,015.38	\$12,030.76
Total	\$121,092.30	\$242,184.60

Optional Provisioning Block of 10 Add-on

Part Number	Yearly Price
MNS-S-PROV10	\$3,069.23

MSP Years 1-8

Part Number	Yearly Price	8 Year total Price
SE.1-2368A	\$178,533.08	\$1,428,264.64

Part Number	Yearly Price	2 Optional Year total Price
SE.1-2368A	\$178,533.08	\$357,066.16

**Maintenance Support for Years
1 to 8**

Part Number	Description	Price (1 Year)	Price (Years 1-8)
ST30006	24x7 TAC Support + Software Updates + Hardware Repair + Advance Replacement + On-site Support	\$23,424.92	\$187,399.36
0572-0002	Panorama INM ANNUAL RTU (Annual Fee Per LET)	\$769.23	\$6,153.84
DIAM10SVRSUP_YR 1-8	Oracle Premier Support for M10 Systems 8 Years	\$2,411.54	\$19,292.31
DIAORACLE10GSWSUP_YR 1-8	Oracle Premier Support for M10 Systems 8 Years	\$1,590.39	\$12,723.08
Total Years 1-8			\$225,568.59

**Optional Maintenance Support
for Years 9 and 10**

Part Number	Description	Price (1 Year)	Price (Years 9 & 10)
ST30006	24x7 TAC Support + Software Updates + Hardware Repair + Advance Replacement + On-site Support	\$23,424.92	\$46,849.84
0572-0002	Panorama INM ANNUAL RTU (Annual Fee Per LET)	\$769.23	\$1,538.46
DIAORACLE10GSWSUP_2YR-EXT	Oracle Premier Support for M10 Systems 2 Year Extension	\$2,661.54	\$5,323.08
DIAM10SVRSUP_2YR-EXT	Oracle 10G Software License, Update & Support 2 Year Extension	\$1,753.85	\$3,507.69
Total Years 9 & 10			\$57,219.07

**Exhibit A-2
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

Maintenance Fees - Years 1-8 Total	\$225,568.59
Maintenance Fees - Years 9-10 Total (optional)	\$57,219.07

Maintenance Cost Graybar
 Year 1 \$6,880.00
 Year 2 \$6,880.00
 Year 3 \$6,880.00
 Total \$20,640.00

Power Maintenance Fees:

	Years 1-8	Option Years 9-10	Total 1-10
Support	\$279,921.55	\$79,027.68	\$358,949.23

The following fees are paid monthly.

Optical Manager and Dedicated Techs Years 1-8 Total \$3,512,770.95
 Includes 3% YoY price increase

Year 1 Monthly Cost	\$32,919.46	Year 1 Yearly Cost	\$395,033.54
Year 2 Monthly Cost	\$33,907.05	Year 2 Yearly Cost	\$406,884.54
Year 3 Monthly Cost	\$34,924.26	Year 3 Yearly Cost	\$419,091.08
Year 4 Monthly Cost	\$35,971.98	Year 4 Yearly Cost	\$431,663.81
Year 5 Monthly Cost	\$37,051.14	Year 5 Yearly Cost	\$444,613.72
Year 6 Monthly Cost	\$38,162.68	Year 6 Yearly Cost	\$457,952.14
Year 7 Monthly Cost	\$39,307.56	Year 7 Yearly Cost	\$471,690.70
Year 8 Monthly Cost	\$40,486.79	Year 8 Yearly Cost	<u>\$485,841.42</u>
		8 Year Total Cost	\$3,512,770.95

Optical Manager & Dedicated Techs Years 9-10 Total (optional)

\$1,015,845.84
 Includes 3% YoY price increase

Option Year 9 Monthly Fee	\$41,701.39	Option Year 9 Yearly Cost	
\$500,416.67			
Option Year 10 Monthly Fee	\$42,952.43	Option Year 10 Yearly Cost	
<u>\$515,429.17</u>			
		Option Years Total Cost	
			\$1,015,845.84

Total Maintenance (Years 1-10) **\$8,187,247.48**

Maintenance Service Notes

- Equipment Covered by AHR: Only active equipment covered as described in attached Services Descriptions.
- All SLAs will be billed annually, in advance of service, unless otherwise agreed.
- All multi-year SLAs will have an annual review of network growth to determine any price changes resulting there from, unless otherwise agreed.
- Reinstatement fees apply for any lapse in service. Additional Right to Use (RTU) purchases and 'set up' periods may be required before service is reinstated.
- For any packages containing AHR or On Site Maintenance (OSM), send contact information for person responsible for site access to inside.sales@fnc.fujitsu.com
- Receipt of a Purchase Order by CenturyLink constitutes DEN's acceptance of the pricing and terms of this quotation.

**Exhibit A-2
STATEMENT OF WORK**

R187706 DEN Optical Network Maintenance and NOC

- This quote is intended solely for the customer identified above and valid for the period and terms specified.
- All other NE types will have a Maintenance subscription and commercially reasonable efforts on repair only.

3.2 Term and Termination

The Service Term will begin the date CenturyLink commences work and will end when Customer accepts the Project ("Service Term").

On completion of the Project, CenturyLink will notify Customer and Customer will provide formal acceptance by signing the Project Completion Form. Customer will respond within 5 business days of CenturyLink's notification or the Project will be deemed accepted. If Services performed are in non-compliance with the requirements of this SOW, Customer must notify CenturyLink within 5 business days after CenturyLink notifies Customer that work has been completed and CenturyLink will make commercially reasonable efforts to cure the alleged deficiency.

Customer understands that if this SOW is terminated by Customer for any reason other than cause, Customer will pay a termination charge equal to the total amount paid and payable under this SOW, any termination liability payable to third parties resulting from the termination, and any incurred travel expenses not invoiced prior to termination, if any.

4. CHANGE CONTROL

If during the performance of the Services CenturyLink encounters (a) any concealed or unknown conditions, (b) a Customer responsibility contained in this SOW that is not met, (c) a delay caused by circumstances beyond CenturyLink's control including but not limited to adverse weather conditions and force majeure events or (d) a delay caused by Customer, then CenturyLink may require a SOW Change Request. Either party may request changes to this SOW by submitting a written change request ("SOW Change Request") which identifies in reasonable detail a summary of the requested change, why and when the change is needed, and any modifications to the SOW and pricing. CenturyLink will evaluate SOW Change Requests by Customer. CenturyLink will prepare a SOW Change Request documenting the revisions which will become effective when the SOW Change Request is executed by the parties. In the event of any conflicts or inconsistencies, the terms of an executed SOW Change Request prevail over those of this SOW. If the parties cannot agree to the SOW Change Request, CenturyLink will not be obligated to deliver the affected Services.

Any services not identified in this SOW are out of scope and would require another SOW or a SOW Change Request to be signed between the parties.

5 LIMITATIONS OF LIABILITY

The limitation of liability provisions in the Agreement shall govern any claims arising under this Exhibit.

6 MISCELLANEOUS

While CenturyLink will use reasonable efforts to perform in accordance with this SOW, any specific results, solutions, recommendations, timelines, or similar terms in this SOW cannot be guaranteed and Customer's

Exhibit A-2
STATEMENT OF WORK

R187706 DEN Optical Network Maintenance and NOC

payment is not contingent on CenturyLink's performance. Customer's sole remedy for Service performance claims or dissatisfaction with Services or a CenturyLink Resource is to terminate this SOW. Customer consents to CenturyLink's and its affiliates or subcontractors' use and transfer to the United States or other countries data or information (including Customer contact information such as names, phone numbers, addresses and/or email addresses) of the Customer for the sole purpose of fulfilling its obligations under the Agreement and providing information to Customer about CenturyLink's products and services.

**CENTURYLINK COMMUNICATIONS, LLC d/b/a
LUMEN TECHNOLOGIES GROUP**

DENVER INTERNATIONAL AIRPORT - CO

Authorized Signature

Authorized Signature

Name Typed or Printed

Name Typed or Printed

Title

Title

Exhibit A-2
STATEMENT OF WORK

APPENDIX 1 – PROJECT COMPLETION FORM

Please sign below to confirm your acceptance that CenturyLink has completed the Project in accordance with this SOW.

COMPLETION DATE: XX/XX/XXXX

Acknowledged & Agreed:

DENVER INTERNATIONAL AIRPORT - CO

Authorized Signature

Name Typed or Printed

Title

Date

Exhibit A-3 COST PROPOSAL, RATES, AND CHARGES

The following table outlines the pricing for the Service and Deliverables for the Optical Network Replacement for years 1 to 8 and option years 9 and 10 as outlined in Exhibit A-1 R187706 DEN Optical Network Replacement Implementation and Exhibit A-2 R187706 DEN Optical Network Maintenance and NOC SOW's. Pricing is based on all Assumptions and Roles/Responsibilities as defined in each SOW. It is however understood that changes have occurred over the last couple years and the site surveys will drive revisions to materials and implementation quantities. These changes will be processed using the documented change process

Pricing does not include taxes, fees, and surcharges. Customer will be responsible for paying such taxes, fees, and surcharges as applicable to the services being provided under the contract between the parties, including but not limited to USF, property surcharge, cost recovery fee, administrative expense fee, and such taxes, fees, and surcharges are subject to change over the duration of the contract between the parties. For additional details on taxes and surcharges that are assessed, visit www.lumen.com/taxes.

Based on the current set of services included within this Exhibit, which include CPE and professional services provided in Colorado, we do not anticipate any sales tax or other taxes, fees or surcharges to be assessed at this time based on current Colorado tax laws and the customer's sales tax exemption status. That is, however, subject to change over the duration of the contract. All other applicable taxes, fees and surcharges as noted above may however apply to any other services purchased under this agreement now or in the future.

Years 1 – 10 Summary

All maintenance and NOC are billed annually. Optical Manager & Techs are billed monthly. Additional charges may apply if Lumen are required to perform any additional tasks or deliver Services not defined in the SOW. Any such costs will be managed through a mutually agreed upon Change Order.

**Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES**

Year 1	Product	\$3,204,173.33	Year 2	Maintenance	\$245,993.77
	Shipping	\$26,414.29		NOC	\$121,092.30
	Implementation Labor	\$2,693,552.43		Optical Manager & Techs	\$406,884.54
	Maintenance	\$245,070.69		Year 2 Total	\$773,970.61
	NOC	\$121,092.30			
	Optical Manager & Techs	\$395,033.54			
	Year 1 Total	\$6,685,336.58			
Year 3	Maintenance	\$246,953.77	Year 4	Maintenance	\$241,150.69
	NOC	\$121,092.30		NOC	\$121,092.30
	Optical Manager & Techs	\$419,091.08		Optical Manager & Techs	\$431,663.81
	Year 3 Total	\$787,137.15		Year 4 Total	\$793,906.80
Year 5	Maintenance	\$242,113.77	Year 6	Maintenance	\$243,229.15
	NOC	\$121,092.30		NOC	\$121,092.30
	Optical Manager & Techs	\$444,613.72		Optical Manager & Techs	\$457,952.14
	Year 5 Total	\$807,819.79		Year 6 Total	\$822,273.59
Year 7	Maintenance	\$244,306.07	Year 8	Maintenance	\$245,576.87
	NOC	\$121,092.30		NOC	\$121,092.30
	Optical Manager & Techs	\$471,690.70		Optical Manager & Techs	\$485,841.42
	Year 7 Total	\$837,089.07		Year 8 Total	\$852,510.59
Years 1-8 Total including shipping		\$12,360,044.18			
Option Year 9	Maintenance	\$246,656.46	Option Year 10	Maintenance	\$246,656.45
	NOC	\$121,092.30		NOC	\$121,092.30
	Optical Manager & Techs	\$500,416.67		Optical Manager & Techs	\$515,429.17
	Option Year 9 Total	\$868,165.43		Option Year 10 Total	\$883,177.92
Option Years 9&10 Total		\$1,751,343.35			
Grand Total Years 1-10		\$14,111,387.53			

Lumen will submit invoice to DEN in accordance with the following milestone-based payment schedule. Phase 1 payment will be invoiced upon contract signature and subsequent phases will be invoiced at the completion of each phase.

The below milestone tables are broken out by Product and Professional Services LABOR and Maintenance Support and NOC.

DESCRIPTION – Product, PROFESSIONAL SERVICES LABOR	COST
PHASE 1 – Preparation & Design and Site Readiness	\$1,222,331.75
PHASE 2 – Power Plant, STAGING, Rack & Stack, and CONFIGURATION	\$3,539,423.65
PHASE 3 – Migration and Managed Services	\$1,024,336.32
PHASE 4 – Equipment Removal, Documentation and Knowledge Transfer	\$138,048.33

TOTAL Labor/Implementation: \$5,924,140.05

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

The following Maintenance Support and NOC milestone payment does not include Lumen Operation Manager and Techs.

DESCRIPTION – Maintenance Support and NOC	COST
PHASE 1 – Preparation & Design and Site Readiness – Billed Monthly/Annually	\$38,341.54
PHASE 2 – Power Plant, STAGING, Rack & Stack, and CONFIGURATION	\$0
PHASE 3 – Migration and Managed Services – Billed Annually	\$327,821.45
PHASE 4 – Equipment Removal, Documentation and Knowledge Transfer	\$0

TOTAL Maintenance and NOC Services: \$366,162.99

Each phase consists of the following services:

Phase 1 Preparation & Design and Site Readiness

- Program Manager
- Site Survey and Network Discovery
- Change Management Process – SOW's and BOMs
- Adjustment to timeline and agreement if required
- Equipment relocation
- Customer Racks Installed
- Oscilloquartz BITS Clock installed
- Fiber Characterization
- Engineering Design and Engineering Design Package
- Phase 1 equipment ordered (Power Plant and Tellabs)
- Equipment Inventory control and warehouse

Phase 2 Power Plant, Staging & Configuration

- Program Manager
- Power Plant delivery to DEN
- Power Plant Install
- Phase 2 equipment ordered (Fujitsu)
- Equipment inventory and delivery to DEN
- Hardware Installation

Phase 3 Migration and Managed Services

- Program Manager
- Network Analysis
- Equipment Test and Turnup acceptance
- Migration of live traffic, old network to new
- Managed NOC Services Begin as migration occurs
- Maintenance Service Started

Phase 4 Documentation and Knowledge Transfer

- Program Manager
- Equipment Removal
- Documentation, drawings, rack layouts, photos, etc.
- Transfer of knowledge
- On-boarding Review
- Customer sign off

Maintenance support for Lumen Optical Manager and Technicians are invoiced monthly, executed upon contract signature using the following table for the first year.

Month 1	\$32,919.46
Month 2	\$32,919.46
Month 3	\$32,919.46
Month 4	\$32,919.46
Month 5	\$32,919.46

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Month 6	\$32,919.46
Month 7	\$32,919.46
Month 8	\$32,919.46
Month 9	\$32,919.46
Month 10	\$32,919.46
Month 11	\$32,919.46
Month 12	\$32,919.46
Year 1 Total	\$395,033.54

The following optional services are available and will require a separate task order as they are not included in 10-year pricing.

Optional Provisioning Block of 10 Add-on

Part Number

MNS-S-PROV10

Yearly Price

\$3,069.23

Technical Labor rates

On-Site Communication Technician hourly labor rate

Initial year

% annual increase

Electrician (A/C-D/C power plant) hourly labor rate

110.36	3%
135.71	1%

Taxes

Based on the current BOM no taxes have been

DEN Optical Network Replacement BOM Years 1-8

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
LOCATION: Main Site							
Materials Fujitsu							
PLL1003B11R19101A	L110 - Optical Mux base unit (2 PIU slots). Includes 3B11 blade w/r19.1.1 PL	\$ 11,000.00	85.74	\$1,568.80	12	\$18,825.60	
FC95453PS2	L110 - SPL2: Pluggable 4x16 Splitter/Coupler. Up to 4D support, one per every 16 ch.	\$ 33,000.00	83.89	\$5,314.88	24	\$127,557.12	
PLL1003R11R19101B	L100 - Dual 1x9 ROB (-48V). One per degree. Includes 3R11 blade w/R19.1.1 PL	\$107,000.00	83.77	\$17,368.89	24	\$416,853.36	
RTUL1XXAR1911	L1XX Soft Lic Release 19.1.1 1/blade	\$ 10,000.00	94.06	\$593.90	36	\$21,380.40	
RTUL1XXLAM-FJTS-B	L110 - Lambda, 1 per drop port, Software Key	\$1,500.00	81.32	\$280.14	46	\$12,886.44	
FC9581B61F	1FINITY SFP - 1GE CWDM OSC Long Haul, 1511nm	\$1,700.00	80.23	\$336.17	24	\$8,068.08	
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m	\$400.00	71.99	\$112.05	84	\$9,412.20	
FC9549F011	1FINITY FAN Module (used with T200, S1xx, L1xx)	\$600.00	53.31	\$280.14	72	\$20,170.08	
FC9549SD11	1FINITY Standalone Accessory - Power Terminal Adapter for Standalone Blade	\$900.00	89.67	\$93.01	36	\$3,348.36	
FC9549SR31	1FINITY Standalone Accessory - Mount Rail for Standalone Blade, 23inch 2-post rack	\$1,300.00	79.23	\$270.05	36	\$9,721.80	
PC660-0105-T043	1FNITY BLADE PWR, 12AWG, 1HL, #8, 90DE G, 10FT	\$82.00	33.04	\$54.91	36	\$1,976.76	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	\$286.00	60.82	\$112.05	12	\$1,344.60	
PC660-0105-T043	1FNITY BLADE PWR, 12AWG, 1HL, #8, 90DE G, 10FT	\$82.00	33.04	\$54.91	36	\$1,976.76	
PLS100F04101B	S100 - 1.2Tbps telco class switch (-48V, 1RU, 4-slot blade) Pre-loaded w/ V4.1.1	\$ 50,000.00	82.07	\$8,963.47	47	\$421,283.09	
FC9543PAC2	S100 - 12 x 10G SFP+/1G SFP Wideband PIU	\$8,750.00	81.43	\$1,624.84	120	\$194,980.80	
FC9543PF11	S100 - 100G Coherent NBO x 1 PIU	\$ 33,500.00	81.27	\$6,275.22	42	\$263,559.24	
FC9543PD31	S100 - 3x100G QSFP28 Wideband PIU	\$ 31,000.00	80.12	\$6,163.15	8	\$49,305.20	
FC9543AP11	S100 - Filler panel	\$350.00	82.71	\$60.51	18	\$1,089.18	
RTUS100-16QAM-B	S100 16QAM, CFP2 NBO ports, SKY	\$ 15,000.00	99.99	\$1.12	42	\$ 47.04	
RTUS100AR0401	S100 Soft Lic Release 4.1, 1/blade	\$ 15,000.00	96.04	\$593.90	47	\$27,913.30	
RTUS100PORQS F28-B	S100 Port Activation QSFP28 =>2nd port, SKY	\$500.00	77.59	\$112.05	8	\$896.40	
RTUS100PORTS FPP-B	S100 Port Activation SFP+, =>2nd port, SKY	\$300.00	81.32	\$56.03	790	\$44,263.70	
FC9549F011	1FINITY FAN Module (used with T200, S1xx, L1xx)	\$600.00	53.31	\$280.14	141	\$39,499.74	
FC9549SD11	1FINITY Standalone Accessory - Power Terminal Adapter for Standalone Blade	\$900.00	89.67	\$93.01	47	\$4,371.47	
FC9549SR31	1FINITY Standalone Accessory - Mount Rail for Standalone Blade, 23inch 2-post rack	\$1,300.00	79.23	\$270.05	47	\$12,692.35	
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	\$286.00	60.82	\$112.05	47	\$5,266.35	
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - LCN	\$400.00	71.99	\$112.05	94	\$10,532.70	
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - Client	\$400.00	71.99	\$112.05	47	\$5,266.35	
FC95815000	1FINITY SFP - 1000BASE-SX, MMF, 300m-550m	\$100.00	55.17	\$44.83	131	\$5,872.73	
FC95815200	1FINITY SFP - 1000BASE-LX, 1310nm, 10km	\$150.00	55.17	\$67.24	472	\$31,737.28	
FC9582A131	1FINITY SFP+ - 10GBASE-SR/SW, MMF, 33m-82m	\$150.00	40.24	\$89.64	260	\$23,306.40	
FC95865AC3	1FINITY CFP2-ACO - 100G/200G, 50km-80km	\$ 45,000.00	80.70	\$8,684.45	42	\$364,746.90	
FC95891330	100GBase Copper QSFP28 3m	\$300.00	58.91	\$123.26	8	\$986.08	
PC660-0105-T047	1FNITY BLADE PWR, 12AWG, 1HL, #8, 90DE G, 10FT	\$82.00	15.27	\$69.48	47	\$3,265.56	
PLT310F01405B	T310 - 200G Muxponder Base Unit Blade Pre-Loaded w/ V1.4.5	\$ 25,000.00	72.97	\$6,757.05	4	\$27,028.20	
FC9548P3A1	T3xx - 1port PIU for Green Lite + CFP2 ACO	\$ 65,000.00	79.31	\$13,446.88	4	\$53,787.52	
FC9548F3A1	T3xx - Filler panel of 1-port PIU	\$175.00	65.42	\$60.51	4	\$242.04	
RTUT310AR0104	T310 Soft Lic Release 1.4, 1/blade	\$ 10,000.00	94.06	\$593.90	4	\$2,375.60	
RTUT310PORTS FPP-B	T310 - Port Activation SFP+, =>2nd port, Software Key	\$6,000.00	97.20	\$168.09	36	\$6,051.24	
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m	\$400.00	71.99	\$112.05	8	\$896.40	
FC9582A410	1FINITY SFP+ - OC-192 SR-1 / STM-64 / 10GFC / OTU2/OTU1e/OTU2e / 10GBASE-LR/LW, 1310nm, 2km, 10km(10GBASE)	\$500.00	73.11	\$134.47	40	\$5,378.80	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
FC9549F031	1FINITY FAN Module (used with T3xx, L200)	\$600.00	53.31	\$280.14	12	\$3,361.68	
FC9549SD11	1FINITY Standalone Accessory - Power Terminal Adapter for Standalone Blade	\$900.00	89.67	\$93.01	4	\$372.04	
FC9549SR31	1FINITY Standalone Accessory - Mount Rail for Standalone Blade, 23inch 2-post rack	\$1,300.00	79.23	\$270.05	4	\$1,080.20	
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	\$286.00	60.82	\$112.05	4	\$448.20	
PC660-0105-T043	1FNITY blade pwr, 12AWG, 1HL, #8, 90degree, 10 ft.	\$82.00	33.04	\$54.91	4	\$219.64	
FC9681FLT1	FLTR, FW4100 LS/ES, REPLACEMENT FILTER	\$74.00	66.69	\$24.65	12	\$295.80	
HA15B-0001-B424	1RU Heat Baffle, 23" Rack Mount	\$117.00	41.57	\$68.36	12	\$820.32	
FC9681FAN4	Fan tray (-48 V DC only)	\$693.00	66.37	\$233.08	12	\$2,796.96	
FC9681SFE1	FLASHWAVE 4100 ES (Chassis)	\$1,350.00	66.38	\$453.84	12	\$5,446.08	
P4100ECP1R1020A	FLASHWAVE 4100ES ECP1 Preloaded with R10.2	\$6,300.00	78.12	\$1,378.30	12	\$16,539.60	
FC9681ED12	28-port DS1 network interface unit (NIU) service unit	\$1,980.00	82.85	\$339.53	32	\$10,864.96	
FC9681EL21	FW4100ES OC-12 Line Unit (SFP Based)	\$3,400.00	66.38	\$1,142.99	2	\$2,285.98	
FC9681EL4M	OC-12 /2-port OC-3 service unit, SFP base unit	\$3,000.00	66.38	\$1,008.52	20	\$20,170.40	
FC9681EL91	ES OC-192 Line unit	\$13,300.00	91.88	\$1,080.23	22	\$23,765.06	
FC9681ECD1	IOP unit— 56 DS1 services	\$200.00	66.38	\$67.24	14	\$941.36	
FC9681FLE1	Service unit slot filler panel	\$25.00	64.12	\$8.97	90	\$807.30	
HA660-0190-T002	Power Cable, FW4100ES, 15 ft long	\$100.00	55.17	\$44.83	12	\$537.96	
NS094100	NETSMART 1500 v9 FW4100LS or FW4100ES licen	\$1,300.00	91.38	\$112.05	12	\$1,344.60	
FC95700020-102	SFP, OC-3/STM-1, IR-1, 1310nm, 15km	\$250.00	55.18	\$112.05	24	\$2,689.20	
FC95700050-103	SFP, OC-12/STM-4, IR-1, 1310nm, 15km	\$500.00	55.18	\$224.12	4	\$896.48	
FC9573E410	XFP, OC-192/STM-64/10GBase-LW/10GBase-LR/OTU2, SR-1, 1310nm	\$2,415.00	93.09	\$166.97	22	\$3,673.34	
PLL1003B11R19101A	L110 - Optical Mux base unit (2 PIU slots). Includes 3B11 blade w/r19.1.1 PL	\$11,000.00	85.74	\$1,568.80	1	\$1,568.80	
FC95453PS2	L110 - SPL2: Pluggable 4x16 Splitter/Coupler. Up to 4D support, one per every 16 ch.	\$33,000.00	83.89	\$5,314.88	1	\$5,314.88	
PLL1003R11R19101B	L100 - Dual 1x9 ROB (-48V). One per degree. Includes 3R11 blade w/R19.1.1 PL	\$107,000.00	83.77	\$17,368.89	1	\$17,368.89	
FC9581B61F	1FINITY SFP - 1GE CWDM OSC Long Haul, 1511nm	\$1,700.00	80.23	\$336.17	1	\$336.17	
FC9549F011	1FINITY FAN Module (used with T200, S1xx, L1xx)	\$600.00	53.31	\$280.14	1	\$280.14	
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	\$286.00	60.82	\$112.05	1	\$112.05	
PLS100F04101B	S100 - 1.2Tbps telco class switch (-48V, 1RU, 4-slot blade) Pre-loaded w/ V4.1.1	\$50,000.00	82.07	\$8,963.47	1	\$8,963.47	
FC9543PAC2	S100 - 12 x 10G SFP+/1G SFP Wideband PIU	\$8,750.00	81.43	\$1,624.84	1	\$1,624.84	
FC9543PF11	S100 - 100G Coherent NBO x 1 PIU	\$33,500.00	81.27	\$6,275.22	1	\$6,275.22	
FC9543PD31	S100 - 3x100G QSFP28 Wideband PIU	\$31,000.00	80.12	\$6,163.15	1	\$6,163.15	
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - LCN	\$400.00	71.99	\$112.05	1	\$112.05	

**Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES**

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
FC95815000	1FINITY SFP - 1000BASE-SX, MMF, 300m-550m	\$100.00	55.17	\$44.83	1	\$ 44.83	
FC95815200	1FINITY SFP - 1000BASE-LX, 1310nm, 10km	\$150.00	55.17	\$67.24	1	\$ 67.24	
FC9582A131	1FINITY SFP+ - 10GBASE-SR/SW, MMF, 33m-82m	\$150.00	40.24	\$89.64	1	\$ 89.64	
FC95865AC3	1FINITY CFP2-ACO - 100G/200G, 50km-80km	\$ 45,000.00	80.70	\$8,684.45	1	\$8,684.45	
FC95891330	100GBase Copper QSFP28 3m	\$300.00	58.91	\$123.26	1	\$123.26	
PLT310F01405B	T310 - 200G Muxponder Base Unit Blade Pre-Loaded w/ V1.4.5	\$ 25,000.00	72.97	\$6,757.05	1	\$6,757.05	
FC9548P3A1	T3xx - 1port PIU for Green Lite + CFP2 ACO	\$ 65,000.00	79.31	\$13,446.88	1	\$13,446.88	
FC9582A410	1FINITY SFP+ - OC-192 SR-1 / STM-64 / 10GFC / OTU2/OTU1e/OTU2e / 10GBASE-LR/LW, 1310nm, 2km, 10km(10GBASE)	\$500.00	73.11	\$134.47	1	\$134.47	
FC9549F031	1FINITY FAN Module (used with T3xx, L200)	\$600.00	53.31	\$280.14	1	\$280.14	
FC9681FAN4	Fan tray (-48 V DC only)	\$693.00	66.37	\$233.08	1	\$233.08	
P4100ECP1R1020A	FLASHWAVE 4100ES ECP1 Preloaded with R10.2	\$6,300.00	78.12	\$1,378.30	1	\$1,378.30	
FC9681ED12	28-port DS1 network interface unit (NIU) service unit	\$1,980.00	82.85	\$339.53	1	\$339.53	
FC9681EL21	FW4100ES OC-12 Line Unit (SFP Based)	\$3,400.00	66.38	\$1,142.99	1	\$1,142.99	
FC9681EL4M	OC-12 /2-port OC-3 service unit, SFP base unit	\$3,000.00	66.38	\$1,008.52	1	\$1,008.52	
FC9681EL91	ES OC-192 Line unit	\$ 13,300.00	91.88	\$1,080.23	1	\$1,080.23	
FC95700020-I02	SFP, OC-3/STM-1, IR-1, 1310nm, 15km	\$250.00	55.18	\$112.05	1	\$112.05	
FC9573E410	XFP, OC-192/STM-64/10GBase-LW/10GBase-LR/OTU2, SR-1, 1310nm	\$2,415.00	93.09	\$166.97	1	\$166.97	
FC9543PAC2	S100 - 12 x 10G SFP+/1G SFP Wideband PIU	\$8,750.00	81.43	\$1,624.84	8	\$12,998.72	
RTUS100PORTS FPP-B	S100 Port Activation SFP+, =>2nd port,SKY	\$300.00	81.32	\$56.03	70	\$3,922.10	
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - Client	\$400.00	71.99	\$112.05	6	\$672.30	
FC95815000	1FINITY SFP - 1000BASE-SX, MMF, 300m-550m	\$100.00	55.17	\$44.83	14	\$627.62	
FC95815200	1FINITY SFP - 1000BASE-LX, 1310nm, 10km	\$150.00	55.17	\$67.24	50	\$3,362.00	
FC9582A131	1FINITY SFP+ - 10GBASE-SR/SW, MMF, 33m-82m	\$150.00	40.24	\$89.64	24	\$2,151.36	
RTUT310PORTS FPP-B	T310 - Port Activation SFP+, =>2nd port, Software Key	\$6,000.00	97.20	\$168.09	10	\$1,680.90	
FC9582A410	1FINITY SFP+ - OC-192 SR-1 / STM-64 / 10GFC / OTU2/OTU1e/OTU2e / 10GBASE-LR/LW, 1310nm, 2km, 10km(10GBASE)	\$500.00	73.11	\$134.47	10	\$1,344.70	
FC9681ED12	28-port DS1 network interface unit (NIU) service unit	\$1,980.00	82.85	\$339.53	4	\$1,358.12	
FC9681EL4M	OC-12 /2-port OC-3 service unit, SFP base unit	\$3,000.00	66.38	\$1,008.52	2	\$2,017.04	
FC95700020-I02	SFP, OC-3/STM-1, IR-1, 1310nm, 15km	\$250.00	55.18	\$112.05	2	\$224.10	
PC15L-0001-C090#01	5/5 Fuse Panel, 15AGMT	\$1,038.00	55.20	\$465.04	11	\$5,115.44	
06-460-636	FUSE PNL, GMT, 20A, 10/10, 19-23IN, WHITE	\$1,505.00	55.18	\$674.59	14	\$9,444.26	
46-049-225	FUSE, GMT, 20.0 AMP, RED/BLU	\$3.00	55.00	\$1.35	104	\$140.45	
TA49006-2009B8	FUSE, GMT, 15.0 AMP, RED/BLU	\$3.00	62.67	\$1.12	97.92	\$109.67	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
21-371-025	CA ASSY,28PR,24AWG,SHLD, 64P M180/STUB	\$178.00	55.30	\$79.57	36	\$2,864.52	
21-658-050	Primary External Output Clock cable, RJ-45 connector	\$163.00	55.31	\$72.84	1	\$ 72.84	
21-659-050	Secondary external output clock cable, RJ-45 connector	\$93.00	55.42	\$41.46	1	\$ 41.46	
21-094-003	Ethernet Cable, blue, CAT5e, 3 feet long, straight wiring. Connectorized RJ45 to RJ45.	\$30.00	51.43	\$14.57	93	\$1,355.01	
21-094-020	Ethernet Cable, blue, CAT5e, 20 feet long, straight wiring. Connectorized RJ45 to RJ45.	\$45.00	55.18	\$20.17	47	\$947.99	
27-2M002MM-002	Fiber Jumper, 2-Fiber, Orange Multi-Mode, Dual LC PC to LC PC, 62.5/125µm, Riser Rated, 2.0mm Zipcord. Length: 2 Meter.	\$133.00	55.35	\$59.39	174	\$10,333.86	
27-2M002MM-010	Fiber Jumper, 2-Fiber, Orange Multi-Mode, Dual LC PC to LC PC, 62.5/125µm, Riser Rated, 2.0mm Zipcord. Length: 10 Meter.	\$153.00	55.32	\$68.36	48	\$3,281.28	
27-200DZ1.6-0.60	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX. 0.6 meters	\$170.00	55.18	\$76.20	74	\$5,638.80	
27-200DZ1.6-001	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX, 1 meter	\$175.00	55.18	\$78.43	46	\$3,607.78	
27-200DZ1.6-010	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX. 10 meters	\$203.00	55.29	\$90.77	516	\$46,837.32	
27-200DZ1.6-020	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX, 20 meters	\$218.00	55.28	\$97.49	46	\$4,484.54	
EFI	Removal of Equipment, 0 cost to DIA and without credit	\$ 10,711.00	100.00	\$-	1	\$-	
Fujitsu Materials Total						\$2,567,363.85	
Materials Tellabs							
0210-0138	DMAX1120 WIRE WRAP - NO CABLE STUBS	\$1,200.00	16.85	\$997.75	1	\$997.75	
0210-0139	DMAX1120 CONNECTORIZED CONTINUOUS	\$1,200.00	16.85	\$997.75	18	\$17,959.50	
0310-1867	FAN TRAY 1U INSTALLATION KIT	\$350.00	28.73	\$249.44	19	\$4,739.36	
0215-0007	DMAX/FAN PROJECTION MOUNT ADAPTOR KIT - 23 BY 5	\$40.00	16.85	\$33.26	19	\$631.94	
0410-0445	CBA CABLE A/B POWER W/ GROUND WIRE	\$30.00	25.10	\$22.47	19	\$426.93	
0410-0295	48V POWER CABLE W/MOLEX	\$15.00	16.87	\$12.47	38	\$473.86	
0410-0052	METALLIC TEST UNIT INTERFACE CABLE 26IN	\$40.00	16.85	\$33.26	13	\$432.38	
0410-0244	BROADBAND EXPANSION BANK FIBERS (2M PAIR)	\$50.00	16.86	\$41.57	24	\$997.68	
0101-0065	CPU-3 BROADBAND CENTRAL PROCESSING UNIT	\$1,750.00	48.64	\$898.88	14	\$12,584.32	
0101-0082	REMOTE SUBSCRIBER POWER SUPPLY UNIT	\$565.00	16.85	\$469.78	38	\$17,851.64	
0101-0043	INTERNET PROTOCOL INTERFACE FOR IN-BAND MANAGEMENT	\$1,800.00	55.06	\$808.99	1	\$808.99	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
0101-0083	EXTERNAL TIMING INTERFACE	\$950.00	16.85	\$789.89	2	\$1,579.78	
0101-0045	BROADBAND EXPANSION LINK UNIT	\$995.00	52.01	\$477.53	24	\$11,460.72	
0101-0069	EXPANSION BANK CONTROL 3	\$995.00	52.01	\$477.53	24	\$11,460.72	
0120-0153	OC3 FIBER OPTIC TRANSCEIVER w/STS PAYLOAD (SC)	\$2,500.00	48.31	\$1,292.13	24	\$31,011.12	
0110-0150	LET POTS CHANNEL UNIT	\$410.00	16.85	\$340.90	35	\$11,931.50	
0110-0098	L-ISDN (2)	\$1,500.00	56.93	\$646.07	1	\$646.07	
0110-0095	LET UNIVERSAL VOICE GRADE CHANNEL UNIT	\$720.00	16.85	\$598.65	2	\$1,197.30	
0110-0139	DIGITAL SIGNAL ZERO DATA PORT	\$700.00	16.85	\$582.02	10	\$5,820.20	
0110-0236	SPECIAL SERVICES 2W/4W (FX, DID, ETO, PLAR)	\$800.00	13.48	\$692.13	126	\$87,208.38	
0110-0147	TO	\$780.00	16.85	\$648.54	44	\$28,535.76	
0110-0069	OCU-DP	\$750.00	16.85	\$623.60	10	\$6,236.00	
0110-0148	RST POTS CHANNEL UNIT	\$585.00	48.31	\$302.36	35	\$10,582.60	
0110-0246	R-ISDN (2)	\$1,700.00	62.00	\$646.07	1	\$646.07	
0110-0222	RST UNIVERSAL VOICE GRADE CHANNEL UNIT	\$835.00	16.85	\$694.27	1	\$694.27	
0410-0244	BROADBAND EXPANSION BANK FIBERS (2M PAIR)	\$50.00	16.86	\$41.57	2	\$83.14	
0101-0065	CPU-3 BROADBAND CENTRAL PROCESSING UNIT	\$1,750.00	48.64	\$898.88	2	\$1,797.76	
0101-0082	REMOTE SUBSCRIBER POWER SUPPLY UNIT	\$565.00	16.85	\$469.78	2	\$939.56	
0101-0045	BROADBAND EXPANSION LINK UNIT	\$995.00	52.01	\$477.53	2	\$955.06	
0101-0069	EXPANSION BANK CONTROL 3	\$995.00	52.01	\$477.53	2	\$955.06	
0101-0043	INTERNET PROTOCOL INTERFACE FOR IN-BAND MANAGEMENT	\$1,800.00	55.06	\$808.99	2	\$1,617.98	
0101-0083	EXTERNAL TIMING INTERFACE	\$950.00	16.85	\$789.89	2	\$1,579.78	
0120-0153	OC3 FIBER OPTIC TRANSCEIVER w/STS PAYLOAD (SC)	\$2,500.00	48.31	\$1,292.13	2	\$2,584.26	
0110-0098	L-ISDN (2)	\$1,500.00	56.93	\$646.07	2	\$1,292.14	
0110-0236	SPECIAL SERVICES 2W/4W (FX, DID, ETO, PLAR)	\$800.00	13.48	\$692.13	16	\$11,074.08	
0110-0139	DIGITAL SIGNAL ZERO DATA PORT	\$700.00	16.85	\$582.02	2	\$1,164.04	
0110-0095	LET UNIVERSAL VOICE GRADE CHANNEL UNIT	\$720.00	16.85	\$598.65	2	\$1,197.30	
0110-0147	TO	\$780.00	16.85	\$648.54	5	\$3,242.70	
0110-0150	LET POTS CHANNEL UNIT	\$410.00	16.85	\$340.90	6	\$2,045.40	
0110-0069	OCU-DP	\$750.00	16.85	\$623.60	2	\$1,247.20	
0110-0148	RST POTS CHANNEL UNIT	\$585.00	48.31	\$302.36	6	\$1,814.16	
0110-0246	R-ISDN (2)	\$1,700.00	62.00	\$646.07	2	\$1,292.14	
0110-0222	RST UNIVERSAL VOICE GRADE CHANNEL UNIT	\$835.00	16.85	\$694.27	2	\$1,388.54	
81.SC11PINMFP10	TELLABS PANORAMA INM FP10.0 (Per Server)	\$6,250.00	10.11	\$5,617.98	1	\$5,617.98	
DIAM10SVR	Fujitsu M10-1 server: base with 1 deactivated SPARC64 X+ 16-core 3.2 GHz processor; Sun - DDR3 - 32 GB : 4 x 8 GB - DIMM 240-pin - 1600 MHz / PC3-12800; Fujitsu - Hard drive - 600 GB - internal - 2.5 - SAS 6Gb/s - 10000 rpm; Solaris - W/ Oracle VM Server for SPARC - license; Oracle - Power cable - NEMA 5-15P (M) - IEC 320	\$ 15,125.00	10.11	\$13,595.51	1	\$13,595.51	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
	EN 60320 C13 - 3.3 ft; Fujitsu - License (activation) - 2 CPU cores						
DIAORACLE10G SWLIC	Oracle Database Standard Edition 2 (Named User Plus; Perpetual)	\$5,475.00	10.11	\$4,921.35	1	\$4,921.35	
ST40003	Tellabs 1000 MSAP Provisioning Maintenance for DLC Voice Services	\$7,728.00	19.74	\$6,202.25	1	\$6,202.25	
ST40002	Training On-Site Mobilization	\$2,250.00	25.09	\$1,685.39	1	\$1,685.39	
ST40001	Training Lab Connect	\$1,000.00	43.82	\$561.80	1	\$561.80	
0550-0114	TELLABS 1000 FEATURE PACKAGE 10.0 AUP SOFTWARE CD	\$-		\$-	1	\$-	
0571-0012	Panorama INM 1000 RTU (One Time Fee Per LET)	\$3,125.00	10.11	\$2,808.99	1	\$2,808.99	
Tellabs Materials Total						\$338,578.41	
Materials PPS							
LOCATION: MT51C14							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATMT51C14	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: A1C07							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATA1C07	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Materials Brandywine Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: B1C07							

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATB1C07	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: B7E02							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATB7E02	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: C1C07							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATC1C07	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							

**Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES**

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: NHUT							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATNHUT	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: SHUT							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATSHUT	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: ANTFarm1							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATANTFarm1	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: SDC							
Materials							
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	\$8,790.00	21.55	\$6,895.57	1	\$6,895.57	
1R482000E3	eSure 2000wE3 rectifier	\$679.00	21.72	\$531.53	4	\$2,126.12	
101603	30 AMP Bullet Breakers	\$42.00	23.02	\$32.33	4	\$129.32	
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
SBS170F48V	Energys SBS 12V170F 48v battery systems	\$2,800.00	21.56	\$2,196.32	3	\$6,588.96	
990.002.TA2121H D	24" battery trays w/disconnect	\$335.71	21.56	\$263.33	3	\$789.99	
MATSDC	Ancillary Equipment	\$6,302.88	21.56	\$4,943.99	1	\$4,943.99	
Implementation							
Q-SUB-LABOR	Integration			\$15,430.29	1	\$15,430.29	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$1,620.00	1	\$1,620.00	
Location Sub-Total						\$40,317.18	
LOCATION: 45A01 - POI							
Materials							
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
MAT45A01-POI	Ancillary Equipment	\$9,720.00	21.56	\$7,624.38	1	\$7,624.38	
Implementation							
Q-SUB-LABOR	Integration			\$10,385.71	1	\$10,385.71	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$405.00	1	\$405.00	
Location Sub-Total						\$20,208.03	
LOCATION: MT51D14							
Materials							
516839	150 AMP Bullet Breakers w/kits	\$285.71	21.56	\$224.12	4	\$896.48	
NPTPA1105	Westell fuse and alarm panel	\$1,142.86	21.56	\$896.46	1	\$896.46	
MAT45A01-POI	Ancillary Equipment	\$4,320.00	21.56	\$3,388.62	1	\$3,388.62	
Implementation							
Q-SUB-LABOR	Integration			\$6,285.71	1	\$6,285.71	
Shipping and Handling							
Shipping & Handling	Shipping & Handling			\$351.00	1	\$351.00	
Location Sub-Total						\$11,818.27	
Materials Brandywine							
A014152	6RU / 19 SUBRACK four OSA 5548C			\$4,032.30	1	\$4,032.30	
A014015	INPUT CARD - INC 4 INPUTS / Card			\$938.84	2	\$1,877.68	
A013973	TRACKING HOLDOVER CARD - THC - S2			\$3,585.48	2	\$7,170.96	
A014067	SIGNAL GENERATOR CARD SGC			\$1,139.18	2	\$2,278.36	
A014164	MGMT CARD MAC V2 FOR SNMP MGMT			\$2,293.26	1	\$2,293.26	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
A014601	OUTPUT CARD - OUC, 20 OUTPUTS			\$633.48	4	\$2,533.92	
A014289	20x DS1 OUTPUT TILE w/ DUAL 20 PIN			\$405.48	2	\$810.96	
A014153	BLANK PNL (INC,GPS,SGC,EGC,OUC, MAC)			\$13.00	20	\$260.00	
A014155	BLANK PANEL / TILE 12 TE			\$13.52	8	\$108.16	
A014539	23 MOUNTING EXT KIT 5548C			\$194.43	1	\$194.43	
A014655	FIRE ARRESTOR COVER SET FOR 5548C			\$150.39	1	\$150.39	
002206331	CABLE ASSY TSG/ DEPORTED PNL INTER			\$79.40	8	\$635.20	
A012740	CABLE RS- 232, 3, meters			\$18.84	1	\$ 18.84	
A014164	MGMT CARD MAC V2 FOR SNMP MGMT			\$2,293.26	1	\$2,293.26	
						Brandywine Materials Total	
						\$24,657.72	
Materials Graybar							
26029260	2GHZ DSX QUAD OLTS INSPC V2 W/WIFI			\$23,949.12	2	\$47,898.24	
25688067	DSX-COAX			\$837.11	2	\$1,674.22	
						Graybar Materials Total	
						\$49,572.46	
Support Fujitsu							
SE.1-2368A	Years 1-8 [24x7 TAC Support + Software Updates + Hardware Repair + Advance Replacement + On-site Support			\$178,533.08	8	\$1,428,264.64	96
MNS-S-FM-O	Years 1-8 NOC: Fault Management for Optical: L100 (12), T310 (4), FW4100ES (12)			\$29,292.31	8	\$234,338.48	96
MNS-S-FM-E	Years 1-8 NOC: Fault Management for Ethernet: S100 (48)			\$50,215.38	8	\$401,723.04	96
MNS-S-FM-A	Years 1-8 NOC: Fault Management for Access: Tellabs T1000 (12), Vertiv Netsure (20), Oscilloquarts BitClocks (2)			\$35,569.23	8	\$284,553.84	96
MNS-S-PROV10	Remote Provisioning, One Block of 10 Move, Add, Changes (MAC's)			\$6,015.38	8	\$48,123.04	96
						Fujitsu Support Years 1 to 8 Total	
						\$2,397,003.04	
Tellabs							
0572-0002	Panorama INM ANNUAL RTU (Annual Fee Per LET) Years 1-8			\$769.23	8	\$6,153.84	96
DIAM10SVRSUP_YR 1-8	Oracle Premier Support for M10 Systems 8 Years			\$19,292.31	1	\$19,292.31	96
DIAORACLE10G SWSUP_YR 1-8	Oracle 10G Software License, Update & Support 8 Years			\$12,723.08	1	\$12,723.08	96
ST30006	24x7 TAC Support + Software Updates + Hardware Repair + Advance Replacement + On-site Support Years 1-8			\$23,424.92	8	\$187,399.36	96
						Tellabs Support Years 1 to 8 Total	
						\$225,568.59	
PPS							
Q-PPS-Year1	Maintenance Year 1			\$31,461.54	1	\$31,461.54	12
Q-PPS-Year2	Maintenance Year 2			\$32,384.62	1	\$32,384.62	12
Q-PPS-Year3	Maintenance Year 3			\$33,344.62	1	\$33,344.62	12
Q-PPS-Year4	Maintenance Year 4			\$34,421.54	1	\$34,421.54	12
Q-PPS-Year5	Maintenance Year 5			\$35,384.62	1	\$35,384.62	12
Q-PPS-Year6	Maintenance Year 6			\$36,500.00	1	\$36,500.00	12
Q-PPS-Year7	Maintenance Year 7			\$37,576.92	1	\$37,576.92	12
Q-PPS-Year8	Maintenance Year 8			\$38,847.69	1	\$38,847.69	12
						PPS Support Years 1 to 8 Total	
						\$279,921.55	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
Graybar							
25866822	GLD3-DSX-8000QI			\$10,320.00	2	\$20,640.00	36
				Graybar Support Years 1 to 3 Total		\$20,640.00	
Implementation							
Fujitsu							
Q-SUB-LABOR	Site Surveys, Engineering, Turn-up and Test for FNC + Installation Supv			\$542,426.67	1	\$542,426.67	
Q-SUB-LABOR	Installation Services incl DSX and Consumable Materials			\$181,733.26	1	\$181,733.26	
Q-SUB-LABOR	Remove and Disposal DS0 Equipment - Tellabs			\$71,191.93	1	\$71,191.93	
Q-SUB-LABOR	Fiber Prequal for Fibers for FW4100ES and ROADM L100			\$28,410.53	1	\$28,410.53	
Q-SUB-LABOR	Engineering Design Package (EDP) & Network As-Built Package Defined in RFP			\$59,216.80	1	\$59,216.80	
Q-SUB-LABOR	Migration of T1 & 1GigE Network from Existing to New Network			\$541,764.34	1	\$541,764.34	
				Fujitsu Labor Total		\$1,424,743.53	
Tellabs							
Q-SUB-LABOR	Deployment Services, Engineering, Installation and Materials, Card Insertion, Turn-up, Testing and Cutover, and Panorma INM Installation			\$349,331.25	1	\$349,331.25	
				Tellabs Labor Total		\$349,331.25	
PPS							
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - MT51C14			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - A1C07			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - B1C07			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - B7E02			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - C1C07			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - NHUT			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - SHUT			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - ANTFarm1			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - SDC			\$15,430.29	1	\$15,430.29	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - 45A01 - POI			\$10,385.71	1	\$10,385.71	
Q-SUB-LABOR	Install power plant, run DC cables, Test, Turn-up and Migration - MT51D14			\$6,285.71	1	\$6,285.71	
				PPS Labor Total		\$155,544.03	
Servitech							
Q-SUB-LABOR	Inventory Control, Installation services of Fujitsu, Tellabs and PPS, power for Infrastructure-2 30a 2 pole circuits per location, and warehouse,			\$490,436.43	1	\$490,436.43	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	List Price	Disc. %	Unit Price	Qty	Total Price	Contract Term (Months)
	insurance and handling delivery						
				Servitech Labor Total		\$490,436.43	
CenturyLink							
QINTR-OTHER	CTL Program Management			\$267,425.60	1	\$267,425.60	
QINTR-OTHER	SONET MGR and TECS Labor Year 1			\$395,033.54	1	\$395,033.54	
QINTR-OTHER	SONET MGR and TECS Labor Year 2			\$406,884.54	1	\$406,884.54	
QINTR-OTHER	SONET MGR and TECS Labor Year 3			\$419,091.08	1	\$419,091.08	
QINTR-OTHER	SONET MGR and TECS Labor Year 4			\$431,663.81	1	\$431,663.81	
QINTR-OTHER	SONET MGR and TECS Labor Year 5			\$444,613.72	1	\$444,613.72	
QINTR-OTHER	SONET MGR and TECS Labor Year 6			\$457,952.14	1	\$457,952.14	
QINTR-OTHER	SONET MGR and TECS Labor Year 7			\$471,690.70	1	\$471,690.70	
QINTR-OTHER	SONET MGR and TECS Labor Year 8			\$485,841.42	1	\$485,841.42	
QINTR-OTHER	CTL install, test and turn-up new OSA BITS clock in TR-B			\$6,071.59	1	\$6,071.59	
				CenturyLink Labor Total		\$3,786,268.14	
Shipping and Handling							
Fujitsu Shipping & Handling	Shipping & Handling			\$8,000.00	1	\$8,000.00	
Tellabs Shipping & Handling	Shipping & Handling			\$1,096.30	1	\$1,096.30	
PPS Shipping & Handling	Shipping & Handling			\$15,336.00	1	\$15,336.00	
Brandywine Shipping & Handling	Shipping & Handling			\$658.41	1	\$658.41	
Graybar Shipping & Handling	Shipping & Handling			\$1,323.58	1	\$1,323.58	
				Materials Total		\$3,204,173.33	
				Support Services Total		\$2,923,133.18	
				Implementation Total		\$6,206,323.38	
				Shipping and Handling Total		\$26,414.29	
				Grand Total Price to Customer Minus Shipping		\$12,333,629.89	
				Grand Total Price to Customer Including Shipping		\$12,360,044.18	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Terms and Conditions Governing This Order

- 1.** This confidential Order may not be disclosed to third parties and is non-binding until accepted by Lumen, as set forth in section 2. "Lumen" is defined for purposes of this Order as CenturyLink Communications, LLC d/b/a Lumen Technologies Group and its affiliated entities providing Services under this Order. Customer places this Order by signing (including electronically or digitally) or otherwise acknowledging (in a manner acceptable to Lumen) this document and returning it to Lumen. Pricing is valid for 90 calendar days from the date indicated unless otherwise specified.
- 2.** The Service identified in this Order is subject to the Lumen or CenturyLink Master Service Agreement(s) or Master Service Agreement(s), Public Safety Version, and applicable Service Schedule(s) between CenturyLink Communications, LLC d/b/a Lumen Technologies Group and Customer (or its affiliate if expressly provided for under such affiliate Master Service Agreement). If Customer has not executed a Lumen or CenturyLink Master Service Agreement or Master Service Agreement, Public Safety Version, with CenturyLink Communications, LLC d/b/a Lumen Technologies Group but has executed a services agreement for applicable services with an affiliate of Lumen ("Affiliate Agreement"), then the terms of the most recent Affiliate Agreement will apply to the Service (to the extent not inconsistent with this Order); in such cases, the current standard Service Schedule applicable to the Services will apply. If Lumen and Customer have not executed a Lumen or CenturyLink Master Service Agreement or Master Service Agreement, Public Safety Version and/or applicable Service Schedule(s) governing the Service and have not executed an Affiliate Agreement, Lumen's current standard Master Service Agreement/Service Schedule(s) will govern, a copy of which are available upon request. The Lumen entity providing Services is identified on the invoice. Notwithstanding anything in any Affiliate Agreement to the contrary, Lumen will notify Customer of acceptance of requested Service in this Order by delivering (in writing or electronically) the date by which Lumen will install Service (the "Customer Commit Date"), by delivering the Service, or by the manner described in a Service Schedule. Lumen will deliver a written or electronic notice that the Service is installed (a "Connection Notice"), at which time billing will commence. At the expiration of the Service Term, Service will continue month-to-month, and rates are subject to change upon 30 days' notice from Lumen. If the Affiliate Agreement governs and does not include early termination charges and if Customer cancels or terminates Service for any reason other than Lumen's uncured default or if Lumen terminates due to Customer's uncured default, then Customer will pay Lumen's standard early termination liability charges as identified in the Ancillary Fee Schedule at: www.lumen.com/ancillary-fees. "Affiliate Agreement" for CenturyLink Communications, LLC d/b/a Lumen Technologies Group or any companies that were affiliates of CenturyLink Communications, LLC before the merger with Level 3 Communications ("Merger") means only an applicable Interexchange Carrier (IXC) network agreement, e.g. CenturyLink Total Advantage Agreement, CenturyLink Total Advantage Express Agreement, or CenturyLink Wholesale Services Agreement (each, an Affiliate Agreement). Affiliate Agreement also includes an Agreement between Customer and any entity that was an affiliate of Level 3 Communications before the Merger.
- 3.** Neither party will be liable for any damages for lost profits, lost revenues, loss of goodwill, loss of anticipated savings, loss of data or cost of purchasing replacement service, or any indirect, incidental, special, consequential, exemplary or punitive damages arising out of the performance or failure to perform under this Order. Customer's sole remedies for any nonperformance, outages, failures to deliver or defects in Service are contained in the service levels applicable to the affected Service.
- 4.** All transport services ordered from Lumen will be treated as interstate for regulatory purposes. Customer may certify transport service as being intrastate (for regulatory purposes only) in a format as required by Lumen, but only where the transport services are sold on a stand-alone basis, the end points for the service are located in the same state and neither end point is a Lumen provided IP port ("Intrastate Services"). Where Customer requests that services be designated as Intrastate Services, Customer certifies to Lumen that not more than 10% of Customer's traffic utilizing the Intrastate Services will be originated or terminated outside of the state in which the Intrastate Services are provided. Such election will apply prospectively only and will apply to all Intrastate Services stated in this Order.
- 5.** Charges for certain Services are subject to (a) a monthly property tax surcharge and (b) a monthly cost recovery fee per month to reimburse Lumen for various governmental taxes and surcharges. Such charges are subject to change by Lumen and will be applied regardless of whether Customer has delivered a valid tax exemption certificate. For additional details on taxes and surcharges that are assessed, visit www.lumen.com/taxes.
- 6.** Customer will pay Lumen's standard: (a) expedite charges (added to the NRC) if Customer requests a delivery date inside Lumen's standard interval duration (available upon request or in Control Center at <https://www.centurylink.com/business/login/>) and (b) ancillary charges for additional activities, features or options as set forth in the Ancillary Fee Schedule, available at www.lumen.com/ancillary-fees. If Lumen cannot complete installation due to Customer delay or inaction, Lumen may begin charging Customer and Customer will pay such charges.

Exhibit A-3 COST PROPOSAL, RATES, AND CHARGES

7. Charges/Orders. Items described in the Catalog Number and Description columns above reflect the Lumen Services ordered and identified above the table. Despite anything to the contrary, NRCs are NOT waived unless this Order or an Order Addendum expressly states NRCs are waived or the NRCs appear in the waived column in the above table(s). If a Cancellation Charge requires Customer to pay the amount of any waived or discounted NRC, the NRC will be the amount stated in this Order or Order Addendum or shown in the "Waived NRC" column in the above table(s) despite anything to the contrary. If in this Order Customer is upgrading, moving, disconnecting or otherwise changing an existing Service, cancellation charges may apply as set forth in the Agreement.

8. MLTS Equipment. BY SIGNING THIS ORDER FOR MLTS EQUIPMENT, AS APPLICABLE, I ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THE "ACCESS TO EMERGENCY SERVICES" CONTAINED IN THE APPLICABLE SERVICE SCHEDULE ATTACHED TO THE LUMEN OR CENTURYLINK MASTER SERVICE AGREEMENT OR MASTER SERVICE AGREEMENT, PUBLIC SAFETY VERSION, OR IN THE "ACCESS TO EMERGENCY RESPONSE SERVICES" SECTION OF THE TERMS AND CONDITIONS IN THE APPLICABLE STANDARD SERVICE SCHEDULE. IF I HAVE NOT EXECUTED A LUMEN OR CENTURYLINK MASTER SERVICE AGREEMENT OR MASTER SERVICE AGREEMENT, PUBLIC SAFETY VERSION, OR AN AFFILIATE AGREEMENT WITH AN APPLICABLE SERVICE SCHEDULE, I FURTHER ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THE DISCLOSURE OF LIMITATIONS SET FORTH IN THE EMERGENCY SERVICES ADVISORY AVAILABLE AT <http://www.centurylink.com/legal/HVIQSIP/911advisory.pdf>.

Customer Representative: _____

Customer Signature: _____

Job Title: _____

Date: _____

DEN Optical Network Replacement BOM Optional Years 9-10

Catalog Number	Description	Unit Price	Qty	Total Price	Contract Term (Months)
LOCATION: Main Site					
Support					
Fujitsu					
SE.1-2368A	Years 9-10 24x7 TAC Support + Software Updates + Hardware Repair + Advance Replacement + On-site Support	\$178,533.08	2	\$357,066.16	24
MNS-S-FM-O	Years 9-10 NOC: Fault Management for Optical: L100 (12), T310 (4), FW4100ES (12)	\$29,292.31	2	\$58,584.62	24
MNS-S-FM-E	Years 9-10 NOC: Fault Management for Ethernet: S100 (48)	\$50,215.38	2	\$100,430.76	24
MNS-S-FM-A	Years 9-10 NOC: Fault Management for Access: Tellabs T1000 (12), Vertiv Netsure (20), Oscilloquarts BitClocks (2)	\$35,569.23	2	\$71,138.46	24
MNS-S-PROV10	Remote Provisioning, One Block of 10 Move, Add, Changes (MAC's)	\$6,015.38	2	\$12,030.76	24
Fujitsu Support Years 9 and 10 Total				\$599,250.76	
Tellabs					
0572-0002	Panorama INM ANNUAL RTU (Annual Fee Per LET) Years 9-10	\$ 769.23	2	\$1,538.46	24
DIAM10SVRSUP_2YR-EXT	Oracle Premier Support for M10 Systems 2 Year Extension	\$5,323.08	1	\$5,323.08	24
DIAORACLE10GSWSUP_2YR-EXT	Oracle 10G Software License, Update & Support 2 Year Extension	\$3,507.69	1	\$3,507.69	24
ST30006	24x7 TAC Support + Software Updates + Hardware Repair + Advance Replacement + On-site Support Years 1-8	\$23,424.92	2	\$46,849.84	24
Tellabs Support Years 9 to 10 Total				\$57,219.07	
PPS					
Q-PPS-Year9-10	Maintenance Year 9-10	\$79,027.68	1	\$79,027.68	24
PPS Support Years 9 to 10 Total				\$79,027.68	

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

CenturyLink					
QINTR-OTHER	SONET MGR and TECS Labor Year 9	\$500,416.67	1	\$500,416.67	12
QINTR-OTHER	SONET MGR and TECS Labor Year 10	\$515,429.17	1	\$515,429.17	12
	CenturyLink Labor Total			\$1,015,845.84	
	Support Services Total			\$1,751,343.35	
	Grand Total Price to Customer			\$1,751,343.35	

Terms and Conditions Governing This Order

1. This confidential Order may not be disclosed to third parties and is non-binding until accepted by Lumen, as set forth in section 2. "Lumen" is defined for purposes of this Order as CenturyLink Communications, LLC d/b/a Lumen Technologies Group and its affiliated entities providing Services under this Order. Customer places this Order by signing (including electronically or digitally) or otherwise acknowledging (in a manner acceptable to Lumen) this document and returning it to Lumen. Pricing is valid for 90 calendar days from the date indicated unless otherwise specified.

2. The Service identified in this Order is subject to the Lumen or CenturyLink Master Service Agreement(s) or Master Service Agreement(s), Public Safety Version, and applicable Service Schedule(s) between CenturyLink Communications, LLC d/b/a Lumen Technologies Group and Customer (or its affiliate if expressly provided for under such affiliate Master Service Agreement). If Customer has not executed a Lumen or CenturyLink Master Service Agreement or Master Service Agreement, Public Safety Version, with CenturyLink Communications, LLC d/b/a Lumen Technologies Group but has executed a services agreement for applicable services with an affiliate of Lumen ("Affiliate Agreement"), then the terms of the most recent Affiliate Agreement will apply to the Service (to the extent not inconsistent with this Order); in such cases, the current standard Service Schedule applicable to the Services will apply. If Lumen and Customer have not executed a Lumen or CenturyLink Master Service Agreement or Master Service Agreement, Public Safety Version and/or applicable Service Schedule(s) governing the Service and have not executed an Affiliate Agreement, Lumen's current standard Master Service Agreement/Service Schedule(s) will govern, a copy of which are available upon request. The Lumen entity providing Services is identified on the invoice. Notwithstanding anything in any Affiliate Agreement to the contrary, Lumen will notify Customer of acceptance of requested Service in this Order by delivering (in writing or electronically) the date by which Lumen will install Service (the "Customer Commit Date"), by delivering the Service, or by the manner described in a Service Schedule. Lumen will deliver a written or electronic notice that the Service is installed (a "Connection Notice"), at which time billing will commence. At the expiration of the Service Term, Service will continue month-to-month, and rates are subject to change upon 30 days' notice from Lumen. If the Affiliate Agreement governs and does not include early termination charges and if Customer cancels or terminates Service for any reason other than Lumen's uncured default or if Lumen terminates due to Customer's uncured default, then Customer will pay Lumen's standard early termination liability charges as identified in the Ancillary Fee Schedule at: www.lumen.com/ancillary-fees. "Affiliate Agreement" for CenturyLink Communications, LLC d/b/a Lumen Technologies Group or any companies that were affiliates of CenturyLink Communications, LLC before the merger with Level 3 Communications ("Merger") means only an applicable Interexchange Carrier (IXC) network agreement, e.g. CenturyLink Total Advantage Agreement, CenturyLink Total Advantage Express Agreement, or CenturyLink Wholesale Services Agreement (each, an Affiliate Agreement). Affiliate Agreement also includes an Agreement between Customer and any entity that was an affiliate of Level 3 Communications before the Merger.

3. Neither party will be liable for any damages for lost profits, lost revenues, loss of goodwill, loss of anticipated savings, loss of data or cost of purchasing replacement service, or any indirect, incidental, special, consequential, exemplary or punitive damages arising out of the performance or failure to perform under this Order. Customer's sole remedies for any nonperformance, outages, failures to deliver or defects in Service are contained in the service levels applicable to the affected Service.

4. All transport services ordered from Lumen will be treated as interstate for regulatory purposes. Customer may certify transport service as being intrastate (for regulatory purposes only) in a format as required by Lumen, but only where the transport services are sold on a stand-alone basis, the end points for the service are located in the same state and neither end point is a Lumen provided IP port ("Intrastate Services"). Where Customer requests that services be designated as Intrastate Services, Customer certifies to Lumen that not more than 10% of Customer's traffic utilizing the Intrastate Services will be originated or terminated outside of the state in which the Intrastate Services are provided. Such election will apply prospectively only and will apply to all Intrastate Services stated in this Order.

5. Charges for certain Services are subject to (a) a monthly property tax surcharge and (b) a monthly cost recovery fee per month to reimburse Lumen for various governmental taxes and surcharges. Such charges are subject to change by Lumen and will be applied regardless of whether Customer has delivered a valid tax exemption certificate. For additional details on taxes and surcharges that are assessed, visit www.lumen.com/taxes.

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

6. Customer will pay Lumen's standard: (a) expedite charges (added to the NRC) if Customer requests a delivery date inside Lumen's standard interval duration (available upon request or in Control Center at <https://www.centurylink.com/business/login/>) and (b) ancillary charges for additional activities, features or options as set forth in the Ancillary Fee Schedule, available at www.lumen.com/ancillary-fees. If Lumen cannot complete installation due to Customer delay or inaction, Lumen may begin charging Customer and Customer will pay such charges.

7. Charges/Orders. Items described in the Catalog Number and Description columns above reflect the Lumen Services ordered and identified above the table. Despite anything to the contrary, NRCs are NOT waived unless this Order or an Order Addendum expressly states NRCs are waived or the NRCs appear in the waived column in the above table(s). If a Cancellation Charge requires Customer to pay the amount of any waived or discounted NRC, the NRC will be the amount stated in this Order or Order Addendum or shown in the "Waived NRC" column in the above table(s) despite anything to the contrary. If in this Order Customer is upgrading, moving, disconnecting or otherwise changing an existing Service, cancellation charges may apply as set forth in the Agreement.

8. MLTS Equipment. BY SIGNING THIS ORDER FOR MLTS EQUIPMENT, AS APPLICABLE, I ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THE "ACCESS TO EMERGENCY SERVICES" CONTAINED IN THE APPLICABLE SERVICE SCHEDULE ATTACHED TO THE LUMEN OR CENTURYLINK MASTER SERVICE AGREEMENT OR MASTER SERVICE AGREEMENT, PUBLIC SAFETY VERSION, OR IN THE "ACCESS TO EMERGENCY RESPONSE SERVICES" SECTION OF THE TERMS AND CONDITIONS IN THE APPLICABLE STANDARD SERVICE SCHEDULE. IF I HAVE NOT EXECUTED A LUMEN OR CENTURYLINK MASTER SERVICE AGREEMENT OR MASTER SERVICE AGREEMENT, PUBLIC SAFETY VERSION, OR AN AFFILIATE AGREEMENT WITH AN APPLICABLE SERVICE SCHEDULE, I FURTHER ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THE DISCLOSURE OF LIMITATIONS SET FORTH IN THE EMERGENCY SERVICES ADVISORY AVAILABLE AT <http://www.centurylink.com/legal/HVIQSIP/911advisory.pdf>.

