



State of Oklahoma

Office of Management and Enterprise Services

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**ADDENDUM 1 TO  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

This Addendum 1 ("Addendum") is an Amendment to the Contract awarded to Hughes Network System ("Hughes") in connection with Solicitation number 0900000259 ("Solicitation") and is effective August 31, 2018.

**Recitals**

Whereas, the State issued a Solicitation for proposals to provide telecommunication products and services for Oklahoma state entities and affiliates, as more particularly described in the Solicitation; and

Whereas, the State and Hughes have negotiated the final terms under which Hughes will perform the Services under the Contract.

Now, therefore, in consideration of the foregoing and the mutual promises set forth herein, the receipt and sufficiency of which are hereby acknowledged the parties agree as follows:

**1. Addendum Purpose.**

This Addendum memorializes the agreement of the parties with respect to negotiated terms of the Contract that is being awarded to Hughes as of even date with execution of this Addendum. The parties agree that Supplier has not yet begun performance of work contemplated by the Solicitation.

**2. Negotiated Documents of the Contract.**

2.1. The parties have negotiated certain terms of the Contract as follows:

- i. revisions to Hughes' subscriber agreement as contained in Attachment A to this Addendum titled, "Subscriber Agreement For 2-way Communications Services";
- ii. revisions to Hughes' pricing proposal as contained in Attachment B to this Addendum titled, "Pricing";
- iii. revisions to Hughes' service level agreement as contained in Attachment C to this Addendum titled, "Service Level Agreement";

- iv. revisions to Hughes' Schedules I - V as contained in Attachment D to this Addendum titled "Schedules";
- v. revisions to Hughes' order form as contained in Attachment E to this Addendum titled "Service Order Number"; and
- vi. negotiated additional terms as contained in Attachment F to this Addendum titled "Negotiated Additional Terms to the Solicitation."

Contract Documents shall be read to be consistent and complementary. Any conflict among these documents shall be resolved by giving priority to these documents in the order listed above.

- 2.2. Accordingly, any reference to a Contract Document refers to such Contract Document as it may have been amended. If and to the extent any provision is in multiple documents and addresses the same or substantially the same subject matter but does not create an actual conflict, the more recent provision is deemed to supersede earlier versions.

### 3. Administrative Fee

- 3.1 Except for acquisition subject to E-Rate and OUFS Participation, the Supplier agrees to pay an administrative fee in the sum of 1.0% of the combined total quarterly expenditures, as evidenced by the aggregate amount of Acquisitions under this Contract. All products prices shall be inclusive of the administrative fee. Notwithstanding anything to the contrary herein, the State reserves the right to increase or decrease the administrative fee as long as the Supplier has an obligation under this Contract without further requirement for an Amendment and shall provide written notice of such change to the Supplier. The administrative fee amount shall be noted on the quarterly "Contract Usage Report" and paid by the Supplier to the Oklahoma Office of Management and Enterprise Services within thirty (30) calendar days of the quarterly reporting period stated under the section below titled "Contract Usage Reporting Requirements." The Supplier shall list this Contract number and identify the reporting year and quarter (for example, ITSW1014 4th Qtr. 2014) on the check stub of each administrative fee paid hereunder.

The check shall be mailed to:

Oklahoma Office of Management and Enterprise Services  
Accounts Receivable  
5005 North Lincoln Boulevard  
Oklahoma City, Oklahoma 73118-8500  
Attention: CFO

Signature page to follow

State of Oklahoma by and through the Office  
Of Management and Enterprise Services

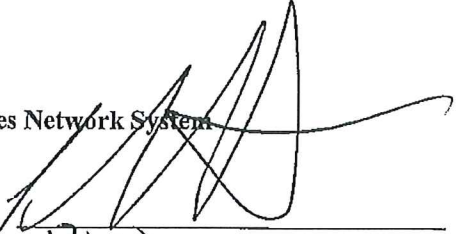
By: 

Name: James L. Reese, II

Title: Chief Information Officer

Date: 9/11/18

Hughes Network System

By: 

Name: R. L. Sawyer

Title: VP of IT

Date: 8/30/18

**Attachment A to  
Addendum 1 to  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

The Subscriber Agreement for 2-way Communication Services is hereby amended as set forth below and supersedes all prior documents submitted by Hughes Network System or discussed by the parties.

**Subscriber Agreement For 2-way Communications Services**

This Subscriber Agreement For 2-way Communication Services ("Subscriber Agreement") is a Contract Document in connection with Oklahoma Statewide Contract No. 1014 between the State of Oklahoma by and through the Office of Management and Enterprise Services ("State") and Hughes Network System ("Contract"). Subscriber is any State Entity or Affiliate as defined in the Contract.

**1. THE SERVICES AND EQUIPMENT**

As part of the services provided to the Subscriber as described in HNS's proposal, HNS will perform a standard commercial installation of the required equipment as specified in the Service Order, a sample which is included at Attachment E to the Addendum, (the "Equipment"). HNS's Time and Material charges set forth in HNS' pricing proposal will apply for services beyond the scope of HNS' standard Service offering. Authorization will be obtained beforehand in writing for any work in excess of one (1) hour before services are performed under Time and Material charges.

**2. TERM OF SERVICES; RIGHTS OF CANCELLATION OR SUSPENSION. A. TERM**

**A. Term**

Subscriber shall provide HNS with site information for each site to receive Services, including address and a local contact name and phone number. After expiration of the first twelve months ("Minimum Initial Term"), the Parties by mutual consent can elect to renew up to four (4) one (1) year renewals.

**B. TERMINATION OR SUSPENSION BY HNS.**

HNS may immediately, in its discretion, either suspend access to or use of the Service or terminate the Subscriber's Service Order in the event of any material breach of this Subscriber Agreement by Subscriber that is not cured within thirty (30) days receipt of written notice provided by HNS of such or if HNS is required to do so by law.

**C. CONTINUATION OF OBLIGATIONS.**

In accordance with the Contract and notwithstanding any cancellation or termination of Subscriber's account, or any suspension or termination of access to or use of the Service, Subscriber will remain responsible for any goods or services provided and accepted prior to the date of such action.

**3. FEES AND PAYMENT**

**A. FEES, TAXES AND OTHER CHARGES.**

Subscriber shall pay, in accordance with the payment provisions of the Contract, any monthly fees and other amounts charged to or incurred by Subscriber as set forth herein at Attachment E and at the rates specified in HNS' pricing proposal.

**B. PAYMENT**

Upon submission of an accurate and proper invoice, the invoice shall be paid in arrears after products have been delivered or services provided and in accordance with applicable law, net 45 (forty-five) days.

The charges for the month in which HNS installs the Equipment and activates the Services shall be prorated for the monthly charge set forth on the Service Order.

Outstanding payments shall incur interest in accordance with applicable Oklahoma law 62 O.S. §34.72 and OAC 260:10-3-3.



### **C. ANCILLARY EQUIPMENT, SERVICES.**

It is Subscriber's responsibility to maintain and operate suitable and fully compatible terminal equipment and communication devices required to access the Service. SUBSCRIBER ACKNOWLEDGES THAT CERTAIN SUBSCRIBER EQUIPMENT MAY HAVE BEEN ACQUIRED SEPARATE AND APART FROM THIS SUBSCRIBER AGREEMENT. SUBSCRIBER IS SOLELY RESPONSIBLE FOR MAINTAINING SUCH SUBSCRIBER EQUIPMENT, EXCEPT FOR EQUIPMENT BEING MAINTAINED BY HNS UNDER THIS AGREEMENT. HNS MAKES NO REPRESENTATION OR WARRANTIES PURSUANT TO THIS SUBSCRIBER AGREEMENT, EITHER EXPRESS OR IMPLIED, REGARDING ANY SUCH SUBSCRIBER EQUIPMENT

### **4. SOFTWARE LICENSE**

Subject to the terms of this Subscriber Agreement, HNS grants to Subscriber a personal, non-exclusive, non-assignable, and nontransferable license to use and display any software which may be provided by or on behalf of HNS, now or in the future, for purposes of using the Service ("Software"). Unauthorized copying of the Software, including software that has been modified, merged or included with the Software, or the written materials associated therewith, is expressly forbidden. Subscriber agrees that he or she shall not knowingly copy or duplicate, or knowingly permit anyone else to copy or duplicate, any part of the software provided hereunder, or create or attempt to create, or permit others to create or attempt to create, by reverse engineering or otherwise, the source programs or any part thereof from the object programs or from other information made available under this Subscriber Agreement.

### **5. SPECIFIC RESTRICTIONS ON USE OF THE SERVICE**

Subscriber agrees to use the Equipment provided under this Agreement for business purposes only.

#### **A. PROHIBITED CONDUCT.**

Subscriber agrees not to knowingly upload, post, or otherwise publish on or over the Service, and not to knowingly seek on or over the Service, any software, file, information, communication, or other content:

(a) which violates or infringes upon the rights of any one else; (b) which adversely affects the performance or availability of the Service or HNS' resources; and (c) which contains any virus, worm, cancelbot, harmful component, or corrupted data.

This Section shall not be interpreted to restrict Subscriber from utilizing mail services in conducting a legitimate business except that Subscriber may not, without the approval of HNS, send unsolicited advertising or promotional material utilizing the Services.

#### **B. ILLEGAL OR COMPETITIVE PURPOSES.**

Subscriber agrees not to knowingly use the Service or any of its elements to solicit the performance of any activity, which is prohibited by or would violate any applicable law, rule, regulation, or legal obligation.

#### **C. COMPLIANCE WITH LAWS.**

HNS and Subscriber agree to comply with all applicable laws, rules and regulations in connection with the Service, use of the Service, and this Subscriber Agreement.

### **6. TITLE AND RISK OF LOSS; INSURANCE**

HNS will assume the risk of loss for Equipment until the time of completion of installation. You are responsible for the risk of loss or destruction of or damage to the Equipment after completion of installation. Title to all or a portion of the Equipment will pass to Subscriber upon payment. This Agreement will constitute a security agreement with respect to all Equipment delivered or installed at Subscriber's location up to the date of payment, and Subscriber hereby authorizes HNS to sign and file on behalf of Subscriber any financing statements or other documents that may be necessary to perfect such security interest.

## 7. SUBSCRIBER OBLIGATIONS

Subscriber agrees to:

A. With reasonable notice and during normal business hours grant HNS and its authorized representatives access to your premises as reasonably requested.

B. Obtain any landlord approvals required for the installation of Equipment.

C. By virtue of this Subscriber Agreement, Subscriber may be exposed to or be provided with certain confidential and proprietary information of HNS. HNS shall clearly mark any such information as confidential ("Confidential Information"). Such Confidential Information shall be owned by HNS. Subscriber is a state agency and subject to the Oklahoma Open Records Act and HNS acknowledges information marked Confidential Information will be disclosed to the extent permitted under Subscriber's Open Records Act and in accordance with this section. Subscriber agrees to use the same degree of care that it uses to protect its own confidential information, but in no event less than a reasonable amount of care. Subscriber will not use HNS' Confidential Information for purposes other than those necessary to directly further the purposes of the Contract.

Exceptions. Information shall not be considered Confidential Information to the extent such information (i) is or becomes generally known or available to the public through no fault of the Subscriber; (ii) was in the Subscriber's possession before receipt of HNS; (iii) is lawfully obtained from a third party who has the right to make such disclosure; or (iv) has been independently developed by the Subscriber without reference to any Confidential Information.

Compelled Discovery: In the event Subscriber is requested or required by legal or regulatory authority to disclose any Confidential Information, Subscriber shall promptly notify HNS of such request or requirement to that HNS may seek an appropriate protective order. In the event that a protective order or other remedy is not obtained, Subscriber agrees to furnish only that portion of the Confidential Information that it reasonably determines, in consultation with its counsel, is consistent with the scope of the subpoena or demand.

