

## TELECOMMUNICATIONS LICENSE TERMS AND CONDITIONS

The following terms apply to fiber and related products licensed by Crown Castle Fiber LLC or any Affiliate thereof, where incorporated by reference in a contract or order form executed by any of those provider entities and by the customer or licensee. For purposes of this Agreement, the term “Crown Castle” shall mean the entity identified as the “Crown Castle” or “Company” on the Order Form, or the Affiliate of Crown Castle actually licensing the Product pursuant to Section 1.3 below.

### PART I--GENERAL TERMS APPLICABLE TO ALL FIBER PRODUCTS

The following terms apply to all products licensed by Crown Castle:

#### **1. PRODUCTS, ORDER FORMS, AND SUPPLEMENTS.**

**1.1 Products and Order Forms.** This Agreement applies to each telecommunications facility, or product, provided or licensed by Crown Castle to Licensee (each a “Product”). Each Product will be specified in an order form executed by the Parties (each an “Order Form”). Purchase orders issued by Licensee shall not be deemed to amend, modify, or supplement this Agreement or any Order Form issued hereunder and shall not be legally binding on Crown Castle unless otherwise agreed in writing by Crown Castle. The term “Customer” or “Licensee” shall mean the entity identified on the Order Form. Crown Castle and Licensee are collectively referred to as the “Parties” or individually as a “Party”.

**1.2 Supplemental terms.** As further detailed herein, specific types of Services are subject to additional terms and conditions as detailed in Parts II, III, IV, V, VI and VII of these terms and condition (each of Part II, Part III, Part IV, Part V, Part VI, and Part VII is sometimes referred to herein as a “Supplement”).

**1.3 Crown Castle Affiliates.** At Crown Castle’s option, Products may be provided or licensed by Crown Castle, or by an Affiliate of Crown Castle. Any charges or other amounts received by Crown Castle under this Agreement, to the extent attributable to Products provided or licensed by an Affiliate of Crown Castle, shall be received by Crown Castle in its capacity as an agent on behalf of such Affiliate. Internet access will be provided by Crown Castle’s affiliate, Crown Castle Fiber Enterprise LLC. In addition, Order Forms may be executed by an Affiliate of Crown Castle, and in such event, any and all references to “Crown Castle” herein shall be deemed to be a reference to the applicable Affiliate of Crown Castle that executed such Order Form. The term “Affiliate” as used hereunder shall mean, with respect to either Party, any entity controlled by, in control of, or under common control with such Party.

#### **2. TERM.**

**2.1 Product Term.** The term for each Product (each a “Product Term”) begins on the Acceptance Date (as defined below) applicable to such Product, and remains in effect until the expiration of the initial Product Term specified in the applicable Order Form unless earlier terminated as provided herein. The Product Term shall automatically extend for consecutive one-year renewal terms, unless either Party notifies the other of its intent not to renew at least ninety (90) days prior to the expiration of the then-current initial or renewal Product Term.

**2.2 Acceptance Date.** The “Acceptance Date” for each Product shall be the earliest of (a) the date on which Licensee delivers written notice of acceptance, (b) the date on which Licensee begins to use the

Product, other than for testing purposes, or (c) the second (2<sup>nd</sup>) business day following Crown Castle’s delivery of notice of the installation of the Product (such notice, a “Connection Notice”), unless Licensee notifies Crown Castle in writing within said two-day period of a Defect in the Product, specifying in detail the nature of such Defect. A “Defect” exists if the Product fails to perform materially in accordance with its technical specifications as set forth in the applicable Supplement (“Specifications”). Upon receipt of notice of a Defect, Crown Castle and Licensee shall work cooperatively to promptly remedy such Defect, and Crown Castle shall deliver another Connection Notice, whereupon the process described in the first sentence of this Section shall apply again. If the Acceptance Date is delayed as a result of any failure, act or omission of Licensee, Crown Castle will give Licensee written notice to cure such failure within five (5) calendar days. If Licensee fails to cure within such period, the Acceptance Date will be deemed to be the end of such five (5) calendar-day period.

#### **3. PAYMENT TERMS.**

**3.1 Charges.** Crown Castle will invoice Licensee for any non-recurring charge (“NRC”) associated with the Product upon or after execution of the applicable Order Form. The monthly-recurring charge (“MRC”) associated with the Product shall begin to accrue on the Acceptance Date of such Product. Crown Castle will invoice Licensee the MRC associated with the Product in advance, except Crown Castle will invoice Licensee usage-based charges (if any) associated with the Product in arrears. An MRC for a partial month will be pro-rated. Licensee shall be responsible for payment of the MRC for the entire Product Term specified in the applicable Order Form.

**3.2 Payments; Late Payments.** Licensee shall pay each invoice within thirty (30) days of the date of the invoice (the “Due Date”), without setoff or deduction. In the event Licensee fails to make any payment by the Due Date, Licensee shall pay a late charge on all past due amounts at the rate of one and one-half percent (1.5%) per month, compounded monthly (or, if lower, the maximum rate allowed by law). Further, Crown Castle shall be entitled to recover from Licensee all collection costs, including attorney fees.

**3.3 Disputed Payments.** Licensee may in good faith dispute charges set forth in an invoice, provided Licensee notifies Crown Castle of such dispute in writing no later than sixty (60) days after the date of the invoice. Failure of Licensee to so notify Crown Castle of any dispute shall constitute a waiver by Licensee of any dispute. In the event Licensee so disputes any amount in good faith, Licensee must submit a documented claim in writing for the disputed amount and pay the undisputed amounts in accordance with Section 3.2. Licensee shall submit all documentation as may reasonably be required to support the claim. If the dispute is resolved in favor of Licensee and Licensee previously paid the disputed amount to Crown Castle, Crown Castle will apply a credit to Licensee’s account in the amount of the dispute. If the dispute is resolved in Crown Castle’s favor and Licensee has withheld the disputed amount, Licensee must pay the disputed amount

(together with the late payment charge pursuant to Section 3.2) within five (5) business days following notice of the resolution of the dispute.

#### 4. TAXES AND FEES.

**4.1 Taxes and Fees.** All charges set forth in an Order Form(s) are exclusive of, and Licensee shall be responsible for and agrees to pay, any and all applicable international, federal, state and local use, excise, sales, value added, consumption, gross receipts, access, franchise and other taxes, fees, assessments, duties and surcharges (including, without limitation, any universal service fund surcharge) levied or imposed upon Crown Castle or Licensee in connection with the provision, sale or use of the Product or facility furnished to Licensee and which Crown Castle is required or permitted to collect from Licensee (collectively referred to as “Taxes”). Licensee shall not be responsible for, and Taxes will not include, taxes on Crown Castle’s net income. If Licensee believes it is exempt from Taxes, Licensee shall provide Crown Castle with a valid and duly executed exemption certificate and any other information with respect to such exemption as Crown Castle may require; such certificate will be honored from the date that Crown Castle receives such certificate and additional information from Licensee. If any such exemption is ruled invalid by the tax or governmental authority for any reason, Licensee shall reimburse Crown Castle for any Taxes, including without limitation any penalties and interest, arising from or in connection with such invalid claim of exemption.

**4.2 REIT Status.** Licensee acknowledges that: (i) Crown Castle is directly or indirectly owned in whole or in part by an entity (“REIT Owner”) that qualifies as a “real estate investment trust” (“REIT”) under Sections 856 through 860 of the Internal Revenue Code of 1986, as amended (the “Code”); and (ii) Crown Castle and REIT Owner are therefore subject to operating and other restrictions under the Code. The Parties intend that this Agreement shall constitute a lease of the Products for purposes of Section 856 of the Code, and the Parties shall not take any position on any tax return inconsistent therewith except as required by law.

#### 5. CROWN CASTLE EQUIPMENT AND NETWORK; LICENSEE EQUIPMENT.

**5.1 Crown Castle Equipment; Crown Castle Network.** The telecommunications devices, apparatus and associated equipment owned, leased, or otherwise obtained by Crown Castle to provide Products (“Crown Castle Equipment”) and Crown Castle’s fiber optic cable network and associated optical/electronic equipment used to deliver Products, whether owned, leased or otherwise obtained by Crown Castle (the “Crown Castle Network”) shall remain the sole and exclusive property of Crown Castle notwithstanding that it may be or become attached or affixed to real property, and nothing contained herein or in any Order Form grants or conveys to Licensee any right, title or interest in any Crown Castle Equipment or the Crown Castle Network. Licensee may not, and may not permit others to, alter, adjust, encumber, tamper, repair, rearrange, change, remove, relocate, or damage any Crown Castle Equipment or the Crown Castle Network without the prior written consent of Crown Castle. Licensee may not cause any liens to be placed on any Crown Castle Equipment or the Crown Castle Network, and will cause any such liens to be removed within ten (10) days of Licensee’s knowledge thereof. Licensee shall be liable to Crown Castle for any loss or damage to the Crown Castle Equipment or Crown Castle Network caused by Licensee or Licensee’s employees, contractors, agents, or end users. Nothing herein shall prevent Crown Castle from using the Crown Castle Network and Crown Castle Equipment to provide products to other customers.

**5.2 Extension of Network.** To the extent an Order Form requires Crown Castle to complete construction, extend the Crown Castle Network and/or obtain additional Underlying Rights, Licensee shall use commercially reasonable efforts to assist Crown Castle in obtaining such Underlying Rights as necessary to provide the Product. Crown Castle may, without liability to either Party, terminate a Product prior to delivery, if Crown Castle encounters unexpected construction costs, or unavailability of or excess costs for Underlying Rights, that make the construction economically or legally unfeasible. Following the Acceptance Date of the Product, in the event that Crown Castle is unable to maintain any necessary Underlying Rights without incurring additional costs, unless Licensee bears the costs of obtaining such Underlying Rights, Crown Castle may cancel the applicable Order Form and shall incur no liability to Licensee hereunder. Without limiting the foregoing, Crown Castle shall not be deemed to be in breach of this Agreement for its failure to meet any anticipated Product installation or delivery date if such failure is caused, in whole or in part, by (i) a Force Majeure Event, (ii) failure to obtain, or delay in obtaining, any required Underlying Rights, (iii) construction delays, or (iv) any other circumstances beyond the control of Crown Castle. “Underlying Rights” means any and all agreements, licenses, conduit use agreements, pole attachment agreements, leases, easements, rights-of-way, franchises, permits, governmental and regulatory approvals and authorizations, and other rights, consents, and approvals that are necessary to construct, install, maintain, operate, and repair the Crown Castle Network and/or for Crown Castle to provide a Product other than building access rights described in Section 7.1. Without limiting the foregoing, Underlying Rights include agreements for Off-Net Products that are necessary for Crown Castle to provide a Product. “Off-Net Product” shall mean any product provided by a third-party. “On-Net Product” shall mean any Product that uses transmission and related facilities owned and controlled by Crown Castle.

**5.3 Licensee Equipment.** Licensee shall, at its own expense, procure any equipment necessary to implement or receive each Product (“Licensee Equipment”). Crown Castle will have no obligation to install, maintain, or repair Licensee Equipment. Promptly upon notice from Crown Castle, Licensee shall eliminate any hazard, interference, or Product obstruction that any such Licensee Equipment is causing or may cause as reasonably determined by Crown Castle.

#### 6. MAINTENANCE.

**6.1 Scheduled Maintenance.** Crown Castle will endeavor to conduct (or cause to be conducted) scheduled maintenance that is reasonably expected to interrupt the Product between 12:00 midnight and 6:00 a.m. local time or, upon Licensee’s reasonable request, at a time mutually agreed to by Licensee and Crown Castle. Crown Castle will use commercially reasonable efforts to notify Licensee of scheduled maintenance that is reasonably expected to interrupt the Product via telephone or e-mail, no less than five (5) days prior to commencement of such maintenance activities. Licensee shall provide a list of Licensee contacts for maintenance and escalation purposes, which may be included on the Order Form, and Licensee shall provide updated lists to Crown Castle, as necessary.

**6.2 Emergency Maintenance.** Crown Castle may perform emergency maintenance in its reasonable discretion, with or without prior notice to Licensee, to preserve the overall integrity of the Crown Castle Network. Crown Castle will notify Licensee as soon as reasonably practicable of any such emergency maintenance activity that materially and adversely impacts a Product.

**6.3 Product Issues.** Licensee may notify Crown Castle's Network Operating Center ("NOC") of Product problems by telephone 1-855-93-FIBER (855-933-4237), or at the contacts listed in Crown Castle's Customer Support Information provided to Licensee, which may be updated by Crown Castle from time to time. If Crown Castle dispatches a field technician to Licensee or an end-user location and the problem is caused by (i) the Licensee Equipment or any end-user's equipment or (ii) any acts or omissions of Licensee or its end user, or of any of its or their invitees, licensees, customers or contractors, Licensee will pay Crown Castle for any and all associated time and materials at Crown Castle's then-standard rates.

## 7. IMPLEMENTATION REQUIREMENTS.

**7.1 Access to Premises.** Unless otherwise provided in the applicable Order Form, Licensee, at its own expense, shall secure throughout the Product Term any easements, leases, licenses, or other agreements necessary to allow Crown Castle to use pathways into and in each building at which Licensee's or its end-user's premises is located, to the Demarcation Point. Such access rights shall grant to Crown Castle the right to access such premises to the extent reasonably requested by Crown Castle to install, maintain, repair, replace and remove any and all equipment, cables or other devices Crown Castle deems necessary to provide the Product. Upon expiration or termination of the applicable Product Term, Licensee shall grant Crown Castle access to its premises as necessary to enable Crown Castle to remove the Crown Castle Equipment. Crown Castle, its employees, contractors, and agents shall have access to any Crown Castle Equipment or facilities at a Licensee or end user premises. Notwithstanding anything to the contrary herein, Crown Castle shall have no liability for any delay or failure in its performance to the extent caused by any delay or failure of Licensee (including, but not limited to, the failure to provide Crown Castle prompt access) and/or caused by any notice or access restrictions or requirements. "Demarcation Point" shall mean the network interface point where Crown Castle hands off the Product to Licensee. The Demarcation Point delineates where responsibility for the Parties' respective networks, equipment and/or maintenance obligations begin and end. Licensee is responsible, at its sole cost and expense, for connecting to the Demarcation Point.

**7.2 Space and Power.** Licensee shall procure and make available to Crown Castle, at Licensee's locations and at end user locations where a Product is provided or licensed, at Licensee's sole cost and expense, adequate space, AC power and HVAC for Crown Castle Equipment.

**7.3 Property Owner Not Liable.** Neither Licensee nor any of Licensee's end-users shall have any recourse against any property owner or property manager of any premises to which any Product is delivered and/or at which Crown Castle Network or Equipment is located, as a result of or in reliance upon this Agreement. Without limiting the foregoing, this provision shall not be construed to impose any liability on Crown Castle, nor shall Crown Castle have any liability, for or on behalf of such property owner or property manager.

## 8. DEFAULT & REMEDIES

**8.1 Default by Licensee; Suspension.** In the event (i) Licensee fails to timely and fully make any payment required hereunder, and such payment breach is not cured within five (5) days after written notice thereof, or (ii) Licensee breaches any other provision of this Agreement and such breach is not cured within thirty (30) days after receipt of written notice thereof, then Crown Castle may, at its sole option, either (a) terminate any and all Products, (b) suspend the

affected Product to which the breach is related without further notice to Licensee, and/or (c) pursue any other remedies available to Crown Castle at law, or in equity.

**8.2 Default By Crown Castle.** Licensee may terminate a Product in the event Crown Castle breaches this Agreement with respect to such Product and such breach is not cured within thirty (30) days after Crown Castle's receipt of written notice thereof, provided that if a breach subject to this Section 8.2 cannot be cured within thirty (30) days, but is capable of being cured within a reasonable time thereafter, then Licensee may not terminate the Product if Crown Castle commences to cure within said thirty (30) days and thereafter diligently and continuously pursues such cure to completion, or Crown Castle provides Licensee reasonable assurance that the same breach to the same Product will not subsequently occur.

## 9. INSURANCE.

**9.1 Insurance.** Each Party shall procure and maintain the following insurance coverage:

- Commercial General and Umbrella Liability Insurance. Commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$5,000,000 for each occurrence. CGL insurance shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. Each Party shall name the other Party as an additional insured to provide coverage for the additional insured on a primary and non-contributory basis. The coverage provided to the additional insured shall apply to the extent of the indemnification obligation identified in paragraph 10.2.
- Workers Compensation Insurance. Workers compensation and employer's liability insurance as required by the laws and regulations applicable to the employees who are engaged in the performance of any activities hereunder or under an Order Form.

**9.2 Type and Proof of Insurance.** The insurance coverage required by this Section 9 shall be obtained on an occurrence basis from carriers having a Best Rating Product rating of A- or better. Upon request, a Party will provide the other Party a certificate of insurance or other proof of such insurance.

## 10. LIMITATION OF LIABILITY; INDEMNIFICATION.

**10.1. LIMITATION OF LIABILITY.** NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INDIRECT, CONSEQUENTIAL, SPECIAL, EXEMPLARY, INCIDENTAL, OR PUNITIVE DAMAGES, INCLUDING WITHOUT LIMITATION LOSS OF USE OR DATA, OR LOST BUSINESS, REVENUE, PROFITS OR GOODWILL, ARISING IN CONNECTION WITH THIS AGREEMENT OR ANY PRODUCT OR ANY ORDER FORM, EVEN IF THE PARTY KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES. CROWN CASTLE'S TOTAL LIABILITY TO LICENSEE IN CONNECTION WITH THIS AGREEMENT FOR ANY AND ALL CAUSES OF ACTION AND CLAIMS, INCLUDING WITHOUT LIMITATION, BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, MISREPRESENTATION AND OTHER TORTS, SHALL BE LIMITED TO THE LESSER OF: (A) PROVEN DIRECT DAMAGES OR (B) THE AGGREGATE





AMOUNT OF PAYMENTS MADE BY LICENSEE TO CROWN CASTLE FOR THE AFFECTED PRODUCT DURING THE TWELVE (12) MONTH PERIOD IMMEDIATELY PRECEDING THE MONTH IN WHICH THE CIRCUMSTANCES GIVING RISE TO THE CLAIM OCCURRED. IN NO EVENT SHALL CROWN CASTLE BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE ACTS OR OMISSIONS OF UNAFFILIATED THIRD PARTIES, INCLUDING UNDERLYING PRODUCT PROVIDERS, OR ANY THIRD-PARTY EQUIPMENT OR PRODUCTS NOT PROVIDED OR LICENSED BY CROWN CASTLE.

**10.2. Indemnification.** Except to the extent of the other Party's negligence or willful misconduct, each Party shall indemnify, defend, release, and hold harmless the other Party, its Affiliates, directors, members, officers, employees, managers, agents, representatives, and contractors (collectively, "Indemnitees") from and against any third-party action, claim, suit, judgment, damage, demand, loss, or penalty, and any cost or expense associated therewith (including but not limited to reasonable attorneys' fees, expert fees and costs) (collectively, "Claims") imposed upon such Indemnitee(s) by reason of damage to real or tangible personal property or for bodily injury, including death, as a result of any willful misconduct or negligent act or omission on the part of the indemnifying Party in connection with the performance of this Agreement. In addition to the foregoing, Licensee shall indemnify, defend, release, and hold harmless Crown Castle and its Indemnitees from and against any third-party Claims brought against Crown Castle and its Indemnitees arising from or in connection with Licensee's (or its end users') unlawful use of a Product.

**10.3. Indemnification Process.** If a Party ("Indemnifying Party") is required to indemnify the other Party ("Indemnified Party") pursuant to Section 10.2, the Indemnified Party shall promptly notify the Indemnifying Party. The Indemnifying Party will be permitted to assume primary control of the defense of the action with counsel of the Indemnifying Party's choice. The Indemnified Party will cooperate in the defense of the action as requested by the Indemnifying Party. The Indemnified Party may, but shall not be required to, participate in the defense of the action with its own counsel, at its own expense. The Indemnifying Party will assume the cost of the defense on behalf of the Indemnified Party and its Affiliates (other than the expense of Indemnified Party's counsel pursuant to the immediately preceding sentence) and will pay all expenses and satisfy all judgments which may be incurred or rendered against the Indemnified Party or its Affiliates in connection therewith, provided that without the Indemnified Party's written consent, the Indemnifying Party shall not enter into or acquiesce to any settlement containing any admission of or stipulation to any guilt, fault, or wrongdoing on the part of the Indemnified Party, which would otherwise adversely affect the Indemnified Party, or which results in less than a full release of all claims.

## 11. REPRESENTATIONS AND WARRANTIES.

**11.1** EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, CROWN CASTLE MAKES NO REPRESENTATIONS AND WARRANTIES UNDER THIS AGREEMENT, EITHER EXPRESS, IMPLIED OR STATUTORY, AND CROWN CASTLE HEREBY EXPRESSLY EXCLUDES AND DISCLAIMS ALL OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, (i) NON-INFRINGEMENT, (ii) IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND (iii) PERFORMANCE OR INTEROPERABILITY OF THE PRODUCT WITH ANY LICENSEE OR END-USER EQUIPMENT. NO WARRANTY IS MADE OR PASSED ON WITH RESPECT TO ANY PRODUCTS

OR SERVICES PROVIDED BY OR FURNISHED BY ANY THIRD PARTY.