Customer
Representative: _____

Customer Signature: _____

Job Title: _____

Date: _____

Contract-based discounting levels

Catalog Number	Description	Disc. %
Fujitsu		
PLL1003B11R19101A	L110 - Optical Mux base unit (2 PIU slots). Includes 3B11 blade w/r19.1.1 PL	85.74
FC95453PS2	L110 - SPL2: Pluggable 4x16 Splitter/Coupler. Up to 4D support, one per every 16 ch.	83.89
PLL1003R11R19101B	L100 - Dual 1x9 ROB (-48V). One per degree. Includes 3R11 blade w/R19.1.1 PL	83.77
RTUL1XXAR1911	L1XX Soft Lic Release 19.1.1 1/blade	94.06
RTUL1XXLAM-FJTS-B	L110 - Lambda, 1 per drop port, Software Key	81.32
FC9581B61F	1FINITY SFP - 1GE CWDM OSC Long Haul, 1511nm	80.23
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m	71.99
FC9549F011	1FINITY FAN Module (used with T200, S1xx, L1xx)	53.31
FC9549SD11	1FINITY Standalone Accessory - Power Terminal Adapter for Standalone Blade	89.67

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	Disc. %
FC9549SR31	1FINITY Standalone Accessory - Mount Rail for Standalone Blade, 23inch 2-post rack	79.23
PC660-0105-T043	1FNTY BLADE PWR,12AWG,1HL,#8,90DEG,10FT	33.04
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	60.82
PC660-0105-T043	1FNTY BLADE PWR,12AWG,1HL,#8,90DEG,10FT	33.04
PLS100F04101B	S100 - 1.2Tbps telco class switch (-48V, 1RU, 4-slot blade) Pre-loaded w/ V4.1.1	82.07
FC9543PAC2	S100 - 12 x 10G SFP+/1G SFP Wideband PIU	81.43
FC9543PF11	S100 - 100G Coherent NBO x 1 PIU	81.27
FC9543PD31	S100 - 3x100G QSFP28 Wideband PIU	80.12
FC9543AP11	S100 - Filler panel	82.71
RTUS100-16QAM-B	S100 16QAM, CFP2 NBO ports, SKY	99.99
RTUS100AR0401	S100 Soft Lic Release 4.1, 1/blade	96.04
RTUS100PORQSF28-B	S100 Port Activation QSFP28 =>2nd port,SKY	77.59
RTUS100PORTSFPP-B	S100 Port Activation SFP+, =>2nd port,SKY	81.32
FC9549F011	1FINITY FAN Module (used with T200, S1xx, L1xx)	53.31
FC9549SD11	1FINITY Standalone Accessory - Power Terminal Adapter for Standalone Blade	89.67
FC9549SR31	1FINITY Standalone Accessory - Mount Rail for Standalone Blade, 23inch 2-post rack	79.23
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	60.82
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - LCN	71.99
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - Client	71.99
FC95815000	1FINITY SFP - 1000BASE-SX, MMF, 300m-550m	55.17
FC95815200	1FINITY SFP - 1000BASE-LX, 1310nm, 10km	55.17
FC9582A131	1FINITY SFP+ - 10GBASE-SR/SW, MMF, 33m-82m	40.24
FC95865AC3	1FINITY CFP2-ACO - 100G/200G, 50km-80km	80.70
FC95891330	100GBase Copper QSFP28 3m	58.91
PC660-0105-T047	1FNTY BLADE PWR,12AWG,1HL,#8,90DEG,10FT	15.27
PLT310F01405B	T310 - 200G Muxponder Base Unit Blade Pre-Loaded w/ V1.4.5	72.97
FC9548P3A1	T3xx - 1port PIU for Green Lite + CFP2 ACO	79.31
FC9548F3A1	T3xx - Filler panel of 1-port PIU	65.42
RTUT310AR0104	T310 Soft Lic Release 1.4, 1/blade	94.06
RTUT310PORTSFPP-B	T310 - Port Activation SFP+, =>2nd port, Software Key	97.20
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m	71.99
FC9582A410	1FINITY SFP+ - OC-192 SR-1 / STM-64 / 10GFC / OTU2/OTU1e/OTU2e / 10GBASE-LR/LW, 1310nm, 2km, 10km(10GBASE)	73.11
FC9549F031	1FINITY FAN Module (used with T3xx, L200)	53.31
FC9549SD11	1FINITY Standalone Accessory - Power Terminal Adapter for Standalone Blade	89.67

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	Disc. %
FC9549SR31	1FINITY Standalone Accessory - Mount Rail for Standalone Blade, 23inch 2-post rack	79.23
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	60.82
PC660-0105-T043	1FNTY blade pwr,12AWG,1HL,#8,90degree, 10 ft.	33.04
FC9681FLT1	FLTR,FW4100 LS/ES, REPLACEMENT FILTER	66.69
HA15B-0001-B424	1RU Heat Baffle, 23" Rack Mount	41.57
FC9681FAN4	Fan tray (-48 V DC only)	66.37
FC9681SFE1	FLASHWAVE 4100 ES (Chassis)	66.38
P4100ECP1R1020A	FLASHWAVE 4100ES ECP1 Preloaded with R10.2	78.12
FC9681ED12	28-port DS1 network interface unit (NIU) service unit	82.85
FC9681EL21	FW4100ES OC-12 Line Unit (SFP Based)	66.38
FC9681EL4M	OC-12 /2-port OC-3 service unit, SFP base unit	66.38
FC9681EL91	ES OC-192 Line unit	91.88
FC9681ECD1	IOP unit— 56 DS1 services	66.38
FC9681FLE1	Service unit slot filler panel	64.12
HA660-0190-T002	Power Cable, FW4100ES, 15 ft long	55.17
NS094100	NETSMART 1500 v9 FW4100LS or FW4100ES licen	91.38
FC95700020-I02	SFP, OC-3/STM-1, IR-1, 1310nm, 15km	55.18
FC95700050-I03	SFP, OC-12/STM-4, IR-1, 1310nm, 15km	55.18
FC9573E410	XFP, OC-192/STM-64/10GBase-LW/10GBase-LR/OTU2, SR-1, 1310nm	93.09
PLL1003B11R19101A	L110 - Optical Mux base unit (2 PIU slots). Includes 3B11 blade w/r19.1.1 PL	85.74
FC95453PS2	L110 - SPL2: Pluggable 4x16 Splitter/Coupler. Up to 4D support, one per every 16 ch.	83.89
PLL1003R11R19101B	L100 - Dual 1x9 ROB (-48V). One per degree. Includes 3R11 blade w/R19.1.1 PL	83.77
FC9581B61F	1FINITY SFP - 1GE CWDM OSC Long Haul, 1511nm	80.23
FC9549F011	1FINITY FAN Module (used with T200, S1xx, L1xx)	53.31
PC15B-0001-B162	USB, Formatted with 1FINITY Encryption	60.82
PLS100F04101B	S100 - 1.2Tbps telco class switch (-48V, 1RU, 4-slot blade) Pre-loaded w/ V4.1.1	82.07
FC9543PAC2	S100 - 12 x 10G SFP+/1G SFP Wideband PIU	81.43
FC9543PF11	S100 - 100G Coherent NBO x 1 PIU	81.27
FC9543PD31	S100 - 3x100G QSFP28 Wideband PIU	80.12
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - LCN	71.99
FC95815000	1FINITY SFP - 1000BASE-SX, MMF, 300m-550m	55.17
FC95815200	1FINITY SFP - 1000BASE-LX, 1310nm, 10km	55.17
FC9582A131	1FINITY SFP+ - 10GBASE-SR/SW, MMF, 33m-82m	40.24
FC95865AC3	1FINITY CFP2-ACO - 100G/200G, 50km-80km	80.70
FC95891330	100GBase Copper QSFP28 3m	58.91

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	Disc. %
PLT310F01405B	T310 - 200G Muxponder Base Unit Blade Pre-Loaded w/ V1.4.5	72.97
FC9548P3A1	T3xx - 1port PIU for Green Lite + CFP2 ACO	79.31
FC9582A410	1FINITY SFP+ - OC-192 SR-1 / STM-64 / 10GFC / OTU2/OTU1e/OTU2e / 10GBASE-LR/LW, 1310nm, 2km, 10km(10GBASE)	73.11
FC9549F031	1FINITY FAN Module (used with T3xx, L200)	53.31
FC9681FAN4	Fan tray (-48 V DC only)	66.37
P4100ECP1R1020A	FLASHWAVE 4100ES ECP1 Preloaded with R10.2	78.12
FC9681ED12	28-port DS1 network interface unit (NIU) service unit	82.85
FC9681EL21	FW4100ES OC-12 Line Unit (SFP Based)	66.38
FC9681EL4M	OC-12 /2-port OC-3 service unit, SFP base unit	66.38
FC9681EL91	ES OC-192 Line unit	91.88
FC95700020-I02	SFP, OC-3/STM-1, IR-1, 1310nm, 15km	55.18
FC9573E410	XFP, OC-192/STM-64/10GBase-LW/10GBase-LR/OTU2, SR-1, 1310nm	93.09
FC9543PAC2	S100 - 12 x 10G SFP+/1G SFP Wideband PIU	81.43
RTUS100PORTSFPP-B	S100 Port Activation SFP+, =>2nd port,SKY	81.32
FC95815210	1FINITY SFP - 10/100/1000BASE-T, 125 MHz, 100m - Client	71.99
FC95815000	1FINITY SFP - 1000BASE-SX, MMF, 300m-550m	55.17
FC95815200	1FINITY SFP - 1000BASE-LX, 1310nm, 10km	55.17
FC9582A131	1FINITY SFP+ - 10GBASE-SR/SW, MMF, 33m-82m	40.24
RTUT310PORTSFPP-B	T310 - Port Activation SFP+, =>2nd port, Software Key	97.20
FC9582A410	1FINITY SFP+ - OC-192 SR-1 / STM-64 / 10GFC / OTU2/OTU1e/OTU2e / 10GBASE-LR/LW, 1310nm, 2km, 10km(10GBASE)	73.11
FC9681ED12	28-port DS1 network interface unit (NIU) service unit	82.85
FC9681EL4M	OC-12 /2-port OC-3 service unit, SFP base unit	66.38
FC95700020-I02	SFP, OC-3/STM-1, IR-1, 1310nm, 15km	55.18
PC15L-0001-C090#01	5/5 Fuse Panel, 15AGMT	55.20
06-460-636	FUSE PNL,GMT,20A,10/10,19-23IN,WHITE	55.18
46-049-225	FUSE, GMT, 20.0 AMP, RED/BLU	55.00
TA49006-2009B8	FUSE, GMT, 15.0 AMP, RED/BLU	62.67
21-371-025	CA ASSY,28PR,24AWG,SHLD,64P M180/STUB	55.30
21-658-050	Primary External Output Clock cable, RJ-45 connector	55.31
21-659-050	Secondary external output clock cable, RJ-45 connector	55.42
21-094-003	Ethernet Cable, blue, CAT5e, 3 feet long, straight wiring. Connectorized RJ45 to RJ45.	51.43
21-094-020	Ethernet Cable, blue, CAT5e, 20 feet long, straight wiring. Connectorized RJ45 to RJ45.	55.18
27-2M002MM-002	Fiber Jumper, 2-Fiber, Orange Multi-Mode, Dual LC PC to LC PC, 62.5/125µm, Riser Rated, 2.0mm Zipcord. Length: 2 Meter.	55.35
27-2M002MM-010	Fiber Jumper, 2-Fiber, Orange Multi-Mode, Dual LC PC to LC PC, 62.5/125µm, Riser Rated, 2.0mm Zipcord. Length: 10 Meter.	55.32
27-200DZ1.6-0.60	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX. 0.6 meters	55.18
27-200DZ1.6-001	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX, 1 meter	55.18

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	Disc. %
27-200DZ1.6-010	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX. 10 meters	55.29
27-200DZ1.6-020	FBR JMPR,2 FBR SM 1.6 ZIP,LC/LC UPC DPLX, 20 meters	55.28
Tellabs		
0210-0138	DMAX1120 WIRE WRAP - NO CABLE STUBS	16.85
0210-0139	DMAX1120 CONNECTORIZED CONTINUOUS	16.85
0310-1867	FAN TRAY 1U INSTALLATION KIT	28.73
0215-0007	DMAX/FAN PROJECTION MOUNT ADAPTOR KIT - 23 BY 5	16.85
0410-0445	CBA CABLE A/B POWER W/ GROUND WIRE	25.10
0410-0295	48V POWER CABLE W/MOLEX	16.87
0410-0052	METALLIC TEST UNIT INTERFACE CABLE 26IN	16.85
0410-0244	BROADBAND EXPANSION BANK FIBERS (2M PAIR)	16.86
0101-0065	CPU-3 BROADBAND CENTRAL PROCESSING UNIT	48.64
0101-0082	REMOTE SUBSCRIBER POWER SUPPLY UNIT	16.85
0101-0043	INTERNET PROTOCOL INTERFACE FOR IN-BAND MANAGEMENT	55.06
0101-0083	EXTERNAL TIMING INTERFACE	16.85
0101-0045	BROADBAND EXPANSION LINK UNIT	52.01
0101-0069	EXPANSION BANK CONTROL 3	52.01
0120-0153	OC3 FIBER OPTIC TRANSCEIVER w/STS PAYLOAD (SC)	48.31
0110-0150	LET POTS CHANNEL UNIT	16.85
0110-0098	L-ISDN (2)	56.93
0110-0095	LET UNIVERSAL VOICE GRADE CHANNEL UNIT	16.85
0110-0139	DIGITAL SIGNAL ZERO DATA PORT	16.85
0110-0236	SPECIAL SERVICES 2W/4W (FX, DID, ETO, PLAR)	13.48
0110-0147	TO	16.85
0110-0069	OCU-DP	16.85
0110-0148	RST POTS CHANNEL UNIT	48.31
0110-0246	R-ISDN (2)	62.00
0110-0222	RST UNIVERSAL VOICE GRADE CHANNEL UNIT	16.85
0410-0244	BROADBAND EXPANSION BANK FIBERS (2M PAIR)	16.86
0101-0065	CPU-3 BROADBAND CENTRAL PROCESSING UNIT	48.64
0101-0082	REMOTE SUBSCRIBER POWER SUPPLY UNIT	16.85
0101-0045	BROADBAND EXPANSION LINK UNIT	52.01
0101-0069	EXPANSION BANK CONTROL 3	52.01
0101-0043	INTERNET PROTOCOL INTERFACE FOR IN-BAND MANAGEMENT	55.06
0101-0083	EXTERNAL TIMING INTERFACE	16.85
0120-0153	OC3 FIBER OPTIC TRANSCEIVER w/STS PAYLOAD (SC)	48.31
0110-0098	L-ISDN (2)	56.93
0110-0236	SPECIAL SERVICES 2W/4W (FX, DID, ETO, PLAR)	13.48
0110-0139	DIGITAL SIGNAL ZERO DATA PORT	16.85
0110-0095	LET UNIVERSAL VOICE GRADE CHANNEL UNIT	16.85
0110-0147	TO	16.85
0110-0150	LET POTS CHANNEL UNIT	16.85
0110-0069	OCU-DP	16.85

Exhibit A-3
COST PROPOSAL, RATES, AND CHARGES

Catalog Number	Description	Disc. %
0110-0148	RST POTS CHANNEL UNIT	48.31
0110-0246	R-ISDN (2)	62.00
0110-0222	RST UNIVERSAL VOICE GRADE CHANNEL UNIT	16.85
81.SC11PINMFP10	TELLABS PANORAMA INM FP10.0 (Per Server)	10.11
DIAM10SVR	Fujitsu M10-1 server: base with 1 deactivated SPARC64 X+ 16-core 3.2 GHz processor; Sun - DDR3 - 32 GB : 4 x 8 GB - DIMM 240-pin - 1600 MHz / PC3-12800; Fujitsu - Hard drive - 600 GB - internal - 2.5 - SAS 6Gb/s - 10000 rpm; Solaris - W/ Oracle VM Server for SPARC - license; Oracle - Power cable - NEMA 5-15P (M) - IEC 320 EN 60320 C13 - 3.3 ft; Fujitsu - License (activation) - 2 CPU cores	10.11
DIAORACLE10GSWLIC	Oracle Database Standard Edition 2 (Named User Plus; Perpetual)	10.11
ST40003	Tellabs 1000 MSAP Provisioning Maintenance for DLC Voice Services	19.74
ST40002	Training On-Site Mobilization	25.09
ST40001	Training Lab Connect	43.82
0550-0114	TELLABS 1000 FEATURE PACKAGE 10.0 AUP SOFTWARE CD	100.00
0571-0012	Panorama INM 1000 RTU (One Time Fee Per LET)	10.11
PPS		
582137100	NeSure 5100 Neg 48 Power System, relay rack, two row distribution cabinet, 2-26 position bullet breaker panels, two rectifier shelf, NCU controller	21.55
1R482000E3	eSure 2000wE3 rectifier	21.72
101603	30 AMP Bullet Breakers	23.02
516839	150 AMP Bullet Breakers w/kits	21.56
NPTPA1105	Westell fuse and alarm panel	21.56
SBS170F48V	Energys SBS 12V170F 48v battery systems	21.56
990.002.TA2121HD	24" battery trays w/disconnect	21.56
MATMT51C14	Ancillary Equipment	21.56
MATA1C07	Ancillary Equipment	21.56
MATB1C07	Ancillary Equipment	21.56
MATB7E02	Ancillary Equipment	21.56
MATC1C07	Ancillary Equipment	21.56
MATNHUT	Ancillary Equipment	21.56
MATSHUT	Ancillary Equipment	21.56
MATANTFarm1	Ancillary Equipment	21.56
MATSDC	Ancillary Equipment	21.56
MAT45A01-POI	Ancillary Equipment	21.56
MAT45A01-POI	Ancillary Equipment	21.56

Exhibit B-1
CUSTOM SOLUTIONS AND SERVICES SCHEDULE

- 1. Applicability.** This Custom Solutions and Services Schedule ("Schedule") is entered into between CenturyLink and Customer and is effective as of the date last signed ("Schedule Effective Date"). If CenturyLink and Customer have not executed a Custom Solutions and Services Schedule, then the standard Custom Solutions and Services Schedule, a copy of which is available upon request, will govern the applicable Statements of Work ("SOWs") and SOW Change Requests. This Schedule is governed by and incorporates by reference the CenturyLink Master Service Agreement or other service agreement executed between the parties, or the then current standard CenturyLink Master Service Agreement if no agreement has been executed. This Schedule, any attached or incorporated documents, Statements of Work ("SOWs"), SOW Change Requests, and the applicable agreement between CenturyLink and Customer collectively comprise the agreement between the parties ("Agreement"). Capitalized terms used and not otherwise defined in this Schedule will have the meaning set forth in the Agreement.
- 2. Services and Acceptance.** This Section replaces the Orders section in the Agreement for Services purchased under this Schedule. CenturyLink will provide the professional, consulting, analytical, design, technical, implementation, management, and security services ("Services") identified in the applicable statement of work ("SOW") pursuant to the Agreement. Services are provided by the CenturyLink affiliate identified in the SOW; and CenturyLink may utilize its own employees or subcontractors and may change, modify, or replace any of CenturyLink network hardware, software, or equipment used to deliver Services. Customer will comply with the responsibilities identified in the SOW or a SOW Change Request. CenturyLink's performance will be excused where the Services are contingent upon Customer's performance until Customer complies with its responsibilities; CenturyLink will receive additional time to complete the Services after Customer complies. Customer's noncompliance may result in an adjustment of the charges, including charges for additional hours required to complete the Services. Except as otherwise provided in a SOW, Services will be deemed accepted unless Customer provides written notice of any deficiency to CenturyLink within three business days after commencement of work or delivery of the Services, including phased delivery of Service, if applicable (the "Acceptance Period"). Such notice must detail and demonstrate the deficiency to CenturyLink's reasonable satisfaction. CenturyLink will remedy the deficiency and will notify Customer accordingly; at which time a new Acceptance Period will begin. CenturyLink will delay billing until Services are accepted.
- 3. Service Term.** The Services will continue for the term specified in the applicable SOW ("Service Term"), unless terminated by either party pursuant to the terms of the Agreement or this Schedule.
- 4. Charges; Payment.** This Section replaces the Commencement of Billing section in the Agreement. Subject to the Services and Acceptance section above, the Service Commencement Date for Services is the date CenturyLink begins performing Services or as specified in a SOW. Customer will pay all charges (including reasonable travel and living expenses and third-party charges) and any progress payments as set forth in a SOW and all applicable Taxes and Fees. If CenturyLink cannot complete installation due to Customer delay or inaction, CenturyLink may begin charging Customer for the Service, and Customer will pay such charges. "MRC" means monthly recurring charge, and "NRC" means non-recurring charge. Charges for certain Services are subject to (a) a property tax surcharge and (b) a cost recovery fee per month to reimburse CenturyLink for various governmental taxes and surcharges. Such charges are subject to change by CenturyLink and will be applied regardless of whether Customer has delivered a valid tax exemption certificate. For additional details on taxes and surcharges that are assessed, visit <http://www.centurylink.com/taxes>.
- 5. Termination.** This Section replaces the Cancellation and Termination Charges section in the Agreement. Either party may terminate a SOW upon 30 days prior written notice. Cancellation charges will be identified in the SOW. Customer will remain liable for charges accrued but unpaid as of the termination date.
- 6. Limitations of Liability.** The limitation of liability provisions in the Agreement shall govern any claims arising under this Service Exhibit.
- 7. Disclaimer of Warranties.** CenturyLink will not be liable for any damages incurred by Customer or third parties resulting from Customer's non-compliance with any standards which apply to Customer. THE SERVICES, INCLUDING ANY DELIVERABLE AND ANY OPEN SOURCE SOFTWARE, ARE PROVIDED "AS IS" WITHOUT ANY WARRANTIES OF ANY KIND, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF TITLE, NONINFRINGEMENT, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, ACCURACY, COMPLETENESS, COMPATIBILITY OF SOFTWARE OR EQUIPMENT, OR ANY RESULTS TO BE ACHIEVED THEREFROM. CENTURYLINK MAKES NO WARRANTIES OR REPRESENTATIONS THAT (A) THE SERVICE OR ANY DELIVERABLE WILL BE FREE FROM LOSS OR LIABILITY ARISING OUT OF (I) HACKING OR SIMILAR MALICIOUS ACTIVITY, OR (II) ANY ACT OR OMISSION OF THE CUSTOMER; (B) ALL ERRORS CAN BE CORRECTED; (C) ALL RISKS, POTENTIAL SECURITY AND COMPLIANCE GAPS WILL BE ACCURATELY IDENTIFIED; OR (D) THAT THE SERVICES AND DELIVERABLES SHALL BE UNINTERRUPTED, ERROR-FREE, ACCURATE, COMPLETE OR EFFECTIVE IN ACHIEVING CUSTOMER'S SECURITY AND COMPLIANCE RELATED OBJECTIVES.
- 7. Compliance and Security.** CenturyLink has adopted and implemented, and will maintain, a corporate information security program designed to protect data transmitted or processed by CenturyLink from loss, misuse and unauthorized access or disclosure. Such program includes formal information security policies and procedures. The CenturyLink information security program is subject to reasonable changes by CenturyLink from time to time. Customer will ensure that all Customer data transmitted or processed via the Service complies with applicable law and reasonable information security practices, including those involving encryption.
- 8. Intellectual Property; Software.**

 - 8.1 Intellectual Property.** CenturyLink's intellectual property and proprietary rights include any skills, know-how, modifications or other enhancements developed or acquired in the course of configuring, providing, or managing the Service. Each party agrees that it will not, directly or indirectly, reverse engineer, decompile, reproduce or otherwise attempt to derive source code, trade secrets, or other intellectual property from any information, material, or technology of the other party or its licensors. Except as expressly set forth below with respect to

Exhibit B-1**CUSTOM SOLUTIONS AND SERVICES SCHEDULE**

Document Deliverables, Customer Technology and Content, nothing in this Schedule or the performance thereof conveys, or otherwise transfers any right, title, or interest in any intellectual property or other proprietary rights held by either party or its licensors.