D. Subscriber shall ensure that its personnel cooperate with and assist HNS, as reasonably required, to install the Equipment, and to troubleshoot, and isolate faults in the Equipment or the Software. Subscriber shall also ensure that its facilities are adequately staffed during installation and for service coverage occurring during normal business hours.

E. Subscriber will make best efforts to ensure that its site-environment conditions for each site comply with the following requirements:

	Indoors
Operating Temperature	10°C to 40°C
Humidity	10% to 90%

F. Prior to reporting any Service faults, Subscriber shall first use its best efforts to isolate such faults, and to isolate faults to ensure they are not caused by any hardware, software, or network equipment external to the Equipment, Software, or Services provided by HNS. All maintenance services will be provided by HNS on a best efforts basis, but in no event less than required by industry standard, and Customer shall pay HNS' Time and Materials rates set forth in the pricing proposal for all such services, so long as authorization is obtained beforehand in writing for any work in excess of one (1) hour before services are performed.

G. Subscriber acknowledges that HNS is not responsible for any failure to provide the services that results from Subscriber's failure to provide access to a location during normal business hours and with reasonable notice to perform maintenance, or Customer's failure to comply with the above operating requirements of the Equipment and such failure is the sole cause of the failure.

## **8. DISCLAIMER OF WARRANTIES AND EXCLUSION OF LIABILITY**

### **A. DISCLAIMER OF WARRANTIES, LIABILITY AND RESPONSIBILITY.**

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS CONTRACT, HNS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND HNS SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SUBSCRIBER AGREES THAT SUBSCRIBER HAS SELECTED HNS AND EACH ITEM OF EQUIPMENT BASED UPON SUBSCRIBER'S OWN JUDGMENT AND DISCLAIM ANY RELIANCE UPON ANY STATEMENTS OR REPRESENTATIONS MADE BY HNS OTHER THAN WHAT IS CONTAINED IN THE CONTRACT AGREEMENT.

### **B. LIMITATION OF LIABILITY.**

HNS AND SUBSCRIBER SHALL NOT, IN ANY EVENT, BE LIABLE FOR ANY, INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES ARISING OUT OF USE OF THE SERVICE OR INABILITY TO USE THE SERVICE. OR OUT OF ANY BREACH OF ANY REPRESENTATION OR WARRANTY. IN NO EVENT SHALL EITHER PARTY'S MAXIMUM AGGREGATE LIABILITY UNDER THIS AGREEMENT EXCEED THE TOTAL AMOUNT ACTUALLY PAID TO HNS BY SUBSCRIBER DURING THE SIX-MONTH PERIOD PRECEDING THE EVENT GIVING RISE TO THE CLAIM.

Notwithstanding anything to the contrary in this Contract, the foregoing provisions of this Section shall not apply to or limit damages, expenses, costs, actions, claims, and liabilities arising from or related to property damage, bodily injury or death caused by HNS; the HNS' indemnity obligations under this Contract; HNS' confidentiality obligations under this Contract; the bad faith, gross negligence or intentional misconduct of the HNS or its employees, agents and subcontractors; or other acts for which applicable law does not allow exemption from liability.

## **9. CHOICE OF LAW**

This Subscriber Agreement and all of the parties' respective rights and duties in connection herewith shall be governed by and construed in accordance with the laws of the State of Oklahoma. HNS expressly consents to jurisdiction and venue of Oklahoma County, State of Oklahoma and waives the right to object on the basis of Forum Non Conveniens.

## **10. MISCELLANEOUS**

HNS shall deliver any notices required under this Agreement to the State via personal delivery, registered or certified mail, postage prepaid or next business day if sent by commercial overnight delivery service to the following addresses:

Chief Information Officer  
3115 N. Lincoln Blvd  
Oklahoma City, OK 73105

With copy to, which does not constitute notice:  
Information Services Deputy General Counsel  
3115 N. Lincoln Blvd.  
Oklahoma City, OK 73105

Notice will be deemed to have been given (1) upon receipt if via personal delivery, (2) three business days after being mailed by registered or certified mail, postage prepaid or (3) the next business day if sent by commercial overnight delivery service.

If any term of this Subscriber Agreement is found by a court of competent jurisdiction to be invalid, illegal or unenforceable, it shall be construed in such a way as to eliminate the offending aspects while still giving as much effect as possible to the intentions of such term. If this cannot be done and the entire term is invalid, illegal, or unenforceable and cannot be so repaired, then the term shall be considered to be stricken from this Subscriber Agreement as if it had not been included from the beginning. In any such case, the balance of this Subscriber Agreement shall remain in effect in accordance with its remaining terms notwithstanding such invalid, illegal, or unenforceable term. Captions used in this document are for convenience only and shall not be considered a part of this Subscriber Agreement or be used to construe its terms or meaning. This Subscription Agreement may be modified only by written agreement executed by State and HNS and not by course of performance. If any provision of this Agreement is declared unenforceable in any jurisdiction, the other provisions herein shall remain in full force and effect in that jurisdiction and all others.

## **11. FORCE MAJEURE**

Either party shall be temporarily excused from performance to the extent delayed as a result of unforeseen causes beyond its reasonable control including fire or other casualty, act of God, strike or labor dispute, war or other violence, or any law, order or requirement of any governmental agency or authority provided the party experiencing the force majeure event has prudently and promptly acted to take any and all steps within the party's control to ensure continued performance and to shorten duration of the event. In the event that a party's performance of its obligations is materially hindered as a result of a force majeure event, such party shall promptly notify the other party of its best reasonable assessment of the nature and duration of the force majeure event and steps it is taking, and plans to take, to mitigate the effects of the force majeure event. The party shall use commercially reasonable best efforts to continue performance to the extent possible during such event and resume full performance as soon as reasonably practicable. Subject to the conditions set forth above, such non-performance shall not be deemed a default. However, Subscriber may terminate a purchase order if HNS cannot cause delivery of Products or Services in a timely manner to meet the business needs of the Customer.

Exclusions: Non-suspended Obligations: Notwithstanding the foregoing or another other provisions in the Contract, (1) in no event will any of the following be considered a Force Majeure Event: (a) shutdowns, disruptions or malfunctions in HNS' systems or any of HNS' telecommunication or internet services other than as a result of general and widespread internet or telecommunications failures that are not limited to HNS' systems; or (b) the delay or failure of HNS personnel to perform any obligation of HNS hereunder unless such delay or failure to perform is itself by reason of a Force Majeure Event; and (2) no Force Majeure Event modifies or excuses HNS' confidentiality or indemnification obligations set forth herein.

## **12. EXPORT CONTROL**

the execution of this Agreement and the subsequent delivery of any Equipment or Software under this Agreement are subject to all applicable export controls imposed or administered by the U.S. Department of Commerce as well as by any other U.S. Government Agency that may impose any such controls, including but not limited to the export of technical data, equipment, software and know-how. Each party shall perform their obligations under this Agreement in compliance with such laws and regulations and shall not take any action contrary thereto. Customer will not export or re-export, directly or indirectly, any Software, Equipment, documentation or other technical data provided to it hereunder, without complying with all export control laws and regulations, and without first obtaining any required export licenses and approvals. HNS shall provide reasonable cooperation and assistance to enable Customer to obtain any such export licenses and approvals.

**Attachment B to  
Addendum 1 to  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

The Pricing Proposal is hereby amended as set forth below and supersedes all prior documents submitted by Hughes Network System or discussed by the parties.



**H58364**

**HUGHES SOLUTION TO  
OFFICE OF MANAGEMENT AND ENTERPRISE SERVICES  
VOLUME II: PRICING**

**May 2017**

May 23, 2017

Marc Brown  
Contracting Officer  
The State of Oklahoma  
Office of Management and Enterprise Services  
5005 N. Lincoln Blvd. Suite 300  
Oklahoma City, OK. 73105

Dear Mr. Brown:

Please find enclosed Hughes' pricing response to Solicitation Number 0900000259 for statewide contract for telecommunications products and services within in the Network Carrier Services category. Hughes is a "one-stop-shop" network solution provider with experience in providing all the necessary components to provide services for Oklahoma state entities and affiliates. Hughes provides a turnkey managed broadband service that includes program management, system design, site survey, installation, network operations, service management, broadband connection, field maintenance, and a 24x7x365 Help Desk. This is in addition to our key capabilities by providing:

- Statewide coverage to support all Oklahoma Key Economic Networks (KENs) Regions
- Prequalification of broadband services that are available for each site to determine availability of the broadband technology and speed.

Hughes—a division of EchoStar Corporation (NASDAQ: SATS)—is a global leader in providing managed broadband networking services and solutions to consumers, small businesses, large enterprises, and government agencies. With \$1.3 Billion in revenue and 4 Million Hughes' broadband terminals deployed in over 100 countries, Hughes is a leading provider of private networking solutions. In the US alone, we have over 1 million consumers and over 300,000 blue chip enterprise locations under management.

Hughes develops industry-leading solutions, offering superior performance, security, and availability for our government and enterprise customers across multiple verticals, including retail, restaurant, hospitality, oil and gas, law enforcement, distance learning, COOP, emergency services, and healthcare. Our enterprise broadband services include a complete portfolio of services with nationwide coverage. These services are delivered as a Next-Generation WAN Solution using HughesON. HughesON employs innovative technologies that transform "best-efforts" broadband into true enterprise-class WANs over affordable broadband networks.

- HughesON manages diverse Service Providers and transports that include DSL, Cable, T1, Cellular, Fiber, Fixed Microwave, and VSAT to ensure the transport requirements are tailored to the available options for each state entity or affiliate.
- HughesOn provides a comprehensive customer portal, which enables authorized Help Desk personnel to effectively monitor and manage all components of the broadband network.
- HughesON transforms "best-efforts" broadband into true enterprise-class WANs with the below technologies:
  - ActiveQoS
    - Transparently adds strong end-to-end quality of service (QoS) to commonly available broadband networks, such as DSL and cable
    - Better application performance and reduced transaction response times
  - ActiveCompression
    - Increases the "virtual bandwidth" available at your field sites, improving performance without costly physical link upgrades

- Delivers improved performance and more overall bandwidth for your applications
- Managed Security Solutions
  - Delivering security with performance to protect your network, your data, and your reputation.
  - Managed Security offerings are tiered to suit your needs, with each level building upon the previous one.
- High-Availability Networking
  - Provides multiple diverse broadband connections to each office to support your Continuity of Operations and Disaster Recovery requirements
  - Combines the best of wireless and wireline technologies, delivered in an integrated, fully managed network with unmatched reliability and performance.

Hughes is uniquely qualified to be the single contractor to provide telecommunications products and services to The State of Oklahoma. We have in place all of the core organizational elements needed to effectively deploy, manage, and operate a large scale nationwide/worldwide broadband network, including equipment sourcing, site survey, installation of equipment and associated cabling, service provisioning, customer portal for network monitoring and management, 24x7x365 technical support, user training, consolidated billing, and on-site field maintenance.

Thank you for your consideration of accepting and reviewing our response. Please contact John Fanelli, Senior Director of Sales, at 301-601-2691 or [john.fanelli@hughes.com](mailto:john.fanelli@hughes.com) if you have any questions or need any assistance.