**11.2** Each Party represents and warrants to the other that (a) it has the full right and authority to enter into, execute, deliver and perform its obligations under this Agreement, (b) it will comply with all applicable federal, state and local laws, statutes, rules and regulations in connection with the provision and use of the Products (including but not limited to the FCC's "intermediate provider" requirements, 47 CFR § 64.2119, where applicable), and (c) this Agreement constitutes a legal, valid and binding obligation of such Party enforceable against such Party in accordance with its terms.

## 12. CONFIDENTIALITY; SERVICE MARKS; PUBLICITY.

**12.1 Confidentiality.** "Proprietary Information" means any information supplied by the disclosing Party, or its Affiliate, to a receiving Party, or its Affiliate, or obtained by the receiving Party, or its Affiliate, in the provision or receiving of a Product hereunder, in each instance relating to the disclosing Party, its Affiliates, and/or its customers which has been designated as confidential, proprietary or private or which, from the circumstances, in good faith should be treated as confidential, including but not limited to customer proprietary network information. Proprietary Information shall not include any of the following: (i) information that has been, or is subsequently, made public by the disclosing Party through no wrongful act of the receiving Party; (ii) information that is independently developed by the receiving Party without using any Proprietary Information of the disclosing Party; and (iii) information that has been previously known by or disclosed to the receiving Party by a third party not bound by confidentiality restrictions. Pricing information exchanged in connection with this Agreement, or included in any Order Form hereunder, and the terms and conditions of this Agreement, are hereby designated as confidential without further obligation on the part of either Party to mark or designate it as such. Each Party shall maintain in strict confidence all Proprietary Information of the other. Neither Party shall disclose Proprietary Information to any third person, except a receiving Party shall be permitted, without the disclosing Party's prior written consent, to disclose Proprietary Information to its employees and Affiliates, financial, technical, and professional advisors, representatives, contractors, subcontractors and consultants provided that the receiving Party has taken reasonable steps to ensure that such Proprietary Information is kept strictly confidential consistent with the confidentiality obligations hereunder. In addition, Crown Castle may use the Proprietary Information of Licensee to offer and/or discuss additional Products or other Crown Castle products to Licensee unrelated to the Products Licensee currently receives pursuant to this Agreement. If a receiving Party is required by any governmental authority or by applicable law to disclose any Proprietary Information, then to the extent permitted by applicable law, such receiving Party shall provide the disclosing Party with written notice of such requirement as soon as possible and prior to such disclosure. Upon receipt of written notice of the requirement to disclose Proprietary Information, the disclosing Party, at its expense, may then either seek appropriate protective relief in advance of such requirement to prevent all or part of such disclosure or shall waive the receiving Party's compliance with the requirements of the foregoing sentence with respect to all or part of such Proprietary Information.

**12.2 Service Marks, Trademarks and Publicity.** Neither Party shall: (a) use the name, service mark, trademark, trade name, logo, or trade dress of the other Party; or (b) refer to the other Party in connection with any advertising, promotion, press release or publication, unless it obtains the other Party's prior written approval.

**13. ASSIGNMENT.** Neither Party will assign or transfer this Agreement or any license or Order Form hereunder without the other Party's prior written consent, such consent not to be unreasonably withheld. Any assignment made in violation of this requirement shall be void and invalid. Notwithstanding the foregoing, either Party may assign this Agreement without the other Party's consent to a person or entity (i) that controls, is controlled by or is under common control with the assigning Party, (ii) which purchases all or substantially all of its assets or equity, or (iii) resulting from any merger, consolidation or other reorganization involving such Party.

**14. FORCE MAJEURE.** Neither Party shall be liable, nor shall any credit or other remedy be extended, for any delay or failure to fulfill any obligation under this Agreement or any Order Form due to any cause beyond a Party's reasonable control, including, but not limited to: acts of God, flood, extreme weather, fire, natural calamity, terrorism, any moratorium, law, order, regulation, action or inaction of any governmental entity or civil or military authority, power or utility failures, fiber or cable cuts caused by third parties, unavailability of rights-of-way, national emergencies, insurrection, riots, wars, strikes, lock-outs, work stoppages or other labor difficulties, pole hits, or material shortages (each a "Force Majeure Event").

**15. NOTICES.** Any request to terminate this Agreement, or any claim for breach thereof, shall be in writing and transmitted either via (i) overnight courier or hand delivery, or (ii) certified or registered mail, postage prepaid and return receipt requested. Notices shall be deemed delivered upon receipt. Notices to Licensee shall be sent to the address specified in the Service Order. Notices to Crown Castle shall be sent to the following address:

Crown Castle  
2000 Corporate Drive  
Canonsburg, PA 15317  
Attention: Legal Department - Networks

A Party may change the address for notices by notice to the other Party provided pursuant to this Section 15. All other notices, requests, or communications may be transmitted by email as specified in the invoice or Order Form or as otherwise directed by Crown Castle.

## **16. MISCELLANEOUS**

**16.1 Governing Law.** This Agreement shall be governed by the laws of the State of Delaware without regard to its choice of law principles.

**16.2 No Third-Party Beneficiaries.** The covenants, undertakings, and agreements set forth in this Agreement are solely for the benefit of and enforceable by the Parties or their respective successors or permitted assigns. It is the explicit intention of the Parties hereto that no person or entity other than the Parties (and, with respect to the provisions of Section 10, the Indemnitees) is or shall be entitled to any legal rights under this Agreement.

**16.3 Relationship of the Parties.** The relationship between the Parties hereunder is not that of partners or agents for one another and nothing contained in this Agreement shall be deemed to constitute or create a partnership, joint venture, or similar relationship. Nothing in this Agreement shall be construed to authorize either Party to represent the other Party for any purpose whatsoever without the prior written consent of such other Party.

**16.4 Order of Precedence.** If any conflict or contradiction exists between these general terms and conditions and a Supplement, the terms of a Supplement will control. If any conflict or contradiction exists between a Supplement and the terms of an Order Form, the terms of the Order Form will control. If any conflict or contradiction exists between these general terms and conditions and the terms of an Order Form, the terms of the Order Form will control.

**16.5 Non-Exclusivity.** This Agreement is non-exclusive. Both Parties may enter into similar arrangements with others, and Crown Castle may, as part of its normal business undertakings, actively market its products to any person or entity anywhere in the world, including but not limited to in competition with Licensee and/or Licensee's end users.

**16.6 Non-Waiver.** The waiver by any Party hereto of a breach or a default under any of the provisions of this Agreement, any Supplement or any Order Form, or the failure of any Party, on one or more occasions, to enforce any of the provisions of this Agreement or to exercise any right or privilege hereunder shall not thereafter be construed as a waiver of any subsequent breach or default of a similar nature, or as a waiver of any such provision, right or privilege hereunder.

**16.7 Survival.** The terms and provisions contained in this Agreement that by their nature and context are intended to survive the performance thereof by the Parties hereto shall so survive the completion of performance and termination or early termination of this Agreement, including, without limitation, provisions for indemnification, confidentiality, and the making of payments due hereunder.

**16.8 Headings.** Section and subsection headings contained in this Agreement are inserted for convenience of reference only, shall not be deemed to be a part of this Agreement for any purpose, and shall not in any way define or affect the meaning, construction, or scope of any of the provisions hereof.

**16.9 Severability; Void or Illegal Provisions.** If any part of this Agreement, Supplement or an Order Form shall be determined to be invalid or unenforceable by a court of competent jurisdiction, said part shall be ineffective to the extent of such invalidity or unenforceability only, without in any way affecting the remaining parts of this Agreement or such Order Form. The remainder of this Agreement will continue in full force and effect insofar as it remains a workable instrument to accomplish the intent and purposes of the Parties. The Parties will replace the severed provision with a provision that reflects the initial intention of the Parties.

**16.10 Entire Agreement; Amendment.** This Agreement, including all Supplements, Order Forms, exhibits and addenda attached hereto is the entire agreement between the Parties with respect to the subject matter hereof and supersedes any and all prior negotiations, understandings, and agreements, whether oral or written, with respect to such subject matter. This Agreement may be amended only by a written instrument executed by the Parties.

**16.11 Counterparts.** This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument. The Parties agree that fully executed electronic copies or facsimile copies of this Agreement and corresponding Order Forms are legally binding and shall act as originals for the purpose thereof.

**16.12 Disconnection Notice Requirement.** Licensee shall submit all requests for disconnection of Products in writing to Crown Castle. The effective date of any such disconnection will be the later of (i) thirty (30) days from Crown Castle's receipt of such disconnection request, or (ii) the date requested by Licensee in the disconnection request. Each disconnection request must specify the Licensee name and address, email address and telephone number of the person authorizing the disconnect, the circuit ID for the Product to which the disconnect request applies, the product type, and requested

disconnection date. Upon termination of a Product, Crown Castle shall have the right (but not the obligation) to act on behalf of and as agent for Licensee to terminate all cross-connects relating to such Product, including cross-connects ordered by Licensee. Upon request Licensee shall confirm to the applicable supplier of the cross-connect(s) that Crown Castle is authorized to terminate such cross-connects on Licensee's behalf. Disconnections shall not affect Licensee's obligation to make payments as agreed in each Order Form.

#### Key to Subsequent Parts

- Part II – Dark Fiber
- Part III – Ethernet
- Part IV – Internet
- Part V – Wavelength
- Part VI – Colocation
- Part VII – Managed Solutions
- Part VIII – Managed Security

## **PART II—TERMS APPLICABLE TO DARK FIBER**

1. The terms in this Part II apply only to dark fiber licensed to Licensee under an Order Form that specifies Dark Fiber. This Part shall not apply to other products, including Ethernet, wavelength, Internet, or colocation.

### **2. ADDITIONAL TERMS**

The following additional terms and conditions shall apply to the provision of licensed dark fiber.

“Cable” means fiber optic cable with fiber optic filaments contained in any suitable jacketing or sheath that is already in place, or is yet to be installed, and to which Crown Castle has or will have access by ownership, lease, right to use, or otherwise.

“Dark Fiber” or “Fibers” means one or more specified strands of dedicated optical fiber within a Cable without optronics or electricity, subject to the terms of the Agreement.

“Licensee Fibers” or “Product” means the Fibers that are licensed to Licensee under an Order Form.

“Location” is an address wherein Crown Castle will hand off Licensee Fibers to Licensee.

“Product Credit” means a credit that Licensee may be eligible to receive pursuant to Section 7 below.

“Product Outage” means a loss of continuity or other material degradation of the Licensee Fibers such that Licensee is unable to utilize the Licensee Fibers for transmission of optical signals.

“Route” means the geographic path along which the Cable and Licensee Fibers are located.

“Route Segment” means a portion of the Route between any two Locations.

### **3. SPECIFICATIONS**

**3.1 Type and Constitution.** Single-mode Fibers are made of high-grade doped silica core surrounded by a silica cladding; and coated with a dual layer, UV-cured acrylic-based coating.

<b>Properties</b>	<b>Units</b>	<b>Single Mode</b>	<b>Single Mode Enhanced</b>	<b>MetroCor</b>	<b>NZDSF</b>
<u>Glass Geometry</u>					
Mode Field Diameter at 1310 nm	(µm)	9.2 ± 0.4	9.2 ± 0.4	N/A	N/A
Mode Field Diameter at 1550 nm	(µm)	10.4 ± 0.8	10.4 ± 0.8	8.1 ± 0.5	9.2 ± 0.8
<u>Fiber Attenuation</u>					
Maximum value at 1310 nm	(dB/km)	0.4	0.4	0.5	N/A
Maximum value at 1550 nm	(dB/km)	0.3	0.3	0.3	0.3

#### **3.2 Fiber Optic Specification**

- (a) Bi-directional splice value (“Splice Value”) ≤ 0.20 dB at 1550 nm. In exceptional cases, a Splice Value may be accepted if its value is higher than 0.20 dB at 1550 nm. An exception case is, for instance, when three (3) re-trials of a splice cannot improve the Splice Value. The Splice Value will be given by the equation:

$$\frac{(\text{Splice attenuation from A to B}) + (\text{Splice attenuation from B to A})}{2}$$

- (b) Splice attenuation average (“Splice Attenuation Average”) ≤ 0.15 dB at 1550 nm. The Splice Attenuation Average is given by:

$$\frac{\sum \text{Splice Values}}{\text{Number of splices in the Route Segment}}$$

- (c) It is recognized by the Parties that due to the use of ribbon fiber optic cable on some of the segments, the Splice Value of individual splices may exceed 0.20 dB. However, the Splice Attenuation Average for any Route Segment as designated in (b) above shall supersede all other splicing requirements.

### 3.3 Connectors

- (a) Maximum Unitary ODF/S Connector (1 connector + 1 adapter + 1 connector)
- (b) Maximum Connector/pigtail loss. The attenuation contribution of each pigtail with associated connector is considered to be 1.0 dB, comprised of 0.8 dB connector loss and 0.20 dB splice loss (pigtail to cable splice).

### 3.4 Fiber Optic Test Parameters

#### I. Standard Fiber Optic Testing:

##### (a) Bi-directional OTDR

- (i) Span traces will be captured at 1310nm and 1550nm. Traces will be provided in native format and / or PDF.

##### (b) Bi-Directional Power Meter.

- (i) Bi-Directional power meter results will be furnished with light source data at 1550nm. Data will be supplied in a excel format with all locations clearly identified including demarcation details.

#### II. Additional Fiber Optic Testing (for an additional charge):

##### (a) Optical Return Loss/Reflectance

- (i) The ORL value measures the total light reflected back to the transmitter caused by the system components of the fiber under test and can degrade the performance by affecting the stability of the laser; this in turn can create bit errors.
- (ii) Specifications – ORL

Vendor and Telcordia specifications regarding Optical Return Loss are as follows:

Parameter	Required Threshold
Optical Return Loss	>30 dB

##### (b) Polarization Mode Dispersion.

- (i) PMD is caused by different polarizations of the light pulse traveling along the fiber at slightly different speeds due to imperfections of size and material properties along the length of the fiber. This causes the light pulses or waveforms to spread out or broaden causing possible bit error rate of the transmission signal. The higher the bandwidth, the shorter the pulse and the increase of importance of testing prior network turn up.
- (ii) Polarization-Mode Dispersion Measurement for Single-Mode Optical Fibers by Interferometry Method.
- (iii) PMD coefficient of the tested fiber should not exceed <math>0.2 \text{ ps/km}^{1/2}</math>.

##### (c) Chromatic Dispersion

- (i) Chromatic Dispersion is the broadening or spreading of a pulse of light due to the nonzero spectral width of a transmission signal. The effects of chromatic dispersion can limit the network transmission rate or the length of fiber a signal can be transmitted before requiring re-generation.
- (ii) Specifications – Chromatic Dispersion
- (iii) Record the total Chromatic dispersion for the tested span, the value per kilometer should be within the range specified below.

Type	Dispersion @ 1550nm
SMF (ITU-T 6.652.D)	$\leq 18 \text{ ps}/(\text{nm}*\text{km})$
ELEAF (ITU-T G.655)	$4 \text{ ps}/(\text{nm}*\text{km})$
TrueWave RS (ITU-T G.655)	$4.5 \text{ ps}/(\text{nm}*\text{km})$
TrueWave Classic (early G.655)	$2 \text{ ps}/(\text{nm}*\text{km})$
DSF (ITU-T G.653)	$0 \text{ ps}/(\text{nm}*\text{km})$
SMF-LS	$-1 \text{ ps}/(\text{nm}*\text{km})$
<b>Note 1: DSF not recommended for DWDM</b>	



#### 4. USE OF AND ACCESS TO LICENSEE FIBERS; RELOCATION

**4.1 License.** Subject to the terms and conditions set forth in the Agreement and this Supplement, Crown Castle and Licensee may from time to time execute one or more Order Forms pursuant to which Crown Castle grants to Licensee a license to use Licensee Fibers designated on the Order Form. Each Order Form will specify the number, identity, type, and route of the Licensee Fibers, and the permitted Locations where Licensee may access the Licensee Fibers. Crown Castle may not be the owner of the Licensee Fibers but may instead lease, license, or acquire a right to use such Licensee Fibers from a third party together with the right to sub-lease Licensee Fibers to Crown Castle's Licensees.

**4.2 Limitations on Rights and Obligations.** In addition to, and not in limitation of, any limitations set forth in the Agreement, the Parties agree that:

**4.2.1 Use by Licensee.** Licensee shall have no right or interest in the Licensee Fibers other than a license to use the Licensee Fibers. A license of Licensee Fibers does not convey any ownership interest in the Licensee Fibers or the Cable. Licensee is solely responsible for all optical and other equipment required to enable Licensee to utilize the Licensee Fibers for optical communications.

**4.2.2 Use by Crown Castle.** Nothing herein shall be construed as limiting or restricting Crown Castle or its Affiliates in any manner from using its or their own Cables, fibers, or any other facilities, easements and/or rights of way for the installation of additional fiber optic cables, for use as telecommunications facilities, or for any other purpose.

**4.2.3 Subordination.** Licensee understands and agrees that Crown Castle's ability to grant Licensee the license to use the Licensee Fibers pursuant to this Agreement, and to attach, install, construct, operate, and maintain the Crown Castle Network and the Licensee Fibers, is at all times subject and subordinate to, and limited by, the Underlying Rights, applicable laws, rules, ordinances, codes, and regulations. By virtue of the Agreement, Licensee shall only have a license to use the Licensee Fibers or related facilities, expressly granted herein, and in no event shall such license be construed to be greater than the Underlying Rights to use such Licensee Fibers. Crown Castle shall not be liable for any acts or omissions by Crown Castle, its employees or affiliates that interfere with or otherwise affect Licensee's use of the Licensee Fibers to the extent such acts or omissions are required by the Underlying Rights, including, without limitation acts or omissions that deny the use of, alter, or remove the Cable.

**4.2.4 Sublicensing.** Licensee shall not assign, sell, transfer, lease, sublease, license, sub-license, or otherwise grant a right to use the Licensee Fibers to any third party without the prior written consent of Crown Castle.

**4.2.5. Access to Licensee Fibers.** Licensee may access the Licensee fibers only at the Demarcation Points specified in the applicable Order Form. Licensee may not access or take any action that impacts the Licensee Fibers or the Cable at any other locations.

#### 4.3 Relocation.

**4.3.1 Relocation Required By Crown Castle.** In the event that Crown Castle is required by any underlying service provider, public authorities, or lawful order or decree of a regulatory agency or court or any other reason beyond Crown Castle's reasonable control, to relocate or modify any or all Cable on the Route upon which the Licensee Fibers are located, Crown Castle's costs for any such work shall be shared on a pro rata basis with Licensee. Crown Castle shall not be responsible for the costs of, nor shall it be liable for, the removal, relocation or replacement of any Licensee Equipment or other Licensee property on the Licensee's side of the Demarcation Point. If the relocation or replacement of the Cable is requested or caused by a third party, Crown Castle shall attempt to obtain reimbursement of Crown Castle's costs from said third party. Notice to Licensee will be provided as soon as reasonably practicable. Neither Crown Castle nor any of its affiliates or agents shall incur liability for any Product Outage, disruption, degradation, interference, or interruption of any Product in connection with any such removal or relocation. Crown Castle and Licensee shall cooperate in performing such relocation or modifications so as to minimize any interference with the use of the Licensee Fibers and the Cable and to avoid conflicting physically or otherwise interfering with joint users of the Cable or any other property impacted by the installation, construction, maintenance, or use of the Cable, to the extent reasonably possible. Any such relocation shall be accomplished consistently with the Specifications.

**4.3.2 Relocation Requested By Licensee.** Licensee may request relocation of the Licensee Fibers. Any such relocation shall be subject to Crown Castle's approval (which shall be in Crown Castle's sole discretion), the execution of an Order Form, and Licensee's payment to Crown Castle of such additional charges as Crown Castle may require. No relocation or replacement of the Cable or related facilities shall be performed without the prior written agreement of Crown Castle, which shall be in Crown Castle's sole discretion.

#### 5. TERMINATION AND CONDEMNATION

**5.1 Termination of Route Segment.** In addition to, and not in limitation of, any rights set forth in the Agreement, any Route Segment may be terminated by Crown Castle without liability (unless due to a default by Crown Castle under any applicable Underlying Rights agreement), upon reasonable notice to Licensee, to the extent Crown Castle is no longer authorized under the Underlying Rights to install, construct, maintain, operate, or convey the license to use the Cable or other property as contemplated by the Agreement. If a Route Segment is terminated pursuant to this Section, Crown Castle shall make reasonable efforts to find alternate capacity or facilities owned or controlled by Crown Castle to meet Licensee's needs, but under no circumstances shall Crown Castle be obligated to contract for or to construct new



facilities, or otherwise incur any additional cost or expenses, to replace the Cable or Licensee Fibers on the Route Segments terminated under this Section 5.1.

**5.2 Condemnation Proceedings/Termination Rights.** If at any time during the Product Term, all or any significant portion of the Cable is taken for any public or quasi-public purpose by any lawful power or authority by the exercise of the right of condemnation or eminent domain and, after exercise of the Parties' commercially prudent efforts, the Cable cannot be relocated pursuant to Section 4.3 herein, either Party may elect to terminate the impacted Licensee Fibers upon giving the other thirty (30) days prior written notice. If Licensee Fibers are terminated in accordance with this Section, the applicable license shall be deemed canceled and neither Party shall have any further obligations to the other, except that both Parties shall be entitled to participate in any condemnation proceedings to seek to obtain compensation via separate awards for the economic value of their respective interest in the Cable.