8.2 Customer License to Document Deliverables. Upon receipt of full payment CenturyLink grants to Customer irrevocable, perpetual, non-exclusive, world-wide, right and limited license under CenturyLink's copyright rights to internally use, reproduce, distribute copies of and prepare derivative works of the Document Deliverables ("Deliverable License"); provided however, Customer shall treat the Document Deliverables as "confidential" pursuant to the terms of the Agreement and any applicable confidentiality agreement(s) by and between Customer and CenturyLink unless otherwise agreed to by CenturyLink. For purposes of this Section, "Document Deliverables" shall mean any reports or other documentation prepared by CenturyLink exclusively for Customer pursuant to an applicable SOW under this Service Schedule.

8.3 Software. Customer agrees that any third-party software including any corresponding documentation, provided to Customer by CenturyLink in connection with the Service will be used strictly in accordance with all applicable licensing terms and conditions. All rights in and to any such third-party software are reserved by and remain with the applicable third parties. Any software (including related documentation) that may be provided by CenturyLink or its third party licensors to Customer may only be used by Customer in connection with the Services. Customer acknowledges and agrees that it is solely responsible for ensuring its software and systems are current and supportable with respect to any such software. CenturyLink may require Customer to purchase vendor supported upgrades at an additional cost where needed for CenturyLink's continue provision of Services; CenturyLink may charge Customer for support or additional tasks incurred from Customers' continued use of an unsupported configuration. Customer's failure to do so may result in CenturyLink's inability to provide the Services and CenturyLink will have no liability in such events.

8.4 Third Party Software and Customer Technology. If Customer elects to use Customer provided and/or licensed software in connection with the Services or make such software available to its end users, Customer is solely responsible for (a) selecting, licensing, installing and maintaining any such software, including any related applications and systems; and (b) ensuring adherence to current technical documentation, all applicable licensing terms, requirements, and/or restrictions and all applicable laws with respect to such software Customer acknowledges that Customer's failure to perform any of the foregoing responsibilities (a)-(b) may result in CenturyLink's inability to provide the Services, in which case, CenturyLink will have no liability for failure to provide such Services. To the extent required by CenturyLink to provide the Services pursuant to an applicable SOW, Customer grants to CenturyLink a non-exclusive, non-transferable, royalty-free license to use Customer Technology and Content, and to sublicense Customer Technology and Content to CenturyLink subsidiaries and affiliates and any third parties providing all or part of the on behalf of CenturyLink. All right, title and interest in and to any Customer Technology and Content will remain solely with Customer, its affiliates and their licensors. "Customer Technology and Content" means the technology, content and other information of Customer and its licensors, including Customer's Internet operations design, software tools, hardware designs, algorithms, software (in source and object forms), user interface designs, architecture, class libraries, objects and documentation (both printed and electronic), know-how, trade secrets and any related intellectual property rights throughout the world.

8.5 Freedom of Action. Nothing in the Agreement will preclude CenturyLink from developing, marketing, and distributing any software or integration code or performing any services similar to the Services for itself or for any third party, provided that CenturyLink is in compliance with confidentiality obligations under the Agreement.

9. Letter of Agency. If applicable, upon the execution of an applicable SOW, Customer will sign a Letter of Agency giving CenturyLink the limited authority to directly notify the appropriate vendor for the purpose identified in the Letter of Agency. Customer may terminate this authorization at any time upon notice to CenturyLink. If applicable, Customer shall also provide its vendors with a letter (with a copy to CenturyLink) acknowledging CenturyLink's role as Customer's agent solely as it relates to the purpose as specifically identified in such letter of agency. As soon as commercially practicable, Customer shall provide CenturyLink with a copy of any contractual commitments between Customer and its vendor that CenturyLink must be aware of or comply with in order to dispatch such vendor accordingly.

10. International Services. For Services provided outside the United States, Customer or its local affiliate may be required to enter into a separate local country addendum/agreement (as approved by local authorities) ("LCA") with the respective CenturyLink affiliate that provides the local Service(s). Such CenturyLink affiliate will invoice Customer or its local affiliate for the respective local Service(s).

11. Confidentiality. In addition to the confidentiality terms contained in the Agreement, confidential information also includes CenturyLink Technology and Customer Technology and Content. CenturyLink Technology and all enhancements and improvements are the exclusive property and confidential information of CenturyLink. Customer Technology and Content and all enhancements and improvements are the exclusive property and confidential information of Customer. Confidential information will not include Customer data, the obligations for which are governed by the Compliance and Security section. "CenturyLink Technology" means the proprietary technology of CenturyLink and its licensors, including services, software (in source and object forms), software tools, hardware designs, algorithms, user interface designs, architecture, class libraries, report formats and the copyright in such reports (which such copyright excludes Customer data), objects and documentation (both printed and electronic), network designs, know-how, trade secrets and any related intellectual property rights throughout the world and also including any derivatives, improvements, enhancements or extensions of CenturyLink Technology conceived, reduced to practice, or developed during the term of the Agreement.

12. Non-solicitation. Customer or its third party will not knowingly solicit or recruit for employment or hire any CenturyLink Resource for one year following the termination of a SOW for which the CenturyLink Resource performed work for Customer, except that Customer may recruit or hire a CenturyLink Resource identified by Customer solely as a result of the CenturyLink Resource's response to a non-specific, general advertisement by Customer. "CenturyLink Resource" means an employee, consultant or contractor assigned by CenturyLink to perform the Services.

13. Miscellaneous. Customer will defend and indemnify CenturyLink, its affiliates, agents, and contractors against all third party claims for damages, liabilities, or expenses, including reasonable attorneys' fees, arising from the actions of Customer and its employees as related

Exhibit B-1

CUSTOM SOLUTIONS AND SERVICES SCHEDULE

to the Services or CenturyLink Resources. Notices for disconnection of Service must be submitted to CenturyLink via Email at: BusinessDisconnects@Centurylink.com. Notices of non-renewal for Services must be sent via e-mail to: CenturyLink, Attn.: CenturyLink NoRenew, e-mail: Norenew@centurylink.com. Notices for billing inquiries/disputes or requests for Service Level credits must be submitted to CenturyLink via Customer's portal at <https://www.centurylink.com/business/login/> or via Email at: Care.Inquiry@Centurylink.com. All other routine operational notices will be provided by Customer to its CenturyLink sales representative. In the event of a conflict between the terms of the Agreement, this Schedule, any SOW and any Change Request, the order of priority will be the SOW Change Request, the SOW, this Schedule, and then the Agreement. Notwithstanding anything to the contrary in the Agreement, Customer is prohibited from reselling Services provided pursuant to this Schedule or any SOW without the express written consent of CenturyLink and, if applicable, CenturyLink's subcontractor. To the extent the Services involve the ongoing storage of or routine access to PHI (as defined under the Health Insurance Portability and Accountability Act of 1996, as amended, "HIPAA"), or CenturyLink is otherwise acting as a Business Associate (pursuant to HIPAA), CenturyLink will agree to the terms in its then-current Business Associate Agreement upon Customer's request. CenturyLink and its affiliates or subcontractors may use and transfer to the United States, or other countries, data or information (including business contact information such as names, phone numbers, addresses and/or email addresses) for the sole purpose of: (i) providing and managing the Services; (ii) fulfilling obligations related to the Services under this Schedule and the Agreement; and (iii) complying with applicable law governing the Services.

Exhibit B-2
LUMEN CPE Service Schedule

1. General. This Service Schedule for Products and Services is attached to and subject in all respects to the Lumen or CenturyLink Master Service Agreement, CenturyLink Total Advantage, or CenturyLink Loyal Advantage Agreement between Lumen and Customer. Capitalized terms not defined herein are defined in the Agreement. Lumen will provide Products and Services under the general terms of the Agreement, this Service Schedule, the CPE Service Guide, any Order, and any other applicable Service Attachment. This Service Schedule may not be used for the purchase of voice, video, data or IP services. In the event of a conflict in any term of any documents that govern the provision of Products and Services hereunder, the following order of precedence will apply in descending order of control: this Service Schedule, the CPE Service Guide, the general terms of the Agreement, any Order, and any other applicable Service Attachment.

1.1 Limitation of Liability. IN ADDITION TO THE LIMITATION OF LIABILITY UNDER THE AGREEMENT, LUMEN'S TOTAL AGGREGATE LIABILITY ARISING FROM OR RELATED TO PRODUCTS AND SERVICES PURCHASED UNDER THIS SERVICE SCHEDULE, UNLESS OTHERWISE STATED IN THE CPE SERVICE GUIDE OR ORDER, WILL IN NO EVENT EXCEED: (A) FOR CLAIMS ARISING OUT OF PRODUCTS, THE AMOUNT OF THE PRODUCT SET FORTH IN THE ORDER RELATING SOLELY TO THE AFFECTED PRODUCT; AND (B) FOR CLAIMS ARISING OUT OF NONRECURRING SERVICES, THE AMOUNT OF THE SERVICE SET FORTH IN THE ORDER.

1.2 Access to Emergency Response Services. *911 emergency services will not be available or may not function properly (e.g., they may not route to the correct public safety answering point or "PSAP") where the Service fails or degrades for any reason, such as failures resulting from power outages and CPE failure (e.g., Internet connectivity).*

CUSTOMER WILL DEFEND AND INDEMNIFY LUMEN, ITS AFFILIATES, AGENTS AND CONTRACTORS FROM ALL THIRD PARTY CLAIMS, LIABILITIES, FINES, PENALTIES, COSTS AND EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, ARISING FROM OR RELATED TO CUSTOMER'S OR CUSTOMER'S THIRD PARTY PROVIDER'S ACTS, OMISSIONS, OR FAILURES OF CONNECTIVITY THAT IMPEDE, PREVENT OR OTHERWISE MAKE INOPERABLE THE ABILITY OF CUSTOMER OR ITS END USERS TO DIRECTLY DIAL "911" IN THE UNITED STATES.

2. Lumen CPE Products and Services.

2.1 Purchase. Customer may purchase Products and Services by executing an Order to Lumen. "Order" means either (a) a written document issued by Customer for the procurement of Products and Services from Lumen; or (b) a Lumen quote or service order signed by Customer. The Order must include, as applicable, the (a) part numbers, (b) quantities, (c) descriptions, (d) manufacturer system identifiers and/or serial numbers, (e) maintenance prices, and (f) Maintenance Term. Customer's purchase of Products and Services is subject to and controlled by the CPE Service Guide. Customer will comply with the terms and conditions set forth in the CPE Service Guide, which is available at <https://www.lumen.com/service-guides>. By executing an Order with Lumen, Customer warrants that Customer has read and agrees to the terms and conditions of the CPE Service Guide. Lumen reserves the right to amend the CPE Service Guide at any time. Customer's continued use of Products and Services constitutes acceptance of those changes. If an Order issued by Customer contains any preprinted terms, those terms will not amend, modify or supplement this Service Schedule or the CPE Service Guide in any way whatsoever, notwithstanding any provisions in an Order to the contrary. Any Order must (a) reference and incorporate this Service Schedule, (b) contain the Customer's exact legal name, and (c) include any other requirements as may be further described in the CPE Service Guide.

2.2 Lease Option. Customer may lease certain Products and Services pursuant to a separate lease agreement with a third-party lease provider or with Lumen (the "Lessor"). Lumen will provide the Product to Customer and receive full payment for the Product from the Lessor. If Customer fails to comply with the Lease, including without limitation, any requirements for final acceptance of the Product, which results in the Lessor's refusal to pay Lumen in full for the Product, Customer agrees to pay Lumen in full for the Product. Until Lumen is paid in full for the Product, Customer will at its own expense, keep the Product free and clear of any claims, liens, and encumbrances of any kind. "Lease" means a separate agreement with a third-party lease provider or with Lumen used to finance Product.

3. Customer Responsibilities.

3.1 Acceptance. For Products, "Acceptance" means Customer agrees that Lumen has delivered the Products identified in the applicable Order. Customer agrees that Lumen has delivered the Products when either; (a) the Products ship from the manufacturer where Lumen does not install the Products; or (b) the Products are delivered to Customer where Lumen or Lumen's designated third party installs or configures the Product. Customer will notify Lumen in writing of any portion of Products that do not operate materially in accordance with the manufacturer's specifications. Failure to notify Lumen within 10 days of actual delivery date constitutes final Acceptance. Lumen will have the right to cure any rejected portion of the Products. Any portion that is not rejected and which is functionally divisible may be invoiced separately.

For Services, "Acceptance" means Customer agrees that Lumen has provided the applicable Services identified in the applicable Order. For maintenance Services, Customer agrees that Lumen has provided the Services when; (a) Customer Service Entitlement is established with Product manufacturer, and (b) Customer is notified of Entitlement by Lumen. "Entitlement" means Product manufacturer is obligated to provide Services to Customer. Customer will notify Lumen in writing of any portion of the Services that is unacceptable. Failure to notify Lumen within 10 days of Entitlement/job completion notification constitutes final Acceptance. Lumen has the right to cure any portion of the Services that has been rejected. Any portion that is not rejected and which is functionally divisible may be invoiced separately.

Exhibit B-2
LUMEN CPE Service Schedule

3.2 Charges. Charges for Products and Services will be specified in each Order and are due upon Customer's receipt of the invoice or as otherwise stated in the applicable Order. Non-recurring charges will apply to the purchase of CPE, Installation and all Maintenance types. Monthly recurring charges will apply to the purchase of CPEaaS. Certain charges and fees, including but not limited to expedite fees, may be set forth in the CPE Service Guide. Any payment not received within 30 days after the invoice date may be subject to interest charges as permitted by applicable law. Charges are billed on an annual basis for non-standard part support and manufacturer-provided maintenance Services. The first annual payment is due upon Customer's receipt of Lumen invoice, and subsequent payments are due in full at the beginning of each subsequent year throughout the Service Term or for the full term. Lumen may cease providing the applicable Products and Services if payment is not made when due. Customer will not be eligible for any discounts or promotional offers other than those specifically set forth in an executed Order. The MRC for CPEaaS will be used to calculate Contributory Charges, if applicable.

3.3 Term; Termination; Termination Charges. This Section replaces the Cancellation and Termination Charges section in the Agreement. The Products and Services will continue for the term specified in the applicable Order or the period of time necessary to perform the Products and Services identified in the applicable Order is complete ("Service Term"), unless terminated by either party pursuant to the terms of this Schedule. Except as otherwise provided, either party may terminate an applicable Products and Services upon 30 days prior written notice. Customer cannot terminate Orders for Products provided on a drop ship basis without prior written authorization from Lumen and issuance of a return material authorization ("RMA") number pursuant to Lumen's RMA Policies set forth in the CPE Service Guide. Customer will remain liable for charges accrued for the applicable Products and Services but unpaid as of the termination date plus, if applicable, any Termination Charges. Termination Charges are waived if Customer and Lumen execute a new Order with a value equal to, or greater than, the balance of the terminated Order and specifically designed to offset the terminated Order. For Products, Termination Charges equal 25% of Product price to Customer ("Restocking Fees"). Customer is responsible for any damage to the Equipment while in Customer's possession or during return shipment to Lumen. If Customer breaches its obligations relating to an Order for Products after delivery, Lumen may, in addition to the Termination Charges and any other remedies: (a) declare all sums due and payable immediately; (b) discontinue discounts related to the Products; (c) cease installation or delivery or disconnect and deactivate Products until amounts due are paid; or (d) retake possession of Products and retain all sums paid by Customer as a setoff against expenses incurred.

For non-standard part maintenance Services, Termination Charges equal the (monthly rate of service(s) terminated) x (20%) x (months remaining in the term of the service). For manufacturer-provided maintenance Services, Termination Charges equal the unpaid balance for Service remaining in the Service Term. For Promet Maintenance and Centurion Maintenance Services, if Lumen has agreed to accept payment for Service in installments, Termination Charges equal 100% of any charges for Service that would have become due during the remainder of the Service Term.

The Service Term for CPE as a Service ("CPEaaS") commences upon Acceptance and will continue for the number of months set forth in the Order. Upon completion, the Service Term for CPEaaS will (a) expire for orders placed on or after December 17, 2018; or (b) automatically renew at the same rate for orders placed prior to December 17, 2018, and number of months (the "Renewal Service Term") unless, with at least 60 days' prior written notice, either party elects to terminate the Renewal Service Term. For orders placed prior to December 17, 2018, "Service Term" for CPEaaS means the first Service Term and each Renewal Service Term, as applicable. Termination Charges for CPEaaS equal (c) 100% of any charges for Service that would have become due during the remainder of the Service Term and (d) if notice of termination is received less than 60 days prior to expiration of the Service Term, and Lumen has already ordered the maintenance from its vendor for any applicable Renewal Service Term, Customer will also pay 100% of the amount paid by Lumen to the third party maintenance provider.

4. Definitions.

"Customer Premises Equipment" or "CPE" consists of hardware, software, and materials used in the transport and/or termination/storage of data, video and voice transmission.

"Products" means CPE and Software offerings from Lumen.

"Services" means offerings from Lumen that (a) CPE Maintenance and Software Maintenance, (b) install, maintain or manage CPE; (c) support Customer network management objectives, or (d) are consulting, professional, technical, development, and/or design services.

Exhibit B-3
LUMEN CPE Service Guide

Lumen Service Guide
Customer Premise Equipment (“CPE”)

October 21, 2020

Exhibit B-3
LUMEN CPE Service Guide

This CPE Service Guide ("SG") sets forth the descriptions, including technical details and additional requirements or terms, of the CPE offerings and maintenance services provided by Lumen. Services are purchased pursuant to the CPE Service Schedule ("Service Exhibit") and the Agreement. This CPE Service Guide supersedes the Detailed Descriptions previously governed by a Customer's Select Advantage Service Exhibit. Notwithstanding anything to the contrary in Customer's underlying agreement, the Select Advantage Service Exhibit and the Detailed Descriptions, Customers purchasing under a Select Advantage Service Exhibit agree that all subsequent purchases will be governed by this CPE Service Guide rather than the Detailed Descriptions.

1. CPE

1.1 Service Description

Lumen provides customer premise equipment ("CPE") hardware and software manufactured by ADTRAN, Avaya, AVST, CheckPOINT, Ciena, Cisco, HP, Juniper Networks, Meraki, Mitel Networks Corporation, Polycom and other Lumen approved vendors ("Products"). All sales are final, except as provided by Product manufacturer. Products may be referred to as "Materials" in certain ordering, quoting, and invoicing documents. Lumen only permits the return of Products in accordance with the Lumen RMA Policies.

1.2 Software

Software will be licensed or sublicensed to Customer according to the licensing agreement accompanying such software. If the software is not accompanied by a license, Lumen grants personal, nonexclusive, limited sublicense to Customer to use copies of the software in object code form only. The license is effective upon shipment and extends only to Customer's own use of such software and only on or with the designated Product. Software must be held in confidence and may not be reproduced unless specifically authorized by the software licensor.

1.3 Title, Invoicing and Security Interest

Ownership and all risk of loss of Product will transfer to Customer upon delivery, except damage caused by Lumen, its agents or subcontractors. Lumen will invoice Customer for such Product upon delivery confirmation. Until Customer pays Lumen in full for any Product, Customer (a) grants to Lumen a continuing security interest in such Product, including additions, replacements and proceeds; (b) authorizes Lumen to file a financing statement with or without Customer's signature, and (c) will not transfer the Product or change its name or organizational status except upon at least 30 days prior written notice to Lumen.

1.4 Manufacturer EULA and Other Terms and Conditions

Products purchased by Customer are subject to certain manufacturer terms and conditions, including, but not limited to, the applicable end user license or agreement ("EULA") identified below. EULAs for certain Products may be viewed at the below URLs or successor URL as designated by the manufacturer. If Customer has purchased a Product for a manufacturer not listed below, Products will be subject to the applicable manufacturer terms and conditions located on manufacturer's website. Customer understands that manufacturers may modify URLs or add additional URLs and agree that Products remain subject to the applicable terms and conditions from the manufacturer.

- Avaya: <https://support.avaya.com/helpcenter/getGenericDetails?>
- Adtran: https://portal.adtran.com/web/page/portal/Adtran/wp_search?query=eula
- CheckPoint: <https://www.checkpoint.com/support-services/software-license-agreement-limited-hardware-warranty/>
- Ciena: <https://media.ciena.com/documents/EULA.pdf>
- Cisco: https://www.cisco.com/c/en/us/about/legal/cloud-and-software/end_user_license_agreement.html
- Cradlepoint: <https://www.checkpoint.com/support-services/software-license-agreement-limited-hardware-warranty/>
- Dell-EMC: <https://www.delltechnologies.com/en-us/converged-infrastructure/legal-terms/index.htm>
- Eaton: <https://www.eaton.com/us/en-us/company/policies-and-statements/terms-and-conditions.html>
- HP: <https://www.hpe.com/us/en/software/licensing.html>
- Juniper: <https://support.juniper.net/support/eula/>
- Mitel: <https://www.mitel.com/legal>
- NetApp: <https://www.netapp.com/us/services/service-descriptions.aspx>
- Nokia: https://www.nokia.com/phones/en_gb/support/warranty/nokia-7-plus/US/en
- Palo Alto: <https://www.paloaltonetworks.com/legal>
- Polycom: <https://www.poly.com/us/en/legal/terms>
- RSA: <https://www.rsa.com/en-us/company/standard-form-agreements>

1.5 Manufacturer Warranty

Lumen will pass-through and assign to Customer all applicable warranties provided by the manufacturer of the applicable Product. All Products purchased from Lumen, including any Product that is part of a system previously purchased from and installed by Lumen which is still under warranty, are subject to the terms and conditions set forth in the manufacturer's warranty applicable to the Product. Products are sold to Customer with no warranty of any kind from Lumen. Warranties of certain manufacturers may be viewed at the below URLs or successor URLs as designated by the manufacturer. If Customer has purchased a Product for a manufacturer not listed below, Products will be subject to the applicable warranty terms and conditions located on manufacturer's website, provided that Lumen has the right to pass-through and assign the warranty to Customer. Customer understands that manufacturers may modify URLs or add additional URLs and agree that Products remain subject to the applicable warranty terms and conditions from the manufacturer.