Regards,



Phil O' Brien  
Vice President, General Counsel  
Hughes Network Systems  
11717 Exploration Lane  
Germantown, MD 20876  
Tel: 301-601-6463  
E-Mail: [phil.obrien@hughes.com](mailto:phil.obrien@hughes.com)

## HUGHES PRICING NARRATIVE

### Overview

Hughes' proposed network design for THE STATE OF OKLAHOMA leverages our NOC-centric architecture, and our seamless integration of multiple network access technologies to provide THE STATE OF OKLAHOMA with a broad range of secure transport options for both primary and backup services. THE STATE OF OKLAHOMA may choose from wireline services such as DSL, cable, fiber, and Ethernet; and/or wireless services such as cellular, wireless microwave, and satellite. Configurations may be chosen, and blended based on THE STATE OF OKLAHOMA's specific requirements. A primary combination consisting of a blend of all wireline access will provide the lowest latency network service, while a blend of DSL, and satellite will provide an overall lowest cost configuration. Irrespective of the access technology selected and implemented, Hughes will seamlessly integrate the site into the HughesON managed broadband network. All sites are proactively monitored, typically placed under Hughes' on-site field maintenance, and routinely viewable on Hughes' Customer Portal.

Hughes will install an HR4700 Branch Gateway at every field office in order to provide network management, network security, and network optimization. The HR4700 Branch Gateway incorporates industry-leading Fortinet security solutions, enabling Hughes to provide next generation firewall capabilities such as Intrusion Detection/Prevention, application control, and protection from advanced threats and other security technologies such as data leak prevention and vulnerability scanning and all centrally managed by the Hughes NOC. A key advantage to the Hughes design is the NOC-centric architecture, shown in Figure 1, which provides a multitude of benefits to THE STATE OF OKLAHOMA. The Hughes NOC serves as an aggregation point on behalf of THE STATE OF OKLAHOMA so that the various types of heterogeneous access technologies are consolidated and then backhauled to the THE STATE OF OKLAHOMA headquarters or data centers. Hughes provides a secure solution by managing an IPSec VPN tunnel from the field office locations to the Hughes NOC. All Layer 3 traffic sent to and from the field office is transmitted over this tunnel. Additionally, non-publically routable IP addresses are allocated for each site such that the traffic can get routed within the Hughes network only, but not outside the Hughes network without being sent through the Hughes NOC. Additionally, the NOC-centric architecture facilitates a higher level of network management, specifically the ability to monitor network utilization, either overall or by field office.



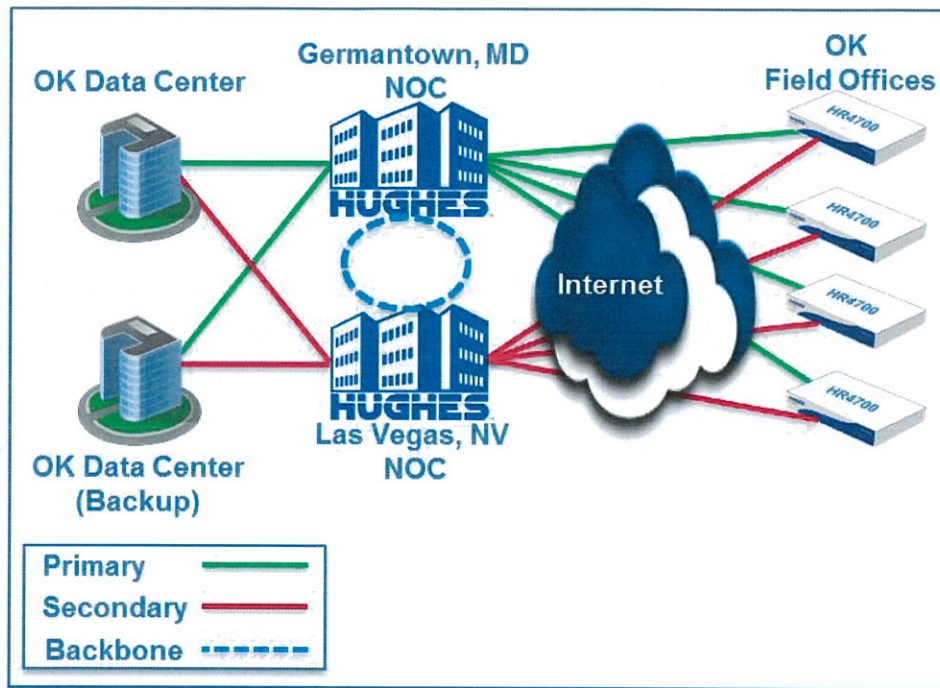


FIGURE 1: NETWORK REDUNDANCY

The Hughes managed services offering includes the following:

- PCI certified architectures, including maintenance of certification status
- SAS70 certification
- Network design and engineering
- Program Management
- The HR4700 Branch Gateway configuration and management – includes IPsec VPN tunnel
- Access circuit ordering and provisioning
- The HR4700 Branch Gateway installation, and commissioning (includes THE STATE OF OKLAHOMA specific install specification)
- 7x24 proactive monitoring of network, including the HR4700 Branch Gateway
- Network operations 7x24
- Help Desk 7x24
- Suite of optional onsite field maintenance plans
- Access to the unified Customer Gateway for install status, trouble ticketing, fault management, and performance management web portal.

All Hughes solutions for THE STATE OF OKLAHOMA leverage our innovative ActiveTechnologies™ that transform ordinary broadband connections into enterprise-grade high performance WANs.

- **ActiveCompression™** can achieve up to 300% higher throughput rates leveraging our 2-stage adaptive compression process. This reduces network congestion and improves application performance, especially at bandwidth constrained branch sites.
- **ActiveClassifier™** uses algorithms to automatically and dynamically classify traffic based on flow behavior, it eliminates the time-consuming process of manually configuring and maintaining rules to classify and prioritize specific applications. URL and Domain-based policies can easily be applied to prioritize key cloud apps.
- **ActiveQoS™** uniquely measures end-to-end capacity on broadband links, dynamically updating multi-level path priority queues and traffic shapers to best maximize branch bandwidth usage. This results in dramatically improved performance for VoIP and video traffic in an environment where individual branches may be subjected to different service plans.
- **ActivePath™** is the core of our Software Defined – Wide Area Network (SD-WAN) solution. This newest feature incorporates novel algorithms and techniques that exploit the use of multiple branch paths. Intelligent Multipath Replication (IMR) ensures applications are delivered without interruption across the secure WAN overlay regardless of degradation on a single path.

THE STATE OF OKLAHOMA can choose between three options when designing the access network for each field office. Depending on the required availability of a field office THE STATE OF OKLAHOMA can choose between the Standard, High Availability Network (HAN), or SD-WAN network options. The table below shows the summary of the three options.

**TABLE 1: NETWORK OPTIONS**

Option	Network	Active Tech	Description
Standard	(1) HR4700 (1) Transport	ActiveCompression, ActiveQoS, and ActiveClassifier	Single Hughes HR4700 Branch Gateway, Single Transport, Broadband modem, Circuit Activation, Enterprise installation, Network Management, 24x7 Tier3 support, Same Day On-site Feld Maintenance, Program Manager
HAN	(1) HR4700 (2) Transports	ActiveCompression, ActiveQoS, and ActiveClassifier	Single Hughes HR4700 Branch Gateway, Two Transport (Primary Active, Secondary Backup), Broadband modems, Circuits Activation, , Enterprise installation, Network Management, 24x7 Tier3 support, Same Day On-site Feld Maintenance, Program Manager
SD-WAN	(2) HR4700 (2) Transports	ActiveCompression, ActiveQoS, ActiveClassifier, and ActivePath.	Two Hughes HR4700 Branch Gateway, Two Transport (Both Primary & Secondary are Active), Broadband modems, Circuits Activation, , Enterprise installation, Network Management, 24x7 Tier3 support, Same Day On-site Feld Maintenance, Program Manager

#### Standard Option

The Hughes solution provides THE STATE OF OKLAHOMA with the ability to select from a range of service offerings from DSL, cable, fiber, Ethernet, cellular, fixed wireless, and satellite access. This wide range of flexibility allows THE STATE OF OKLAHOMA to optimize the broadband solution based on price, performance, coverage, and security. This cost effective architecture provides reliable performance regardless of technology by utilizing a single transport and transmitting the data via IPSec VPN tunnel from the field offices to the Hughes NOC. Once data from the field office reaches the Hughes NOC, traffic from all of THE STATE OF OKLAHOMA field office will be aggregated, and delivered to the THE STATE OF OKLAHOMA via a dedicated circuit. This cost-effective approach creates a private “MPLS like” network using typical broadband technologies.

The diagram illustrates the Standard Option for THE STATE OF OKLAHOMA network.

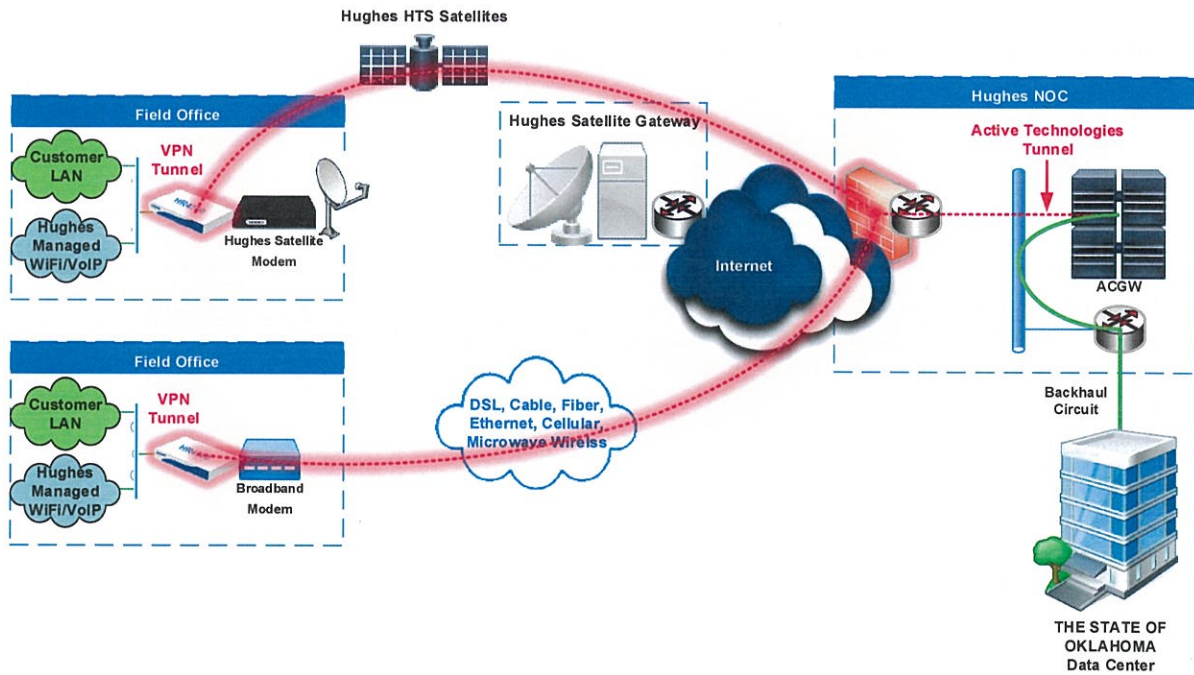


FIGURE 2: STANDARD NETWORK ARCHITECTURE

#### HAN Option

The Hughes HAN option provides THE STATE OF OKLAHOMA with higher reliability than the Standard Option by utilizing dual transports. The Hughes HAN option integrates two truly diverse routes; broadband wireline (DSL, cable, fiber, and Ethernet) as primary, and satellite or cellular as the secondary. The combination of these two route-diverse access technologies ensures that connectivity will be available in the event of a failure of the primary path. The broadband wireline modem will be configured for a hard failover to allow traffic at field office to automatically failover to the satellite or cellular link in the event of a failure of the primary path.

#### SD-WAN Option

THE STATE OF OKLAHOMA can also choose to implement the SD-WAN option which incorporates the Hughes ActivePath application to provide the highest reliability through the utilization of dual transports, and dual HR4700 Branch Gateways at the field offices. This option combines of two truly diverse routes. The two routes will perform load balancing to mitigate congestion over the network.