**6. FEES**

Licensee shall pay the fees set forth in Order Forms executed hereunder. On January 1 of each year, the MRCs shall be escalated by three percent (3%). In addition, in the event that amounts charged to Crown Castle under any Underlying Rights are increased or Crown Castle's costs or expenses are increased due to any Underlying Rights, Crown Castle shall have the right to charge Licensee for its pro rata share of such increases, which shall be added to the MRCs to be paid by Licensee for the applicable Product Term.

**7. SERVICE LEVEL AGREEMENT**

**7.1 MTTR Objectives.**

**7.1.1 Mean Time to Respond.** "Mean Time to Respond" is the average time required for Crown Castle to begin troubleshooting a reported failure. The Mean Time to Respond objective is two (2) hours from Crown Castle's receipt of notice of such failure.

**7.1.2 Mean Time to Repair.** "Mean Time to Repair" is the average time required to restore the Licensee Fibers to an operational condition as defined herein. The Mean Time to Repair objective is eight (8) hours from Crown Castle's receipt of notice of such failure.

**7.2 Product Outage.** Subject to this Section 7, in the event of a Product Outage, Licensee may be entitled to a Product Credit as provided in Section 7.3 below. A Product Outage shall be deemed to begin upon the earlier of Crown Castle's actual knowledge of the Product Outage or Crown Castle's receipt of notice from Licensee of the Product Outage, and end when the Licensee Fibers are operational and in material conformance with the applicable Specifications. Notwithstanding anything to the contrary in this Supplement, in the Agreement or in any Order Form, in no event shall a Product Outage or failure to meet any objectives or parameters under this Supplement be deemed to be or constitute a breach by Crown Castle of this Supplement, the Agreement or any Order Form.

**7.3 Service Level Objective.** If Crown Castle fails to repair a Product Outage within eight (8) hours of notice from Licensee of such Product Outage ("Repair Window"), Licensee may be entitled to a Product Credit as follows:

Measurement Timeframe	Product Credit for Affected Product
Per Incident	1/30 <sup>th</sup> of the MRC of the affected Product for each consecutive twelve (12) hour period (or fraction thereof) after the Repair Window up to a maximum of 50% of the MRC

**7.4 Product Credits.** The number of minutes of separate and discrete Product Outages will not be cumulated to determine the applicable Product Credit. Product Credits hereunder may not be applied to usage charges, government fees, taxes, or surcharges, or any third party charges passed through to Licensee by Crown Castle. Product Credits issued to Licensee hereunder shall be Licensee's sole and exclusive remedy at law or in equity on account of any Product Outage. Product Credits will not be issued to Licensee if Licensee's account with Crown Castle is in arrears. Notwithstanding anything to the contrary herein, the above-stated Product Credits shall not apply to Off-Net Products, and in the event of a Product Outage or other failure of any Off-Net Product provided by Crown Castle to Licensee, Crown Castle agrees to pass through a credit equal to the credit received by Crown Castle from its underlying provider(s) for such Product Outage, in lieu of the above-stated Product Credits. In no event shall Crown Castle's total liability for all Product Outages and/or failure to meet any objectives or parameters set forth in this Supplement in any month exceed a credit equal to fifty percent (50%) of the MRC for the affected Product for such month.

**7.5 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event that gives rise to Licensee's right to request the Product Credit. Failure to request a credit within such period shall constitute a waiver of any claim for a Product Credit.

**7.6 Events Excepted From Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Product Outage, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by any of the following events:

- a. Licensee's (including its agents, contractors and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Licensee provided optical fiber, end user equipment or Licensee's vendor's equipment;
- c. Failure of electrical power not provided by Crown Castle;
- d. Election by Licensee, after requested by Crown Castle, not to release the Licensee Fibers for testing and repair;
- e. Crown Castle's inability to obtain access required to remedy a defect in a Product, including lack of access due to utility safety restrictions;
- f. Scheduled maintenance periods;
- g. Scheduled upgrade of Product at the request of Licensee;
- h. Force Majeure Event; or
- i. Disconnection or suspension of the Product by Crown Castle pursuant to a right provided under this Agreement.

## **PART III-TERMS APPLICABLE TO ETHERNET**

1.0 The terms in this Part III apply only to Ethernet licensed to Licensee under an Order Form that specifies Ethernet. This Part shall not apply to other products, including dark fiber, wavelength, Internet, or colocation.

1.1 “Ethernet” or “Product” means a method of switched communication between or among two or more Locations using the Ethernet protocol defined by IEEE 802.3. Ethernet may be ordered and provisioned either as On-Net Products or Off-Net Products. Ethernet includes, without limitation, the following types of Products:

- (a) ***E-Line or Fixed Wireless E-Line (if fixed wireless technology is utilized)***: a port-based Product providing dedicated UNIs for point-to-point connections. E-Line supports a single EVC between two (2) UNIs.
- (b) ***Ethernet Virtual Private Line (EVPL) or Fixed Wireless Ethernet Virtual Private Line (EVPL) (if fixed wireless technology is utilized)***: a VLAN based Product providing multiplexed UNIs allowing multiple EVCs per UNI.
- (c) ***Ethernet LAN (E-LAN) or Fixed Wireless Ethernet LAN (E-LAN) (if fixed wireless technology is utilized)***: a VLAN based meshed Product providing many-to-many communication with dedicated or service-multiplexed UNIs. E-LAN supports transparent LAN and multipoint Layer 2 VPNs.
- (d) ***Metro-E Advanced Private Line or Fixed Wireless Metro-E Advanced Private Line (if fixed wireless technology is utilized)***: dedicated point-to-point switched Ethernet provided within a metro area over dedicated fiber transport and/or fixed wireless transport if fixed wireless technology is utilized.
- (e) ***ENNI (External Network to Network Interface)***: an interconnection point between the Crown Castle and Licensee Ethernet networks as defined in MEF Specification 26.
- (f) ***Ethernet Integrated with SD-WAN***: is a method of communication between or among two or more Locations using Ethernet protocol defined by IEEE 802.3 and TCP/IP based network connectivity enabling a software defined wide area network, an application aware, policy driven network, delivered by an Edge Device or virtual instance of such device at the Location.

1.2 “Class of Service” or “CoS”: Crown Castle offers CoS with Ethernet. CoS enables Licensee to differentiate traffic by assigning Bandwidth with various classes of network priority designated by Licensee. If Licensee elects CoS, (i) Licensee’s traffic must be marked by Licensee in accordance with Crown Castle’s available classes of network priority, and (ii) Licensee traffic will be prioritized in accordance with the assigned network priority. If Licensee does not elect CoS, Licensee’s traffic will be treated with the default network priority level. Crown Castle offers the following classes of CoS ranging from highest to lowest in terms of network priority:

- Mission Critical
- Business Critical
- Business Priority
- Standard (Default class for all Ethernet)

1.3 **Protection Options.** Ethernet comes with various Protection Options, as described below.

Protection Option	Description	Minimum Location Requirements			
		Space	Power	Environmental Control	Back Up Power
<b>Unprotected (Level A Access)</b>					
1	Level A Access means the access portion of the Ethernet (i.e., the segments from the last Crown Castle Network switching hub (or for Metro-E Advanced Private Line or Fixed Wireless Metro-E Advanced Private Line Products - the lateral segments supporting the respective Product) to the point of entry of the Location) is provided over a single transmission path by fiber and/or fixed wireless without protection. Level A Access consists of the following minimum requirements at each Location: (i) a single point of entry into the Location; (ii) one (1) Crown Castle Equipment chassis; (iii) one (1) port; (iv) a 2-fiber handoff to the Licensee from the Crown Castle Equipment; and (v) one (1) Crown Castle fixed wireless receiver equipment chassis if fixed wireless technology is utilized by Crown Castle for the applicable Product.	(1)	(2)	(4)	Not applicable



Optical Protection (Level AA Access)					
2	Level AA Access means the access portion of the Ethernet (i.e., the segments from the last Crown Castle Network switching hub to the point of entry of the Location) is provided over two (2) separate transmission paths by fiber and/or fixed wireless, one of which is the working (primary) path and the other the protect (secondary) path. Crown Castle is responsible for managing the Failover Switching at each Location. Level AA Protection consists of the following minimum requirements at each Location: (i) a single point of entry into the Location; (ii) one (1) Crown Castle Equipment chassis; (iii) one (1) port; (iv) a 2- fiber handoff to the Licensee from the Crown Castle Equipment; and (v) one (1) Crown Castle fixed wireless receiver equipment chassis if fixed wireless technology is utilized by Crown Castle for the applicable Product.	(1)	(2)	(4)	(6)
Dual Path Protection (Level AAA)					
3	Level AAA Access means the access portion of the Ethernet (i.e., the segments from the last Crown Castle Network switching hub to the point of entry of the Location) is provided over two (2) separate transmission paths by fiber and/or fixed wireless, one of which is the working (primary) path and the other the protect (secondary) path. Failover Switching at each Location will be provided by Licensee or by Crown Castle as specified in the Order Form. Level AAA Protection consist of the following minimum requirements at each Location: (i) two (2) separate points of entry into the Location; (ii) two (2) Crown Castle Equipment chassis; (iii) one (1) line card per chassis; (iv) 4-fiber handoff to the Licensee from the Crown Castle Equipment, with two fibers handed off from one of the Crown Castle Equipment chassis and two fibers handed off from the other Crown Castle Equipment chassis; (v) Licensee Equipment must have hardware redundancy (i.e., separate cards, one for one of the 2-fiber handoffs and the other for the second 2-fiber handoff); and (vi) two (2) Crown Castle fixed wireless receiver equipment chassis if fixed wireless technology is utilized by Crown Castle for the applicable Product.	(1)	(3)	(5)	(7)

(1) Secure space for Crown Castle Equipment at each Location with 24x7x365 access.

(2) Dedicated electrical circuit for Crown Castle Equipment (i.e., the circuit has no other load from the Crown Castle Equipment to a circuit breaker) at each Location from the public utility.

(3) Redundant, dedicated electrical circuit at each Location from the public utility (i.e., each power circuit is fed from a different circuit breaker panel and has its own circuit breaker).

(4) For Crown Castle Equipment installed indoors - Substantially dust free with temperature control that maintains temperature between 50 and 80 degrees Fahrenheit and humidity control that maintains relative humidity below 80%.

(5) For Crown Castle Equipment installed indoors - Substantially dust free with temperature control that maintains temperature between 60 and 80 degrees Fahrenheit and humidity control that maintains relative humidity between 40% and 60%.

(6) Crown Castle (or Licensee if the Parties agree) to install and maintain a minimum of four (4) hours of standby power.

(7) Crown Castle (or Licensee if the Parties agree) to install and maintain a minimum of eight (8) hours of standby power and Licensee shall provide emergency power generation.

## 2. ADDITIONAL DEFINITIONS

“Bandwidth” or “BW” means the amount of data (quantified as “Mbps” or “Gbps”) made available to Licensee.

“Ethernet Virtual Connection” or “EVC” is a logical connection between two or more UNIs.

“Failover Switching” means the automatic restore and reroute of a Product to an alternate transmission path.

“Location” is an address wherein Crown Castle will hand off Ethernet to Licensee.

“Product Availability” means the percentage of minutes during a calendar month that the licensed Product has not incurred a Product Outage. Product Availability is calculated as follows: (43,200 - total number of minutes of Product Outage during the calendar month) divided by 43,200.

“Product Credit” means a credit that Licensee is eligible to receive if Crown Castle fails to meet the parameters set forth in Section 5.2 below.

“Product Outage” means a complete interruption of communications between any two (2) or more Locations.



“Product Performance Failure” means a failure of the Product to meet any performance parameters set forth in Section 5.2(B) through 5.2(D) below. Product Performance Failure is not a Product Outage.

“User Network Interface” or “UNI” means the interface used to interconnect Licensee to the Crown Castle Network which provides a reference point for demarcation between the Licensee’s network and the Crown Castle Network.

“Virtual Local Area Network” or “VLAN” means a data communication network, configured using the IEEE 802.1q standard that logically interconnects computers and network devices, allowing a group of hosts to communicate, regardless of Location, as if they were attached to the same physical media.

“VPN” means a virtual private network.

**3. SPECIFICATIONS**

3.1 The Specifications applicable to Ethernet are as follows:

Technical Specifications:

- IEEE 802.3

**4. USE BY LICENSEE**

**4.1 Interstate Traffic.** Licensee acknowledges that Crown Castle has no ability to determine whether the communications traffic carried via the licensed Ethernet is jurisdictionally interstate or intrastate. Licensee acknowledges and agrees that the communications traffic to be carried via the Crown Castle Network shall be treated as jurisdictionally interstate, pursuant to the Federal Communications Commission’s mixed-use “10% Rule” (47 CFR 36.154, 4 FCC Rcd. 1352), unless Licensee provides timely written certification on Crown Castle’s prescribed form that the traffic is jurisdictionally intrastate under the 10% Rule.

**4.2 Permitted Use.** Licensee may use the Ethernet for its own use. Licensee shall be solely liable and responsible for the content of any communications transmitted via the Ethernet.

**5. SERVICE LEVEL AGREEMENT**

**5.1 Product Service Level.** Subject to this Section 5, in the event of a Product Outage to any licensed Ethernet or a Product Performance Failure, Licensee may be entitled to a Product Credit in accordance with the applicable Service Level Objective set forth in Section 5.2 below. A Product Outage, or Product Performance Failure as the case may be, shall be deemed to begin upon the earlier of Crown Castle’s actual knowledge of the same or Crown Castle’s receipt of notice from Licensee of the same, and end when the Product is operational and in material conformance with the applicable Specifications. Notwithstanding anything to the contrary in this Supplement, the Agreement, or any Order Form, in no event shall a Product Outage and/or Product Performance Failure and/or any other defect or failure in the Product be deemed to be or constitute a breach by Crown Castle of this Supplement, the Agreement or any Order Form.

**5.2 Service Level Objectives.**

**A. Product Availability**

If the total minutes of Product Outage in any month exceeds the number of minutes or hours set forth in the table below, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

Quality Level	Product Availability Objective	Measurement Timeframe	Product Credit		
			Cumulative Duration of Product Outage(s)	% of MRC	
<b>On-Net - Level A Access</b>					
1	Product Availability	99.9%	One Month	0 to 43.2 mins.	0%
				>43.2 mins. to 10 hrs.	5%
				>10 hrs. to 16 hrs.	10%
				>16 hrs. to 24 hrs.	20%
				>24 hrs. to 36hrs.	40%
				> 36 hrs.	50%
<b>On-Net - Level AA Access</b>					
2	Product Availability	99.99%	One Month	0 to 4.32 mins.	0%
				>4.32 mins. to 30 mins.	5%
				>30 mins. to 1 hr.	10%

				>1hr. to 8 hrs.	20%
				>8 hrs. to 16 hrs.	30%
				>16 hrs. to 24 hrs.	40%
				>24 hrs.	50%
<b>On-Net - Level AAA Access</b>					
3	Product Availability	99.999%	One Month	0 to 43 secs.	0%
				> 43 secs. to 4 mins.	5%
				>4 mins. to 10 mins.	10%
				>10 mins. to 2 hrs.	20%
				>2 hrs. to 8 hrs.	40%
				>8 hrs.	50%

**B. Network Latency**

“Network Latency” is the average round-trip transmission time (in milliseconds) for packets to travel on the Crown Castle Network (including, but not limited to, link insertion delays, propagation delays and queuing delays in the Crown Castle Network). Network Latency is determined by Crown Castle by averaging sample measurements taken each calendar month between Crown Castle’s designated points of presence.

If Network Latency in any month exceeds the number of milliseconds set forth in the table below and such failure is quality-impacting, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

<b>NETWORK LATENCY</b>				
	<b>CoS Designation - % of MRC</b>			
<b>Domestic US</b>	<b>Standard</b>	<b>Business Priority</b>	<b>Business Critical</b>	<b>Mission Critical</b>
>120ms	10%	20%	30%	50%

**C. Frame Delivery Rate (Packet Delivery)**

“Frame Delivery Rate” is the ratio of performance test frames successfully received from the Crown Castle Network relative to the number of performance test frames offered to the Crown Castle Network. Frame Delivery Rate is determined by Crown Castle by averaging sample measurements taken each calendar month between Crown Castle’s designated points of presence.

If Frame Delivery Rate in any month is less than the percentages set forth in the left column of the table below and such failure is quality-impacting, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

<b>FRAME DELIVERY RATE</b>				
	<b>CoS Designation - % of MRC</b>			
<b>Domestic US</b>	<b>Standard</b>	<b>Business Priority</b>	<b>Business Critical</b>	<b>Mission Critical</b>
99.999% or greater	No Credit	No Credit	No Credit	No Credit
99.99% to 99.998%	No Credit	No Credit	No Credit	10%
99.9% to 99.98%	No Credit	No Credit	10%	20%
99% to 99.8%	No Credit	10%	20%	30%
Less than 99%	10%	20%	30%	50%

**D. Frame Delay Variation (Jitter)**

“Frame Delay Variation”, also known as packet jitter, is a measurement of the average variation (measured in milliseconds) in the time delay for packet transfers between two performance test frames. Frame Delay Variation is determined by Crown Castle by averaging sample measurements taken each calendar month between designated points of presence.

If Frame Delay Variation in any month exceeds the number of milliseconds set forth in the table below and such failure is quality-impacting, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

<b>FRAME DELAY VARIATION</b>				
	<b>CoS Designation - % of MRC</b>			
<b>Domestic US</b>	<b>Standard</b>	<b>Business Priority</b>	<b>Business Critical</b>	<b>Mission Critical</b>

2ms or less	No Credit	No Credit	No Credit	No Credit
>2ms to 3ms	No Credit	No Credit	No Credit	10%
>3ms to 4ms	No Credit	10%	15%	30%
>4ms	10%	20%	30%	50%

**5.3 Product Credits.** Product Credits hereunder are calculated as a percentage of the MRC set forth in the Order Form, and may not be applied to usage charges, government fees, taxes, or surcharges, or any third party charges passed through to Licensee by Crown Castle. Product Credits hereunder may be paid only once per any given billing cycle. Product Credits issued to Licensee hereunder shall be Licensee’s sole and exclusive remedy at law or in equity on account of any Product Outage and/or Product Performance Failure and/or any other defect or failure in the Product. Product Credits will not be issued to Licensee if Licensee’s account with Crown Castle is in arrears. If an incident affects the performance of the Product and results in a period or periods of interruption, disruption, failure, or degradation in quality, entitling Licensee to one or more credits under multiple quality level standards, only the single highest credit with respect to that incident will be applied, and Licensee shall not be entitled to credits under multiple quality level standards for the same incident. Notwithstanding anything to the contrary herein, the above-stated Product Credits shall not apply to Off-Net Products; in the event of a Product Outage or Product Performance Failure, Crown Castle agrees to pass through a credit equal to the credit received by Crown Castle from its underlying provider(s) for such Product Outage or Product Performance Failure, in lieu of the above-stated Product Credits. In no event shall Product Credits in any month for any and all interruptions, disruptions, failures, and/or degradations in quality (including, without limitation, any Product Outage or Product Performance Failure) exceed fifty percent (50%) of the MRC for the affected Product for that month.

**5.4 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event which gives rise to Licensee’s right to the Product Credit. Failure to request a Product Credit within such period shall constitute a waiver of any claim for a Product Credit.

**5.5 Events Exempted From Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Product Outage, Product Performance Failure, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by any of the following events:

- a. Licensee’s (including its agents, contractors, and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Licensee provided optical fiber, Licensee’s end user equipment or Licensee’s vendor’s equipment;
- c. Failure of electrical power not provided by Crown Castle;
- d. Election by Licensee, after requested by Crown Castle, not to release the Product for testing and repair;
- e. Crown Castle’s inability to obtain access required to remedy a defect;
- f. Scheduled maintenance periods;
- g. Scheduled upgrade of Product at the request of Licensee;
- h. Force Majeure Event;
- i. Unavailability of spectrum not due to the fault or negligence of Crown Castle when fixed wireless is utilized in the provisioning of the Product;
- j. Unavailability of required Licensee personnel, including as a result of Licensee’s failure to provide Crown Castle with accurate, current contact information;
- k. Disconnection or suspension of the Product by Crown Castle pursuant to a right provided under this Agreement; and/or
- j. Crown Castle’s inability to repair due to utility safety restrictions.



**Part III, Exhibit A**  
**Additional Terms and Conditions for Ethernet Integrated with SD-WAN Products**

This **Exhibit A** is hereby incorporated into Part III, and the following terms and conditions of **Exhibit A** shall only apply to Ethernet Integrated with SD-WAN Products provided by Crown Castle to Licensee.

**1. ADD-ON OPTIONS**

- (a) **High Availability:** Dual Edge Devices deployed at the Location setup in a configuration to provide redundancy. The Edge Devices, deployed in a high availability configuration, are connected to each other with a fallback mechanism based on pre-determined policies.
- (b) **Next-Gen Firewall:** Additional security features to the Ethernet Integrated with SD-WAN Product, namely SSL inspection, URL and IP reputation and filtering, and L7 application controls.
- (c) **Unified Threat Management:** Additional security features to the Ethernet Integrated with SD-WAN Product, namely anti-virus protection, intrusion detection system (IDS), intrusion prevention system (IPS), file filtering, and SSL decryption and encryption.