- Avaya: <https://support.avaya.com/helpcenter/getGenericDetails?detailId=C2009223142629795043>
- Adtran: https://portal.adtran.com/web/page/portal/Adtran/wp_support_warranty
- CheckPoint: <https://www.checkpoint.com/support-services/software-license-agreement-limited-hardware-warranty/>

Exhibit B-3
LUMEN CPE Service Guide

- Ciena: <https://my.ciena.com/CienaPortal/s/global-search/%40uri#q=warranty&t=All&sort=relevancy&f:@commonsourc=Technical%20Publications>
- Cisco: <https://www.cisco.com/c/en/us/products/warranty-listing.html>
- Cradlepoint: <https://cradlepoint.com/about-us/terms-of-service/msp-addendum/>
- Dell-EMC: <https://www.delltechnologies.com/en-us/customer-services/product-warranty-and-service-descriptions.htm>
- Eaton: [https://www.eaton.com/us/en-us/site-search.searchTerm\\$Eaton::com%20:%20Warranties.tabs\\$all.html](https://www.eaton.com/us/en-us/site-search.searchTerm$Eaton::com%20:%20Warranties.tabs$all.html)
- HP: <https://support.hpe.com/hpsc/public/home>
- Juniper: <https://support.juniper.net/support/warranty/>
- Mitel: <https://www.mitel.com/legal/products-warranty-and-limitation-liability>
- NetApp: <https://www.netapp.com/us/services/service-descriptions.aspx>
- Nokia: https://www.nokia.com/phones/en_gb/support/warranty/nokia-7-plus/US/en
- Palo Alto: <https://www.paloaltonetworks.com/legal>
- Polycom: <https://www.poly.com/us/en/legal/terms>
- RSA: <https://www.rsa.com/en-us/company/standard-form-agreements>

Lumen disclaims any liability for loss, damage or injury to any party as a result of any defects, latent or otherwise, in any Product. Lumen is not: (a) a manufacturer of any Product; (b) a party to any agreement between Customer and a Product manufacturer for services provided directly by the Product manufacturer to Customer (e.g., maintenance and extended warranty services); and (c) bound by or liable for any representation, warranty, or promise made by a Product manufacturer.

1.6 Warranty Claim Support

Lumen will provide warranty claim support to replace defective hardware during the manufacturer's warranty period for Products, as defined within this CPE Section of the SG, only when such Products are purchased through Lumen. All other CPE, even if purchased from Lumen, are excluded from Lumen warranty claim support and warranty implementation is the sole responsibility of Customer. Warranty claim support for software media replacement is limited to replacement of CD, tapes and other media prior to Acceptance of the Product.

All Customer warranty claims will be supported through the RMA processes. All warranty coverage periods start on the date the Product is shipped from the manufacturer unless manufacturer warranty card included with Product states otherwise. Lumen will provide at no-charge to Customer, manufacturer warranty claim support for 90 days after the equipment is shipped from the manufacturer. After that period, a \$250.00 charge per case/trouble ticket will apply. This charge excludes labor associated with trouble isolation if such assistance is required or requested. Warranty claim support is provided at the discretion of Lumen and is subject to change without notice. UNDER NO CIRCUMSTANCE WILL LUMEN'S SUPPORT OF ANY CUSTOMER WARRANTY CLAIM EXCEED THE SUPPORT, POLICIES, OR PROCESSES EXTENDED TO LUMEN BY PRODUCT MANUFACTURER. "Center" means the Lumen Customer Service Center (Center) reachable at **800-227-2218**.

1.7 Warranty Parts

Defective warranty parts are replaced either by: (a) Return and Repair Service; or (b) Return and Replace Service. Repaired Product should be returned to Customer within 30 days, but Lumen makes no guarantee. Replacement parts are covered for the remaining period of the warranty for the product. Lumen owns all defective parts returned in exchange for AR except those Lumen chooses to return to Customer. Customer should assume Lumen holds no replacement parts for warranty claims. "Return and Repair Service" means Customer will return Product to Lumen and Product manufacturer will repair Customer's defective Product. "Return and Replace Service" means Customer will return Product to Lumen and Product manufacturer will replace Product with the same or similar Product that is functionally equivalent in terms of features, function, fit and compatibility.

1.8 Return Material Authorization ("RMA") Policies.

Product Return Material Authorization Policy. RMA is limited to Product with warranty or maintenance coverage. RMA only supports like-for-like replacement of Product. "Return Material Authorization" or "RMA" means manufacturer or Lumen authorization to return Product. LUMEN WILL NOT ACCEPT THE RETURN OF ANY PRODUCT WITHOUT PRIOR APPROVAL FROM PRODUCT MANUFACTURER. Manufacturer may assess fees or charges associated with RMA. Product returns are subject to one of the following two RMA policies. Customer must call the Center for assistance with a Product return and issuance of the RMA number.

- **Pre-Acceptance Product Return.** Return is conditioned upon: (i) the Product being returned in its original box, (ii) Product has not been opened or installed, (iii) box does not have writing on it, (iv) the factory seal has not been broken and (v) manufacturer's agreement to accept return of the Product. Product must be returned using the issued RMA number and shipped to location specified in RMA. Product must be received by Lumen within 10 business days of the RMA Creation Date. If Product is not received by Lumen within 10 business days of the RMA Creation Date, Lumen reserves the right to bill Customer for any Advance Replacement Product provided to Customer. "Advance Replacement" or "AR" means Lumen will provide Customer with a replacement part in advance of Customer returning the defective part for repair or replacement. "RMA Creation Date" means the day that Lumen provides the RMA number to Customer.
- **Post Acceptance Product Return for Warranty Replacement.** Lumen provides warranty claim support only for Products purchased through Lumen. Defective Product must be received by Lumen within 10 business days of the RMA Creation Date. Product must be returned using the issued RMA number. Customer is responsible for all return shipping costs. Lumen reserves the right to cancel RMA request if defective Product is not received by Lumen within 10 business days of the RMA Creation Date. Lumen will not provide warranty claim support if Lumen has not received payment for Product within 90 days of Acceptance.
- **Restocking Fees.** Requests for RMA are subject to a fee of 25% of Product price paid by Customer, except as waived solely within Lumen's discretion for Product returns concerning Bundle services and manufacturer errors. Customer is responsible for any

Exhibit B-3
LUMEN CPE Service Guide

damage to the Product while in Customer's possession and during return shipment to Lumen.

1.9 Miscellaneous

- **Advance Replacement ("AR") Charges.** If manufacturer of Product offers an AR service and Customer requests AR for defective Product, Lumen will facilitate the AR and charge Customer \$500.00 per AR. AR utilizes Lumen RMA processes. An Order Form must be authorized to cover \$500.00 AR charge and cost of replacement Product. Customer is also responsible for all services charged by the Product manufacturer for AR service. Lumen provides no warranty on manufacturer AR services. Customer will only be charged for replacement Product if Customer fails to return Product as outlined in RMA Policies.
- **Expedites.** If Customer requests an expedited delivery of Product, and Lumen can and chooses to comply with the request, the following charges will apply: (a) a \$500.00 expedite request charge; (b) a \$50.00 per expedited item charge; and (iii) all shipping charges.
- **Export.** Customer will not export Products. Lumen is prohibited by its Product manufacturers from selling Products that will be exported.
- **Trade-In.** If Customer trades in any Product through Lumen under any manufacturer terms, Customer will indemnify and hold Lumen harmless from any liabilities, including charges imposed on Lumen, arising from Customer's failure to comply with the manufacturer's terms.
- **Misuse.** Lumen may provide information relative to Product operation and features, and recommendations for protecting Product against fraud, malice, and unauthorized access, however, Customer is solely responsible for the security of its own Product. Lumen and its affiliates and subcontractors are not responsible for damages relating to unauthorized access, fraud, or other misuse of Customer's Product.

2. CPEaaS

2.1 Service Description

CPE as a Service ("CPEaaS") is a service where Products and Services are offered to Customer monthly for the Service Term identified in the Order Form. CPEaaS includes implementation, unless otherwise stated in the Order Form, maintenance and use of the Products. Except as set forth in this CPEaaS Section, the Products and Services are subject to and controlled by the other applicable sections of this Service Guide. As defined within this CPEaaS Section of the SG, "Products" means CPE and software offerings from Lumen, and "Services" means offerings from Lumen that (a) install, maintain or manage the Products; (b) support Customer network management objectives, or (c) are consulting, professional, technical, development, and/or design services. Services may be referred to as "Support Services" and "Implementation" in certain ordering, quoting, and invoicing documents. Acceptance of CPEaaS occurs (a) upon delivery of the Products where Customer purchases only Products and Installation or (b) upon installation where Customer purchases Products, Installation and Maintenance Services.

2.2 Delivery

Products will be delivered to the Customer's location(s) identified by Customer to Lumen. Delivery will be made either by F.O.B. origin, freight paid by Customer, or personal delivery by Lumen.

2.3 Ownership and Use

Except as provided in the Product Purchase subsection below, Product is the personal property of Lumen, even if the Product, or any part of the Product, is affixed or attached to Customer's real property or any improvements on Customer's real property. Customer has no right or interest to the Product other than as provided within this CPEaaS Section and will hold the Product subject and subordinate to the rights of Lumen. Customer will: (a) at its own expense, keep the Product free and clear of any claims, liens, and encumbrances of any kind; and (b) make no alterations or affix any additions or attachments to the Product, except as approved by Lumen in writing. Customer will not remove, alter or destroy any labels on the Product and will allow Lumen the inspection of the Product at any time.

2.4 Loss; Replacement of Damaged Product

As between Lumen and Customer, Customer will bear the entire risk of loss, theft, casualty, destruction or damage to the Product following delivery from any cause whatsoever (collectively, "Loss"). Customer will indemnify, defend and hold harmless Lumen its affiliates, and contractors for any such Loss. Customer will advise Lumen in writing within five business days of any such Loss. In no event will such Loss relieve Customer of the obligation to pay Lumen any amounts due. Where Product is replaced due to Loss or damage not covered by maintenance under the applicable section of this Service Guide, Customer will pay: (a) the full replacement value of the damaged Product, and (b) a one-time charge to cover Lumen's cost to ship the new Product. If Customer requires on-site assistance from Lumen to install the replacement Product, an additional dispatch charge will apply. Lumen will quote the charges in advance, obtain Customer's approval, and invoice the charges within 60 days. Customer is responsible for any claim for reimbursement from its insurance carrier. The terms and conditions in this Service Guide will continue to apply. Replacement Product may or may not be the same model.

2.5 Product Purchase; Ongoing Maintenance

Upon termination or expiration of the Service Term, Customer will purchase Product outright for \$1.00 on an "as-is and where-is" basis, with no representations or warranties of any kind, including no warranties of merchantability or fitness for a particular purpose or representation that any software license associated with the Lumen provided CPE is transferrable to Customer. Upon invoicing, title for the Purchased Product immediately transfers to Customer. Customer will become owner of the Purchased Product and bear all responsibility for the Purchased Product, and, as such, agrees to release Lumen from all and any liability relating in any way to the Purchased Product. Upon

Exhibit B-3
LUMEN CPE Service Guide

Customer's ownership of the Purchased Product, Lumen will no longer provide maintenance support or any configuration changes. Customer will be responsible for purchasing or providing any separate maintenance and any software licenses for all Purchased Product and also becomes responsible for proper disposal of the Purchased Product.

2.6 Insurance

Customer will, provide and maintain, at Customer's own expense, at all times following delivery of the Product until the Product is purchased, the following insurance: (a) "All-Risk" property insurance covering the Product for the full replacement value, naming Lumen or a third party provider designated by Lumen as a loss payee; and (b) commercial general liability insurance with limits of not less than \$1,000,000 per occurrence and aggregate and naming Lumen as an additional insured, unless such insurance is required elsewhere in this Agreement at higher limits. Such insurance will be placed with insurers who have a minimum "Best's" rating of A- VII (A- 7). Upon request, Customer will deliver to Lumen insurance certificates evidencing such insurance.

3. Installation Services

3.1 Service Description

Lumen will provide certain installation services for Products that Customer purchased from Lumen through the Product manufacturer as defined by the Product manufacturer ("Services"). Services may be referred to as "Support Services" and "Implementation" in certain ordering, quoting, and invoicing documents. Product manufacturer will provide all necessary labor, tools, and materials, and will repair or replace, at its discretion. Products includes all Products subject to the CPE and CPEaaS Sections of this Service Guide.

3.2 Coordination and Customer Requirements Validation

As applicable,

- Lumen will coordinate the implementation of Products between Customer and Lumen, and other third parties as required and will manage deadlines and milestones.
- Lumen will gather from Customer's designated contacts the applicable technical, design requirements and site information, such as:
 - Floor plan & phone set layout
 - LAN/WAN IP information and network architecture details
 - Router configuration data
 - Switch configuration data
 - Phone set / station assignments and features
 - Voice configuration parameters
 - Circuit/network/telco order and network infrastructure connectivity and system configuration information
 - Application information required for purchased applications
 - Call Manager design (i.e., Call Admission Control, Dial plan requirements and Redundancy)
 - Directory access and integration
 - Quality of Service ("QoS") details
 - Network service provider capabilities and SLA
 - Any additional features of the Product that may be required or requested by Customer
- Lumen will perform feature, functional and architecture analysis from data gathered.
- Lumen will compare functional requirements with the available features/functionality of the Product to any solution that may exist in Customer's environment.
- Lumen will create and verify equipment configuration.
- Lumen will identify and present feature/functionality and/or design gaps to Customer to ensure acceptance of deviations from requirements. Document gaps for risk assessment documentation. Lumen and Customer will determine whether a gap can be removed by pointing out similar functionality with existing features. Discuss and document feature/functionality and/or design alternatives and ensure that Customer understands implications of each alternative.
- Lumen will assign a technician to configure, stage, and test the equipment.
- Schedule a technician and/or Senior Design Engineer to gather station information, program features and station information, and to train Customer personnel.
- Lumen will assist in testing the equipment and the associated networks and purchased applications (per the Lumen Purchase Order), to ensure proper operation.

3.3 On-Site Deployment

If Services are deployed to Customer's site to install Products, the following applies:

- Access to Installation Site
 - Customer will provide access at the installation address(s) during regular business hours from: 8:00 AM to 5:00 PM local time Monday through Friday, plus after-hours access at any pre-arranged dates/times.
 - Customer will provide any security personnel, codes, badges or other access methodology required for staging, installation, and training.
- Services include, as applicable:
 - Staging
 - Assembly of base equipment, both hardware and software
 - Configuration of base equipment

Exhibit B-3
LUMEN CPE Service Guide

- Functionality and purchased application testing
- Unboxing, assembly, and distribution of phone sets
- *Note: Customer responsible for disposition of empty boxes & any replaced equipment.*
- Unpack and inventory equipment, reporting any damaged hardware or partial shipment
- Mount and connect the chassis equipment
- Program Customer stations and quoted features
- Power-up & diagnostics
- Attach cables
- Test connectivity
- As may be required, schedule and perform telco cut-over
- Place and connect phones
- Provide a phone quick reference guide (one per Customer phone)
- Provide phone tutorial CD and administrator's guide reference online link
- *Note: Customer is responsible for moving office furniture and other obstructions*
- Except as otherwise provided in an Order Form, Services **will not** include the following:
 - Additional wiring or cabling; supply, assembly, installation or maintenance of racks, shelves, or any other physical structure to which the equipment is to be mounted; ancillary materials such as power/extension cords, rack/wall mount bolts/screws, wires, cables, connectors.
 - Troubleshooting or installing the wiring, extending wiring and/or cabling, to include telco demarcation points.
 - Providing, installing, verifying (tone & tag), or labeling of Customer phone wiring.
 - Supply and / or assembly of racks, shelves or tables which are not included in the Lumen Bill of Materials.
 - Accessing or troubleshooting **third party** hardware, software, or network and circuits
 - Optimizing or troubleshooting Customer applications not listed in the Lumen Bill of Materials.
 - Installation or configuration changes that are results of site additions, deletions, re-locations or changes in Customer's network strategy or design requirements that deviate from the agreed upon site listing
 - Software upgrades, with the exception of upgrades designed to address a circuit affecting issue on the equipment being installed.
 - Installation or maintenance of "soft" computer software phones.
 - Moving of office furniture for the installation of Customer phones or access to panels.
 - Configuring or installing additional Customer hardware
 - Configuring third party or pre-existing servers.
 - If the Service requires **Customer-provided** servers, Customer is responsible for ensuring that those servers meet manufacturer and/or software-provided specifications for hardware and software. Failure of test & turn-up of desired server applications due to missing the specifications will result in any extra time or trips being billed at standard time and material rates.
 - Customer is responsible for conduit, cable trays, wire raceways, and power configurations, as required by state and/or local electrical regulations or fire codes, as well as manufacturer specifications.

3.4 Potential Additional Charges for Installation Services

The installation date may be in jeopardy, with additional charges incurred to Customer, if Lumen or its subcontractors are delayed due to lack of needed Customer information, inaccurate or incomplete information provided, or lack of site readiness. Lumen reserves the right to invoice for all labor services and equipment provided if work is stopped, delayed, or rescheduled for more than 30 days, due to a request by Customer, or as a result of Customer's failure to meet the responsibilities outlined in this Service Guide or applicable Order Form, or for any other reason beyond Lumen's control. Additional potential charges might include:

- Expedite Fee: Fixed rate surcharge to schedule the installation before the next nominally available date. Customer may request that the installation process be accelerated. The fee helps to offset the additional costs of special processing and rush shipment of the equipment to the site. Lumen will grant an expedite request and incur the fee only if the service and equipment are available.
- Time and Materials (T&M): Hourly rate for services performed beyond those covered by the Order Form, and for those instances where Customer or other parties (i.e. beyond Lumen's control) delay Lumen's progress and / or completion of the Service. At Customer's request, Lumen can arrange for onsite or remote services (T&M) in addition to the tasks covered in this Service Guide or applicable Order Form.
- Site Not Ready (SNR), Rescheduling, or Cancellation: Fees to cover costs of canceling or rescheduling the Service, assessed on a per site basis. Lumen will waive these fees if five business days' notice is given.
- After-hours: additional compensation for services performed outside normal business hours – normal business hours is defined as Monday through Friday (exclusive of Holidays), 8am thru 5pm, local site time. At Customer's request, Lumen can arrange for services and support on weekdays after normal hours, or on Saturdays, Sundays, or Holidays.

4. Lumen Provided Maintenance Services

4.1 General Service Components

Except as otherwise provided, the following service components apply to all maintenance and support services in this section ("Services"). Services may be referred to as "Support Services" and "Implementation" in certain ordering, quoting, and invoicing documents.

Exhibit B-3
LUMEN CPE Service Guide

- **Safety Compliance:** Lumen and Customer will adhere to all Safety Regulations. Lumen will not work in any area where a Hazardous Substance is present. Lumen may work in an area containing non-friable asbestos if Lumen determines, in its sole judgment, that the work will not disturb or cause the asbestos to become friable. Customer is responsible for informing Lumen of the existence, location and condition of any Hazardous Substances that may be in or around the Lumen work area. Customer will indemnify and hold Lumen harmless from any fines or other liabilities of Lumen arising from Customer's failure to inform Lumen of Hazardous Substances. Additionally, Lumen may suspend work from the time it reasonably identifies areas where Hazardous Substances may be present until the work area is in compliance with all Safety Regulations. Any such suspension is not a default of the Agreement, and any delays from the suspension may result in a similar delay in work completion, without penalty to Lumen. If the parties cannot agree whether Lumen's work can be performed through completion without a violation of Safety Regulations, or cannot agree to payment of added costs, if any, either party may terminate the Agreement without penalty. Such termination will not affect Customer's obligation to pay for Service provided by Lumen prior to the effective date of termination. "Hazardous Substance" means a substance regulated by any Safety Regulation and includes, but is not limited to, asbestos. "Safety Regulations" means all applicable health, safety and environmental laws, rules and regulations, including but not limited to Occupational Safety and Health Administration's and the Environmental Protection Agency's rules and regulations.
- **Trouble Reports:** Customer will report problems with the Covered Product to Center and Lumen will follow then-current methods and procedures to resolve the trouble report. Lumen will work each reported problem as applicable to the particular Lumen Provided Maintenance Service purchased by Customer. For Centurion Maintenance Services, Lumen will work each reported problem based on priority. For each trouble report opened for Promet Maintenance Services and Non-Standard Part Maintenance Services, Lumen will measure Engagement and Response times. "Engagement" means the period of time between when Lumen receives a trouble report from Customer and when the Center confirms with Customer both technician assignment and entitlement to support. "Center" means either the Lumen Customer Service Center reachable at (a) **800-227-2218 opt 2, 2** for Lumen Data Networks CPE Support (Adtran, Cisco, Juniper, etc) and Cisco CallManager Solutions or (b) **800-421-2271** for Voice CPE Support (Avaya, Cisco, Mitel, etc) and video solutions.
- **Performance of Services:** Lumen will provide certain activities for the Services during Covered Hours. "Covered Hours" means (a) for ProMet Maintenance 8:00 am to 5:00 pm Local Time, Monday through Friday, excluding Lumen-observed holidays; or (b) for Centurion maintenance, 24 hours per day, 7 days per week, including Lumen observed holidays. "Local Time" means the time zone in which Covered Product is located.
- **MD, EOS and EOL Covered Products.** Lumen will make an annual review of Customer's Covered Product to identify MD, EOS and EOL equipment and software. Service excludes MD, EOS and EOL equipment or software from maintenance coverage. Acceptance of an Order Form for Service does not bind Lumen to the maintenance of MD, EOS or EOL equipment or software. "End of Life" or "EOL" means equipment or software that is no longer available or supported by the manufacturer or producer. "End of Sale" or "EOS" means new equipment or software that is no longer available for purchase from the manufacturer or producer, but support and replacement equipment is available from the manufacturer or producer. "Manufacturer Discontinued" or "MD" means that the Covered Product or Software has been designated by the vendor as no longer supportable by manufacturing, design, and related processes. Covered Product designated as MD is no longer available for sale. Software designated as MD may no longer be available for upgrades or expansion, depending on the current state of the software. This "MD, EOS and EOL Covered Products" subsection only applies to Centurion Maintenance Services and Promet Maintenance Services.
- **Non-Disclosed Pre-Existing Issues.** Customer must disclose pre-existing issues that have a material impact to the Covered Product and would cause Lumen to incur an immediate cost to resolve. Lumen reserves the right to charge Customer for corrective action associated with such non-disclosed pre-existing issues within the first 90 days of the coverage period.
- **Problem Isolation Billing; Service Exclusions.** In the event Lumen spends time (a) isolating problems to equipment, software, or LAN/WAN elements that are not part of the Covered Product or Non-Standard Product, or (b) associated with Service exclusions, Customer will pay Lumen for such effort at then-current time and material rates. Service exclusions include:
 - CPE hardware not listed on the Order Form
 - CPE software not listed on the Order Form unless embedded in the Covered Product
 - Covered Products missing serial numbers or other identification required by the manufacturer.
 - Problems caused by integration with non-Lumen provided hardware or software
 - Problems associated with Operating Systems not provided by Lumen
 - Covered Product failure due to manufacturer excluded causes such as accident, abuse or misuse
 - Covered Product failure due to non-compliance of electrical or environmental requirements
 - Covered Product usage not in accordance to manufacturer specification
 - Failure of Customer to follow proper operating procedures
 - Servicing not authorized by Lumen
 - Upgrades of software
 - If providing On-Site service, any on-site support requested by Customer (for Promet Maintenance Service only)
- **Voice over Internet Protocol (VoIP) Quality Exclusion.** Lumen may perform tasks to maintain QoS for VoIP, on behalf of Customer. Nevertheless, Lumen makes no warranty on the quality of voice/video transmissions over private or public IP network in this Detailed Description. Further, Lumen does not recommend VoIP deployments over a Best Effort Network. Customer acknowledges that quality issues relative to voice/video transmission may occur on a Best Effort Network. Issues, such as jitter, echo, and dropped calls may occur with varied degrees of frequency depending on network use and latency. Trouble reports that

Exhibit B-3
LUMEN CPE Service Guide

have been isolated and diagnosed as intermittent QoS issues will be billable to Customer at then-current time and material rates. "Best Effort Network" means any private or public network that cannot sustain Quality of Service (QoS) for time sensitive traffic from one end point to another.