## PRICING DESCRIPTION

### Business Class Broadband Service

Hughes utilizes various service types DSL, CABLE, FIBER, and ASYM ETHERNET, to provide low cost Business Class Broadband to THE STATE OF OKLAHOMA.

The prices in Table 1 include the following:

- Non-Reoccurring Charge (NRC): HR4700 Branch Gateway, provisioning, standard installation and configuration, circuit installation, and circuit activation.
- Monthly Recurring Charge (MRC): Circuit charge, Hughes managed service, and standard network security.

Hughes request that THE STATE OF OKLAHOMA provide a list of field offices or other sites for prequalification. In order to obtain the best prequalification results, THE STATE OF OKLAHOMA should provide a valid address and landline phone number for each site.

Below are the list of Business Class Broadband options and the associated NRC and MRC for the implementation at each field office.

**TABLE 2: BUSINESS CLASS BROADBAND SERVICE PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
DSL	ADSL - 768K/3.0M	\$1,840.00	\$156.98
	ADSL - 512K/6.0M	\$1,840.00	\$182.98
FIBER	FIBER - 1.0M/6.0M	\$1,840.00	\$128.98
	FIBER - 1.0M/12.0M	\$1,840.00	\$147.98
	FIBER - 1.0M/18.0M	\$1,840.00	\$163.98
	FIBER - 3.0M/24.0M	\$1,840.00	\$180.98
	FIBER - 6.0M/45.0M	\$1,840.00	\$197.98
	FIBER - 8.0M/75.0M	\$1,840.00	\$249.98
	FIBER FTTH - 75.0M/75.0M	\$1,840.00	\$314.98
	FIBER FTTH - 150.0M/150.0M	\$1,840.00	\$408.98
CABLE	Comcast Cable - 3.0M/16.0M	\$1,840.00	\$178.98
	Comcast Cable - 10.0M/25.0M	\$1,840.00	\$199.98
	Comcast Cable - 10.0M/50.0M	\$1,840.00	\$214.98
	Comcast Cable - 15.0M/75.0M	\$1,840.00	\$261.98
	Comcast Cable - 20.0M/100.0M	\$1,840.00	\$322.98
	Cox Cable - 10.0M/50.0M	\$1,840.00	\$241.98
	Cox Cable - 20.0M/100.0M	\$1,840.00	\$621.98
	Optimum Cable - 5.0M/25.0M	\$1,840.00	\$178.98
	Optimum Cable - 25.0M/60.0M	\$1,840.00	\$191.98
	SPECTRUM Cable 60M / 5.0M	\$1,840.00	\$172.98
	SPECTRUM Cable 100M / 10M	\$1,840.00	\$233.98
	SPECTRUM Cable 150M / 20M	\$1,840.00	\$325.98
	Non-Core Provider 1	\$1,840.00	\$48.99
	Non-Core Provider 2	\$1,840.00	\$48.99
	Non-Core Provider 3	\$1,840.00	\$48.99
	Non-Core Provider 4	\$1,840.00	\$48.99
	Non-Core Provider 5	\$1,840.00	\$48.99
Asymmetric Ethernet	Asym Ethernet 8/1	\$1,840.00	\$200.98
	Asym Ethernet 10/1	\$1,840.00	\$206.98
	Asym Ethernet 15/1	\$1,840.00	\$210.98
	Asym Ethernet 20/1	\$1,840.00	\$222.98
	Asym Ethernet 10/2	\$1,840.00	\$228.98
	Asym Ethernet 20/2	\$1,840.00	\$232.98
	Asym Ethernet 30/2	\$1,840.00	\$288.98
	Asym Ethernet 10/5	\$1,840.00	\$238.98
	Asym Ethernet 20/5	\$1,840.00	\$282.98
	Asym Ethernet 30/5	\$1,840.00	\$298.98
	Asym Ethernet 50/5	\$1,840.00	\$320.98
	Asym Ethernet 30/10	\$1,840.00	\$304.98
	Asym Ethernet 50/10	\$1,840.00	\$332.98

### HTS Satellite Service

The HTS service is based on Hughes' industry leading satellite service. This service provides up to 25Mbps download and up to 3Mbps upload at each site. Plans range from Business 35 to Business 550 which correspond to the GB data allowance per month. Additional GB Tokens can also be purchased for additional incremental service usage that do not expire.

The prices in Table 2 include the following:

- Non-Reoccurring Charge (NRC): Provisioning, standard installation, and configuration of the HR4700 Branch Gateway and Hughes satellite terminal (HT2000 satellite modem/1 Watt radio/0.98 Meter Antenna).
- Monthly Recurring Charge (MRC): Circuit charge, Hughes managed service, and standard network security.

Each site requires valid address or Latitudes /Longitudes for service prequalification process. For the sites that qualify for Fixed Satellite Service after prequalification, the solution price is as follows:

**TABLE 3: HTS SATELLITE SERVICE PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Hughes HTS	Business 35 (One Year Commitment)	\$2,348.05	\$115.28
	Business 50 (One Year Commitment)	\$2,348.05	\$143.69
	Business 75 (One Year Commitment)	\$2,348.05	\$191.05
	Business 100 (One Year Commitment)	\$2,348.05	\$238.40
	Business 150 (One Year Commitment)	\$2,348.05	\$304.70
	Business 200 (One Year Commitment)	\$2,348.05	\$399.41
	Business 250 (One Year Commitment)	\$2,348.05	\$494.12
	Business 300 (One Year Commitment)	\$2,348.05	\$588.83
	Business 350 (One Year Commitment)	\$2,348.05	\$683.54
	Business 400 (One Year Commitment)	\$2,348.05	\$778.25
	Business 450 (One Year Commitment)	\$2,348.05	\$872.96
	Business 500 (One Year Commitment)	\$2,348.05	\$967.67
	Business 550 (One Year Commitment)	\$2,348.05	\$1,062.38
	Extra 1 GB of data	\$3.00	\$0.00
	Standard Site Survey	\$375.00	\$0.00
	Enhanced Site Survey (Lower 48 States)	\$1,095.00	\$0.00
	Enhanced Site Survey (OCONUS)	ICB	\$0.00

### Service Limitations

Customer acknowledges the following:

- The Hughes HTS Access Service requires an unobstructed view of the southern sky and is subject to the Hughes Acceptable Use Policy and Fair Use Policy which are available at <http://legal.hughes.com>.
- The Hughes HTS Access Service plans do not include a Static Routable Public IP address assignment to the HT terminal.
- Use of a VPN tunnel over a satellite connection typically causes a loss of speed performance due to the higher latency nature of the transport. If Customer chooses to run a VPN over the Hughes HTS Access Service, any benefits from internal HT WAN optimization techniques will be negated and overall application performance diminished.



### Cellular Service

Hughes utilizes various cellular service providers to deliver 4G/LTE cellular service to THE STATE OF OKLAHOMA.

The prices in Table 3 include the following:

- Non-Reoccurring Charge (NRC): HR4700 Branch Gateway provisioning, standard installation, and configuration; circuit provisioning, standard installation and activation.
- Monthly Recurring Charge (MRC): Circuit charge, Hughes managed service, and standard network security.

Hughes request that THE STATE OF OKLAHOMA provide a list of field office site for prequalification. In order to obtain the best prequalification results, THE STATE OF OKLAHOMA should provide a valid address and landline phone number for each site.

Below are the list of High Speed Cellular Service options and the associated NRC and MRC for the implementation at each field office.

Each site requires valid address with phone number for service prequalification process. For the sites that qualifies for High Speed Cellular service after prequalification, the solution price is as follows:

**TABLE 4: CELLULAR SERVICE PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Cellular	250MB Pooled (Blended)	\$2,215.97	\$71.98
	1GB Pooled (Blended)	\$2,215.97	\$78.98
	2GB Pooled (Blended)	\$2,215.97	\$86.98
	5GB Pooled (Blended)	\$2,215.97	\$107.98
	10GB Pooled (Blended)	\$2,215.97	\$140.98
	4G Overage Charge - per GB	\$20.00	\$0.00



### Microwave Wireless

Hughes utilizes various service providers to deliver Microwave Wireless to THE STATE OF OKLAHOMA.

The prices in Table 4 include the following:

- Non-Reoccurring Charge (NRC): HR4700 Branch Gateway provisioning, standard installation, and configuration; circuit provisioning, standard installation and activation.
- Monthly Recurring Charge (MRC): Circuit charge, Hughes managed service, and standard network security.

Hughes request that THE STATE OF OKLAHOMA provide a list of field offices or other sites for prequalification. In order to obtain the best prequalification results, THE STATE OF OKLAHOMA should provide a valid address and landline phone number for each site.

Below are the list of Fixed Wireless Service options and the associated NRC and MRC for the implementation at each field office.

**TABLE 5: MICROWAVE WIRELESS PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Fixed Wireless	3M x 1M Fixed Wireless	\$3,089.98	\$348.98
	5Mx2M Fixed Wireless	\$3,089.98	\$378.98
	10Mx2M Fixed Wireless	\$3,089.98	\$398.98
	15Mx3M Fixed Wireless	\$3,089.98	\$428.98
	20Mx5M Fixed Wireless	\$3,089.98	\$478.98

### Managed Network Service

Hughes will install the HR4700 Branch Gateway at all field offices to provide Network Performance Optimization, Network Management, and Managed Security.

### Performance Optimization

Standard Network Performance Optimization services that are paired with any transport consist of the HR4700 Branch Gateway Activation Fee (NRC), Hughes ActiveTechnologies which includes ActiveCompression, ActiveClassifier, and ActiveQoS (MRC). ActivePath (MRC) is optional and can be ordered separately for high reliability field offices that require dual transports. Network Performance Optimization prices are as follows:

**TABLE 6: PERFORMANCE OPTIMIZATION PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Performance	HR4700 - Performance Optimization (ActiveCompression, ActiveQoS, & ActiveClassifier)	\$199.99	\$12.99
Optimization	HR4700 - Performance Optimization (ActivePath)	\$199.99	\$12.99

### Service Limitations

Customer acknowledges the following:

- Hughes ActiveCompression™ cannot be purchased and deployed independent of Hughes ActiveQoS™.
- Hughes ActiveClassifier™ is included with ActiveQoS™ and cannot be deployed independently.
- ActiveQoS is not qualified for use over Satellite Services or Cellular Wireless Services to support real-time applications such as VOIP due to the rapid changes in capacity.
- ActiveCompression generally is not qualified for Satellite Services, but is qualified for use on certain Jupiter-based Satellite Services provided by Hughes
- ActiveCompression does not support split-tunnel data traffic flows. This feature only works for peered (in VPN tunnel) traffic. Customer traffic split directly to the Internet will not be compressed.
- No additional performance SLAs are offered with the Optimization Service.
- The Optimization Service will not be available if the HR Branch Gateway CPE suffer a hardware failure.