**2. ADDITIONAL DEFINITIONS**

**“Edge Device”** means Crown Castle Equipment which can be physical or virtual and is part of the Ethernet Integrated with SD-WAN Product solution.

**“Logical Changes”** means Licensee requested basic modifications or changes performed remotely by Crown Castle’s Network Operations Center to the Ethernet Integrated with SD-WAN Product following the installation and delivery of such Product including, but not limited to, changes to routing tables.

**“Network Controller”** means the Crown Castle Equipment which provides physical or virtual device management for all Edge Devices associated with the controller.

**“Software”** means software which is embedded in the Edge Device and used in connection with the Ethernet Integrated with SD-WAN Product.

**3. SPECIFICATIONS**

The Specifications applicable to Ethernet Integrated with SD-WAN Products are as follows:

- (i) **Technical Specifications:** IEEE 802.3
- (ii) **IP Address Allocation:** The Edge Device may use one or more IP address blocks depending on the number of transport services at the Location. Each Ethernet Integrated with SD-WAN Product will have a unique IP address block.
- (iii) **Network Traffic Management:** Crown Castle’s network traffic policies will restrict the traffic flows to the subscribed committed information rate (“**CIR**”) in connection with the Ethernet Integrated with SD-WAN Product.

**4. IMPLEMENTATION AND CONFIGURATION**

**4.1 Configuration and Pre-Installation Technical Documentation.** Licensee shall reasonably cooperate with Crown Castle in the installation and configuration of the Ethernet Integrated with SD-WAN Product, and Licensee shall also assist in the completion of technical documentation prior to commencement of installation of the Ethernet Integrated with SD-WAN Product. The documentation provides Crown Castle with the information needed to design and configure the Ethernet Integrated with SD-WAN Product, including, but not limited to, access type and bandwidth, local area network and wide area network (“**WAN**”) design, number of users, and traffic types and priorities.

**4.2 Licensee Responsibilities.** Licensee will provide: (i) an operating environment with temperatures not below fifty-five (55) or above eighty-five (85) degrees Fahrenheit, and humidity shall not exceed ninety (90) percent at eighty-five (85) degrees Fahrenheit; (ii) power including UPS AC power equipment, circuit sizing to be determined, if applicable; (iii) emergency local generator backup service, if applicable; (iv) if interfacing with a third party IP service, provide, install and maintain a device that is capable of routing network traffic between the Ethernet Integrated with SD-WAN Product and the Licensee’s WAN; and (v) a point of contact for installation, Ethernet Integrated with SD-WAN Product activation, notices for Product Outages, configuration assistance, and any maintenance activities. Licensee is solely responsible for designating authorized Licensee representatives in connection with Licensee’s use of the Ethernet Integrated with SD-WAN Product, account access, maintenance, and configuration permissions associated with the Ethernet Integrated with SD-WAN Product. Licensee shall



promptly notify Crown Castle of any changes to permissions related to Licensee's authorized representatives on file with Crown Castle. In addition, Licensee is responsible for the performance of the applicable functions set forth on the Responsibility Matrix in Section 9 below.

**4.3 Cross-Connections.** As necessary for interconnection of the Ethernet Integrated with SD-WAN Product with service provided by others, Crown Castle may request (as applicable), and Licensee will provide to Crown Castle, circuit facility assignment information and design layout records necessary to enable Crown Castle to make the necessary cross-connection between the Ethernet Integrated with SD-WAN Product and Licensee's other service(s) from other provider(s). Crown Castle may charge Licensee non-recurring and monthly recurring cross-connect charges to make such connections.

**4.4 Security Monitoring and Mitigation.** Crown Castle monitors the Edge Device utilized in connection with the Ethernet Integrated with SD-WAN Product. Crown Castle does not provide monitoring of security events, any security event mitigation or advice regarding security issues or threats. Upon request by Licensee, Crown Castle will modify the configuration of the Ethernet Integrated with SD-WAN Product in accordance with the specifications provided by Licensee to attempt to mitigate security events and security threats identified by Licensee. Crown Castle's sole obligation is to implement the configuration settings requested by Licensee. Crown Castle makes no guarantees with respect to the detection or blocking of viruses/worms/malware or any other types of attacks, and is not responsible for any malicious data that may be transmitted over the Ethernet Integrated with SD-WAN Product.

**4.5 Crown Castle Responsibilities.** Crown Castle is responsible for the performance of the applicable functions as set forth on the Responsibility Matrix in Section 9 below. The Demarcation Point for the Ethernet Integrated with SD-WAN Product is the port on the Edge Device.

**4.6 Proprietary Rights and Permitted Use.** Licensee may use the Ethernet Integrated with SD-WAN Product(s) only for its own internal use. Licensee shall not assign, sell, transfer, distribute, lease, sublease, license, sub-license, or otherwise grant a right to use the Ethernet Integrated with SD-WAN Product to any third party. Licensee shall not use or copy any Software except as expressly permitted in the Agreement. Except to the extent such restrictions are not permitted under applicable law, Licensee agrees not to modify, adapt, alter, decompile, disassemble, reverse assemble, reverse engineer, or otherwise attempt to derive source code for the Edge Device, Software, or any other aspect of the Ethernet Integrated with SD-WAN Product. Licensee may not distribute, license, lease, rent, loan, or otherwise transfer the Software. Licensee shall not create derivative works based on the Software. Licensee may not export the Software or the underlying technology in contravention of the applicable U.S. and foreign export laws and regulations. Licensee acknowledges and agrees that portions of the Software, including but not limited to the source code and the specific design and structure of individual modules or programs, constitute or contain trade secrets of Crown Castle and its licensors. Any Software provided hereunder is licensed only and is subject to this Supplement, and Crown Castle or its providers retain title in all copies of the Software. Licensee will not obtain title to, or ownership of any intellectual property rights in the Software or any copies thereof. Licensee's rights in the Software will be limited to those expressly granted in this Supplement. Crown Castle reserves all rights not expressly granted to Licensee under this Supplement.

**4.7 Content and Transportation of Ethernet Integrated with SD-WAN Product.** Licensee accepts that Crown Castle does not control or operate the content that is transmitted or transported via the Ethernet Integrated with SD-WAN Product(s), and Licensee shall be solely liable and responsible for the content, data and communications applicable to the Ethernet Integrated with SD-WAN Product. Licensee acknowledges that Crown Castle will have network access to communicate with the Edge Device for purposes such as authentication and Software updates; and will have access to, and may utilize for any purpose all information regarding networking characteristics, usage, performance and related information involved in the use of the Ethernet Integrated with SD-WAN Product ("Key Performance Indicators" or "KPI"). Crown Castle will protect this KPI, and will not divulge to anyone outside of Crown Castle, or its subcontractors and agents, unless required by law via a subpoena.

**4.8 Fraudulent Use of Product.** Crown Castle shall not be held liable for any usage, charges and/or damages resulting from Licensee's fraudulent or unauthorized use of the Ethernet Integrated with SD-WAN Product, Software and/or Edge Devices. Licensee will not use the Ethernet Integrated with SD-WAN Product in any unlawful, abusive, or fraudulent manner. If Crown Castle has reason to suspect Licensee is abusing the Ethernet Integrated with SD-WAN Products or using them fraudulently or unlawfully, Crown Castle reserves the right to immediately suspend, restrict, or terminate the Ethernet Integrated with SD-WAN Products without notification. In such an event, Licensee will be held liable for all usage, including but not limited to, any and all fraudulent usage.

## **5. ETHERNET INTEGRATED WITH SD-WAN LICENSEE PORTAL**

Crown Castle will provide the Licensee with a password-protected web portal to view performance information regarding Licensee's Ethernet Integrated with SD-WAN Product.

## **6. FEES FOR ETHERNET INTEGRATED WITH SD-WAN PRODUCTS**

In the event that amounts charged to Crown Castle under its underlying third party reseller agreement are increased in connection with the Ethernet Integrated with SD-WAN Products, Crown Castle shall have the right to charge Licensee for such increase, which shall be added to the MRCs to be paid by Licensee for the applicable term. In the event of any such increase, Crown Castle will provide prior written notice to Licensee, and any such increases in charges will not take effect until Licensee's receipt of such notice.

**7. EMERGENCY BLOCKING**

The Parties agree that if either Party, in its reasonable sole discretion, determines that an emergency action is necessary to protect its own network, then the applicable Party may block any transmission path over its network by the other Party where transmissions do not meet material standard industry requirements and after engaging in reasonable and good faith efforts to notify the other Party of the need to block. Any such blockage will be without any liability or obligation to the other Party. The Parties further agree that none of their respective obligations to each other under the Agreement, Supplement and Order Form will be affected by such blockage, except if Licensee is the Party being blocked, then Licensee will not be obligated to make payments for the circuit(s) which is so blocked until such time as the blockage is removed.

**8. CHANGES**

During the Product Term, Crown Castle will perform certain Crown Castle configuration changes with respect to the Ethernet Integrated with SD-WAN Product upon request by Licensee, following installation and delivery of the Ethernet Integrated with SD-WAN Product and subject to additional charges, certain charges of which are detailed below.

Change Type	Time of Day	Rates Per Incident (Charged per Product)
Technician dispatch	7:01 AM to 6:59 PM	\$250 per hour, 4-hour minimum
Technician dispatch	7:00 PM to 7:00 AM	\$375 per hour, 4-hour minimum
Logical Changes – Remote	7:01 AM to 6:59 PM	\$200 per hour, 1-hour minimum
Logical Changes – Remote	7:00 PM to 7:00 AM	\$300 per hour, 1-hour minimum

The charges above may be increased once per contract year upon notice to Licensee by the percentage increase, if any, in the Consumer Price Index – Urban Wage Earners and Clerical Workers (U.S. City Average, All Items, Base 1982-1984 equals 100) as published by the United States Department of Labor, Bureau of Labor Statistics.

**9. RESPONSIBILITY MATRIX - ETHERNET INTEGRATED WITH SD-WAN PRODUCT**

Function	Crown Castle	Licensee
Strategic direction		X
Appropriate space, power, operating environment		X
Network design	X	X
Monitoring	X	
Fault isolation	X	
Fault restoration – Physical	X	
Fault restoration – Logical	X	
Break fix maintenance	X	
Change management – Physical	X	
Change management – Logical	X	
Configuration back-up	X	
Security policy and updates	X	
Utilization reporting	X	

## **PART IV--TERMS APPLICABLE TO INTERNET SERVICES**

1. The terms in this Part IV apply only to Internet access provided under an Order Form that specifies Internet. This Part shall not apply to other products, including Ethernet, wavelength, dark fiber, or colocation.

1.1 “Internet Product” or “Product” means Internet connectivity and Bandwidth provisioned by Crown Castle at a Location. Internet Product includes, without limitation, the following types of Products:

- (a) **Internet Access (“IA”)**: Internet connectivity and Bandwidth provided via a connection at a Crown Castle POP.
- (b) **Dedicated Internet Access (“DIA”)**: Internet connectivity and Bandwidth provided via a local access from a Location to a Crown Castle POP.
- (c) **Fixed Wireless DIA**: Internet connectivity and Bandwidth provided for the local access from a Location to a Crown Castle POP utilizing fixed wireless technology.
- (d) **Internet Integrated with SD-WAN**: means Internet connectivity at a Location enabling a software defined wide area network, an application aware, policy driven network, delivered by an Edge Device or virtual instance of such device at the Location.
- (e) **Internet Access with Basic Firewall**: Internet Access with L4 stateful firewall and static routing capabilities delivered by an Edge Device or virtual instance of such device without advanced routing or other Managed Internet Router features.
- (f) **Dedicated Internet Access with Basic Firewall**: Dedicated Internet Access with L4 stateful firewall and static routing delivered by an Edge Device or virtual instance of such device without advanced routing or other Managed Internet Router features.
- (g) **Managed Internet Router**: Internet Access or Dedicated Internet Access with an L4 stateful firewall for a single Location that includes static and dynamic advanced routing capabilities that are enabled by an Edge Device or virtual instance of such device at the Location.

1.2 Available Options.

**DDoS Defense (“DDoS Defense”)**: DDoS Defense is an available option to the Internet Product which consists of monitoring of IP traffic on the Product for possible DDoS attack and mitigation at the time of the DDoS attack. DDoS Defense can be purchased for a defined Product Term or on an as needed basis which is “Emergency Mitigation.”

## 2. **ADDITIONAL DEFINITIONS**

“95<sup>th</sup> Percentile Calculation” means the calculation method used to measure Bandwidth usage for burstable Internet Access and Dedicated Internet Access Products whereby samples for average Bandwidth utilization rates, both inbound and outbound traffic, will be collected at five (5) minute intervals on a calendar month basis and the highest five percent (5%) of samples will be discarded. The next highest sample will be chosen to represent the 95<sup>th</sup> percentile calculation for that month.

“Access Port” means the port on the Crown Castle Equipment at the Location which is the point of attachment and entry into the Crown Castle Network, and the Demarcation Point for the applicable Product.

“Bandwidth” or “BW” means the amount of data (quantified as “Mbps” or “Gbps”) made available to Licensee.

“Crown Castle POP(s)” means Crown Castle’s point of presence(s) at which Crown Castle provides interconnectivity to its networks routes and facilities.

“DDoS” means distributed denial of service.

“Frame Delivery Rate” means the monthly average percentage of IP packets successfully received from the relevant portion of the Crown Castle Network relative to the number of IP packets offered to the Crown Castle Network between the Crown Castle POPs and Access Port.

“Latency” means the monthly average round-trip transmission time (in milliseconds) for IP packets to travel on the relevant portion of the Crown Castle Network between the Crown Castle POPs and Access Port. Latency is measured (i) between the Crown Castle POPs and Access Port, and (ii) using Crown Castle’s network management systems or testing hardware. Crown Castle’s network management systems or testing hardware shall be the sole and conclusive source of measurements for the purposes of measuring Latency.

“Location” is an address wherein Crown Castle will hand off Product to Licensee.



“Product Availability” means the percentage of minutes during a calendar month that the licensed Product has not incurred a Product Outage. Product Availability is calculated as follows: (43,200 - total number of minutes of Product Outage during the calendar month) divided by 43,200.

“Product Credit” means a credit that Licensee may be eligible to receive in the event of a Product Outage or Product Performance Failure.

“Product Outage” means any period of time during which the Product is unable to send or receive data.

“Product Performance Failure” means a failure of the Product to meet any performance parameters set forth in Section 6.2.2 through 6.2.4 below. Product Performance Failure is not a Product Outage.

### **3. SPECIFICATIONS**

The Specifications applicable to Internet Products are the performance parameters set forth in Section 6 below.

### **4. USE BY LICENSEE**

**4.1** The Product provides IP transit service via the Crown Castle Network to the public Internet.

**4.2** The Product is configured at designated speeds on a port(s) at the Location utilizing Crown Castle Equipment. The selected speed of service, physical handoff type on the Licensee Equipment to the Licensee, pricing and length of the initial Product Term shall be set out in the individual Order Form.

**4.3** Licensee shall utilize the Product(s) in compliance with all applicable international, federal, state and local laws and regulations, as well as abide by Crown Castle’s Customer Acceptable Use Policy, which is posted on Crown Castle’s website at crowncastle.com and incorporated herein by reference.

**4.4** Upon expiration or termination of a Product for any reason, Licensee agrees to return to Crown Castle any IP addresses or address blocks assigned to Licensee by Crown Castle.

### **5. DDOS DEFENSE OPTION**

If an Internet Product is ordered with DDoS Defense, then the following additional terms will apply:

**5.1** When DDoS Defense detects an anomaly in Internet traffic that is symptomatic of a DDoS attack due to triggered thresholds or indicators of protocol misuse, it generates an alert to Crown Castle’s Network Operations Center (“NOC”). Crown Castle will investigate such anomaly. If Licensee confirms that a DDoS attack is occurring, Crown Castle will begin applying measures to block malicious packets while allowing the flow of non-suspect traffic to Licensee’s network. Crown Castle will use reasonable efforts to attempt to configure measures to minimize the effects of the DDoS attack and to reduce disruption of Licensee’s non-suspect traffic. Upon the conclusion of the DDoS attack, Crown Castle will cease mitigation measures. DDoS Defense does not monitor for attacks other than DDoS attacks.

**5.2** If Crown Castle in its reasonable judgement determines that a DDoS attack is impacting, or may impact, the Crown Castle Network, Crown Castle may, without incurring any liability, take any action, including but not limited to blackhole filtering of Licensee’s traffic, which filtering would result in all traffic destined to Licensee being dropped.

**5.3** Crown Castle will invoice Licensee (i) in advance for the MRC associated with DDoS Defense, and (ii) in arrears at Crown Castle’s then current rates and charges for any Emergency Mitigation.

### **6. SERVICE LEVEL AGREEMENT**

**6.1 Product Service Level.** Subject to this Section 6, in the event of a Product Outage to any licensed Product or a Product Performance Failure, Licensee may be entitled to a Product Credit in accordance with the applicable Service Level Objective set forth in Section 6.2 below. A Product Outage, or Product Performance Failure as the case may be, shall be deemed to begin upon the earlier of Crown Castle’s actual knowledge of the same or Crown Castle’s receipt of notice from Licensee of the same, and end when the Product is operational and in material conformance with the applicable Specifications. Notwithstanding anything to the contrary in this Supplement, the Agreement or any Order Form, in no event shall a Product Outage and/or Product Performance Failure and/or any other defect or failure in the Product be deemed to be or constitute a breach by Crown Castle of this Supplement, the Agreement or any Order Form. Traffic traversing the public Internet is not subject or applicable to this Section 6 or this Supplement.

#### **6.2. Service Level Objectives.**

##### **6.2.1 Product Availability**



If the Product Availability in any calendar month is less than the Product Availability objective set forth in the table below, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

Quality Level	Product Availability Objective	Measurement Timeframe	Product Credit	
			Cumulative Duration of Product Outage(s)	% of MRC
Product Availability	99.9%	One Month	0 to 45 mins.	0%
			>45 mins. to 4 hrs.	10%
			>4 hrs. to 8 hrs.	15%
			>8 hrs. to 12 hrs.	20%
			>12 hrs. to 24hrs.	35%
			> 24 hrs.	50%

### 6.2.2 Latency

If the actual monthly average Latency exceeds the number of milliseconds set forth in the table below and such failure is quality-impacting, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

LATENCY	
Domestic US	Product Credit
45ms or less	No Credit
>45ms	10%

### 6.2.3 Frame Delivery Rate (Packet Delivery)

If the actual monthly average Frame Delivery Rate is less than the percentages set forth in the left column of the table below and such failure is quality-impacting, Licensee shall be entitled to a Product Credit equal to the percentage of the applicable MRC set forth in the following table:

FRAME DELIVERY RATE	
Domestic US	Product Credit
99.9% or greater	No Credit
Less than 99.9%	10%

#### 6.2.4 DDoS Defense

If an Internet Product is ordered with DDoS Defense, then the following performance parameter will apply to DDoS Defense only. In addition, the following performance parameter will not apply to Emergency Mitigation.

Description	Goal	Product Credit (applied as percentage of MRC for DDoS Defense)	
		16-30 minutes = 50%	More than 30 minutes = 100%
Time to Initiate Mitigation	15 minutes from initial DDoS alarm		

#### 6.2.5 Burstable Internet

Bandwidth for burstable Internet Access and Dedicated Internet Access Products shall be measured using the 95<sup>th</sup> Percentile Calculation.

**6.3 Product Credits.** Product Credits hereunder are calculated as a percentage of the MRC set forth in the Order Form, and may not be applied to usage charges, government fees, taxes, or surcharges, or any third party charges passed through to Licensee by Crown Castle. Product Credits hereunder may be paid only once per any given billing cycle. Product Credits issued to Licensee hereunder shall be Licensee's sole and exclusive remedy at law or in equity on account of any Product Outage and/or Product Performance Failure and/or any other defect or failure in the Product. Product Credits will not be issued to Licensee if Licensee's account with Crown Castle is in arrears. If an incident affects the performance of the Product and results in a period or periods of interruption, disruption, failure or degradation in quality, entitling Licensee to one or more credits under multiple quality level standards, only the single highest credit with respect to that incident will be applied, and Licensee shall not be entitled to credits under multiple quality level standards for the same incident. Notwithstanding anything to the contrary herein, the above-stated Product Credits shall not apply to Off-Net Products, and in the event of any Product Outage or Product Performance Failure of any Off-Net Product provided by Crown Castle to Licensee, Crown Castle agrees to pass through a credit equal to the credit received by Crown Castle from its underlying provider(s) for such Product Outage or Product Performance Failure, in lieu of the above-stated Product Credits. In no event shall Crown Castle's total liability for any and all interruptions, disruptions, failures, and/or degradations in quality (including, without limitation, any Product Outage or Product Performance Failure) exceed fifty percent (50%) of the MRC for the affected Product, with the exception of the DDoS Defense performance parameter in Section 6.2.4 which will not exceed one hundred percent (100%) of the MRC for the affected Product.

**6.4 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event which gives rise to Licensee's right to request the Product Credit. Failure to request an allowance within such period shall constitute a waiver of any claim for a Product Credit.