4.2 Centurion Maintenance Services ("Services")

The following provisions apply to Centurion Maintenance Services:

- **Service Description:** Lumen will provide Lumen maintenance of the Covered Product, which may include embedded software, in accordance with the manufacturer's specifications ("Services"). "Covered Product" means CPE hardware and software manufactured by a Lumen approved vendor and is part of Lumen's standard portfolio. Lumen will provide all necessary labor, tools, and materials, and will repair or replace, at its option, any necessary parts in connection with Services. To the extent that Lumen provides labor, Customer will provide access to Lumen and/or its applicable affiliates, subcontractors and vendors performing such work. All work efforts are to be done by CTL technicians and resources. Services include the following options:
 - Centurion On-Site Maintenance Service: Services will be provided on Customer's site.
 - Centurion Remote Maintenance Service: Services will be provided remotely.
- **System Integrity:** To receive Services from Lumen, Customer agrees to maintain System Integrity. Lumen reserves the right to deny Services if Customer fails to maintain System Integrity, including but not limited to adding hardware and software not provided by Lumen. Lumen may request Customer to provide documentation demonstrating System Integrity. "System Integrity" means: (a) Lumen is the Customer's channel partner of record for Covered Product; and (b) all system hardware is covered by this Service or other Lumen maintenance services.
- **Lumen Responsibilities:** Lumen will perform the below tasks.
 - **Centurion Remote Maintenance Service**
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays
 - Perform trouble isolation during Covered Hours.
 - If Lumen and Customer determine an AR Product is required, Lumen will deliver AR Product during Covered Hours (a) for standard maintenance the next business day provided such determination was made before 3:00 PM; or (b) for premium maintenance, within four hours; or for Mitel etc. by the next business day provided such determination was made before 3:00 PM Local Time, Monday through Friday, excluding Lumen-observed holidays. "Advance Replacement Product" or "AR Product" means Lumen will provide Customer with a replacement part in advance of Customer returning the defective part for repair or replacement. Availability of AR is limited and is provided in the following services only Centurion Remote Maintenance.
 - Lumen will make a reasonable effort to deliver all required replacement parts to Customer's site.
 - **Centurion On-Site Maintenance Service**
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays
 - Perform trouble isolation during Covered Hours
 - If Lumen and Customer determine an on-site Response is required, Lumen will complete Response during Covered Hours (a) for standard maintenance, the next business day provided such determination was made before 3:00 PM; or (b) for premium maintenance, within four hours, or for Mitel etc. by the next business day provided such determination was made before 3:00 PM Local Time, Monday through Friday, excluding Lumen-observed holidays. "Response" means the period of time between (a) when Lumen and Customer determine remote diagnostic efforts are inadequate to resolve reported problem, a Field Replaceable Unit is identified for replacement or a Maintenance Release is needed; and (b) when Lumen technician arrives at the site of the Covered Product. "Response with AR Product" means the period of time between when Lumen and Customer determine a Field Replaceable Unit is identified for replacement and when AR Product is delivered to Customer site. "Field Replaceable Unit" means a circuit board, part, or assembly that can be quickly and easily removed and replaced by a technician without having to send the entire product or system to a repair facility. "Maintenance Release" means an incremental release of Software that provides maintenance fixes or corrective content and may provide additional Software features.
 - Lumen will make a reasonable effort to arrive at Customer's site with all required replacement parts.
- **Customer Responsibilities:** Customer will perform the below tasks.
 - Provide information to assist Lumen in determining Service entitlement
 - Provide serial numbers and specific location of the Covered Product
 - Assist Lumen in accessing the Covered Product remotely either by modem or Internet
 - Provide 30-day notice to Lumen of any changes to the Covered Product listed on the Order Form
 - Provide five-day notice to Lumen of any changes to the personnel authorized to contact Lumen
 - Perform due diligence to protect the Covered Product from abuse and misuse
- **Ticketing Response Priorities:**
 - **Priority 1 (High) – Service Outage:** A service outage is the most critical event and is assigned to problems that severely affect service, capacity, billing, and maintenance capabilities. Customer's staff must be available as required by Lumen to aid in problem diagnosis and provide remote or on-site access to the Covered Product. Examples of Priority 1 events are:
 - Total network element outage
 - Any loss of safety or emergency capability (e.g., emergency calls such as 911 in North America)
 - Total loss of the ability of the system to provide any required critical major alarms
 - **Priority 2 (Medium) – Service Affecting Impairment:** These are issues that affect system operation, maintenance or administration and require immediate attention. Their priority is lower than a service outage because, while impacted by the service issue, Customer is not inhibited from conducting business. Examples of Priority 2 events are:

Exhibit B-3
LUMEN CPE Service Guide

- A reduction in capacity or traffic handling capability such that expected loads cannot be handled
 - Failure resulting in dynamic routing, switching capability or transport loss
 - System restarts, whether or not the system has recovered or not, and where root cause has not been defined
- **Priority 3 (Low) – Service Affecting Intermittent Impairment:** These are issues that intermittently affect system operation, maintenance or administration. Due to their transient nature, resolution of these issues may be protracted. Examples of Priority 3 events are:
 - Traffic impacting system restarts
 - Disruption of billing or accounting capability
- **Priority Level 4 – Customer Inquiry:** These are issues that require Lumen technical assistance such as software application issues that do not impact service or follow-up to all other reported problems.
- **Defective Product Return.** Customer must return defective Covered Product within 10 days of an AR Product shipment. Lumen retains the option to charge Customer for non-returned Covered Product plus \$300.00 service charge.
- **Service Level Objectives (SLO).** If Service includes SLO, Lumen will make commercially reasonable efforts to (a) complete Engagement within one hour after Customer initiation of a trouble report; or (b) complete Response during Covered Hours (i) for standard maintenance, the next business day provided need for Response was determined before 3:00 PM; or (ii) for premium maintenance, within four hours after determination by Customer and the Center that such Response is required.
- **Remote Access Device.** As part of the Service, Lumen may install a Remote Access Device (“RAD”) at Customer location to allow Lumen to remotely diagnose and resolve problems on Covered Product. When connected to the Internet, the RAD initiates contact with the Lumen management platform. After authentication, a secure tunnel between the Lumen management platform and RAD is established. The RAD cannot accept incoming requests and is coded to only contact the Lumen management platform. Customer must return the RAD to Lumen within 30 days of termination of the Service. If the RAD is not returned to Lumen, Customer will be charged \$500, unless otherwise agreed to by Lumen and Customer.
- **Non-Standard Products.** Lumen may purchase Non-Standard Products on behalf of Customer for the purchasing convenience of Customer. Lumen will review Customer’s Covered Product to identify Non-Standard Products. Acceptance of an Order Form for Service does not bind Lumen to maintenance of Non-Standard Products. Service for Non-Standard Products is provided at the discretion of Lumen and is subject to change without notice. If Lumen discontinues support of Non-Standard Products, Lumen will either: (a) reimburse customer for Service charges associated with Non-Standard Products if Customer received no benefit, or (b) charge Customer at then-current time and material rates for support of Non-Standard Products. Support of Non-Standard Products is further defined in the Detailed Description for Non-Standard Part Support Service. “Non-Standard Part” means (a) End of Sale CPE hardware and software manufactured or produced by Adtran, Ciena, Cisco, Juniper Networks, Nokia, Polycom, and Mitel or (b) CPE hardware and software for which Lumen is unable or unwilling to provide warranty or other maintenance support.

4.3 Promet Maintenance Services (“Services”)

The following provisions apply to Promet Maintenance Services:

- **Service Description:** Lumen will provide Lumen maintenance of the Covered Product and the Non-Standard Product, which may include embedded software, in accordance with the manufacturer’s specifications (“Services”). “Covered Product” means CPE hardware and software manufactured by a Lumen approved vendor and is part of Lumen’s standard portfolio. Lumen will provide all necessary labor, tools, and materials, and will repair or replace, at its option, any necessary parts in connection with Services. To the extent that Lumen provides labor, Customer will provide access to Lumen and/or its applicable affiliates, subcontractors and vendors performing such work. All work efforts are to be done by CTL technicians and resources. Services include the following options:
 - Promet Remote Standard Service
 - Promet Remote Premium Service
 - Promet On-Site Standard Service
 - Promet On-Site Premium Service
- **Lumen Responsibilities:** Lumen will perform the below tasks.
 - **Promet Remote Standard Service**
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays
 - Perform trouble isolation during Covered Hours.
 - If Lumen and Customer determine before 3:00 PM that an AR Product is required, Lumen will deliver AR Product the next business day. “Advance Replacement Product” or “AR” means Lumen will provide Customer with a replacement part in advance of Customer returning the defective part for repair or replacement. Availability of AR is limited and is provided only for Promet Remote Premium Service and Promet Remote Standard Service.
 - **Promet Remote Premium Service**
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays.
 - Perform trouble isolation 24 hours per day, 7 days per week, including Lumen observed holidays.
 - If Lumen and Customer determine an AR Product is required, Lumen will deliver AR Product within four hours, 24 hours per day, 7 days per week, including Lumen observed holidays to continue trouble isolation or implement trouble resolution. Availability of AR is limited and is provided only for Promet Remote Premium Service and Promet Remote Standard Service.
 - **Promet On-Site Standard Service**
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays
 - Perform trouble isolation during Covered Hours.
 - If Lumen and Customer determine before 3:00 PM that an on-site Response is required, Lumen will respond on-site the next business day. “Response” means the period of time between (a) when Lumen and Customer determine remote

Exhibit B-3
LUMEN CPE Service Guide

diagnostic efforts are inadequate to resolve reported problem, a Field Replaceable Unit is identified for replacement or a Maintenance Release is needed; and (b) when Lumen technician arrives at the site of the Covered Product or Non-Standard Product. "Field Replaceable Unit" means a circuit board, part, or assembly that can be quickly and easily removed and replaced by a technician without having to send the entire product or system to a repair facility. "Maintenance Release" means an incremental release of Software that provides maintenance fixes or corrective content and may provide additional Software features.

- Lumen will make reasonable effort to arrive at Customer's site with all required replacement parts.
- **Promet On-Site Premium Service**
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays.
 - Perform trouble isolation 24 hours per day, 7 days per week, including Lumen observed holidays.
 - If Lumen and Customer determine an on-site Response is required, Lumen will respond within four hours, 24 hours per day, 7 days per week, including Lumen observed holidays to continue trouble isolation or implement trouble resolution
 - Lumen will make reasonable effort to arrive at Customer's site with all required replacement parts.
- **Customer Responsibilities:** Customer will perform the below tasks.
 - Provide information to assist Lumen in determining Service entitlement
 - Provide serial numbers and specific location of the Covered Product
 - Assist Lumen in accessing the Covered Product remotely either by modem or Internet
 - Provide 30-day notice to Lumen of any changes to the Covered Product listed on the Order Form
 - Provide five-day notice to Lumen of any changes to the personnel authorized to contact Lumen
 - Perform due diligence to protect the Covered Product from abuse and misuse
- **Remote Access Device.** As part of the Service, Lumen may install a Remote Access Device ("RAD") at Customer location to allow Lumen to remotely diagnose and resolve problems on Covered Product. When connected to the Internet, the RAD initiates contact with the Lumen management platform. After authentication, a secure tunnel between the Lumen management platform and RAD is established. The RAD cannot accept incoming requests and is coded to only contact the Lumen management platform. Customer must return the RAD to Lumen within 30 days of termination of the Service. If the RAD is not returned to Lumen, Customer will be charged \$500, unless otherwise agreed to by Lumen and Customer.
- **Preventative Maintenance.** Manufacturer of the Covered Product may provide guidance on methods and procedures that must be completed to protect warranties and extend the useful life of the Covered Product. Lumen will provide preventative maintenance information and or guidelines per manufacturer requirements.
- **Defective Product Return.** Customer must return defective Product within 10 days of an AR Product shipment. Lumen retains the option to charge Customer for non-returned Product plus \$300.00 service charge.
- **Service Level Agreements (SLA).** If Service includes SLA, Lumen will credit Customer in the event Lumen fails to complete Engagement within one hour during Covered Hours after Customer initiation of a trouble report or complete Response on the next business day after determination by Customer and the Center that such Response is required. This SLA credit is limited to one month's Service charge of the Covered Product. Under no circumstances will Lumen be required to credit Customer in any one calendar month for charges greater than the monthly charges for affected Service. An SLA credit will be applied only to the month in which the event giving rise to the credit occurred. This SLA credit only applies if all the following conditions are true: (a) Customer has fulfilled all Customer responsibilities in this Detailed Description, (b) Customer has granted Lumen always available remote access to the Covered Product, (c) the Covered Product is located in zone one of Lumen's Guide, and (d) the reported trouble has a material impact to Customer. Lumen must receive a written request for SLA credit from Customer under this section within 10 days of Lumen's failure to meet SLA. Customer waives SLA credit if Customer fails to provide Lumen written request within 10 dayperiod. SLA are provided for all Promet Maintenance Services.
- **Non-Standard Products.** Lumen may purchase Non-Standard Products on behalf of Customer for the purchasing convenience of Customer. Lumen will review Customer's Covered Product to identify Non-Standard Products. Acceptance of an Order Form for Service does not bind Lumen to maintenance of Non-Standard Products. Service for Non-Standard Products is provided at the discretion of Lumen and is subject to change without notice. If Lumen discontinues support of Non-Standard Products, Lumen will either: (a) reimburse customer for Service charges associated with Non-Standard Products if Customer received no benefit, or (b) charge Customer at then-current time and material rates for support of Non-Standard Products. Support of Non-Standard Products is further defined in the Non-Standard Part Maintenance section below. "Non-Standard Part" means (a) End of Sale CPE hardware and software manufactured or produced by Adtran, Ciena, Cisco, Juniper Networks, Nokia, Polycom, and Mitel or (b) CPE hardware and software for which Lumen is unable or unwilling to provide warranty or other maintenance support.

4.4 Non-Standard Part Support Service ("Services")

- **Service Description:** Lumen will provide maintenance services for Non-Standard Product, which may include embedded software, in accordance with the manufacturer's specifications ("Services"). "Non-Standard Product" means (a) End of Sale CPE hardware and software manufactured or produced by Adtran, Ciena, Cisco, Juniper Networks, Kentrox, Nokia, Nortel, Polycom, and Tasman Networks, or (b) CPE hardware and software for which Lumen is unable or unwilling to provide warranty or other maintenance support. Lumen will provide all necessary labor, tools, and materials, and will repair or replace, at its option, any necessary parts in connection with Services. To the extent that Lumen provides labor, Customer will provide access to Lumen and/or its applicable affiliates, subcontractors and vendors performing such work.
- **EOS and EOL Products.** This Detailed Description provides for the maintenance of EOS Products. Lumen will make an annual review of Customer's CPE to identify EOS and EOL equipment and software. Lumen will not provide Service for EOL equipment or software. Acceptance of an Order Form for Service does not bind Lumen to maintenance of EOL equipment or software. "End of

Exhibit B-3
LUMEN CPE Service Guide

Life” or “EOL” means equipment or software that is no longer available or supported by the manufacturer or producer. “End of Sale” or “EOS” means new equipment or software that is no longer available for purchase from the manufacturer or producer, but support and replacement equipment is available from the manufacturer or producer.

- **Lumen Responsibilities:** Lumen will perform the below tasks.
 - Accept trouble reports 24 hours per day, 7 days per week, including Lumen observed holidays.
 - Perform trouble isolation during Covered Hours.
 - Respond on-site the next business day if Lumen and Customer determine an on-site Response is required. “Response” means the period of time between when Lumen and Customer determine remote diagnostic efforts are inadequate to resolve reported problem or a Field Replaceable Unit is identified for replacement and when Lumen technician arrives at the site of the Non-Standard Part Product. “Field Replaceable Unit” means a circuit board, part, or assembly that can be quickly and easily removed and replaced by a technician without having to send the entire product or system to a repair facility.
- **Customer Responsibilities:** Customer will perform the below tasks.
 - Provide information to assist Lumen in determining Service entitlement
 - Provide serial numbers and specific location of the Non-Standard Part Product
 - Assist Lumen in accessing the Non-Standard Part Product remotely either by modem or Internet
 - Provide 30-day notice to Lumen of any changes to the Non-Standard Part Product listed on the Order Form
 - Provide five-day notice to Lumen of any changes to the personnel authorized to contact Lumen
 - Perform due diligence to protect the Non-Standard Part Product from abuse and misuse
 - Comply with all manufacturer environmental requirements
- **Preventative Maintenance.** Manufacturer of the Non-Standard Part Product may provide guidance on methods and procedures that must be completed to protect warranties and/or extend the useful life of the Non-Standard Part Product. Lumen will provide preventative maintenance per manufacturer requirements.

5. Manufacturer Provided Maintenance

5.1 Service Description

Lumen will provide Lumen maintenance services to Customer through the Product manufacturer as defined by Product manufacturer (“Services”). Services may be referred to as “Support Services” and “Implementation” in certain ordering, quoting, and invoicing documents. Product manufacturer will provide all necessary labor, tools, and materials, and will repair or replace, at its option, any necessary parts in connection with the Service in accordance with terms applicable to the manufacturer’s standard product and service offerings. Service description terms of certain manufacturers may be viewed at the below URLs or successor URLs as designated by the manufacturer. If Customer has purchased a Product for a manufacturer not listed below, Services will be subject to the applicable terms and conditions located on manufacturer’s website. Customer understands that manufacturers may modify URLs or add additional URLs and agree that Services remain subject to the applicable warranty terms and conditions from the manufacturer.

- Avaya: <http://www.avaya.com/usa/services/category-support-services?view=offers>
- Adtran: <https://portal.adtran.com/web/url/procare>
- CheckPoint: <https://www.checkpoint.com/support-services/support-plans/>
- Ciena: <https://my.ciena.com/CienaPortal/s/documentation>
- Cisco: <https://www.cisco.com/c/en/us/about/legal/service-descriptions.html>
- Cradlepoint: <https://cradlepoint.com/about-us/terms-of-service/>
- Dell-EMC: <https://www.delltechnologies.com/en-us/customer-services/product-warranty-and-service-descriptions.htm>
- Eaton: [https://www.eaton.com/us/en-us/site-search.searchTerm\\$Eaton::com%20:%20Warranties.tabs\\$all.html](https://www.eaton.com/us/en-us/site-search.searchTerm$Eaton::com%20:%20Warranties.tabs$all.html)
- HP: <https://support.hpe.com/hpesc/public/home>
- Juniper: <https://www.juniper.net/us/en/services/maintenance-services/>
- Mitel: <https://www.mitel.com/services/connect-services/mivoice-connect-manage>
- NetApp: <https://www.netapp.com/us/services/service-descriptions.aspx>
- Nokia: <https://www.nokia.com/networks/services/maintenance-services/>
- Palo Alto: <https://www.paloaltonetworks.com/legal>
- Polycom: <https://www.poly.com/us/en/legal/terms>
- RSA: <https://www.rsa.com/en-us/company/standard-form-agreements>

5.2 Manufacturer Warranties

Lumen will pass-through and assign to Customer all applicable warranties provided by the manufacturer of the applicable Product. All Products purchased from Lumen, including any Product that is part of a system previously purchased from and installed by Lumen which is still under warranty, are subject to the terms and conditions set forth in the manufacturer’s warranty applicable to the Product. Products are sold to Customer with no warranty of any kind from Lumen. Warranties of certain manufacturers may be viewed at the below URLs or successor URLs as designated by the manufacturer. If Customer has purchased a Product for a manufacturer not listed below, Services will be subject to the applicable warranty terms and conditions located on manufacturer’s website, provided that Lumen has the right to pass-through and assign the warranty to Customer. Customer understands that manufacturers may modify URLs or add additional URLs and agree that Services remain subject to the applicable warranty terms and conditions from the manufacturer.

Exhibit B-3
LUMEN CPE Service Guide

- Avaya: <https://support.avaya.com/helpcenter/getGenericDetails?detailId=C2009223142629795043>
- Adtran: https://portal.adtran.com/web/page/portal/Adtran/wp_support_warranty
- CheckPoint: <https://www.checkpoint.com/support-services/software-license-agreement-limited-hardware-warranty/>
- Ciena: <https://my.ciena.com/CienaPortal/s/global-search/%40uri#q=warranty&t=All&sort=relevancy&f:@commonsourc=Technical%20Publications>
- Cisco: <https://www.cisco.com/c/en/us/products/warranty-listing.html>

- Cradlepoint: <https://cradlepoint.com/about-us/terms-of-service/msp-addendum/>
- Dell-EMC: <https://www.delltechnologies.com/en-us/customer-services/product-warranty-and-service-descriptions.htm>
- Eaton: [https://www.eaton.com/us/en-us/site-search.searchTerm\\$Eaton::com%20:%20Warranties.tabs\\$all.html](https://www.eaton.com/us/en-us/site-search.searchTerm$Eaton::com%20:%20Warranties.tabs$all.html)
- HP: <https://support.hpe.com/hpesc/public/home>
- Juniper: <https://support.juniper.net/support/warranty/>
- Mitel: <https://www.mitel.com/legal/products-warranty-and-limitation-liability>
- NetApp: <https://www.netapp.com/us/services/service-descriptions.aspx>
- Nokia: https://www.nokia.com/phones/en_gb/support/warranty/nokia-7-plus/US/en
- Palo Alto: <https://www.paloaltonetworks.com/legal>
- Polycom: <https://www.poly.com/us/en/legal/terms>
- RSA: <https://www.rsa.com/en-us/company/standard-form-agreements>

Lumen disclaims any liability for loss, damage or injury to any party as a result of any defects, latent or otherwise, in any Product. Lumen is not: (a) a manufacturer of any Product; (b) a party to any agreement between Customer and a Product manufacturer for services provided directly by the Product manufacturer to Customer (e.g., maintenance and extended warranty services); and (c) bound by or liable for any representation, warranty, or promise made by a Product manufacturer.