### Network Management

Network Management requires a HNMON and an Acceleration Gateways (quantities are based on network size) at Hughes NOC. The HNMON monitors each field office for connectivity to the network, while the Acceleration Gateways provide the termination points for the Active Technology applications. Network Management prices are as follows:

**TABLE 7: NETWORK MANAGEMENT PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Network Management	Acceleration GW (ACGW) - Max throughput 350 Mbps	\$0.00	\$397.50
	Acceleration GW (ACGW) - 1 for every 3	\$0.00	\$397.50
	HNMON	\$0.00	\$244.00
	Hardware Hosting - Full Rack (44U)	\$0.00	\$4,167.00
	Hardware Hosting - Half Rack (22U)	\$0.00	\$2,000.00
	Hardware Hosting - Quarter Rack (11U)	\$0.00	\$1,000.00
	Network Setup/Pilot Testing/Pilot Engineer/Network Engineer/Program Management	\$10,000.00	\$3,000.00

### Managed Security

Hughes provides a variety of options for Managed Security. The standard service with any transport includes Standard Security featured on the HR4700 Branch Gateway. THE STATE OF OKLAHOMA can choose to upgrade their Managed Security offering to enhanced security or WiFi capable. Managed Security prices are as follows:

**TABLE 8: MANAGED SECURITY PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Managed Security	Standard w/Content Filtering, HR4700 Branch Gateway	\$0.00	\$29.99
	Enhanced, HR4700 Branch Gateway	\$0.00	\$39.99
	Standard w/Content Filtering, H4700 Branch Gateway w/ WIFI	\$0.00	\$29.99
	Enhanced, HR4700 Branch Gateway w/ WIFI	\$0.00	\$39.99

### Service Limitations

1. Enabling IDS, Firewall Policy Denial, or Antivirus logging may significantly increase bandwidth usage for management traffic on the network, which could affect user performance.
2. Generating the Web Content Filtering reports requires pulling the log data from the HR4x00 across the wide area network. This may cause a reduction in user performance due to the volume of data contained in the log files.
3. If Customer desires to implement split tunneling with Standard Security Services and maintain PCI compliance, Customer is responsible to ensure that its network is either properly LAN segmented to accommodate the split tunneling or Customer provides the additional security functionality required to protect the card data environment.
4. For wireless sites, IDS monitoring and logging, Antivirus, and Firewall Policy Denial will generate WAN traffic that will count toward Customer's data usage in applicable 3G/4G data plans.
5. URL and Category based Web Content Filtering rules are defined at a network level with configurations pushed out to HR4x00 devices at the remote site. The filtering is performed at the remote site by the HR4x00 if split tunneling configurations are being used or in the absence of split tunneling, may be performed centrally at the Hughes NOC. Filtering rules are not uniquely configured at the site level. The Filtering rules are uniform across all Customer sites.
6. Hughes will update White/Black List of URL's and other CPE profile changes only during Hughes' scheduled monthly maintenance window. If a filter setting is preventing access to a

site to which Customer requires access, and such lack of access is having an adverse effect on Customer's business, Customer can request that the change be made immediately at no additional charge.



## WiFi Services

Hughes offer a complete portfolio of managed mobility services designed to address enterprise wireless needs. The service includes such functionality as captive portal, encrypted device authentication, Quality of Service (QoS), and Web content filtering.

Managed WIFI prices are as follows:

**TABLE 9: WIFI SERVICES PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
WIFI	Aruba IAP103 (per AP)	\$395.00	\$0.00
	Aruba IAP205 (per AP)	\$643.99	\$0.00
	Passive Site Survey with floor plan	\$349.99	\$0.00
	Construction Site Survey onsite	\$349.99	\$0.00
	First AP Installation - with transport	\$179.99	\$0.00
	First AP Installation - Separate site visit	\$389.99	\$0.00
	Additional AP installation (per AP)	\$109.00	\$0.00
	Managed WiFi Base for HR4x00W	\$0.00	\$15.99
	Managed WiFi Base (1st Service w/Tier 3 Support) 1-3 AP's only	\$0.00	\$15.99
	Managed WiFi Base (1st Service w/Tier 3 + Tier 1 Support) 1-3 AP's only	\$0.00	\$23.99
	Managed WiFi Base (1st Service w/Tier 3 + Premium Support) 1-3 AP's only	\$0.00	\$20.99
	Managed WiFi Base (1st Service w/Tier 3 & Tier 1 Platinum Support) 1-3 AP's only	\$0.00	\$33.99
	Add 2nd Incremental Service (SSID)	\$0.00	\$3.99
	Add 3rd Incremental Service (SSID)	\$0.00	\$3.99
	Enhanced Captive Portal per User per Month	\$0.00	\$3.00
	Aruba AP - Rogue Scanning	\$695.00	\$0.00
	Aruba AP - Standard Installation & Activation	\$250.00	\$0.00
	Aruba Rogue Wi-Fi scanning Service (New install) (per AP)	\$0.00	\$29.99
	Aruba Rogue Wi-Fi scanning (incremental to Wi-Fi Service) (per AP)	\$0.00	\$8.99
	Tier 1 Guest Help Desk Add-on, 1-3 AP's only	\$0.00	\$3.99

## Enterprise WiFi Service Limitations

The Customer acknowledges the following:

- Enterprise Wi-Fi Security/Firewall policies will generally be uniform across Customer's different format of locations
- Actual performance obtained when accessing remote server content is determined by the underlying WAN transport and the available capacity on the WAN. This is independent of the number of simultaneously connected users on the Wi-Fi service.
- When other non-Hughes provided access points are deployed within the same building, interference from those devices may result, causing performance of the Hughes-provided Enterprise Wi-Fi service to degrade.

## Guest WiFi Service Limitations

Customer acknowledges the following:

- Security profiles must be uniform across Customer's locations.
- The Captive Portal can provide a single "Terms and Conditions for Acceptable Use" to all guest devices across all Customer locations.
- The Captive Portal does not provide integration with external services such as customer loyalty programs.
- Each AP can support up to 25 – 30 active user devices. The distance limitation for AP's to obtain power from a PoE switch / adapter is 300 feet. For AP cable runs that exceed this distance (e.g., multi-story locations), additional switch infrastructure may be required.

- Actual performance obtained when accessing Internet content is determined by the underlying WAN transport and the available capacity on the WAN. This is independent of the number of simultaneously connected users on the Wi-Fi service. For example, although a deployment of 2 APs may support up to 60 users, the WAN transport may only support 30 simultaneous users before performance degrades based on the available capacity of that WAN.
- When other non-Hughes provided access points are deployed within the same building, interference from those devices may result, causing performance of the Hughes-provided Guest Wi-Fi service to degrade. To minimize interference of other access points, Hughes-deployed access points will be mounted at least ten feet away from non-Hughes access points.
- The Guest Wi-Fi service is delivered only on the primary communications path for locations that have backup network services.

## Operational Support

Hughes support options are as follows:

### Tier 3: Standard Support *(required)*

“Tier 3” is “Customer Help Desk-to-Hughes ESC.” This does not grant direct access for the end-user to the Hughes Enterprise Support Center (ESC), but assumes that the Customer’s Help Desk provides the first and second levels of support with a Customer Help Desk of subject matter experts that ensure all required troubleshooting and or data gathering (as outlined during the Training and Certification process) has been completed before forwarding the issue to the Hughes ESC either by telephone or electronic ticket. The Hughes ESC does not interact with an end user/location directly unless Hughes deems it necessary to solve the issue.

The Hughes ESC will make every effort to resolve any issue remotely. However, if an “onsite visit” is required, we must have an authorized individual available onsite during the maintenance hours described in the contract. The Customer’s Help Desk is responsible for communicating the appointment times to the end location and procuring all necessary approvals for the site visit, including any potential charges set forth in this pricing proposal. If the site is not available for remote troubleshooting and/or on-site repair within the agreed-upon service level commitments and such unavailability is solely caused by the end user, then they no longer apply to that incident. Once the issue is resolved, the Hughes ESC will electronically notify the Customer Help Desk of the resolution of the issue. The Customer Help Desk may approve closure or provide feedback for additional monitoring for a period of no more than 3 business days. If approval for closure is not received and service is stable, the Hughes ESC will close the ticket after 5 business days.

Access to the Hughes ESC will be provided via a toll-free (US only) telephone number and/or electronic ticketing via the Customer portal. The support will be provided out of the existing shared support teams. Although not guaranteed on each instance, we will make a best-effort attempt to answer 70% of calls waiting within 90 seconds, and respond to 90% of support tickets within 1 hour (not including issue resolution). This will be staffed 24/365 days per year. Hughes has the right to provide this support out of any of our present or future support centers, in any geographic location. Support will be provided in English only and does not include any end user/Customer, self-service functionality via IVR, email, or chat.

Hughes will provide training for the Customer’s training staff through a “train-the-trainer” model. This will include technical support processes, necessary Hughes-provided tools, and knowledge base articles to support Hughes’ products and services. This does not include PC/device, OS, networking, peripheral or other support outside the scope of the services and equipment provided by Hughes. The Customer will be responsible for developing and maintaining all materials and systems related to their systems, tools, and processes, as well as training delivery to its own staff. The Customer will also be responsible for integrating and maintaining all updates, edits, and/or revisions into their internal documentation and processes. Hughes will make these systems available as they would their own internal staff, which would include unavailability during maintenance windows. Hughes also reserves the right to replace any process, system, and/or tool with an equivalent replacement, at Hughes’ discretion.

There is no further proactive event management beyond tickets/alerts generated from the automated system delivered via email or access, the Hughes Customer Portal, or ticket ebonding processes. The Customer is responsible for monitoring and initiating the support process. This includes completing the first and second tiers of support before forwarding to the Hughes ESC. Additionally, Hughes will manage the relationships for Hughes’ partner telecom providers, allowing for a single point of contact for issue resolution to the Customer. This only includes support for Hughes-provided service and equipment. Hughes will not provide support of any kind for services or equipment not provided or purchased through Hughes.



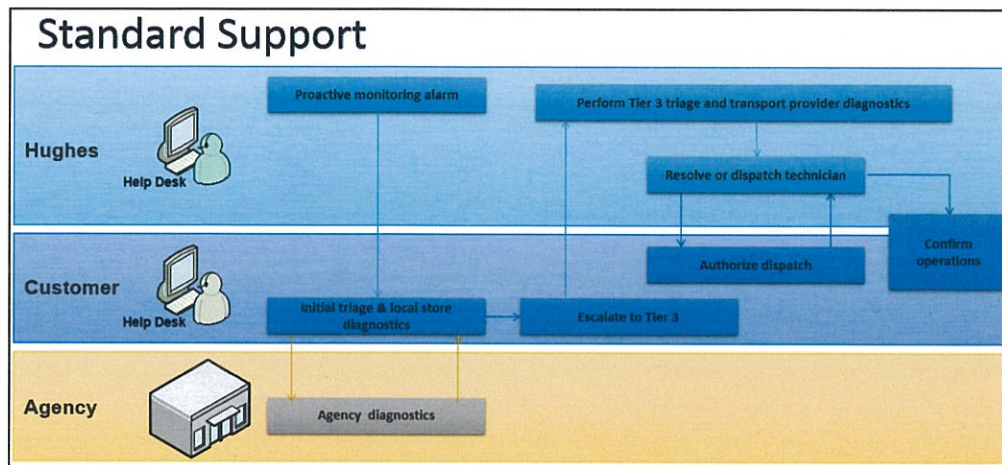


FIGURE 3: STANDARD SUPPORT

#### Tier 1: Technical Support Option (*Requires Tier 3*)

"Tier 1" is "end user-to- Hughes ESC." The option adds direct access for the end user to the Hughes ESC (excluding support to "guests or Customers" of Customers). It assumes that the end user or Customer Help Desk will initiate the contact with the Hughes ESC either by telephone or electronic ticket. If reported by the end-user, they will be required to have an authorized individual available with the access to Hughes' equipment and ability to assist with remote troubleshooting procedures for up to 3 hours after reporting an issue. That individual should also have the authority to approve an onsite repair visit and any possible associated costs.

Access to the Hughes ESC will be provided via a separate toll-free (US only) telephone number and/or electronic ticketing via the Customer Portal. The support will be provided out of the existing shared support teams. Although not guaranteed on each instance, we will make a best effort attempt to answer 70% of calls waiting within 90 seconds, and 90% of support tickets responded to within 1 hour (not including issue resolution). This will be staffed 24/365 days per year. Hughes has the right to provide this support out of any of our present or future support centers, in any geographic location. Support will be provided in English only and does not include any end user/Customer, self-service functionality via IVR, email, or chat.