**6.5 Events Excepted From Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Product Outage, Product Performance Failure, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by any of the following events:

- a. Licensee's (including its agents, contractors and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Licensee provided optical fiber, Licensee's end user equipment or Licensee's vendor's equipment;
- c. Failure of electrical power not provided by Crown Castle;
- d. Election by Licensee, after requested by Crown Castle, not to release the Product for testing and repair;
- e. Crown Castle's inability to obtain access required to remedy a defect in the Product or restore DDoS Defense;
- f. Scheduled maintenance periods;
- g. Scheduled upgrade of Product at the request of Licensee;
- h. Force Majeure Event;
- i. Disconnection or suspension of the Product by Crown Castle pursuant to a right provided under this Agreement;
- j. Failure of any local access circuits provided by Licensee;
- k. Crown Castle's inability to repair due to utility safety restrictions;
- l. Unavailability of required Licensee personnel, including as a result of Licensee's failure to provide Crown Castle with accurate, current contact information;
- m. Improper or inaccurate network specifications provided by Licensee;
- n. Unavailability of required spectrum not due to the fault or negligence of Crown Castle when fixed wireless is utilized in the provisioning of the Product;
- o. Dropping of Internet traffic pursuant to Section 5.2; and/or
- p. Licensee attempting to exceed maximum Bandwidth of Licensee's port connection to the Crown Castle Network.

## 7. ADDITIONAL TERMS

**7.1 Disclaimer of Third Party Actions.** At times, actions or inactions caused by third parties (e.g. DDoS attacks and unauthorized network intrusions) can produce situations in which Licensee connections to the Internet (or portions thereof) may be impaired or disrupted. In addition,

third parties may attempt to intrude into or hack into Licensee's network. Crown Castle has no control over or responsibility for the security of Licensee's network or unauthorized intrusions into and/or unauthorized uses of Licensee's network and/or IP addresses used by Licensee. Crown Castle cannot guarantee that such situations will not occur, and accordingly Crown Castle disclaims any and all liability resulting from or related to such events. In the event that Licensee's use of the Product or such third parties is causing harm to the Crown Castle Network or its operations, Crown Castle shall have the right to suspend the Product. Crown Castle shall restore the Product at such time as it reasonably deems that there is no further harm or threat to the Crown Castle Network or its operations.

**7.2 Network Traffic Samples.** Crown Castle may collect small samples of network traffic for (i) support and maintenance of Product performance, and/or (ii) troubleshooting, prevention or correction of service impacting incidents or for correcting and defending against malicious and improper usage of Crown Castle Network and products (e.g. DDoS attacks, Botnet activity) ("Network Traffic Samples"). Network Traffic Samples typically include source and destination IP addresses, source and destination ports, and partial or in some cases full payload data, and may be stored in a secure system for historic, troubleshooting, or reporting purposes for up to one year. The collection of Network Traffic Samples is inherent in Crown Castle providing the Product. Crown Castle does not otherwise utilize Network Traffic Samples for any other purpose, including, but not limited to, collecting data for marketing or sales purposes, or selling or transferring of data to third parties. Crown Castle utilizes security best practices and provides reasonable and adequate protections to the systems that collect and store Network Traffic Samples. Crown Castle is unable to decrypt any Network Traffic Samples that are encrypted; therefore, Crown Castle highly recommends that Licensee encrypt its network traffic.

**Exhibit A**  
**Additional Terms and Conditions for Internet Integrated with Managed Internet Products**

This **Exhibit A** is hereby incorporated into the Internet Supplement as of the Supplement Effective Date, and the following terms and conditions of **Exhibit A** shall only apply to **Managed Internet Products** (as that term is defined herein) provided by Crown Castle to Licensee.

**1. ADD-ON OPTIONS**

- (a) **High Availability:** Dual Edge Devices deployed at the Location setup in a configuration to provide redundancy. The Edge Devices, deployed in a high availability configuration, are connected to each other with a fallback mechanism based on pre-determined policies.
- (b) **Next-Gen Firewall:** Additional security features to the Managed Internet Product, namely SSL inspection, URL and IP reputation and filtering, and L7 application controls.
- (c) **Unified Threat Management:** Additional security features to the Managed Internet Product, namely anti-virus protection, intrusion detection system (IDS), intrusion prevention system (IPS), file filtering, and SSL decryption and encryption.

**2. ADDITIONAL DEFINITIONS**

“Edge Device” means Crown Castle Equipment which can be physical or virtual and is part of the Managed Internet Product solution.

“Logical Changes” means Licensee requested basic modifications or changes performed remotely by Crown Castle’s Network Operations Center to the Internet Integrated with SD-WAN Product following the installation and delivery of such Product including, but not limited to, changes to routing tables.

“Managed Internet Product(s)” means the Internet Integrated with SD-WAN Products, Internet Access with Basic Firewall Products, Dedicated Internet Access with Basic Firewall Products, and Managed Internet Router Products.

“Network Controller” means the Crown Castle Equipment which provides physical or virtual device management for all Edge Devices associated with the controller.

“Software” means software which is embedded in the Edge Device and used in connection with the Internet Integrated with SD-WAN Product.

**3. SPECIFICATIONS**

The Specifications applicable to Managed Internet Products are as follows:

- (i) **IP Address Allocation:** The Edge Device may use one or more IP address blocks depending on the number of transport services at the Location. Each Managed Internet Product will have a unique IP address block.
- (ii) **Network Traffic Management:** Crown Castle’s network traffic policies will restrict the traffic flows to the subscribed committed information rate (“CIR”) in connection with the Managed Internet Product.

**4. IMPLEMENTATION AND CONFIGURATION**

**4.1 Configuration and Pre-Installation Technical Documentation.** Licensee shall reasonably cooperate with Crown Castle in the installation and configuration of the Managed Internet Product, and Licensee shall also assist in the completion of technical documentation prior to commencement of installation of the Managed Internet Product. The documentation provides Crown Castle with the information needed to design and configure the Managed Internet Product, including, but not limited to, access type and bandwidth, local area network and wide area network (“WAN”) design, number of users, and traffic types and priorities.

**4.2 Licensee Responsibilities.** Licensee will provide: (i) an operating environment with temperatures not below fifty-five (55) or above eighty-five (85) degrees Fahrenheit, and humidity shall not exceed ninety (90) percent at eighty-five (85) degrees Fahrenheit; (ii) power including UPS AC power equipment, circuit sizing to be determined, if applicable; (iii) emergency local generator backup service, if applicable; (iv) if interfacing with a third party IP service, provide, install and maintain a device that is capable of routing network traffic between the Managed Internet Product and the Licensee’s WAN; (v) secure space for Crown Castle Equipment at each Location; and (vi) a point of contact for Managed Internet Product installation, activation, notices for Product Outages, configuration assistance, and any maintenance activities. Licensee is solely responsible for designating authorized Licensee representatives in connection with Licensee’s use of the Managed Internet Product, account access, maintenance, and configuration permissions associated with the Managed Internet Product. Licensee shall promptly notify Crown Castle of any changes to permissions related to Licensee’s authorized representatives on file with Crown Castle. In addition, Licensee is responsible for



the performance of the applicable functions set forth on the Responsibility Matrix in Section 9 below.

**4.3 Cross-Connections.** As necessary for interconnection of the Managed Internet Product with service provided by others, Crown Castle may request (as applicable), and Licensee will provide to Crown Castle, circuit facility assignment information and design layout records necessary to enable Crown Castle to make the necessary cross-connection between the Managed Internet Product and Licensee's other service(s) from other provider(s). Crown Castle may charge Licensee non-recurring and monthly recurring cross-connect charges to make such connections.

**4.4 Security Monitoring and Mitigation.** Crown Castle monitors the Edge Device utilized in connection with the Managed Internet Product. Crown Castle does not provide monitoring of security events, any security event mitigation or advice regarding security issues or threats. Upon request by Licensee, Crown Castle will modify the configuration of the Managed Internet Product in accordance with the specifications provided by Licensee to attempt to mitigate security events and security threats identified by Licensee. Crown Castle's sole obligation is to implement the configuration settings requested by Licensee. Crown Castle makes no guarantees with respect to the detection or blocking of viruses/worms/malware or any other types of attacks, and is not responsible for any malicious data that may be transmitted over the Managed Internet Product.

**4.5 Crown Castle Responsibilities.** Crown Castle is responsible for the performance of the applicable functions as set forth on the Responsibility Matrix in Section 9 below. The Demarcation Point for the Managed Internet Product is the port on the Edge Device.

**4.6 Proprietary Rights and Permitted Use.** Licensee may use the Managed Internet Products only for its own internal use. Licensee shall not assign, sell, transfer, distribute, lease, sublicense, license, sub-license, or otherwise grant a right to use the Managed Internet Product to any third party. Licensee shall not use or copy any Software except as expressly permitted in the Agreement. Except to the extent such restrictions are not permitted under applicable law, Licensee agrees not to modify, adapt, alter, decompile, disassemble, reverse assemble, reverse engineer or otherwise attempt to derive source code for the Edge Device, Software or any other aspect of the Managed Internet Product. Licensee may not distribute, license, lease, rent, loan, or otherwise transfer the Software. Licensee shall not create derivative works based on the Software. Licensee may not export the Software or the underlying technology in contravention of the applicable U.S. and foreign export laws and regulations. Licensee acknowledges and agrees that portions of the Software, including but not limited to the source code and the specific design and structure of individual modules or programs, constitute or contain trade secrets of Crown Castle and its licensors. Any Software provided hereunder is licensed only and is subject to this Supplement, and Crown Castle or its providers retain title in all copies of the Software. Licensee will not obtain title to, or ownership of any intellectual property rights in the Software or any copies thereof. Licensee's rights in the Software will be limited to those expressly granted in this Supplement. Crown Castle reserves all rights not expressly granted to Licensee under this Supplement.

**4.7 Content and Transportation of Managed Internet Product.** Licensee accepts that Crown Castle does not control or operate the content that is transmitted or transported via the Managed Internet Products, and Licensee shall be solely liable and responsible for the content, data and communications applicable to the Managed Internet Product. Licensee acknowledges that Crown Castle will have network access to communicate with the Edge Device for purposes such as authentication and Software updates; and will have access to, and may utilize for any purpose all information regarding networking characteristics, usage, performance and related information involved in the use of the Managed Internet Product ("Key Performance Indicators" or "KPI"). Crown Castle will protect this KPI, and will not divulge to anyone outside of Crown Castle, or its subcontractors and agents, unless required by law via a subpoena.

**4.8 Fraudulent Use of Product.** Crown Castle shall not be held liable for any usage, charges and/or damages resulting from Licensee's fraudulent or unauthorized use of the Managed Internet Products, Software and/or Edge Devices. Licensee will not use any Managed Internet Product in any unlawful, abusive, or fraudulent manner. If Crown Castle has reason to suspect Licensee is abusing a Managed Internet Product or using them fraudulently or unlawfully, Crown Castle reserves the right to immediately suspend, restrict, or terminate the Managed Internet Product or all of the Managed Internet Products without notification. In such an event, Licensee will be held liable for all usage, including but not limited to, any and all fraudulent usage.

## 5. LICENSEE PORTAL

Crown Castle will provide the Licensee with a password-protected web portal to view performance information regarding Licensee's Managed Internet Products upon Licensee's request.

## 6. FEES FOR MANAGED INTERNET PRODUCTS

In the event that amounts charged to Crown Castle under its underlying third party reseller agreement are increased in connection with a Managed Internet Product, Crown Castle shall have the right to charge Licensee for such increase, which shall be added to the MRCs to be paid by Licensee for the applicable term. In the event of any such increase, Crown Castle will provide prior written notice to Licensee, and any such increases in charges will not take effect until Licensee's receipt of such notice.

## 7. EMERGENCY BLOCKING

The Parties agree that if either Party, in its reasonable sole discretion, determines that an emergency action is necessary to protect



its own network, then the applicable Party may block any transmission path over its network by the other Party where transmissions do not meet material standard industry requirements and after engaging in reasonable and good faith efforts to notify the other Party of the need to block. Any such blockage will be without any liability or obligation to the other Party. The Parties further agree that none of their respective obligations to each other under the Agreement, Supplement and Order Form will be affected by such blockage, except if Licensee is the Party being blocked, then Licensee will not be obligated to make payments for the circuit(s) which is so blocked until such time as the blockage is removed.

**8. CHANGES**

During the Product Term, Crown Castle will perform certain Crown Castle configuration changes with respect to the Managed Internet Products upon request by Licensee, following installation and delivery of the each Managed Internet Product and subject to additional charges, certain charges of which are detailed below.

Change Type	Time of Day	Rates Per Incident (Charged per Product)
Technician dispatch	7:01 AM to 6:59 PM	\$250 per hour, 4-hour minimum
Technician dispatch	7:00 PM to 7:00 AM	\$375 per hour, 4-hour minimum
Logical Changes – Remote	7:01 AM to 6:59 PM	\$200 per hour, 1-hour minimum
Logical Changes – Remote	7:00 PM to 7:00 AM	\$300 per hour, 1-hour minimum

The charges above may be increased once per contract year upon notice to Licensee by the percentage increase, if any, in the Consumer Price Index – Urban Wage Earners and Clerical Workers (U.S. City Average, All Items, Base 1982-1984 equals 100) as published by the United States Department of Labor, Bureau of Labor Statistics.

**9. RESPONSIBILITY MATRIX – MANAGED INTERNET PRODUCTS**

Function	Crown Castle	Licensee
Strategic direction		X
Appropriate space, power, operating environment		X
Network design	X	X
Monitoring	X	
Fault isolation	X	
Fault restoration – Physical	X	
Fault restoration – Logical	X	
Break fix maintenance	X	
Change management – Physical	X	
Change management – Logical	X	
Configuration back-up	X	
Security policy and updates	X	
Utilization reporting	X	

## **PART V--TERMS APPLICABLE TO WAVELENGTH SERVICES**

The terms in this Part V apply only to Wavelength licensed to Licensee under an Order Form that specifies Wavelength. This Part shall not apply to other products, including dark fiber, Internet, Ethernet, or colocation.

### **1. PRODUCT DEFINITION; PROTECTION AND ENCRYPTION OPTIONS**

This Supplement applies to Wavelength Service as further defined in this Section.

1.1 “Wavelength” or “Product” means a telecommunications circuit enabled by wavelength division multiplexing (WDM) equipment. Wavelength may be ordered and provisioned either as an On-Net Product or an Off-Net Product. Wavelength includes, without limitation, the following types of Products:

- (a) **Point to Point; DC to DC Connectivity-Inter Market; and DC to DC Connectivity-Intra Market:** Dedicated circuit between two (2) Locations over a shared optical fiber infrastructure; or
- (b) **Managed Private Optical Network (“MPON”):** Dedicated circuit(s) between two (2) or more Locations over dedicated optical fiber infrastructure and dedicated Crown Castle Equipment at each Location.

### 1.2 Protection Options.

Protection Option	Description	Minimum Location Requirements			
		Space	Power	Environmental Control	Back Up Power
<b>Unprotected (Level A)</b>					
1	Level A Protection means the Product is provided over a single fiber path without protection. Level A Protection consists of the following minimum requirements at each Location: (i) a single point of entry into the Location; (ii) one (1) Crown Castle Equipment chassis; (iii) one (1) port; and (iv) a 2-fiber handoff to the Licensee from the Crown Castle Equipment.	(1)	(2)	(4)	Not applicable
<b>Protection (Level AA)</b>					
2	Level AA Protection means the Product is provided over two (2) separate fiber paths, one of which is the working (primary) path and the other the protect (secondary) path. Crown Castle is responsible for managing the Failover Switching between the working and protect paths. Level AA Protection consists of the following minimum requirements at each Location: (i) a single point of entry into the Location; (ii) one (1) Crown Castle Equipment chassis; (iii) one (1) port; and (iv) a 2-fiber handoff to Licensee from the Crown Castle Equipment.	(1)	(2)	(4)	(6)
<b>Protection (Level AAA)</b>					
3	Level AAA Protection means the Product is provided over two (2) wavelengths utilizing separate fiber paths, one of which is the working (primary) path and the other the protect (secondary) path. Failover Switching at each Location will be provided by Licensee or by Crown Castle as specified in the Order Form. Level AAA Protection consist of the following minimum requirements at each Location: (i) two (2) separate points of entry into the Location; (ii) two (2) Crown Castle Equipment chassis; (iii) one (1) line card per chassis; (iv) a 4-fiber handoff to the Licensee from the Crown Castle Equipment, with two fibers handed off from one of the Crown Castle Equipment chassis and two fibers handed off from the other Crown Castle Equipment chassis.	(1)	(3)	(5)	(7)

(1) Secure space for Crown Castle Equipment at each Location with 24x7x365 access.

(2) Dedicated electrical circuit for Crown Castle Equipment from the public utility. (i.e., the circuit has no other load from the Crown Castle Equipment to a circuit breaker) at each Location.

(3) Redundant, dedicated electrical circuit at each Location from the public utility (i.e., each power circuit is fed from a different circuit breaker panel and has its own circuit breaker)

(4) Substantially dust free with temperature control that maintains temperature between 50 and 80-deg F and humidity control that maintains relative humidity below 80%.

(5) Substantially dust free with temperature control that maintains temperature between 60 and 80-deg F and humidity control that maintains relative humidity between 40% and 60%

(6) Crown Castle (or Licensee if the Parties agree) to install and maintain a minimum of four (4) hours of standby power

(7) Crown Castle (or Licensee if the Parties agree) to install and maintain a minimum of eight (8) hours of standby power and Licensee shall provide emergency power generation

1.3 **Encryption Option.** If a Wavelength Product is ordered with Layer 1 encryption, the following additional terms shall apply:

- a. Crown Castle is not responsible for encryption beyond the port on the Crown Castle Equipment (in which the encryption card resides), at the Location(s);
- b. Product Outages resulting from Licensee's administration of encryption including, but not limited to, encryption keys and certifications, shall not be eligible for Product Credits;
- c. Licensee assumes all responsibility for administration of encryption, including, but not limited to, encryption policies.
- d. Subject to the foregoing, a failure of the encryption function on a Wavelength Product ordered with encryption will be deemed a Product Outage and eligible for Product Credits to the extent and subject to the limitations provided in Section 5 below.
- e. Crown Castle will procure in its name any cross connections between Crown Castle's optical fiber distribution point at each Location and the Licensee hand-off site at the Location (at which Crown Castle Equipment with encryption capability will reside ("Encryption Cross-Connections")) and Licensee will pay the cost of such Cross-Connections on a pass-through basis; provided that in the event Crown Castle is unable to procure the Encryption Cross Connection due to restrictions at the applicable facility, then Licensee will procure such Encryption Cross-Connection in Licensee's name and at Licensee's expense. Product Outages resulting from failure of or defect in the Encryption Cross Connections shall not be eligible for Product Credits.

## 2. ADDITIONAL DEFINITIONS

"Failover Switching" means the automatic restore and reroute of the Product to an alternate transmission path;

"Location" is an address where Crown Castle will hand off the Product to Licensee;

"Product Availability" means the percentage of minutes during a calendar month that the licensed Product has not incurred a Product Outage. Product Availability is calculated as follows: (43,200 - total number of minutes of Product Outage during the calendar month) divided by 43,200.

"Product Credit" means a credit that Licensee is eligible to receive if Crown Castle fails to meet the Product Availability levels set forth in Section 5.2 below;

"Product Outage" means a complete interruption of communications between any two (2) or more Locations;

## 3. SPECIFICATIONS

3.1 The Specifications applicable to Wavelength are as follows:

- ITU-T G.709, Interfaces for the Optical Transport Network (OTN)
- ITU-T G.693, Optical interfaces for intra-office systems
- ITU-T G.959.1, Optical transport network physical layer interfaces
- IEEE 802.3

## 4. USE BY LICENSEE; INCREMENTALLY DELIVERED CIRCUIT

**4.1 Interstate Traffic.** Licensee acknowledges that Crown Castle has no ability to determine whether the communications traffic carried via the Product is jurisdictionally interstate or intrastate. Licensee acknowledges and agrees that the communications traffic to be carried via the Crown Castle Network shall be treated as jurisdictionally interstate, pursuant to the Federal Communications Commission's mixed-use "10% Rule" (47 CFR 36.154, 4 FCC Rcd. 1352), unless Licensee provides timely written certification on Crown Castle's prescribed form that the traffic is jurisdictionally intrastate under the 10% Rule.

**4.2 Incrementally Delivered Circuits.** Unless otherwise specified in an Order Form, if a Product consists of more than one circuit, Crown Castle may incrementally deliver individual circuit, and billing for each circuit shall commence upon delivery and acceptance of that circuit. The Product Term for a multi-circuit Product shall begin upon delivery of the first circuit and end after the number of months specified in the Order Form have elapsed from delivery and acceptance of the final circuit.

**4.3 Permitted Use.** Licensee may use the Product(s) for its own use. Licensee acknowledges that Crown Castle does not monitor the content of Licensee's traffic unless required by law and Licensee shall be solely liable and responsible for the content of any communications transmitted via the Product(s).

## 5. SERVICE LEVEL AGREEMENT

**5.1 Product Outage.** Subject to this Section 5, in the event of a Product Outage to any Product, Licensee may be entitled to a Product Credit in accordance with the applicable Product Availability Level Objective set forth in Section 5.2 below. A Product Outage shall be deemed to begin upon the earlier of Crown Castle’s actual knowledge of the Product Outage or Crown Castle’s receipt of notice from Licensee of the Product Outage, and end when the Product is operational and in material conformance with the applicable Specifications. Notwithstanding anything to the contrary in this Supplement, the Agreement, or any Order Form, in no event shall a Product Outage, defect or failure to meet any objectives or parameters under this Supplement be deemed to be or constitute a breach by Crown Castle of this Supplement, the Agreement or any Order Form.