Exhibit C
Certificate of Insurance

MEMORANDUM OF INSURANCE					DATE	
					28-Sep-2021	
<p>This Memorandum is issued as a matter of information only to authorized viewers for their internal use only and confers no rights upon any viewer of this Memorandum. This Memorandum does not amend, extend or alter the coverage described below. This Memorandum may only be copied, printed and distributed within an authorized viewer and may only be used and viewed by an authorized viewer for its internal use. Any other use, duplication or distribution of this Memorandum without the consent of Marsh is prohibited. "Authorized viewer" shall mean an entity or person which is authorized by the insured named herein to access this Memorandum via https://marshdigital.marsh.com/marshconnect/viewMOI.action?clientId=338138717. The information contained herein is as of the date referred to above. Marsh shall be under no obligation to update such information.</p>						
PRODUCER			COMPANIES AFFORDING COVERAGE			
Marsh USA Inc. ("Marsh")			Co. A Greenwich Insurance Company			
INSURED			Co. B XL Specialty Insurance Co.			
Lumen Technologies, Inc. and all subsidiaries, including but not limited to: Qwest Corporation; Embarq Corporation, Level 3 Communications, LLC and CenturyLink Communications, LLC			Co. C Allianz Underwriters Insurance Company			
100 CenturyLink Drive			Co. D XL Insurance America, Inc.			
Monroe			Co. E			
Louisiana 71203			Co. F			
United States						
COVERAGES						
THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS MEMORANDUM MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS						
CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE	LIMITS LIMITS IN USD UNLESS OTHERWISE INDICATED	
A	GENERAL LIABILITY Commercial General Liability Occurrence	RGD500033309	01-Sep-2021	01-Sep-2022	GENERAL AGGREGATE	USD15,000,000
					PRODUCTS - COMP/OP AGG	USD15,000,000
					PERSONAL AND ADV INJURY	USD3,000,000
					EACH OCCURRENCE	USD3,000,000
					FIRE DAMAGE (ANY ONE FIRE)	USD3,000,000
					MED EXP (ANY ONE PERSON)	USD10,000
A D	AUTOMOBILE LIABILITY Any Auto All Owned Autos Hired Autos Non-Owned Autos	RAD500033409 - AOS RAD500061401 - USVI	01-Sep-2021 01-Sep-2021	01-Sep-2022 01-Sep-2022	COMBINED SINGLE LIMIT	USD2,000,000
					BODILY INJURY (PER PERSON)	
					BODILY INJURY (PER ACCIDENT)	
					PROPERTY DAMAGE	
C	EXCESS LIABILITY Umbrella Form	USZ000023190001	01-Sep-2021	01-Sep-2022	EACH OCCURRENCE	USD10,000,000
					AGGREGATE	USD10,000,000
B B B B	WORKERS COMPENSATION / EMPLOYERS LIABILITY THE PROPRIETOR / PARTNERS /	RWD500032909 AOS RWR500033009 WI RWE500033109	01-Sep-2021 01-Sep-2021 01-Sep-2021 01-Sep-2021	01-Sep-2022 01-Sep-2022 01-Sep-2022 01-Sep-2022	WORKERS COMP LIMITS	Statutory
					EL EACH ACCIDENT	USD1,000,000
					EL DISEASE - POLICY LIMIT	USD1,000,000
					EL DISEASE - EACH EMPLOYEE	USD1,000,000

**Exhibit C
Certificate of Insurance**

	EXECUTIVE OFFICERS ARE Included	WA RWE500033209 OH				
C	Technology E&O incl. Cyber/Privacy Liability	USZ000023190001	01-Sep-2021	01-Sep-2022	Limits	USD10,000,000 each claim/aggregate
B	Crime	ELU17739321	01-Sep-2021	01-Sep-2022	Limits	USD10,000,000
C	Property	USZ000023190001	01-Sep-2021	01-Sep-2022	Amount of Insurance	USD25,000,000
The Memorandum of Insurance serves solely to list insurance policies, limits and dates of coverage. Any modifications here to are not authorized.						

MEMORANDUM OF INSURANCE	DATE 28-Sep-2021
<p>This Memorandum is issued as a matter of information only to authorized viewers for their internal use only and confers no rights upon any viewer of this Memorandum. This Memorandum does not amend, extend or alter the coverage described below. This Memorandum may only be copied, printed and distributed within an authorized viewer and may only be used and viewed by an authorized viewer for its internal use. Any other use, duplication or distribution of this Memorandum without the consent of Marsh is prohibited. "Authorized viewer" shall mean an entity or person which is authorized by the insured named herein to access this Memorandum via https://marshdigital.marsh.com/marshconnect/viewMOL.action?clientId=338138717. The information contained herein is as of the date referred to above. Marsh shall be under no obligation to update such information.</p>	
PRODUCER Marsh USA Inc. ("Marsh")	INSURED Lumen Technologies, Inc. and all subsidiaries, including but not limited to: Qwest Corporation; Embarq Corporation, Level 3 Communications, LLC and CenturyLink Communications, LLC 100 CenturyLink Drive Monroe Louisiana 71203 United States
ADDITIONAL INFORMATION U.S. PROPERTY Deductible: USD25,000,000 Property Coverage: "All Risk" of Direct Physical Loss or Damage to All Real and Personal Property, including while in the Course of Construction, Boiler & Machinery, Earthquake, Flood and Wind - Replacement Cost Basis, and Business Interruption - Actual Loss Sustained. Loss Payee or mortgagee as required by written contract/loan agreement to the the extent of your insurable interest. Waiver of Subrogation - Any person or organization whom you have entered into a contract or agreement, but only to the extent required by such contract or agreement. U.S. GENERAL LIABILITY Automatic Additional Insured's Primary Coverage Additional Insured as respects your interest in the operations of the Named Insured as required by contract or agreement. Coverage provided by the above General Liability policy shall be primary and is limited to liability arising out of Named Insured's ownership and/or operations. Any insurance carried by the additional insured shall not be contributory insurance.	

**Exhibit C
Certificate of Insurance**

Waiver of Transfer of Rights of Recovery Against Others to Us (Waiver of Subrogation) - Any person or organization with whom you have entered into a contract or agreement, or by statute, law or code of ordinances.

Separation of Insureds Applies

U.S. AUTOMOBILE LIABILITY

Additional Insured - any person or organization you are required in a written contract, agreement, statute, law or code of ordinances provided the "bodily injury" or "property damage" occurs subsequent to the executive of the contract, agreement, statute, law or code of ordinance.

Any coverage provided hereunder shall be excess over any other valid and collectible insurance available to the additional insured whether such insurance is primary, excess, contingent or on any other basis unless the contract specifically requires that this policy be primary.

Lessor - Additional Insured and Loss Payee - All Lessors

Waiver of Transfer of Rights of Recovery Against Others to Us (Waiver of Subrogation) - Any person or organization with whom you have waived prior to the "accident" or the "loss" under a contract with that person or organization, or under statute, law or code of ordinances.

Separation of Insureds Applies.

U.S. AUTOMOBILE PHYSICAL DAMAGE - SELF-INSURED

WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY AND EXCESS WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY (OH & WA - SELF-INSURED - \$USD1,000,000 RETENTION)

Waiver of Our Right to Recover from Others (Waiver of Subrogation) - Where required by written agreement signed prior to loss, or required by statute, law or code of ordinances executed prior to loss.

NON-U.S. GENERAL LIABILITY

Policy Period: September 1, 2021 to September 1, 2022
Policy No. 80-0278026

Insurer: The Insurance Company of the State of Pennsylvania

USD8,000,000 Master Control Program Aggregate

USD4,000,000 General Aggregate

USD4,000,000 Products-Completed Operations Aggregate

USD2,000,000 Personal & Advertising Injury Limit

USD2,000,000 Each Occurrence Limit

USD1,000,000 Damage to Premises Rented to You Limit

USD250,000 Medical Expense Limit

Automatic Additional Insured's Primary Coverage

Additional Insured as respects your interest in the operations of the Named Insured as required by contract or agreement.

NON-US BUSINESS AUTO LIABILITY

Policy No. 80-0278577

Insurer: The Insurance Company of the State of Pennsylvania

USD2,000,000 Liability Limit, any one accident

USD25,000 Medical Expense Coverage, each accident

NON-US VOLUNTARY COMPENSATION AND EMPLOYERS LIABILITY

Voluntary Compensation - employee injury benefits varies by classification of employee

Policy No. 8374804

Insurer: The Insurance Company of the State of Pennsylvania

USD2,000,000 Employers Liability Injury by Accident Each Accident

USD2,000,000 Employers Liability Injury, by Disease, policy limit

USD2,000,000 Employers Liability Injury, by Disease, each employee

NON-US PROPERTY

**Exhibit C
Certificate of Insurance**

Property Coverage: "All Risk" of Direct Physical Damage to All Real and Personal Property, including while in the Course of Construction, Boiler & Machinery, Earthquake, Flood and Wind (all subject to sublimits) - Replacement Cost Basis, and Business Interruption - Actual Loss Sustained. Coverages listed may be subject to additional sublimits as outlined in the policy.

Policy No. PPR 0233433-04

Insurer: Zurich American Insurance Company

Policy Period: March 15, 2020 to March 15, 2021

Amount of Insurance: USD\$75,000,000

Deductible: USD\$75,000,000

WORLDWIDE EXCESS/UMBRELLA

Coverage applies per occurrence

Additional Insured as respects your interest in the operations of the Named Insured as required by contract or agreement, statute, law or code of ordinances.

Waiver of Transfer of Rights of Recovery Against Others to Us (Waiver of Subrogation) - Any person or organization with whom you have entered into a contract or agreement, but only to the extent required by such contract or agreement, statute, law or code of ordinances.

Separation of Insureds Applies.

WORLDWIDE CONTRACTOR'S POLLUTION

Policy No. 03101161

Insurer: Allied World Assurance Company (U.S.) Inc.

Policy Period: May 1, 2019 to May 1, 2022

Limits of Liability: USD3,000,000 each pollution condition / USD3,000,000 aggregate

USD1,000,000 Deductible

Additional Insured where required by written contract, provided the contract is executed and effective prior to the date the policy incident first commenced.

TECHNOLOGY E&O INCL. CYBER

Additional Insured as required by written contract and only as respects Claims against such person or entity for acts, errors or omissions of the Insured Organization.

Waiver of Subrogation as required by written contract made before an incident or event giving rise to a Claim or Loss.

NOTICE OF CANCELLATION IN ACCORDANCE WITH ALL POLICY PROVISIONS.

The Memorandum of Insurance serves solely to list insurance policies, limits and dates of coverage. Any modifications hereto are not authorized.

**Exhibit D
End User License Agreements**

Fujitsu

FUJITSU END USER LICENSE AGREEMENT

This Exhibit D to Schedule I sets forth the End User License Agreement (EULA). This EULA applies to machine-readable computer programs, firmware or other instruction sequences furnished or made available by Fujitsu Network Communications, Inc. (FNC) for equipment obtained from FNC or through an FNC authorized reseller or distributor to perform certain functions (Software) and all documentation and other proprietary or confidential human-readable material applicable to Software or the equipment (Documentation). The Software is provided by FNC and third parties, and certain terms and conditions relative to third parties are included in and are a part of this EULA as if fully set forth herein (see "Ancillary Software Terms and Conditions"). Software and Documentation are collectively referred to as Licensed Products. The term Licensed Products also means any subsequent versions, updates, or upgrades to the Software or Documentation which may be provided or made available to End User.

THIS EULA IS A LEGAL DOCUMENT BETWEEN YOU (ACTING AS AN INDIVIDUAL AND AS A REPRESENTATIVE OF YOUR EMPLOYER), YOUR EMPLOYER, AND FNC. FNC IS WILLING TO GRANT A LICENSE FOR THE SOFTWARE TO ACCESS, DOWNLOAD OR INSTALL ONLY UPON THE EXPRESS CONDITION THAT YOU ACCEPT ALL OF THE TERMS AND CONDITIONS CONTAINED IN THIS EULA. WHEN YOU ACKNOWLEDGE ACCEPTANCE OF THIS EULA, ENTER THE TL1 COMMAND (AS DEFINED BELOW) OR OTHERWISE ACTIVATE THE SOFTWARE, YOU ARE ACCEPTING ALL THE TERMS AND CONDITIONS OF THIS EULA ON YOUR OWN BEHALF AND ON BEHALF OF YOUR EMPLOYER (YOU, YOUR EMPLOYER, AND ANY OTHER ENTITY AUTHORIZED BY YOUR EMPLOYER TO USE THE SOFTWARE ARE THE "USER").

IF YOU DO NOT AGREE WITH THESE TERMS AND CONDITIONS, THEN FNC IS UNWILLING TO GRANT A LICENSE FOR THE SOFTWARE AND YOU SHOULD DECLINE WHERE INSTRUCTED AND PROMPTLY RETURN THE SOFTWARE AND ALL ACCOMPANYING ITEMS FOR A FULL REFUND OF MONEY PAID.

IF, AFTER ACCEPTANCE OF THIS EULA YOU CEASE WORKING FOR YOUR PRESENT EMPLOYER, YOUR EMPLOYER MAY CONTINUE TO EXERCISE THE RIGHTS GRANTED HEREUNDER PROVIDED THAT THE EMPLOYER CONTINUES TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS EULA.

ANY UNAUTHORIZED USE IS A VIOLATION OF FNC'S OR ITS LICENSORS' INTELLECTUAL PROPERTY RIGHTS AND VOIDS ANY AND ALL WARRANTIES OFFERED BY FNC OR ITS LICENSORS FOR ANY LICENSED PRODUCT CUSTOMER OBTAINS THROUGH THE RESELLER OR DISTRIBUTOR.

Grant of License. Upon delivery or access of the Licensed Product to Customer and payment by Customer of the applicable annual license fee for base software and individually licensed Software features or other consideration as determined by FNC, FNC grants to Customer a restricted, personal, nontransferable and non-exclusive right-to-use license to the Software that is embedded in, loaded, activated, or downloaded into applicable FNC equipment and use of the Documentation, solely for Customer's internal business purposes and only on or for the products Customer obtains from FNC or an authorized FNC reseller or distributor. Certain Ancillary Software Terms and Conditions may apply and will be provided or made available to Customer for Software containing third party software or third party software to be furnished by FNC.

Restrictions. Customer may not: (i) modify, adapt, translate, reverse engineer, disassemble, decompile, or otherwise attempt to derive source code from or create or prepare derivative works of or from the Licensed

Products, (ii) distribute, sublicense, rent, lease, loan, or make unauthorized copies of any portion of the Licensed Products, (iii) publicly display visual output or publish any test results of the Software, or (iv) use the Software in inherently high-risk applications such as, but not limited to, aircraft navigation or communications, nuclear facilities, mass transit, or medical emergency communications. Customer is authorized to make one copy of the Software in any machine-readable medium for backup or archival purposes in support of Customer's permitted use hereunder. Customer may not lend, sublicense, rent or lease the Software, or otherwise make it available to any third party, or transfer or assign this EULA or any rights hereunder. Any portion of the Software merged into another software program will continue to be subject to the terms and conditions of this EULA. The Software is licensed as a single product with individual Software license features, and it may not be separated for use other than as permitted above.

Exhibit D End User License Agreements

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Exhibit D
End User License Agreements

Tellabs Standard License for Tellabs Licensed Materials

1. Applicability

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2. Definitions

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Exhibit D End User License Agreements

2. TELLABS STANDARD LICENSE FOR TELLABS LICENSED MATERIALS

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8.3 Notwithstanding the above, Tellabs is not obligated to the extent the Claim is based upon: (a) a modification made other than by Tellabs; (b) Tellabs' compliance with Licensee's designs, instructions or specifications; (c) combination of the Software with other equipment, materials or processes; (d) use of the Software not in accordance with the applicable Documentation; or (e) use of the Software in violation of or otherwise outside the scope of this Agreement ((a)-(e) collectively "Claim Exceptions"). Licensee shall, in a commensurate manner, defend Tellabs for any third-party claim based upon any Claim Exceptions, and shall pay any settlement made by Licensee, Tellabs' reasonable and verifiable costs and expenses, and any third-party damages finally awarded against Tellabs.

8.4 This Section 8 states Tellabs' sole obligations and Licensee's exclusive remedies with respect to any third-party claim based upon intellectual property rights.

9. Termination

The license granted in Section 3 ("License Grant") is effective for the life of the Hardware portion of the Product for which the Licensed Materials are delivered unless earlier terminated as provided in this Agreement or by Licensee in writing. This Agreement (including such license) will terminate immediately: (a) upon any breach of Section 3 ("License Grant") or Subsection 12.5 (export compliance) or any incurable Licensee breach of this Agreement; (b) if Licensee fails to cure any curable breach within thirty (30) days after notice of such breach; or (c) as this Agreement otherwise provides. Immediately upon termination or Licensee's receipt of replacement Licensed Materials and other Tellabs confidential information, Licensee shall immediately cease all use of, and return or certify destruction of, the Licensed Materials and other Tellabs confidential information and all copies. Termination is not an exclusive remedy.

10. Title and Security Interest

Title and ownership in the Licensed Materials and all copies remains at all times with Tellabs or its licensors.

Exhibit D End User License Agreements

3 TELLABS STANDARD LICENSE FOR TELLABS LICENSED MATERIALS

11. Reservation of Rights

Notwithstanding Subsection 12.6, Tellabs may make changes to this Agreement at any time. All such changes shall become effective immediately and apply to all Orders received by Tellabs after the effective date of such changes.

12. General

12.1 This Agreement states all of the promises, agreements and conditions regarding its subject matter, supersedes all prior understandings (whether written, oral or otherwise) and constitutes the entire agreement between the Parties. If any provision of this Agreement shall for any reason be held to be unenforceable (in whole or in part) in any respect, then such unenforceable provision (or part thereof) shall be construed as if it had never been contained herein. Unless the Parties have mutually executed an agreement governing the licensing of Licensed Materials subject to the Order, all Orders shall be fulfilled strictly in accordance with the terms and conditions of this Agreement, and no other terms and conditions shall apply.

12.2 Licensee shall not assign or transfer the Licensed Materials or this Agreement or any interest in the foregoing except with Tellabs' prior written consent.

12.3 Tellabs and Licensee are each engaged in an independent business. Each Party shall perform its obligations as an independent contractor and not as the agent, employee or servant of the other Party. Each Party shall be solely responsible for: (a) the employment, direction, supervision, compensation and discharge of its own employees, agents and subcontractors, including compliance with social security, withholding and all other applicable regulations; and (b) its own acts and those acts of its employees, agents and subcontractors.

12.4 Any failure by either Party (or by Tellabs' subcontractors) to fulfill any of its obligations shall not be deemed a breach of this Agreement if that failure is due to Force Majeure. Notice of Force Majeure shall be made promptly in writing to the other Party. The performance of a Party's obligations under this Agreement shall be suspended for as long as Force Majeure exists. Each Party shall take reasonable steps to limit the effect of Force Majeure. If Force Majeure continues for more than six (6) months, then either Party shall have the right to terminate this Agreement upon written notice.

12.5 The Parties are aware of, and shall strictly comply with, all applicable trade sanctions, executive orders, export control laws, regulations, restrictions and the like (including but not limited to those imposed by the governments of the United States of America and the European Community) pertaining to any Products (and the technology therein) supplied by Tellabs or its affiliates or subcontractors. Without limiting the generality of the foregoing, Licensee shall not export, re-export, transship, divert or transfer (whether directly or indirectly) any such Products (or technology therein) contrary to such trade sanctions, executive orders, export control laws, regulations, restrictions or the like.

12.6 No changes or additions to this Agreement shall be effective unless in writing and signed by Tellabs' authorized representative. Tellabs' failure to insist upon strict adherence to any term or condition of this Agreement shall not be a waiver by Tellabs of its right to thereafter insist upon strict adherence to that, or any other, term or condition.

12.7 Sections 5 ("Confidentiality"), 7 ("Limitation of Liability") and 10 ("Title and Security Interest") hereof and any provision of this Agreement that, given its purpose, interpretation or context, logically should survive the expiration or termination of this Agreement shall so survive.

12.8 If a dispute arises that is not resolved within thirty (30) days from the date that either Party provides the other Party with written notice of the existence thereof, then each Party shall designate an executive who is authorized to investigate, negotiate and settle the dispute. The executives shall exercise good faith efforts to settle the dispute. If the executives do not resolve the dispute within thirty (30) days (or an extended period if they so agree), then the dispute resolution procedure shall be as follows:

The Parties shall submit the dispute to non-binding mediation. The venue of such mediation shall be Dallas County, Texas, USA. The Parties shall share equally the costs and expenses of the mediation, except that each Party shall bear its own attorneys' fees. If the dispute is not resolved through mediation within thirty (30) days of the mediator's appointment, then the Parties may submit the dispute to litigation subject to the governing law specified herein. No litigation or any other action pertaining to a dispute shall be pursued unless this dispute resolution procedure has been exhausted. All questions regarding the validity, intention, interpretation, meaning or enforcement of this Agreement shall be resolved under the laws of Texas (excluding its conflict of laws provisions). Nonetheless, either Party at any time may pursue equitable relief before any court of competent jurisdiction in order to protect its intellectual property rights or confidential information. The United Nations Convention on Contracts for the International Sale of Goods and the Uniform Computer Information Transaction Act shall not apply to any transaction entered into between the Parties.

Exhibit D End User License Agreements

4 TELLABS STANDARD LICENSE FOR TELLABS LICENSED MATERIALS

12.9 Subject to full compliance with any written guidelines or requirements that are provided by Buyer to Tellabs in advance and further subject to the usage limitations set forth in the following sentence, Buyer hereby agrees that Tellabs may reference Buyer's name and trademark (a) on Tellabs' internet or intranet corporate websites; (b) in customer presentations, corporate presentations or verbal communications; (c) in Tellabs-produced magazines, videos, case studies, press releases and white papers; and (d) in Tellabs' annual reports. Such usage shall be strictly limited to the following purposes: (e) to identify the Products, Product series or Services that Buyer has purchased or licensed from Tellabs; (f) the generic purpose or application of such Products, Product series or Services; or (g) to reiterate any other information contained in any press release(s) issued by either Party with the other Party's approval. Subject to full compliance with any written guidelines or requirements that are provided by Tellabs to Buyer in advance and further subject to the usage limitations set forth in the following sentence, Tellabs hereby agrees that Buyer may reference Tellabs' name and trademark (h) on Buyer's internet or intranet corporate websites; (i) in customer presentations, corporate presentations or verbal communications; (j) in Buyer-produced magazines, videos,

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Tellabs shall perform Software repairs and returns pursuant to Tellabs' Global Repair and Return Policy, available at <https://www.tellabs.com/app/uploads/2020/09/Global-Repair-and-Return-Policy.pdf>

12.10 or upon request.

13. Product-Specific Terms and Conditions

In addition to the terms and conditions of this Agreement, use of certain Tellabs Licensed Materials is subject to Tellabs Product-Specific Terms and Conditions, available at https://www.tellabs.com/company/library/corporate/legal/legacy-policies/Tellabs_Product_Specific_Terms.pdf or upon request.

EXHIBIT E
Lumen Subcontractors

In accordance with Section 9.A of the Agreement, Lumen is using the following subcontractors to assist with performing the Services:

- Fujitsu Global
- Tellabs, Inc.
- Servitech, Inc.
- Power Product Services
- Emerson Network Power / Vert