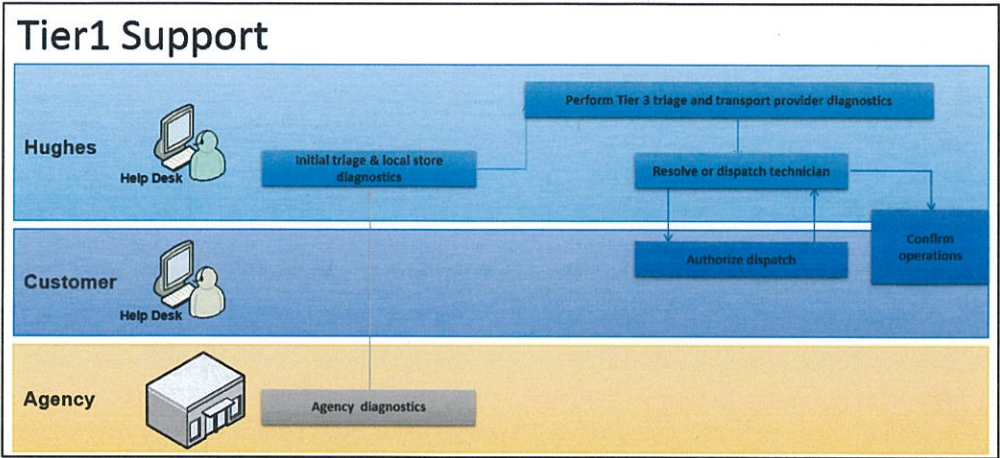


FIGURE 4: TIER 1 SUPPORT

Premium: Technical Support Option (Basic Event Management – Requires Minimum of Tier 3)

This adds basic Event Management. With this option, the Hughes ESC will monitor tickets/alerts generated from the automated system and initiate the support process. Hughes will make every reasonable effort to restore service remotely and update the ticket based on our actions. We will make every effort to at least have an acknowledgement/update posted to tickets generated by the automated system within 1 hour of its creation. If we are unable to resolve the ticket remotely, we will update the ticket with our findings and request for the Customer Help Desk to contact the end location to perform the first and second tiers of troubleshooting. The Customer Help Desk is then responsible for contacting Hughes to resume Tier 3 remote diagnostics, confirm operations/close the ticket, and/or request/schedule an “onsite” repair.

Other than stated above, this does not include any further proactive event management beyond tickets/alerts generated from the automated system. This only includes event management for Hughes-provided services and equipment. Hughes will not provide event management of any kind for services or equipment not provided or purchased through Hughes.

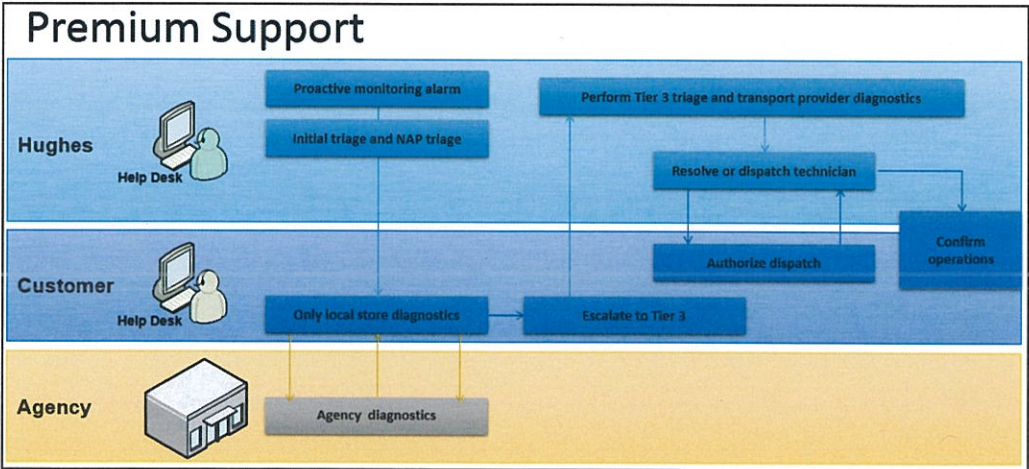


FIGURE 5: PREMIUM SUPPORT

Platinum Technical Support Option (Extended Event Management – Only available with Tier 1)

This adds extended Event Management. With this option, the Hughes ESC will also proactively attempt to contact the Customer Help Desk (*Tier 3*) or end user (*Tier 1*) via a telephone call to notify of a suspected issue and begin remote diagnostics, schedule an onsite repair, and/or confirm the location to be operational. After three attempts to reach the location or if there is inaccurate contact information, the Customer is responsible for contacting Hughes to either continue remote diagnostics, schedule an onsite repair, and/or confirm operations/close the ticket within 24 hours. If Tier 1 is selected, the Customer should provide no more than one point of contact for each location. If Tier 3 is selected, there should be a single point of contact to handle all locations. The Customer is also responsible for maintaining accurate and up-to-date contact information in the Customer Portal.

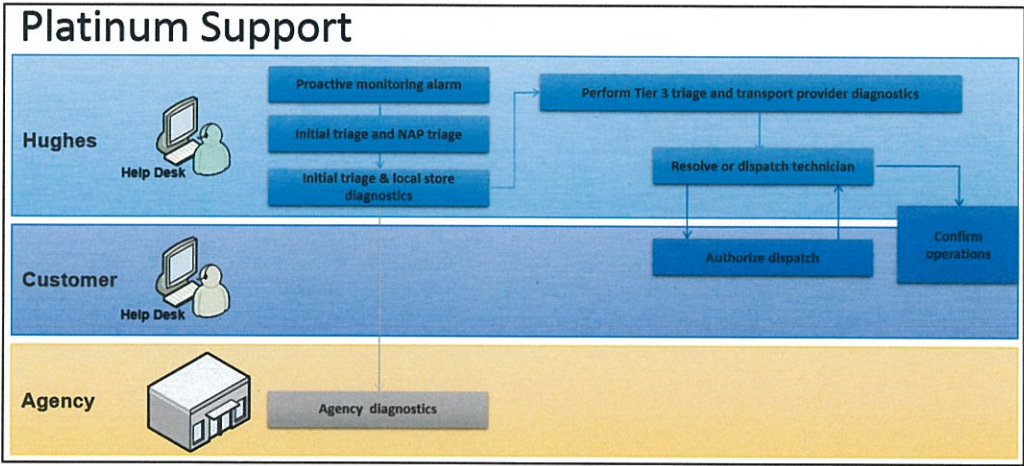


FIGURE 6: PLATINUM SUPPORT



Below are the list of support options and the associated NRC and MRC for each.

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Support Options	Tier 3, Premium Support, Single Transport	\$0.00	\$15.99
	Tier 3 + Tier 1 Help Desk Support, Single Transport	\$0.00	\$12.99
	Tier 3 + Tier 1, Premium Support, Single Transport	\$0.00	\$20.99
	Tier 3 + Tier 1, Platinum Support, Single Transport	\$0.00	\$30.99
	Tier 3, Premium Support, 4G HAN/SD-WAN Transport	\$0.00	\$30.99
	Tier 3 + Tier 1 Help Desk Support, 4G HAN/SD-WAN Transport	\$0.00	\$24.99
	Tier 3 + Tier 1, Premium Support, 4G HAN/SD-WAN Transport	\$0.00	\$40.99
	Tier 3 + Tier 1, Platinum Support, 4G HAN/SD-WAN Transport	\$0.00	\$58.99
	Tier 3, Premium Support, VSAT HAN/SD-WAN Transport	\$0.00	\$19.99
	Tier 3 + Tier 1 Help Desk Support, VSAT HAN/SD-WAN Transport	\$0.00	\$15.99
	Tier 3 + Tier 1, Premium Support, VSAT HAN/SD-WAN Transport	\$0.00	\$25.99
	Tier 3 + Tier 1, Platinum Support, VSAT HAN/SD-WAN Transport	\$0.00	\$37.99
	Tier 3, Premium Support, HTS Transport	\$0.00	\$3.10
	Tier 3 + Tier 1 Help Desk Support, HTS Transport	\$0.00	\$2.80
	Tier 3 + Tier 1, Premium Support, HTS Transport	\$0.00	\$5.80
	Tier 3 + Tier 1, Platinum Support, HTS Transport	\$0.00	\$7.40

#### Maintenance Service

THE STATE OF OKLAHOMA can choose between Next Business Day and Next Calendar Day service for field maintenance options.

Below are the list of maintenance options and the associated NRC and MRC for each.

**TABLE 10: MAINTENANCE SERVICE PRICING**

Type	Service	Total (NRC Each Site)	Total (MRC Each Site)
Maintenance	HR4700 (Next Business Day)	\$0.00	\$21.00
	HR4700w (Next Business Day)	\$0.00	\$21.00
	HTS (Next Business Day)	\$0.00	\$23.00
	WIFI (Next Business Day)	\$0.00	\$4.99
	HR4700 (Next Calendar Day)	\$0.00	\$27.00
	HTS (Next Calendar Day)	\$0.00	\$23.00
	WIFI (Next Calendar Day)	\$0.00	\$5.99

Pricing Notes

1. Pricing is based on a minimum of twelve (12) to thirty six (36) months service term per site (Site Service Term) depending to the type of access.
2. The equipment and service charges set forth in this Pricing Volume will remain fixed for 60 months. Thereafter, Hughes may adjust such charges annually. Any such annual increase will be the lower of seven percent (7%) or the consumer price index (CPI) inflator using the Effective Date as the base month.
3. Customer acknowledges that an underlying carrier may discontinue service after installation. In such event, Hughes will provide customer notice and the opportunity to select an alternative service from the table above, if available. If no alternative service is available, Customer may terminate the service at affected sites.
4. Customer acknowledges that services are based on availability and Hughes cannot guarantee that any given wireline/wireless service is available for a site, regardless of prequalification results. In the event that the prequalified service is not available at any site, Customer may select a different broadband service from the table above.
5. A site survey is required to be performed for all sites and Hughes will notify the Customer of buildout charges that may apply as other direct costs. There may be additional install costs, such as additional inside wiring charges, jacks, filters, etc., which may be assessed by the applicable telecom or cable companies. Customer must agree in writing before additional costs are assessed or billed. Hughes will only proceed after receiving permission in writing from the Customer.
6. Customer acknowledges that Hughes' suppliers require a minimum site service term, as identified in the table below, to receive the pricing set forth in this price schedule. Customer will be responsible for the following early termination charges not to exceed those listed below in the event that Customer terminates for convenience, for clarity, convenience does not include termination for default or termination due to lack of funding or non-appropriation.

Circuit Type	Early Termination Charges
ADSL, IDSL	Up to \$150 per terminated site (waived after site completes 12 months of service)
Dedicated DSL	\$99 (waived after site completes 24 months of service)
Cable (Charter/Time Warner/Spectrum)*	100% of remaining charges (waived after site completes 12 months of service)
Cable (Cox)*	\$100 per terminated site (waived after site completes 36 months of service)
Cable (Comcast/Suddenlink/Mediacom)*	100% of remaining service charges (waived after site completes 36 months of service)
Cable (Optimum/Rogers)	\$50 (waived after site completes 36 months of service)
Cellular Wireless	\$200 per terminated site (waived after site completes 12 months of service)
FiOS	\$320 per terminated site
FTTL, Bell Canada Bell Fibe	\$50 per terminated site
Granite Grid, Spectrum Fiber	100% of remainder of service charges
U-Verse/IPBB	\$199 per terminated site (waived after site completes 36 months of service)

Asymmetric Ethernet	100% of remainder of service charges, plus Customer is responsible to return the underlying provider's equipment. Upon ordering decommissioning of an Asymmetric Ethernet site, either Hughes or the provider will send Customer a postage prepaid label and box to be used for equipment return. If Customer does not return the provider's equipment within thirty (30) days, Customer will be responsible for an additional termination charge in the amount of \$1,500 for the equipment.
Fixed Wireless	100% of remainder of service charges for first 12 months (if terminated in first 12 months), plus 45% of remaining service charges for months 13-36.  In the event that Customer terminates Fixed Wireless services at a location for the purpose of relocation, Hughes will waive the above termination charge, and Customer shall pay a reinstallation charge of \$500 for the new location. The 36 month term shall continue rather than restart upon reinstallation at the new location.