### 5.2 Service Level Objectives.

If the total minutes or hours of Product Outages in any month exceed the number of minutes or hours set forth in the table below, Licensee shall be entitled to a Product Credit equal to the percentage of the Product MRC set forth in the following table:

Product Availability Objective	Measurement Timeframe	Product Credit		
		Cumulative Duration of Product Outage(s)	% of MRC	
<b>Level A</b>				
1	99.9%	One Month	0 to 43.2 min.	0%
			>43.2 min. to 10 hrs.	5%
			>10 hrs. to 16 hrs.	10%
			>16 hrs. to 24 hrs.	20%
			>24 hrs. to 36hrs.	40%
		> 36 hrs.	50%	
<b>Level AA</b>				
2	99.99%	One Month	0 to 4.32 mins.	0%
			>4.32 min. to 30 min.	5%
			>30 min. to 1 hr.	10%
			>1hrs. to 8 hrs.	20%
			>8 hrs. to 16 hrs.	30%
			>16 hrs. to 24 hrs.	40%
		>24 hrs.	50%	
<b>Level AAA</b>				
3	99.999%	One Month	0 to 43 secs.	0%
			> 43secs. to 4 min.	5%
			>4 min. to 10 min.	10%
			>10 min. to 2 hrs.	20%
			>2 hrs. to 8 hrs.	40%

**5.3 Product Credits.** Product Credits hereunder are calculated as a percentage of the MRC set forth in the Order Form. If a Product consists of more than two (2) Locations, and hence more than one circuit, and the circuits experience different levels of Product Availability, then Product Credits shall be calculated separately with respect to each circuit and shall be based on the MRC applicable to the particular circuit. Product Credits shall be Licensee’s sole and exclusive remedy at law or in equity on account of any Product Outage and/or any other defect in the Product. If an incident affects the performance of the Product and results in a period or periods of interruption, disruption, failure, or degradation in quality, entitling Licensee to one or more credits under multiple quality level standards, only the single highest credit with respect to that incident will be applied, and Licensee shall not be entitled to credits under multiple quality level standards for the same incident. Product Credits will not be issued to Licensee if Licensee’s account with Crown Castle is in arrears. Notwithstanding anything to the contrary herein, the above-stated Product Credits shall not apply to Off-Net Products, and in the event of a Product Outage or other failure of any Off-Net Product provided by Crown Castle to Licensee, Crown Castle agrees to pass through a credit equal to the credit received by Crown Castle from its underlying provider(s) for such Product Outage, in lieu of the above-stated Product Credits. In no event shall Product Credits in any month for any and all interruptions, disruptions, failures, and/or degradations in quality (including, without limitation, any Product Outage or failure to meet any objectives or parameters set forth in this Supplement) exceed fifty percent (50%) of the MRC for the affected Product for that month.

**5.4 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event which gives rise to Licensee’s right to the Product Credit. Failure to request a Product Credit within such period shall constitute a waiver of any claim for a Product Credit.



**5.5 Events Excepted from Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Product Outage, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by any of the following events:

- a. Licensee's (including its agents, contractors, and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Licensee provided optical fiber, end user equipment or Licensee's vendor's equipment;
- c. Failure of electrical power not provided by Crown Castle;
- d. Election by Licensee, after requested by Crown Castle, not to release the Product for testing and repair;
- e. Crown Castle's inability to obtain access required to remedy a defect;
- f. Scheduled maintenance periods;
- g. Scheduled upgrade of the Product at the request of Licensee;
- h. Force Majeure Event;
- i. Disconnection or suspension of the Product by Crown Castle pursuant to a right provided under this Agreement; and/or
- j. Crown Castle's inability to repair due to utility safety restrictions.

## **PART VI--TERMS APPLICABLE TO COLOCATION SERVICES**

1. The terms in this Part VI apply only to Colocation licensed to Licensee under an Order Form that specifies Colocation. This Part shall not apply to other products, including Ethernet, wavelength, Internet, or dark fiber.

### **2. ADDITIONAL TERMS**

The following additional terms and conditions shall apply to the provision of such Colocation.

“Colocation” or “Product”: The provision of Site Space and any other services (e.g., power or cross-connections) provided by Crown Castle to Licensee in the Site Space.

“Colocation Outage”: The period when UPS power licensed by Licensee from Crown Castle under an Order Form in the applicable Site Space is unavailable to Licensee (provided that the primary and redundant feeds are both unavailable at the time in question), as measured at the point where Crown Castle delivers the UPS power to Licensee.

“Licensee Equipment”: Any equipment that Licensee places in the Site Space.

“Site”: The specified premises listed in the applicable Order Form at which Crown Castle provides floor space or rack arrangements dedicated to Licensee Equipment.

“Site Landlord”: The landlord or lessor of a particular Site.

“Site Lease”: The applicable underlying lease agreement for a particular Site.

“Site Space”: The floor, cabinet, cage, or rack space dedicated to Licensee Equipment at a specific Site.

### **3. LICENSE TERMS**

**3.1 License.** Subject to the terms and conditions set forth in the Agreement, pursuant to an Order Form for Colocation Crown Castle will grant to Licensee a license to occupy and use the Site Space, and any power, cabling, and connectivity (if any) identified in the applicable Order Form. Licensee acknowledges that this Agreement and any Order Form for Site Space does not grant any real property interest in such Site Space or in the building in which such Site Space is located to Licensee. Licensee's occupancy of the Site Space shall be subject and subordinate to the terms and conditions of the Site Lease applicable to such Site, including the Site Lease provisions regarding condemnation, damage to premises, and termination.

**3.2 Use of Site Space.** Each Site Space is delivered in its current condition (“as is” and “where is”), and Licensee acknowledges that it has inspected the same and found each to be satisfactory. Crown Castle makes no warranty with respect to title, condition, safety or fitness of the Site Space, and Licensee shall use the Site Space at its sole risk. Licensee shall use the Site Space only for the purpose of placing, operating, and maintaining Licensee Equipment. Licensee shall exercise its rights hereunder in accordance with the terms set forth herein and applicable international, federal, state, and local laws and regulations. Nothing herein shall be construed as limiting or restricting Crown Castle in any manner from using the Site, Crown Castle's cages, cabinets, racks, cables, power, and/or other facilities and equipment for any purpose. Licensee agrees that it will not permit any Site Space to be used by anyone other than Licensee or its authorized agents without the prior written consent of Crown Castle, which consent may be withheld in Crown Castle's sole discretion. Crown Castle agrees that it will not permit the applicable Site Space to be used by anyone other than Licensee or its authorized agents without the prior written consent of Licensee; provided, however, Crown Castle shall not be restricted in sub-leasing or licensing other portions of the applicable Site to other third parties without the prior written consent of Licensee. Licensee shall not make any alterations to the Site Space except for the installation, operation, and maintenance of Licensee Equipment pursuant to the applicable Order Form and this Supplement. Licensee shall properly maintain the Site Space and shall at all times keep the Site free of any debris, waste, or other obstructions. Licensee shall not allow any combustible or paper-based products to reside within the Site Space at any time, and Crown Castle reserves the right to cure any violations immediately and without notice to Licensee.

**3.3 Term and Renewal.** The term of this Supplement commences on the Supplement Effective Date and terminates on the date the last Order Form entered into under this Supplement then in effect expires or is terminated. The initial Product Term for each Product ordered under this Supplement will be for an initial term of five (5) years (unless otherwise stated on the Order Form) (“Initial Product Term”) and shall automatically renew for a period of twelve (12) months at the end of the Initial Product Term unless written notice to terminate is provided by either Party ninety (90) days prior to the expiration date of the Initial Product Term or any subsequent renewal term. At the conclusion of the Initial Product Term, all prices and MRCs, including any recurring charge for power or HVAC, will increase by seven percent (7%) on each anniversary of the end of the Initial Product Term unless otherwise terminated.

**3.4 Access to Site Space.** Licensee shall be permitted access to the Site Space at all times subject to (i) Crown Castle's rules and policies concerning authorized access to the Site and the presentation of appropriate identification, (ii) the Site Landlord's rules and regulations, and

(i) such other restrictions on access as may be set forth in the applicable Order Form. Crown Castle shall have no liability for Licensee's inability to gain access to the Site Space.

**3.5 Installation.** Licensee is responsible for all aspects of installation and removal of Licensee Equipment, unless otherwise agreed in writing by the Parties. Licensee will install Licensee Equipment in the Site Space only after obtaining authorization from Crown Castle. Licensee shall give Crown Castle at least ten (10) days' notice prior to commencing installation, and installation and testing shall at all times be under the direct supervision of an authorized employee or agent of Crown Castle ("Escort"). If Licensee uses an agent or other third party to deliver, install, or remove Licensee's Equipment, then Licensee will be solely responsible for the acts of such agent or third party. Licensee shall engineer, furnish, install, and test, at its sole risk, cost, and expense, all of Licensee Equipment in accordance with the plans and specifications approved in advance by Crown Castle. All Licensee Equipment shall be clearly labeled as such, and Licensee shall be responsible for removal of all installation material, for daily clean-up of the Site Space during installation, and for a final clean up after completion of installation.

**3.6 Rules and Regulations.** Colocation and any installation of Licensee Equipment shall be in accordance with the terms specified in an applicable Order Form and shall be governed by the applicable Crown Castle's Colocation Rules and Regulations for either (i) manned facilities or (ii) unmanned facilities, a current copy of the "Colocation Rules and Regulations" applicable to the specific type of site identified in the Order Form may be found at <https://www.crowncastle.com/terms-and-conditions> which may be updated from time to time without notice by posting an updated version to Crown Castle's website. Moreover, Licensee agrees to be subject to, and comply with, all building rules, regulations, and similar requirements imposed by the Site Landlord, and not to take any action to cause a breach of the terms of such Site Lease.

**3.7 Fees.** Licensee shall pay the fees and charges set forth in Order Forms executed hereunder. Each year, on the anniversary of the Initial Product Term commencement date, the MRCs shall be escalated by three percent (3%) annually. In addition, in the event that amounts charged to Crown Castle under any Underlying Rights are increased or Crown Castle's costs or expenses are increased due to any Underlying Rights, Crown Castle shall have the right to charge Licensee for its pro rata share of such increases, which shall be added to the MRCs to be paid by Licensee for the applicable term.

### **3.8 Power and HVAC.**

**3.8.1 Power and HVAC Cost Increase.** Crown Castle will provide DC power and/or AC power to the Site Space as per the allotment specified in the applicable Order Form at the rates and charges set forth in the applicable Order Form. To the extent the applicable utility provider has increased prices paid by Crown Castle for electricity or power used to service the Site Space or to the extent necessary to reflect Crown Castle's costs for providing power or HVAC, Crown Castle may proportionally increase the amount of MRCs in an Order Form relating to such Site Space. Crown Castle will provide reasonable documentation supporting such increase within fifteen (15) days of request for same from Licensee.

**3.8.2 Power Load Limitation.** Notwithstanding anything to the contrary in this Agreement, Licensee agrees that, in no event shall the load for the Site Space connected to any power circuit, or the draw on any power circuit, exceed eighty percent (80%) of the power circuit's breakered capacity ("**Power Limitation**"). If Crown Castle discovers that Licensee has violated Power Limitation, Crown Castle may, in its sole discretion, provide Licensee written notice of such violation requiring Licensee to pay Crown Castle a monthly excess power charge of one hundred percent (100%) of the then-applicable power charge and/or discontinue Licensee's right to use the power circuit that exceeds the Power Limitation. Unless specified otherwise in the applicable Order Form, Crown Castle shall not have any obligation to provide the applicable Site Space with, and it shall be Licensee's responsibility to provide or install, to the extent that it determines necessary, surge protection devices, power performance monitoring devices or other electrical safety devices to protect Licensee Equipment.

**3.9 Termination of Service.** Licensee may terminate a Product(s) prior to expiration of the Initial Product Term(s) by providing Crown Castle thirty (30) days' prior written notice and paying, on or before the effective date of such termination and notwithstanding any limitation of liability set forth in this Supplement or the Order Form, an early termination charge (as liquidated damages and not as a penalty) equal to the sum of: (i) all unpaid non-recurring and recurring charges and other unpaid amounts for the Product(s) provided through the effective date of termination, and (ii) one hundred percent (100%) of the MRCs that would have been charged through the end of the Initial Product Term(s). If any Product(s) is/are terminated by Licensee during any renewal term, the early termination charge will be fifty percent (50%) of any unpaid MRC remaining under such renewal term. The Parties agree that the charges in this Section 3.9 are a good faith estimate of Crown Castle's actual damages and are not a penalty.

**3.10 Licensee Equipment Maintenance and Removal.** Licensee shall, at its own cost and expense, maintain all Licensee Equipment at such Site Space in good repair, condition and working order, and shall provide or arrange for all parts, mechanisms, devices, and servicing required therefor. Licensee shall be responsible for any repairs to or servicing of such Licensee Equipment, and for any maintenance/service agreement that may cover such Licensee Equipment. Except in the case of an emergency, Crown Castle shall not relocate, move, alter, or disturb any Licensee Equipment at any Site Space without the prior written consent of Licensee, such consent not to be unreasonably withheld, denied, conditioned, or delayed. Any Licensee Equipment not removed from the Site Space within two (2) business days of the expiration or termination of the applicable Order Form shall be assumed abandoned and Crown Castle, or, if applicable, the Site Landlord, may dispose of such Licensee Equipment as Crown Castle or Site Landlord deems appropriate, in its sole discretion, and Licensee shall be responsible for all risks and expenses associated with such disposal.

**3.11 Relocation.** Crown Castle may require Licensee to move any Licensee Equipment located in a Site Space. In such event, Crown Castle shall, to the extent reasonably possible (with consideration, if applicable, to what notice Crown Castle may have received from the applicable Site Landlord), provide Licensee with sufficient prior written notice to permit Licensee to take any actions necessary to plan for any potential service interruptions and will provide the location of the new floor space/rack arrangement to be dedicated to Licensee Equipment. Licensee shall reimburse Crown Castle for any and all reasonable costs and expenses incurred as a result of Licensee Equipment relocation.

**3.12 Interference.** Licensee agrees that its use of any applicable Site Space shall not interfere with Crown Castle's or its other licensees' use of the Site. Crown Castle may suspend the provision of Colocation to Licensee and take all other reasonable steps to remedy the Interference in the event that Licensee or Licensee Equipment interferes with Crown Castle's operation or maintenance of the Site or with one or more of Crown Castle's other licensees' use thereof, and within a reasonable time, not to exceed one (1) hour after being notified by e-mail or phone, Licensee fails to cease such interference. In the event that Crown Castle suspends Colocation hereunder, Crown Castle will resume the discontinued Colocation as soon as reasonably practicable after it is satisfied that Licensee has cured the interference. Further, Crown Castle may terminate the applicable Order Form if Colocation is suspended more than twice during the applicable Product Term. Except as otherwise provided, Crown Castle agrees to use commercially reasonable efforts to ensure that Licensee's use of such Site Space is not unreasonably interfered with by Crown Castle, its employees, agents, or other licensees, and/or the Site Landlord of any Site.

**3.13 Cross Connections.** Licensee may not run cables or wires of any kind from the Site Space to any other location in the Site without the prior written approval of Crown Castle pursuant to an Order Form describing the cross-connect and the charges applicable thereto. Licensee may not allow any carriers or other person to gain access to the Site or the Site Space. Crown Castle shall have sole control of access to the Site by carriers, contractors, service providers or others. Licensee shall not engage in or provide at the Site any meet-me-room services, or any services either directly or indirectly related to the trading of bandwidth.

**3.14 Inspections.** Crown Castle may make periodic inspections of any part of the Licensee Equipment, and Licensee shall have the right to be represented during such inspections; provided however, that if in the sole judgment of Crown Castle safety considerations require an inspection without providing such notice, Crown Castle may make such inspection immediately, but shall thereafter promptly provide notice to Licensee of such inspection. The making of periodic inspections or the failure to do so shall not operate to impose upon Crown Castle any liability and shall not relieve Licensee of any responsibility, obligations or liability under this Supplement or the Agreement.

**4. COLOCATION TECHNICAL ASSISTANCE. Subject to availability, the following Technical Assistance may be arranged for Licensee:**

**4.1 Colocation Technical Assistance.**

**4.1.1** If set forth on the applicable Order Form for Colocation, Crown Castle will provide Licensee certain technical support at the Site Space. Such technical support will consist of either or both of the following types of assistance, as designated on the Order Form: (1) Remote Hands Assistance ("Remote Hands") and/or (2) Smart Hands Assistance ("Smart Hands"). Such assistance shall be subject to the Agreement and the terms and conditions set forth in this Section 4 and such further terms and conditions as may be set forth in the applicable Order Form.

**4.1.2 Remote Hands.** Remote Hands is designed to provide Licensee with basic assistance requested by Licensee such as re-booting Licensee Equipment, checking indicators on Licensee Equipment, basic troubleshooting of Licensee Equipment, and similar activities that do not require the use of any tools or specialized equipment by the Crown Castle technician. With respect to Remote Hands assistance, Crown Castle's sole obligation shall be to carry out the express instructions of Licensee, and Crown Castle reserves the right to reject Licensee's request if Crown Castle in its discretion deems the request outside the scope of the Remote Hands assistance.

**4.1.3 Smart Hands.** Smart Hands is designed to provide Licensee with onsite technical assistance of a more complex or technical nature than Remote Hands, and includes Crown Castle complying with Licensee's instructions relating to the installation of Licensee Equipment, more advanced troubleshooting, the installation or change of certain physical components within the Licensee Site Space environment (e.g., relocating equipment, cable management, Licensee Equipment installation or replacement, or other mutually agreed to work set forth within an Order Form). Smart Hands assistance generally does require the use of tools and or certain types of specialized equipment by the Crown Castle technician. With respect to the Smart Hands assistance offered by Crown Castle, Crown Castle's sole obligation shall be to carry out the express instructions of Licensee, and Crown Castle reserves the right to reject Licensee's request if Crown Castle in its discretion deems the request outside the scope of the Smart Hands assistance.

**4.2 Technical Assistance Request.** Remote Hands and Smart Hands assistance will be provided upon submission by Licensee of a request for assistance. For Smart Hands, the Order Form must contain a method of procedure for work to be performed.

**4.3 On-Demand Pricing.** Where Technical Assistance is available, Remote Hands or Smart Hands may be provided upon request of Licensee, and the Colocation Technical Services price list in effect at the time of the request shall apply. Pricing is subject to change without notice and is available upon request of Licensee.

**4.4 Conduct.** Crown Castle will use commercially reasonable efforts to cause Remote Hands and Smart Hands assistance to be performed in a workmanlike manner. If Licensee claims a breach of the foregoing obligation, Licensee must: (a) immediately report the issue to the Crown Castle Network Operations Center at 1-855-93-FIBER (855-933-4237) and open a trouble ticket; and (b) make a written request for a re-performance of the Remote Hands within seven (7) days following the end of the month in which the alleged breach occurred. Upon

receipt of Licensee's request, Crown Castle will investigate the claim under the terms described in this Article. If Crown Castle finds that it failed to satisfy the obligations of this Section 4.4, Crown Castle will promptly correct any errors or deficiencies in the Remote Hands and/or Smart Hands assistance performed hereunder. Licensee shall afford Crown Castle full and free access to the Site Space for all work necessary to remedy any breach of this Section 4.4. The foregoing represents Crown Castle's sole obligation and Licensee's sole remedy for any defect or deficiency in a Remote Hands and/or Smart Hands assistance. Crown Castle shall have no liability whatsoever to Licensee or anyone claiming through Licensee for any issues or equipment outages resulting from Remote Hands and/or Smart Hands assistance unless directly caused by Crown Castle's willful misconduct.

**4.5 Billing and Expenses.** Crown Castle will render invoices monthly in arrears for Remote Hands or Smart Hands that are billed on a variable basis and monthly in advance for those Remote Hands or Smart Hands that are billed on a fixed basis. Licensee shall, upon receipt of appropriate supporting documentation, reimburse Crown Castle for any and all reasonable out-of-pocket expenses incurred by Crown Castle in connection with rendering the Remote Hands or Smart Hands as applicable. Crown Castle will include all applicable expenses in its invoices to Licensee for the Remote Hands or Smart Hands.

## 5. SERVICE LEVEL AGREEMENT

**5.1 Colocation Outage.** Subject to this Section 5, in the event of a Colocation Outage, Licensee may be entitled to a credit ("Product Credit") of 1/720 of the MRC applicable to the affected Product, for each hour in duration of any such Colocation Outage beyond three (3) hours. A Colocation Outage shall be deemed to begin upon the earlier of Provider's actual knowledge of the Colocation Outage or Provider's receipt of notice from Licensee of the Colocation Outage, and end when power is available, as documented by Provider's records. Notwithstanding anything to the contrary in this Supplement, in the Agreement or in any Order Form, in no event shall a Colocation Outage or failure to meet any objectives or parameters under this Supplement be deemed to be or constitute a breach by Provider of this Supplement, the Agreement or any Order Form.