7. Pricing assumes that inside wiring between the location where the wireline circuit enters the building and the Customer office where the modem is located is already in place. Consequently, no inside wiring costs are included in the pricing listed above. If such inside wiring is required, additional charges will apply. Hughes will conduct a site survey and will only proceed after receiving permission in writing from the Customer.
8. When Hughes places an order for a wireline circuit with an underlying carrier, the order is placed for a circuit with a particular service plan based on speed. Those speeds are based on what is anticipated to be the rate at which the modem will synchronize with the circuit. The speeds are "up to" speeds, as the modem may sync at a lower speed due to line conditions. Consequently, circuit speeds are not guaranteed. Additionally, for traffic carried within a secure tunnel across the circuit, the effective throughput will be reduced due to the packet and encryption overhead. The performance experienced by a user will also vary depending on potential areas of congestion within the general Internet, server loading, and application specific performance.
9. If a technician is dispatched to fix a reported problem at a site, and it is determined that the problem is outside of the maintenance and support purchased, Customer will be charged to fix the problem at the Time and Material rate. Any such charge must be agreed upon in writing prior to Hughes' performance.
10. Time and Material (T&M) charges also apply for all Hughes site visits, including but not limited to:
  - Field maintenance visit to a Customer location for repair of physically damaged items, disconnected cables, or other diagnosis and repair of user equipment.  
Material is charged at cost.

Time Work is Performed	Hourly Rate
First Hour on site (applies to all time periods)	\$375
Subsequent hours are billed as follows:	
Normal Hours (8:00 AM – 5:00 PM, Monday through Friday)	\$125/hour
After Hours Weekday (5:00 PM – 8:00 AM, Monday through Thursday)	\$150/hour

Weekend (5:00 PM Friday – 8:00 AM Monday)	\$150/hour
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**Additional Installation Services**

Standard inside wiring up to 100 ft. and circuit validation.	\$350 / each
Inside wiring up to 300 ft. and circuit validation.	\$850 / each
Standard Site Survey and Report	\$350/each
Aborted or Cancelled Installation within seven days of the scheduled installation date.	\$250 per site
“No Access” Fee (applies when a LEC provides reasonable notice that the LEC needs access to the Customer premises and Customer denies access to the LEC) Must first have obtained authorization to access in writing.	\$99 per site
Miscellaneous support services including, but not limited to: <ul style="list-style-type: none"> <li>• Obtain permits and approvals</li> <li>• Provision of specially required additional or special documentation</li> <li>• Attendance at meeting before local planning or zoning boards</li> </ul>	\$90/hour
<ul style="list-style-type: none"> <li>• Plenum cable/Union Labor/Electrician</li> </ul>	Individual Case Basis

**Attachment C to  
Addendum 1 to  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

The Service Level Agreement is hereby amended as set forth below and supersedes all prior documents submitted by Hughes Network System or discussed by the parties.

**1.0 RESPONSE TO SOLICITATION SPECIFICATIONS**

This Service Level Agreement ("Attachment") is a Contract Document in connection with Oklahoma Statewide Contract No. 1014 between the State of Oklahoma by and through the Office of Management and Enterprise Services ("State") and Hughes Network System ("Contract"). Customer is any State Entity or Affiliate as defined in the Contract.

**THE FOLLOWING PAGES PROVIDES DETAILS TO ADDRESS THE TECHNICAL QUESTIONNAIRE (WHICH FOLLOWS SECTION C.1.5 OF THE SOLICITATION)**

**Technical Questionnaire**

*The State of Oklahoma requests information that describes the Telecommunications functions, features and services available from you and your partners globally. Please elaborate and provide your response based on the strengths of your products and services.*

*Any Bid shall include, as applicable, hosting provisions, Service Level Agreements (SLA's), Billing Information, Documentation, Training, Account Team/Support Provision, Escalation Process and Pricing for each service. Such provisions, SLA's and other information are subject to negotiation and additional provisions related to hosting services and SLA's may be required prior to any award being issued.*

**1.1 A SERVICE LEVEL AGREEMENT (SLA)**

*SLA outlines the minimum service that a customer may expect for services, warranties and support.*

Hughes Response:

**SERVICE LEVEL AGREEMENT**

**Introduction**

This Attachment defines the understanding between the parties as to the levels of service that Hughes will provide during the term of the Agreement. The objective of this Attachment is to set measures against which Hughes' performance will be evaluated, and to establish a system of remedies, including liquidated damages (to be applied in the form of credits against future Service Charges), through which the Customer may receive compensation for Hughes' failure to achieve its service level commitments. This Attachment specifies (i) the metrics to be satisfied and reported on for Services, (ii) a numerical standard representing the minimum performance expected from Hughes (the "Service Levels"), and (iii) the Customer's remedy whenever Hughes fails to meet the Service Level. Any such credit shall be the Customer's sole and exclusive remedy for any failure by Hughes to meet these Service Levels. They will be applied only toward the monthly recurring services charges (exclusive of any equipment usage charges bundled into such monthly charges), and, for any calendar month, shall not exceed the total services charges for such month.

This Schedule describes the following SLAs and Service Level Objectives:

- Service Level 1: Network Availability
- Service Level 2: Data Delivery Ratio, Wireline Only
- Service Level 3: Time to Restore
- Service Level 4: Time to Install
- Service Level 5: Round Trip Delay
- Service Level 6: Chronic Sites
- Service Level 7: Monthly Service Reports

**Definitions:** For the purposes of this Schedule, the following terms have the meanings set forth below. If any capitalized term is used in this Attachment but is not defined below or elsewhere herein, the definition set forth in the Contract shall apply.

**Time and Materials:** Certain supplementary services that Hughes may perform upon the request of the Customer, including supplementary maintenance and repair services, which are outside the scope of the Services herein described and which are subject to Time and Materials charges, as set forth in Hughes Pricing Proposal.

**Commencement Date:** The start of the measurement period for each Service Level is specified in each description.

#### Service Levels

The following Service Levels apply to the Equipment, Installation Services, and Services at all Sites:

#### Service Level 1: Network Availability

Application	Metric	Inputs/Calculations	Measurement Window	Service Level Requirement
This Service Level includes all Communications Services except microwave and HTS satellite.	Network Service Availability commences on the first calendar day of the month and ends on the last calendar day of the month.	The duration of a Service interruption is measured by the number of minutes during the Scheduled Service Time that elapse from the time that a trouble ticket is opened to the time that the Service has been restored. Scheduled Service Time shall be deemed to be 24 hours a day, 7 days a week. The availability for a given calendar month shall be a percentage. This figure will include both individual site outages and network level outages. A site is included in the calculation after it has been in service for one (1) full calendar month. The formula for calculation of Network Availability is set forth below:	Monthly	Not less than 99.7% per month, excluding Dial Backup.  HAN Network - 99.9% if Customer's locations have both Hughes-managed and provided Wireline Services for the primary Communications Service and another Hughes-managed and provided



		$((SST * X) - SOM) \div (SST * X)$ <p>Where:</p> <ul style="list-style-type: none"> <li>• SST = Scheduled Service Time</li> <li>• X = Average Number of Sites in the Network for the applicable month</li> <li>• SOM = Aggregate site outage minutes in a calendar month</li> </ul>		Communications service for backup.
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- **The Commencement Date for this Service Level will be 90 days after network rollout has begun or when at least 100 sites have been installed, whichever comes first.**

- **Conditions and Exclusions:**

No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:

- The failure or nonperformance of any Customer-provided facilities or equipment, or third-party facilities or equipment acquired by Hughes on behalf of the Customer, including any out-of-tolerance earth station conditions not caused by Hughes.
- The fault, negligent act, or negligent failure to act of the Customer and such is the sole cause of the failure.
- Preventive maintenance and/or other scheduled service outages (when done pursuant to a preventive maintenance schedule provided by Hughes) as may be necessary to maintain the services in satisfactory operating condition, to provide additional system capacity, to protect the overall performance of the services, or for any other reasonable cause.
- An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes' performance obligations.
- For trouble tickets requiring site visits, the time outside the maintenance coverage is not counted toward this Service Level. For example, if the Customer has Normal Service Coverage with response times between 9 a.m. and 5 p.m. ET, the time outside the contracted coverage hours will not count as outage minutes in the event of an individual site outage.
- All sites to which Hughes is not providing remote maintenance services shall be excluded from the calculation of Network Availability.

- **Service Level Credits issued by Hughes to Customer for failure to meet this Service Level are as follows:**

Monthly Network Service Availability	Service Level Credit
99.7% or greater	No credit

99.4%–99.69%	2% of the monthly per-site Service Charge times the number of sites in the Network
99%–99.39%	5% of the monthly per-site Service Charge times the number of sites in the Network
98%–98.99%	10% of the monthly per-site Service Charge times the number of sites in the Network
Less than 98%	20% of the monthly per-site Service Charge times the number of sites in the Network

#### Service Level 2: Data Delivery Ratio

Application	Metric	Inputs/Calculations	Measurement Window	Service Level Requirement
This Service Level applies to Wireline Services with Active QoS only.	The Data Delivery Ratio will be measured on receipt of report from Customer of a suspected violation of this Service Level.	<p>The Data Delivery Ratio (DDR) is defined as the percentage of packets successfully delivered between the Hughes NOC and the remote site.</p> <p>Upon the opening of a trouble ticket against the site suspected of being in violation of this Service Level, Hughes will initiate a test between the Hughes NOC and the remote site to determine the DDR. The measurement is from the Hughes data center to the site and back to the Hughes data center. It does not include backhaul to the Customer's headquarters. Other traffic transmitted to or received from the suspected site should be minimized for the duration of the test.</p>	As required.	The average DDR will be no less than 98% during periods when the circuit is less than 75% utilized.