**5.2 Product Credits.** The number of minutes of separate and discrete Colocation Outages will not be accumulated to determine the percentage of Product Credit. Product Credits hereunder are calculated as a percentage of the MRC set forth in the Order Form, and may not be applied to usage charges, government fees, taxes, or surcharges, or any third party charges passed through to Licensee by Provider. Product Credits issued to Licensee hereunder shall be Licensee's sole and exclusive remedy at law or in equity on account of any Colocation Outage or any other defect in Product provided to Licensee. If an incident affects the performance of the Product and results in a period or periods of interruption, disruption, failure, or degradation in Service, entitling Licensee to one or more credits under multiple service level standards, only the single highest credit with respect to that incident will be applied, and Licensee shall not be entitled to credits under multiple service level standards for the same incident. Product Credits will not be issued to Licensee if Licensee's account with Provider is in arrears. In no event shall Provider's total liability for any and all interruptions, disruptions, failures, and/or degradations in Colocation (including, without limitation, any Colocation Outage or failure to meet any objectives or parameters set forth in this Supplement) exceed fifty percent (50%) of the MRC for the affected Product.

**5.3 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event which gives rise to Licensee's right to request the Product Credit. Failure to request an allowance within such period shall constitute a waiver of any claim for a Product Credit.

**5.4 Events Excepted From Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Colocation Outage, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by the following events:

- a. Licensee's (including its agents, contractors and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Licensee provided optical fiber, End User equipment or Licensee's vendor's equipment;
- c. Failure of electrical power not provided by Provider;
- d. Election by Licensee, after requested by Provider, not to release the Product for testing and repair;
- e. Provider's inability to obtain access required to remedy a defect in Colocation;
- f. Scheduled maintenance and emergency maintenance periods;
- g. Scheduled upgrade of Colocation at the request of Licensee;
- h. Force Majeure Event;
- i. Disconnection or suspension of the Colocation by Provider pursuant to a right provided under this Agreement; and/or
- j. Provider's inability to repair due to utility safety restrictions.

## 6. RISK OF LOSS; INDEMNIFICATION; AND INSURANCE

**6.1 Risk of Loss.** The risk of any loss of or damage to Licensee Equipment at any Site Space shall be borne solely by Licensee. Crown Castle shall not be liable to Licensee for, and Licensee shall not be relieved of its obligations hereunder due to, any interruption or termination of any service or utilities due to any repair, installation or improvement, or any cause beyond Crown Castle's reasonable control, except that if Licensee is unable to operate its business as a result of such interruption caused by the gross negligence or willful misconduct of Crown Castle, there shall be an abatement of the applicable MRC during the period of such interruption.



**6.2 Indemnification.** Licensee shall indemnify, defend, release, and hold harmless Crown Castle, its Affiliates, directors, members, officers, employees, managers, agents, representatives, and contractors, as well as the Site Landlord and Crown Castle's other Licensees, from and against any and all claims, demands, actions, judgments, costs, expenses (including reasonable attorneys' fees), damages and/or liabilities arising out of or in connection with Licensee's (including its agents, contractors, employees and representatives) use of the Site Space and/or exercise of its rights hereunder.

**6.3 Insurance.** Licensee shall procure, and thereafter shall maintain through the Product Term, the following insurance from carriers having a Best Rating Service rating of A- or better:

- Commercial General Insurance with a limit of not less than \$5,000,000 each occurrence, written on ISO occurrence form CG 00 01 12 07 (or a substitute form providing equivalent coverage) and covering liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. Such insurance amount may be satisfied through a combination of primary and umbrella insurance.
- Automobile Liability Insurance with a limit of not less than \$2,000,000 each accident, covering liability arising out of any auto (including owned, hired, and non-owned autos). Such insurance amount may be satisfied through a combination of primary and umbrella insurance.
- Workers Compensation and Employers Liability Insurance as required by the laws and regulations applicable to the employees who are engaged in the performance hereunder.
- Commercial Property Insurance covering Licensee's property and equipment at Crown Castle's location, in an amount equal the full replacement cost of Licensee's property and equipment.

Licensee shall deliver to Crown Castle standard form insurance certificates evidencing the coverage required herein and stating that the insurer will provide at least thirty (30) days' written notice to Crown Castle if such coverage is to be cancelled, non-renewed or materially and adversely modified. Crown Castle shall be included as an insured on the associated policies and this insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded Crown Castle (there shall be no endorsement or modification of the CGL to make it excess over other available insurance; alternatively, if the CGL states that it is excess or pro rata, the policy shall be endorsed to be primary with respect to the additional insured). Licensee waives all rights against Crown Castle and its agents, officers, managers, directors, and employees for recovery of damages to the extent these damages are covered by the insurance maintained pursuant to this Agreement.

If any insurance coverage is not secured and maintained or is canceled, Crown Castle reserves the right to procure such insurance and to add the cost thereof to any sum due Crown Castle from Licensee under the applicable Order Form(s). Nothing contained in these insurance requirements is to be construed as limiting Licensee's responsibility or liability for damages resulting from Licensee's use of the Site Space or Licensee's indemnification obligations.

## **7. EMINENT DOMAIN AND CASUALTY**

Should a substantial portion of the Site Space, or of the Site, be damaged by fire or other casualty, or be taken by eminent domain, Crown Castle may elect to terminate the license for any Site Space hereunder. When such fire, casualty, or taking renders the Site Space substantially unsuitable for its intended use, a just and proportionate abatement of the applicable monthly recurring charge shall be made, and Licensee may elect to terminate the license for the affected Site Space hereunder if: (a) Crown Castle fails to give written notice within forty-five (45) days after such fire, other casualty or taking, of Crown Castle's intention to restore the Site Space, or (b) Crown Castle fails to restore the Site Space to a condition substantially suitable for its intended use within one hundred and eighty (180) days after said fire, casualty or taking. Crown Castle reserves, and Licensee irrevocably assigns and grants to Crown Castle, all rights which Licensee may have for damages or injury to the Site Space for any taking by eminent domain, except for damage to the Licensee Equipment.

## **8. LIENS**

Licensee may not cause or permit any liens to be placed on the Site or any Site Space for labor, services or materials performed or delivered by or on behalf of Licensee (including, without limitation, any party that may make any claim or seek any lien by or through Licensee) and shall cause any such liens to be removed within ten (10) days of Licensee's knowledge thereof.

## **PART VII – TERMS APPLICABLE TO MANAGED SOLUTIONS PRODUCTS**

1. The terms in this Part VII apply only to products licensed to Licensee under an Order Form as further defined in this Part VII. This Part shall not apply to other products, including dark fiber, Internet, Wavelength, Ethernet, or colocation.

1.1 “Managed SD-WAN” is an application aware, policy driven overlay network running over an Underlay Connectivity Product (as defined below) which includes the deployment of an Edge Device (as defined below) or virtual instance of such device at the Location (as defined below).

1.2 “Secure Remote User” is a security service edge (SSE) network application for a Licensee user to access the Licensee’s network using Licensee Equipment.

1.3 Add-On Options.

- (a) **High Availability:** Dual Edge Devices deployed at the Location setup in a configuration to provide redundancy. The Edge Devices, deployed in a high availability configuration, are connected to each other with a fallback mechanism based on pre-determined policies.
- (b) **Next-Gen Firewall:** Additional security features which include SSL inspection, URL and IP reputation and filtering, and L7 application controls.
- (c) **Unified Threat Management:** Additional security features which include anti-virus protection, intrusion detection system (IDS), intrusion prevention system (IPS), file filtering, and SSL decryption and encryption.

## **2. ADDITIONAL DEFINITIONS**

“Edge Device” means Crown Castle Equipment which can be physical or virtual and is part of the Product solution.

“Location” is an address where Crown Castle will hand off the Product to Licensee.

“Logical Changes” includes Licensee requested basic modifications or changes performed remotely by Crown Castle’s Network Operations Center to the Managed SD-WAN Product following the installation and delivery of such Product including, but not limited to, changes to routing tables.

“Network Controller” means the Crown Castle Equipment which provides physical or virtual device management for all Edge Devices associated with the controller.

“Product” means the product provided by Crown Castle under Section 1 above to Licensee.

“Product Availability” means the percentage of minutes during a calendar month that the licensed Product has not incurred a Product Outage. Product Availability is calculated as follows: (43,200 - total number of minutes of Product Outage during the calendar month) divided by 43,200.

“Product Credit” means a credit that Licensee is eligible to receive if Crown Castle fails to meet the Product Availability levels set forth in Section 8.2 below.

“Product Outage” means a complete loss of signal that renders the Product unusable, or the output signal presented to Licensee by Crown Castle does not conform to the Specifications.

“Software” means software which is provided by Crown Castle in connection with the Product.

“Underlay Connectivity Product” means the internet or ethernet connectivity between two or more Locations over which the Product operates.

## **3. SPECIFICATIONS**

a. The Specifications applicable to the Managed SD-WAN Product are as follows:

- (i) **Underlay Connectivity:** In order to provide the Managed SD-WAN Product, there must be internet or ethernet connectivity at the Location. This internet or ethernet connectivity may already exist or may be ordered in conjunction with the Product.
- (ii) **IP Address Allocation:** The Edge Device will use one or more IP address blocks depending on the number of Underlay Connectivity Products at the Location. Each Underlay Connectivity Product will have a unique IP address block.

- (iii) **SD-WAN Overlay:** The overlay service uses the Underlay Connectivity Product to establish tunnels of encrypted traffic connecting the Edge Device and Network Controller.
- (iv) **Network Traffic Management:** Crown Castle's network traffic policies will restrict the traffic flows to the subscribed committed information rate ("CIR") in connection with the Underlay Connectivity Product.

#### 4. USE BY LICENSEE

**4.1 Permitted Use and Proprietary Rights.** Licensee may use the Product(s) only for its own internal use. Licensee shall not assign, sell, transfer, distribute, lease, sublicense, or otherwise grant a right to use the Product to any third party. Licensee shall not use or copy any Software except as expressly permitted in this Agreement. Except to the extent such restrictions are not permitted under applicable law, Licensee agrees not to modify, adapt, alter, decompile, disassemble, reverse assemble, reverse engineer or otherwise attempt to derive source code for the Edge Device, Software or any other aspect of the Product. Licensee may not distribute, license, lease, rent, loan, or otherwise transfer the Software. Each Secure Remote User Product may only be used by one (1) authorized individual and not shareable with another user, and such individual Licensee user may use the Secure Remote User Product with up to a maximum of three (3) Licensee user devices. Licensee shall not create derivative works based on the Software. Licensee may not export the Software or the underlying technology in contravention of the applicable U.S. and foreign export laws and regulations. Licensee acknowledges and agrees that portions of the Software, including but not limited to the source code and the specific design and structure of individual modules or programs, constitute or contain trade secrets of Crown Castle and its licensors. Any Software provided hereunder is licensed only and is subject to this Supplement, and Crown Castle or its providers retain title in all copies of the Software. Licensee will not obtain title to, or ownership of any intellectual property rights in the Software or any copies thereof. Licensee's rights in the Software will be limited to those expressly granted in this Supplement. Crown Castle reserves all rights not expressly granted to Licensee under this Supplement.

**4.2 Content and Transportation of Product.** Licensee accepts that Crown Castle does not control or operate the content that is transmitted or transported via the Product(s) and Licensee shall be solely liable and responsible for the content, data and communications applicable to the Product. Licensee acknowledges that Crown Castle will have network access to communicate with the Product for purposes such as authentication and Software updates; and will have access to, and may utilize for any purpose all information regarding networking characteristics, usage, performance, and related information involved in the use of the Product ("Key Performance Indicators" or "KPI"). Crown Castle will protect this KPI, and will not divulge to anyone outside of Crown Castle, or its subcontractors and agents, unless required by law via a subpoena.

**4.3 Fraudulent Use of Product.** Crown Castle shall not be held liable for any usage, charges and/or damages resulting from Licensee's fraudulent or unauthorized use of the Product, Software and/or Edge Devices. Licensee will not use the Product in any unlawful, abusive, or fraudulent manner. If Crown Castle has reason to suspect Licensee is abusing the Products or using them fraudulently or unlawfully, Crown Castle reserves the right to immediately suspend, restrict, or terminate the Products without notification. In such an event, Licensee will be held liable for all usage, including but not limited to, any and all fraudulent usage.

#### 5. IMPLEMENTATION AND CONFIGURATION

**5.1 Provisioning.** Crown Castle is not responsible for any Underlay Connectivity Product provided to Licensee from a third party provider ("Third Party Underlay"). For the avoidance of doubt, Crown Castle will not be responsible for any provisioning issues, outages or service interruptions resulting from an incident attributable to any Third Party Underlay.

**5.2 Configuration and Pre-Installation Technical Documentation.** Licensee shall reasonably cooperate with Crown Castle in the installation and configuration of the Product, and Licensee shall also assist in the completion of technical documentation prior to commencement of installation of the Product. The documentation provides Crown Castle with the information needed to design and configure the Product, including, but not limited to, access type and bandwidth, local area network and wide area network ("WAN") design, number of users, and traffic types and priorities.

**5.3 Acceptance Date - Third Party Underlay.** If Licensee utilizes a Third Party Underlay with the Managed SD-WAN Product, then the "Acceptance Date" for the respective Managed SD-WAN Product shall be the earliest of (a) the date on which Licensee delivers written notice of acceptance, (b) the date on which Licensee begins to use the Managed SD-WAN Product, other than for testing purposes, or (c) the fifth (5<sup>th</sup>) calendar day following Licensee's receipt of the Edge Device to be utilized in connection with the Managed SD-WAN Product, unless Licensee notifies Crown Castle in writing within said five-day period of a Defect in the Product, specifying in detail the nature of such Defect.

**5.4 Licensee Responsibilities.** Licensee will provide: (i) an operating environment with temperatures not below fifty-five (55) or above eighty-five (85) degrees Fahrenheit, and humidity shall not exceed ninety (90) percent at eighty-five (85) degrees Fahrenheit; (ii) power including UPS AC power equipment, circuit sizing to be determined, if applicable; (iii) emergency local generator backup service, if applicable; (iv) if interfacing with a third party IP service, provide, install and maintain a device that is capable of routing network traffic between the Product and the Licensee's WAN; and (v) a point of contact for installation, Product activation, notices for Product Outages, configuration assistance, and any maintenance activities. Licensee is solely responsible for designating authorized Licensee representatives in connection with Licensee's use of the Product, account access, maintenance, and configuration permissions associated with the Product. Licensee shall promptly notify Crown Castle of any changes to permissions related to Licensee's authorized representatives on file with Crown Castle. In



addition, Licensee is responsible for the performance of the applicable functions set forth on the Managed SD-WAN Responsibility Matrix in **Exhibit A**, attached hereto and incorporated herein.

**5.5 Cross-Connections.** As necessary for interconnection of the Managed SD-WAN Product with service provided by others, Crown Castle may request (as applicable), and Licensee will provide to Crown Castle, circuit facility assignment information and design layout records necessary to enable Crown Castle to make the necessary cross-connection between the Managed SD-WAN Product and Licensee’s other service(s) from other provider(s). Crown Castle may charge Licensee non-recurring and monthly recurring cross-connect charges to make such connections.

**5.6 Security Monitoring and Mitigation.** Crown Castle monitors the Edge Device and Software utilized in connection with the Product. Crown Castle does not provide monitoring of security events, any security event mitigation or advice regarding security issues or threats. Upon request by Licensee, Crown Castle will modify the configuration of the Product in accordance with the specifications provided by Licensee to attempt to mitigate security events and security threats identified by Licensee. Crown Castle’s sole obligation is to implement the configuration settings requested by Licensee. Crown Castle makes no guarantees with respect to the detection or blocking of viruses/worms/malware or any other types of attacks, and is not responsible for any malicious data that may be transmitted over the Underlay Connectivity Product.

**5.7 Crown Castle Responsibilities.** Crown Castle is responsible for the performance of the applicable functions as set forth on the Managed SD-WAN Responsibility Matrix in **Exhibit A**. The Demarcation Point for the Managed SD-WAN Product is the port on the Edge Device. The Demarcation Point for the Secure Remote User Product is the Crown Castle interface with the respective Licensee device utilizing the installed Software.

**6. LICENSEE PORTAL**

Crown Castle will provide the Licensee with a password-protected web portal to view performance information regarding Licensee’s Product.

**7. FEES**

Licensee shall pay the fees set forth in Order Forms executed hereunder. In addition, in the event that amounts charged to Crown Castle under its underlying third party reseller agreement are increased, Crown Castle shall have the right to charge Licensee for such increase, which shall be added to the MRCs to be paid by Licensee for the applicable term. In the event of any such increase, Crown Castle will provide prior written notice to Licensee, and any such increases in charges will not take effect until Licensee’s receipt of such notice.

**8. SERVICE LEVEL AGREEMENT**

**8.1 Product Outage.** Subject to this Section 8, in the event of a Product Outage to any Product, Licensee may be entitled to a Product Credit in accordance with the applicable Service Level Objective set forth in Section 8.2 below. A Product Outage shall be deemed to begin upon the earlier of Crown Castle’s actual knowledge of the Product Outage or Crown Castle’s receipt of notice from Licensee of the Product Outage, and end when the Product is operational and in material conformance with the applicable Specifications. Notwithstanding anything to the contrary in this Supplement, the Agreement or any Order Form, in no event shall a Product Outage, defect or failure to meet any objectives or parameters under this Supplement be deemed to be or constitute a breach by Crown Castle of this Supplement, the Agreement or any Order Form.

**8.2 Service Level Objectives.**

If the total minutes or hours of Product Outages in any month exceed the number of minutes or hours set forth in the table below, Licensee shall be entitled to a Product Credit equal to the percentage of the Product MRC set forth in the following table:

Product Availability Objective	Product Credit	
	Cumulative Duration of Product Outage(s)	% of MRC
99.99%	0 to 4 mins.	0%
	>4 mins. to 4 hrs.	5%
	>4 hrs. to 8 hrs.	10%
	>8 hrs. to 12 hrs.	20%
	>12 hrs. to 16 hrs.	30%
	>16 hrs. to 24 hrs.	40%
	>24 hrs.	50%

**8.3 Product Credits.** Product Credits hereunder are calculated as a percentage of the MRC for the Product set forth in the Order Form. Product Credits shall be Licensee’s sole and exclusive remedy at law or in equity on account of any Product Outage and/or any other defect in the Product. If an incident affects the performance of the Product and results in a period or periods of interruption, disruption, failure or degradation in quality, entitling Licensee to one or more credits under this Supplement and the underlying transport Supplement (e.g. Internet Supplement or Ethernet Supplement), only the single highest credit with respect to that incident will be applied, and Licensee shall not be



entitled to credits under multiple quality level standards for the same incident. Product Credits will not be issued to Licensee if Licensee’s account with Crown Castle is in arrears. In no event shall Product Credits in any month for any and all interruptions, disruptions, failures, and/or degradations in quality (including, without limitation, any Product Outage or failure to meet any objectives or parameters set forth in this Supplement) exceed fifty percent (50%) of the MRC for the affected Product for that month.

**8.4 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event which gives rise to Licensee’s right to the Product Credit. Failure to request a Product Credit within such period shall constitute a waiver of any claim for a Product Credit.

**8.5 Events Excepted From Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Product Outage, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by any of the following events:

- a. Licensee’s (including its agents, contractors and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Licensee provided optical fiber, Licensee software or applications not provided by Crown Castle, end user equipment or Licensee’s vendor’s equipment;
- c. Failure, outage or other issues with any Licensee circuits or other underlying circuits;
- d. Failure of electrical power not provided by Crown Castle;
- e. Election by Licensee, after requested by Crown Castle, not to release the Product for testing and repair;
- f. Crown Castle’s inability to obtain access required to remedy a defect;
- g. Scheduled maintenance periods;
- h. Scheduled upgrade of the Product at the request of Licensee;
- i. Force Majeure Event;
- j. Disconnection or suspension of the Product by Crown Castle pursuant to a right provided under this Agreement; and/or
- k. Crown Castle’s inability to repair due to utility safety restrictions.

**9. EMERGENCY BLOCKING**

The Parties agree that if either Party, in its reasonable sole discretion, determines that an emergency action is necessary to protect its own network, then the applicable Party may block any transmission path over its network by the other Party where transmissions do not meet material standard industry requirements and after engaging in reasonable and good faith efforts to notify the other Party of the need to block. Any such blockage will be without any liability or obligation to the other Party. The Parties further agree that none of their respective obligations to each other under the Agreement, Supplement and Order Form, will be affected by such blockage, except if Licensee is the Party being blocked, then Licensee will not be obligated to make payments for the circuit(s) which is so blocked until such time as the blockage is removed.

**10. MANAGED SD-WAN CHANGES**

During the Product Term, Crown Castle will perform certain Crown Castle configuration changes with respect to the Managed SD-WAN Product upon request by Licensee, following installation and delivery of the Product and subject to additional charges, certain charges of which are detailed below.

Change Type	Time of Day	Rates Per Incident (Charged per Product)
Technician dispatch	7:01 AM to 6:59 PM	\$250 per hour, 4-hour minimum
Technician dispatch	7:00 PM to 7:00 AM	\$375 per hour, 4-hour minimum
Logical Changes – Remote	7:01 AM to 6:59 PM	\$200 per hour, 1-hour minimum
Logical Changes – Remote	7:00 PM to 7:00 AM	\$300 per hour, 1-hour minimum

The charges above may be increased once per contract year upon notice to Licensee by the percentage increase, if any, in the Consumer Price Index – Urban Wage Earners and Clerical Workers (U.S. City Average, All Items, Base 1982-1984 equals 100) as published by the United States Department of Labor, Bureau of Labor Statistics.



**Part VII, Exhibit A**  
**Managed SD-WAN Responsibility Matrix**

<b>Function</b>	<b>Crown Castle</b>	<b>Licensee</b>
Strategic direction		X
Appropriate space, power, operating environment		X
Network design	X	X
Monitoring	X	
Fault isolation	X	
Fault restoration – Physical	X	
Fault restoration – Logical	X	
Break fix maintenance	X	
Change management – Physical	X	
Change management – Logical	X	
Configuration back-up	X	
Security policy and updates	X	
Utilization reporting	X	

## **PART VIII – TERMS APPLICABLE TO MANAGED SECURITY PRODUCTS**

1. The terms in this Part VIII apply only to Managed Security Products licensed to Licensee under an Order Form that specifies Managed Security. This Part shall not apply to other products, including Ethernet, wavelength, Internet, colocation, Managed SD-WAN or dark fiber.
- 1.1 “Cyber Defense”, or “Product” is a cloud based cyber security solution for threat vulnerability identification, detection and response (product dependent). Cyber Defense includes, without limitation, the following types of Products:
  - (a) “Cyber Defense XDR” Extended Detection & Response is an extended threat detection, management and response cloud based solution which is a next-generation security information and event management (SIEM) platform providing the licensing and tools for advanced threat detection, management and incident response.
  - (b) “Cyber Defense XDR Link” Extended Detection & Response (Bring your own) is an extended threat detection, management and response cloud based solution providing advanced threat detection, management and incident response for customers’ existing security platform(s). This solution allows customers to bring their own license(s)/security tools.
  - (c) “Cyber Defense EDR” Endpoint Detection & Response is an advanced endpoint security platform and a cloud based solution which monitors, detects and responds to incidents at every endpoint—wherever customer systems are connected enabling for continuous and comprehensive monitoring of endpoints and data flows. This solution includes the licensing and tools with automated threat response and resolution features.
  - (d) “Cyber Defense EDR Link” Endpoint Detection & Response is an advanced endpoint security platform and a cloud based solution which monitors, detects and responds to incidents at every endpoint—wherever customer systems are connected enabling for continuous and comprehensive monitoring of endpoints and data flows. This solutions allows Licensee to bring their own licenses/endpoints for automated threat response and resolution features.
  - (e) “Cyber Defense CRI” Cyber Risk Intelligence is a unified and continuous cyber risk platform for monitoring Licensee’s internal network environment and applications, including dark web monitoring, active directory insights, and secure configuration management, providing actionable recommendations and mitigation plans.
  - (f) “Cyber Defense Exposure Management” is an attack surface visibility and management tool for comprehensive continuous external vulnerability detection of Licensee’s digital perimeter and potential attack vectors.
  - (g) “Cyber Defense Exposure Management & Testing” is a cloud based attack surface visibility and management tool for comprehensive continuous external vulnerability detection of Licensee’s digital perimeter and potential attack vectors with additional testing features.
  - (h) “Cyber Defense Professional Services” are professional services billed on an hourly basis provided in support of increased cybersecurity which include services such as tabletop exercises, assessments, customized playbooks, custom SOAR platform engineering, and custom integrations.
  - (i) “Cyber Defense Penetration Testing” is a security assessment of vulnerabilities in a Licensee’s system and test of current security policy compliance on a per engagement basis. Types of penetration testing include internal (network) penetration tests, external (web) penetration tests, web applications and mobile application penetration tests.
  - (j) “Cyber Defense Incident Response On-Demand” is on-demand incident response assistance on a per occurrence basis once a threat has been identified which includes systems and logs analysis, proactive incident response planning, and assistance in recovery and restoration from a security incident. Includes a minimum of 25 hours (business and after hours), additional hours may be required if an incident exceeds 25 hours. Such rate for any additional hours will be based upon standard service rates.
  - (k) “Cyber Defense Incident Response Subscription” is continuous incident response assistance which includes systems and logs analysis, proactive incident response planning, and assistance in recovery and restoration from a security incident. Includes a minimum of 25 hours (business and after hours), additional hours may be required if an incident exceeds 25 hours. Such rate for any additional hours will be based upon standard service rates.
- 1.2 The Securities Operations Center (“SOC”) for the entire Cyber Defense Product suite is provisioned, maintained and supported by the Underlying Product Provider (as defined in Section 4.3 below).
- 1.3 Each Order Form for a Cyber Defense Product will detail, among other things, Users, Devices, Service Agents, Assets, and Appliances.

## 2. ADDITIONAL DEFINITIONS

“Licensee Audit Data” means (i) any information or data ingested, transmitted, or transported by Licensee in connection with the Product and (ii) any Licensee information or data ingested by Crown Castle in connection with the Product.

“Extension” means any separately downloadable or accessible suite, configuration file, add-on, technical add-on, example module, command, function, playbook, content or application that extends the features or functionality of the applicable Product.

“Product Credit” means a credit that Licensee may be eligible to receive if Crown Castle fails to meet the service level agreement (“SLA”) set forth in Section 9 below.

“Product Security Event” means a security event affecting the Product.

“Software” means software which is embedded in the cloud based solution and software used in connection with the Product.

“Endpoints” means any device connected to an endpoint for example; desktops, laptops, servers, IOT devices, mobile, wifi access points, etc.

“User” means any active directory or Azure active directory account that generates one or more logged events in the XDR platform within a monthly period.

“Device” means any machine with a server agent.

“Server Agent” means a method for collecting information from your Windows or Linus Servers.

“Assets” means digital assets which represent an organizations external digital attack surface including but not limited to endpoints, applications, cloud resources.

“Appliances” means physical or virtual hardware for XDR subscribers, an appliance will be required to receive syslog, integrate with on-premises Active Directory, or enable Network Traffic Analysis (NTA).

## 3. SPECIFICATIONS

The specifications applicable to the Product, Cyber Defense XDR are set forth in attached Exhibit A, and incorporated herein by reference.

## 4. USE BY LICENSEE

**4.1 Permitted Use; Changes; Restrictions.** Licensee may use the Product(s) for its own internal use only. Licensee shall not assign, rent, sell, transfer, distribute, lease, sublease, license, sub-license, or otherwise grant a right to use the Product to any third party. Licensee shall not use or copy any Software. Except to the extent such restrictions are not permitted under applicable law, Licensee agrees not to: (i) modify, adapt, alter, decompile, disassemble, reverse assemble, reverse engineer or otherwise attempt to derive source code, object code, extensions, or underlying structures, ideas or algorithms for the Software or any other aspect of the Product; (ii) attempt to disable, modify, or circumvent any license keys, proprietary legends, notices, or other technological mechanisms or measure intended to prevent, limit or control the use or copying of, or access to, the Product or Software; (iii) use the Product, Software, or any information Licensee may acquire in connection with this Supplement to develop or assist in the development of, any product or service which has, entirely or partially, the same functions as the Product provided hereunder or which would be in direct or indirect competition therewith; or (iv) disclose the results of any performance benchmarks associated with the Product or their use to any third party without Crown Castle’s prior written consent. Licensee may not distribute, license, lease, rent, loan, or otherwise transfer the Software. Licensee may not delete or in any manner alter the copyright, trademark or other proprietary right notices on the Software. Licensee shall not create derivative works based on the Software. Licensee may not export the Software or the underlying technology in contravention of the applicable U.S. and foreign export laws and regulations. Crown Castle may, subject to its compliance with all applicable laws, in its sole discretion and without incurring any liability to Licensee, change the features of or discontinue the delivery of the Product. Crown Castle shall use commercially reasonable methods to notify Licensee of any such changes. Licensee shall not be liable for charges associated with the discontinued Product following the effective date of termination for the respective Product.

**4.2 Proprietary Rights.** Licensee acknowledges and agrees that portions of the Software, including but not limited to, the source code and the specific design and structure of individual modules or programs constitute or contain trade secrets of Crown Castle and its licensors. Any Software provided hereunder is licensed only and is subject to the terms of this Supplement. Crown Castle and its providers retain title to the Product and Software, and all copies of the Software and Product. Licensee will not obtain title to, or ownership of any intellectual property rights in the Software, Products, or any copies thereof. Licensee’s rights in the Software will be limited to those expressly granted in this Supplement. Crown Castle reserves all rights not expressly granted to Licensee under this Supplement. Licensee grants Crown Castle (and its Underlying Product Provider as defined in Section 4.3 below) a royalty free, non-exclusive license to use the Licensee Audit Data for the purposes of providing the Product.

**4.3 Audit Data.** Licensee accepts that Crown Castle does not control or operate the Licensee Audit Data and Licensee shall be solely liable and responsible for (i) Licensee Audit Data and any archiving or backup of such data and (ii) any Licensee Equipment to view the Product dashboard or portal. Licensee acknowledges that Crown Castle will have network access to the Product(s) for purposes such as authentication and Software updates and will have access to, and may utilize for any purpose all information regarding networking characteristics, session information, usage, source information, operating environment, performance and other information involved in the use, deployment, and configuration of the Product (“Usage Data”). Crown Castle will protect this Usage Data, and will not divulge to anyone outside of Crown Castle, its contractors, subcontractors, or agents, unless required by law via a subpoena. Licensee Audit Data does not include Usage Data. Crown Castle has no control over or responsibility for (1) the security of Licensee Audit Data or Licensee’s network, (2) unauthorized uses of Licensee Audit Data, and/or (3) any unauthorized intrusions into Licensee’s network. Crown Castle cannot guarantee that such situations will not occur, and accordingly, Crown Castle disclaims any and all liability resulting from or related to any such events. Crown Castle currently utilizes an underlying third party product provider for these Products (“Underlying Product Provider”). The relationship between Crown Castle and the Underlying Product Provider is not that of partners, agents, or representatives of one another. Notwithstanding anything to the contrary in the Agreement, in no event, shall Crown Castle be responsible for any damages arising from the acts or omissions of the Underlying Product Provider.

**4.4 Extensions.** Crown Castle makes no representations or guarantees of any kind related to any Extensions developed and/or made available by a third party. Crown Castle may, in its reasonable discretion, block or disable access to any third party Extension at any time. Licensee’s use of a third party extension is at Licensee’s own risk and may be subject to any additional terms, conditions, and/or policies applicable to that third party extension.

**4.5 Transport Connectivity.** Crown Castle is not responsible for the internet, wavelength, or ethernet connectivity utilized by Licensee to transport any content and information associated with the use of the Product (“Transport Product”). For the avoidance of doubt, Crown Castle will not be responsible for any provisioning issues, outages or service interruptions resulting from an incident attributable to any Transport Product not provided by Crown Castle.

**4.6 Unauthorized Use of Product.** Licensee shall not use, or authorize, or facilitate the use by others of the Product in any illegal, abusive, and/or fraudulent manner, and Licensee shall not transmit, store, display, distribute or otherwise make available content that is (i) illegal, (ii) which encourages conduct that may constitute a criminal offense, or that violates the intellectual property rights or rights to the publicity or privacy of others, or (iii) content which damages, disables, overburdens, or impairs the Product or the Crown Castle Network. Crown Castle shall not be held liable for any usage, charges and/or damages resulting from Licensee’s illegal, fraudulent, or unauthorized use of the Product and/or Software. If Crown Castle has reason to suspect that the Licensee is using the Product fraudulently or unlawfully, misusing the Product, or abusing the Product, then Crown Castle reserves the right, at its sole option, to either immediately suspend or restrict the Product without notification or terminate the Product upon notice to the Licensee. In such an event, Licensee will be held liable for all usage, including but not limited to, any and all fraudulent usage.

**4.7 Penetration Testing.** When determining the scope of any penetration testing to be performed pursuant to the Product, Cyber Defense Penetration Testing, Licensee represents and warrants that it has or has acquired all necessary rights, permissions, and/or authorizations to perform penetration testing on any networks, systems, platforms, and/or applications to be included in the testing. If such rights, permissions, and/or authorizations have not been acquired by Licensee prior to execution of the penetration test, Licensee shall notify Crown Castle of any networks, systems, platforms, and/or applications which must be excluded from the penetration testing scope. Licensee shall indemnify, defend, release, and hold harmless Crown Castle, its Affiliates, directors, members, employees, officers, managers, agents, representatives, and contractors from and against any third-party action, claim, suit, judgment, damage, demand, loss, or penalty, and any cost or expense associated therewith (including but not limited to reasonable attorneys’ fees, expert fees and costs) imposed upon Crown Castle by reason of a breach by Licensee of this Section.

## **5. DISCLAIMER OF THIRD PARTY ACTIONS.**

At times, actions or inactions caused by third parties (e.g., evolving cyber-attacks and unauthorized network intrusions) can produce situations in which Licensee’s network may be impaired or disrupted. Crown Castle cannot guarantee that such situations will not occur, and accordingly Crown Castle disclaims any and all liability resulting from or related to such events.

## **6. IMPLEMENTATION**

**6.1 Transport Connectivity.** Crown Castle is not responsible for the internet, wavelength, or ethernet connectivity utilized by Licensee to transport any content and information associated with the use of the Product (“Transport Product”). Licensee is responsible, at its expense for procuring all Transport Products needed to access and use the Product. For the avoidance of doubt, Crown Castle will not be responsible for any provisioning issues, outages or service interruptions resulting from an incident attributable to any Transport Product not provided by Crown Castle.

**6.2 Pre-Installation Technical Documentation and Configuration.** Licensee shall reasonably cooperate with Crown Castle and its Underlying Product Provider in the installation and configuration of the Product, and Licensee shall also assist Crown Castle and its Underlying Product Provider in the completion of the technical documentation prior to commencement of the installation of the Product which includes without limitation, participation in project plan development with the project management team, appliance (if applicable) provisioning and set up, agent/sensor deployments, configurations related to the types of Licensee Equipment being utilized in conjunction with the Product, tuning



of the installed environment, Licensee user information, current security event activity, incident response plan information, and contact information for Licensee personnel assisting with the implementation of the Product and related monitoring. Licensee shall be responsible to keep such Licensee user information and personnel contact information up to date and accurate throughout the respective Product Term and shall notify Crown Castle immediately of any associated changes.

**7. CYBER DEFENSE LICENSEE PORTAL**

Crown Castle will provide the Licensee with a password-protected web portal to view performance information regarding Licensee’s Product. Licensee assumes all responsibility for the administration and security of usernames, passwords, and access tokens in connection with the Product and Licensee policies related thereto.

**8. FEES**

**8.1** The Acceptance Date of a Product hereunder is the effective date of the applicable Order Form.

**8.2** Licensee shall pay the fees set forth in Order Forms executed hereunder. In addition, in the event that amounts charged to Crown Castle under its underlying third party reseller agreement are increased, Crown Castle shall have the right to charge Licensee for such increase, which shall be added to the MRCs to be paid by Licensee for the applicable term. In the event of any such increase, Crown Castle will provide prior written notice to Licensee, and any such increases in charges will not take effect until Licensee’s receipt of such notice.

**8.3 Overage MRC.** Overages are any actual usage of Products which exceeds the utilization amount subscribed to under any Order Form as measured on a monthly basis. Any overage MRCs in a given month shall be billed in arrears the following month.

**9. SERVICE LEVEL AGREEMENT**

<b>Product Security Event</b>	<b>Incident Investigations &amp; Response Time</b>
<p><b>Critical (highest severity)</b></p> <ul style="list-style-type: none"> <li>• Priority incident that could cause severe or irreparable damage to the client's critical infrastructure and reputation</li> <li>• Results in root-level compromise of servers or infrastructure devices</li> <li>• Exploitation is typically easy to accomplish</li> <li>• A product is not functioning, and a viable workaround is not available</li> </ul>	<p>Up to 1 hour</p>
<p><b>High</b></p> <ul style="list-style-type: none"> <li>• Incident likely to result in demonstrable impact or potential for severe impact on client critical infrastructure and reputation</li> <li>• Vulnerability is difficult to exploit</li> <li>• Exploitation could result in elevated privileges</li> <li>• Exploitation could result in significant data loss or downtime</li> </ul>	<p>Up to 4 hours</p>
<p><b>Medium</b></p> <ul style="list-style-type: none"> <li>• Incident or event that has the potential to cause a moderate impact on critical or non-critical infrastructure</li> <li>• Exploits or vulnerabilities that require escalated credentials</li> </ul>	<p>Up to 12 hours</p>

<ul style="list-style-type: none"> <li>• Vulnerabilities where exploitation provides limited access</li> <li>• Vulnerabilities that require manipulation of victims using social engineering tactics</li> </ul>	
<p><b>Low (lowest severity)</b></p> <ul style="list-style-type: none"> <li>• For investigation purposes only against an IOC (Indicator of Compromise)</li> </ul>	Info only

**9.1 Product Security Event.** Subject to this Section 9, in the event of a Product Security Event to any Product, Licensee may be entitled to a Product Credit in accordance with the applicable Service Level Agreement set forth in Section 9.2 below. Notwithstanding anything to the contrary in this Supplement, the Agreement or any Order Form, in no event shall a Product Security Event, defect or failure to meet any objectives or parameters under this Supplement be deemed to be or constitute a breach by Crown Castle of this Supplement, the Agreement, or any Order Form.

**9.2 Service Level Agreement.**

**A. Incident Investigation and Response**

The following table outlines the Product Security Event and the timeframe to review, acknowledge and provide initial response. This approach applies to any tool that may generate security alarms for SOC investigation and response.

**Service Level Agreement**

**9.3 Product Credits.**

**9.3.1** The following table identifies the Product Credits for SLA violations and their measures.

SLA	Definition	Measure	Credit
<b>Incident Investigation &amp; Reponse</b>	Underlying Product Provider will respond to each detection of the deployed solutions(s) raised within the table in 9.2 above for the related Product. Timeframes will be determined from the time the detection notification is created through either (i) the timestamp of Underlying Product Provider SOC generated ticket to the Licensee or (ii) the event is closed within the Product platform.	97% attainment across the monthly service period	1/30 <sup>th</sup> of the MRC for each business day the SLA is not met.

**9.3.2** Product Credits hereunder are calculated as a percentage of the MRC for the Product set forth in the Order Form. Product Credits shall be Licensee’s sole and exclusive remedy at law or in equity on account of any Product Security Event, interruption, error, and/or any other defect or failure in the Product. Product Credits will not be issued to Licensee if Licensee’s account with Crown Castle is in arrears. In no event shall Product Credits in any month for any and all interruptions, disruptions, failures, and/or degradations in quality (including, without limitation, any Product Security Event, defect, or failure to meet any objectives or parameters set forth in this Supplement) exceed fifty percent (50%) of the MRC for the affected Product for that month.

**9.4 Product Credit Request.** Licensee must submit a written request to claim a Product Credit no later than thirty (30) days following the event which gives rise to Licensee’s right to the Product Credit. Failure to request a Product Credit within such period shall constitute a waiver of any claim for a Product Credit.

**9.5 Events Excepted From Product Credit.** Notwithstanding the foregoing, Licensee shall not receive any Product Credit for any Product Security Event, failure to meet any objectives or parameters hereunder, or delay in performing repairs, arising from or caused, in whole or in part, by any of the following events:

- a. Licensee’s (including its agents, contractors and vendors) acts or omissions;
- b. Failure on the part of Licensee Equipment, Transport Product, Licensee provided optical fiber, end user equipment or Licensee’s vendor’s equipment;
- c. Failure, outage or other issues with any Licensee circuits or other underlying circuits;
- d. Failure of electrical power not provided by Crown Castle;
- e. Crown Castle’s inability to obtain access required to remedy a defect;





- f. Scheduled maintenance periods;
- g. Scheduled upgrade of the Product at the request of Licensee;
- h. Force Majeure Event;
- i. Disconnection or suspension of the Product by Crown Castle pursuant to a right provided under this Agreement; and/or
- j. Underlying Product Provider's inability to repair due to utility safety restrictions.

**Part VII, Exhibit A**  
**Cyber Defense XDR Specifications**

Virtual sensor is a server sensor to capture traffic metadata enabling log collection.

The following Photon hardware devices are the physical options for network and security sensors at different rated throughputs.

**Photon-160**

- Network Capture Throughput – Up to 500 Mbps
- Network Interfaces - 6 x RJ45 (1Gbps)
- Storage – 238GB
- External Connector - 3 X USB 3.0, 3 X USB 2.0, HDMI and Serial Console (COM) ports
- Size - 7.32” x 4.98” x 2.60”
- Weight 3.025 lbs
- Power - DC 12Volts (AC 100~240V @50~60 Hz external)

**Photon-250**

- Network Capture Throughput – Up to 1 Gbps
- Network Interfaces - 4 x GbE RJ45 Intel® SoC Integrated MAC, 2 x GbE RJ45 Intel® i350, 2 x GbE SFP Intel® i350
- Storage – 512GB
- External Connector - 2 X USB 2.0
- Size - 9.10” x 7.87” x 1.73”
- Weight 2.65 lbs
- Power - AC 100~240V @50~60 Hz 60W

**Photon-400**

- Network Capture Throughput – Up to 10 Gbps
- Network Interfaces - 6 x RJ45 (1Gbps), 2 x 10G SFP+
- Storage – 480GB
- External Connector - 3 X USB 2.0
- Size - 17.08” x 1.68” x 28.13”
- Weight 38.9 lbs
- Power - AC 100~240V @50~60 Hz 550W

\*Crown Castle, at its sole option and discretion, may modify external connectors, size, weight, and power of any model noted above to accommodate enhancements that do not impact performance.