- **Conditions and Exclusions**

- This Service Level only applies to sites that are not experiencing a service interruption, i.e., the Service is operational.
- No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:
  - The failure or nonperformance of any Customer-provided facilities or equipment
  - The fault, negligent act, or negligent failure to act of the Customer and such is the sole cause of the failure.
  - Preventive maintenance and/or other scheduled service outages (when done pursuant to a preventive maintenance schedule provided by Hughes) as may be necessary to maintain the services in satisfactory operating condition, to provide additional system capacity, to protect the overall performance of the services, or for any other reasonable cause
  - An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes' performance obligations

- **Remedy**

- If the test described above indicates that this Service Level is not being met, Hughes shall take appropriate steps to remedy the problem within thirty (30) days thereafter. If Hughes is not able to remedy the problem within said thirty (30)-days period, then Hughes will pay Customer liquidated damages in accordance with the following table:

<b>Percentage of Measurements Meeting the Applicable Service Level</b>	<b>Service Level Credit</b>
98% or greater at least 75% of the time	No credit
95%–97.9% at least 75% of the time	5% of the monthly per-site Service Charge for the applicable site
90%–94.9% at least 75% of the time	10% of the monthly per-site Service Charge for the applicable site
Less than 90% at least 75% of the time	20% of the monthly per-site Service Charge for the applicable site

**Service Level 3: Times to Restore**

<b>Application</b>	<b>Metric</b>	<b>Inputs/Calculations</b>	<b>Measurement Window</b>	<b>Service Level Requirement</b>
This Service Level applies to all Communications Services other than microwave services and HTS satellite services.	Service restoration completed within the Total Time to Restore period.	<p>Restoration time will be calculated from the opening of a trouble ticket to the end of the Time to Restore.</p> <p>In the event the ticket is opened by Hughes as a result of fault detection of the outage proactively, the Time to Restore commences upon the verification of the fault by the Customer's Tier 1/Tier 2 Help Desk. If Hughes is performing Tier 1/Tier 2 Help Desk support for the Customer, then confirmation of the outage comes from Hughes' internal Help Desk.</p>	Per Incident Report monthly.	<p>For sites that have experienced equipment failures that required field service dispatch, Hughes will restore service, in 90% of the instances, within the time period specified in the Attachment for the maintenance response plan selected, plus three (3) hours.</p> <p>For outages caused by the failure of a wireline circuit, in 90% of the instances, Hughes will restore the service within three (3) business days after the reported outage.</p> <p>For outages caused by the failure of equipment not provided by or maintained by Hughes under this Agreement, including equipment installed by an underlying</p>

				carrier, HNS does not guarantee a Time to Restore. If carrier equipment for fixed wireless fails, the carrier will restore or replace the equipment by the end of the next business day.
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- **Conditions and Exclusions**

- This Service Level only applies to sites located within the Contiguous United States (CONUS).
- This Service Level only applies to sites that are receiving remote maintenance services no less comprehensive than “Next Calendar Day” service coverage, e.g., sites with “Next Business Day” coverage are not eligible for this Service Level.
- This Service Level shall commence at the effective date of the Agreement.
- For sites receiving High Capacity Access (HCA) Services that experience one or more circuit failures, this Service Level applies to each individual circuit managed by Hughes at the location. “Restoral” under this Service Level does not mean that all circuits at a site are restored within a single time frame but that each circuit will be restored within the applicable Service Level Requirement above.
- No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:
  - The failure or nonperformance of any Customer-provided facilities or equipment.
  - The fault, negligent act, or negligent failure to act of the Customer and such is the sole cause of the failure.
  - Preventive maintenance and/or other scheduled Service outages (when done pursuant to a preventive maintenance schedule provided by Hughes) as may be necessary to maintain the Services in satisfactory operating condition, to provide additional system capacity, to protect the overall performance of the services, or for any other reasonable cause.
  - An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes’ performance obligations.
  - The call for remote maintenance was a request for Time and Materials services.
  - Problems due to defective facilities at the site (e.g., water leakage) or an operating environment at the site that is not in compliance with Hughes’ documentation (e.g., no air conditioning where required).
  - The failure of any device beyond the demarcation points for services to be provided by Hughes.

- Hub or NOC Outage Minutes counted against Service Level 1 (Network Service Availability) will not be counted against Service Level 4 (Time to Restore).
  - Service Level Credits will not be imposed until Services are being delivered to 50 sites. However, all Service Level data will be tracked and reported to the Customer for all sites following execution of the Agreement.
- The following situations will pause the Service Level 3 timer:
- Hours during which a site is unavailable for access (e.g., remote site is closed).
  - Hours outside the contracted maintenance coverage selected by the Customer.
  - If a Customer employee or landlord prevents the Hughes technician from entering the store or delays the technician from starting or completing repairs, and Hughes provided reasonable notice for access during normal business hours and such prevention is outside the control of Customer or landlord, Hughes shall immediately notify the Customer Help Desk to report and document this event, and the Service Level 3 timer will be paused. The timer will restart once the obstruction no longer exists.
- **Remedy**

– For each site above the 10% allowance that has not met this Service Level in a given calendar month, Hughes will pay the Customer liquidated damages in the form of a credit in the amount of 10% of the Service Charge for the applicable site.

**Service Level 4: Time to Install**

Application	Metric	Inputs/ Calculations	Measurement Window	Service Level Requirement
This Service Level applies to all Communications Services other than microwave services and HTS satellite services.	Time to Install commences when an order is placed and ends when the site is installed and functioning.	The number of installations completed “on-time” in a month (as defined in the service level requirement).	Per Incident Report monthly.	<p>Hughes will install at least 90% of all locations released for a standard commercial installation within the time frames set forth below:</p> <ul style="list-style-type: none"> <li>• For Cellular Wireless Sites, thirty (30) calendar days</li> <li>• For shared line DSL, thirty (30) business days</li> <li>• For Dedicated Line DSL sites, forty five (45) business days</li> <li>• For ADSL services ordered on standalone POTs lines sites, thirty (30) business days</li> <li>• For cable sites without buildout required, thirty (30) business days after site survey results</li> </ul>

Application	Metric	Inputs/ Calculations	Measurement Window	Service Level Requirement
				<ul style="list-style-type: none"> <li>• For T1 sites, sixty five (65) business days</li> <li>• For FiOS sites, forty five (45) business days</li> <li>• For UVerse sites, forty five (45) business days</li> <li>• For FTTL, Asymmetric Ethernet/Fixed Wireless sites, forty five (45) business days.</li> </ul>

- **Conditions and Exclusions**

- This Service Level only applies to sites located within the CONUS.
- The time period referenced in this Service Level commences when the site is released by the Customer with all information and documentation reasonably required by Hughes and any underlying carrier for installation to proceed, and Hughes has confirmed the order. The Customer shall have the responsibility to supply accurate site list information to facilitate order processing and installation.
- A change from one service to another will restart the time period for calculating whether this SLA has been met. For example, if DSL is the first priority service and cable is the second priority service, Hughes will first order DSL for a site. If, for example, the site initially qualified for DSL, but Hughes is notified by the LEC 1 week later that installation cannot be completed, Hughes will order cable for the site, and the time to install will be 30 business days from when Hughes placed the order for cable services.
- This Service Level shall not apply to the initial order rollout or any other large-scale rollouts. In such cases, the Time to Install Service Level, if any, will be as mutually agreed by the parties.
- In the event that the site is initially released as a standard installation but Hughes and Customer mutually agree that a standard installation is not feasible, this Service Level will not apply to such site. In such cases, the Time to Install Service Level, if any, will be as mutually agreed by the parties.
- This Service Level shall not apply to instances where Hughes' terrestrial service provider rejects the order or sites that initially qualified for services but where the installation could not be completed.
- This Service Level will not apply to sites where Customer changes the due date with less than 30 calendar days' notice or in instances where Customer or site personnel prevent an installation from occurring and Hughes provided reasonable notice for access during normal business hours and such prevention is outside the control of Customer or site personnel.
- No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:
  - The failure or nonperformance of any Customer-provided facilities or equipment

- The fault, negligent act, or negligent failure to act of the Customer, its employees, agents, or invitees
- An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes' performance obligations
- **Remedy**
  - For each site above the 10% allowance not meeting the SLA in a given calendar month, Hughes will provide Customer liquidated damages in the form of a credit as follows:

<b>Number of Days After the Applicable 30-Day Window in Which the Installation was Completed</b>	<b>Service Level Credit</b>
Each site in excess of the 10% allowance that is 10 or fewer business days late	10% of the applicable monthly Service Charge
Each site in excess of the 10% allowance that is more than 10 business days late	20% of the applicable monthly Service Charge

#### **Service Level 5: Round Trip Delay**

<b>Application</b>	<b>Metric</b>	<b>Inputs/Calculations</b>	<b>Measurement Window</b>	<b>Service Level Requirement</b>
This Service Level applies to all Wireline Services.	Round-trip delay will be measured on receipt of report from the Customer of a suspected violation of this Service Level.	<p>Round-trip delay is defined as the time it takes a packet to be transmitted from the Hughes NOC to a remote site and return (or vice versa).</p> <p>Upon the opening of a trouble ticket against the site suspected of being in violation of this Service Level, Hughes will initiate a test by measuring the round-trip delay between the Hughes NOC and the suspect site. Measurements will be done during nonpeak hours.</p>	Per Incident Report Monthly.	For Wireline Sites, the average round-trip delay will be no greater than an average of 150 ms during periods when the circuit is less than 75% utilized.

- **Conditions and Exclusions**
  - During the conduct of the test referenced above, other traffic transmitted to or received from the suspected site should be minimized. For HAN configurations, round-trip delay will be measured on the circuit active at the location.
  - No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:
    - The failure or nonperformance of any Customer-provided facilities or equipment.
    - The fault, negligent act, or negligent failure to act of Customer and such is the sole cause of the failure.

- Preventive maintenance and/or other scheduled service outages (when done pursuant to a preventive maintenance schedule provided by Hughes) as may be necessary to maintain the services in satisfactory operating condition, to provide additional system capacity, to protect the overall performance of the services, or for any other reasonable cause.
- An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes' performance obligations.
- **Remedy**
  - **In the event that Hughes fails to meet this Service Level**, Hughes shall take appropriate steps to remedy the problem within thirty (30) days after completion of the applicable test. If Hughes cannot remedy the problem within said thirty (30)-day period, then Hughes will pay Customer liquidated damages in the form of a credit as follows:
  - For wireline sites:
    - ≤25 ms over SLA: 2% of the site's monthly per-site service charges
    - 26–50 ms over SLA: 5% of the site's monthly per-site service charges
    - More than 50 ms over SLA: 10% of the site's monthly per-site service charges

#### Service Level 6: Chronic Sites

Application	Metric	Inputs/Calculations	Measurement Window	Service Level Requirement
This Service Level applies to all Communications Services other than microwave services and HTS satellite services.	The number of trouble tickets opened that result in a field service dispatch.	Hughes will keep track of the number of trouble tickets resulting in a field service dispatch during a calendar month.	Per Incident.	No sites should experience more than two outages resulting in a field dispatch during any calendar month.

- **Conditions and Exclusions**
  - No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:
    - The failure or nonperformance of any Customer-provided facilities or equipment.
    - The fault, negligent act, or negligent failure to act of the Customer and such is the sole cause of the failure.
    - Preventive maintenance and/or other scheduled service outages (when done pursuant to a preventive maintenance schedule provided by Hughes) as may be necessary to maintain the services in satisfactory operating condition, to provide additional system capacity, to protect the overall performance of the Services, or for any other reasonable cause.
    - An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes' performance obligations.



- **Remedy**

- Upon verification that a site is a Chronic Site, Hughes will have thirty (30) days to remedy the problem. In the event that Hughes cannot remedy the problem within said period, the Customer may cancel the site without penalty if applicable as identified in Hughes Pricing Proposal or elect to switch the site to another Hughes' service

**Service Level 7: Monthly Service Reports**

<b>Application</b>	<b>Metric</b>	<b>Inputs/ Calculations</b>	<b>Measurement Window</b>	<b>Service Level Requirement</b>
This Service Level applies to all Sites.	Reports will be available to the Customer by the last day of the month following the month in which applicable data has been collected.	Delivery to Customer of the applicable reports.	Monthly or as otherwise agreed.	100%

- **Conditions and Exclusions**

- Monthly reports on Service Levels 1, 3, 4, and 6 will be available via the Customer Portal. The remaining Service Levels will be reported on within 30 days based upon trouble ticket requests.
- No failure to meet this Service Level shall count toward the calculation of liquidated damages when due to any of the following causes:
  - An event of Force Majeure, as defined in the Subscriber Agreement for 2-way Communication Services, suspending Hughes' performance obligations

- **Remedy**

- The parties agree that this Service Level is a Service Level Objective and that Service Level Credits will typically not accrue for this Service Level. However, if Hughes fails to meet the requirement more than one time in a calendar year (e.g., Hughes is late by 5 days on two different occasions), then upon notice from the Customer to Hughes, this Service Level will immediately convert to a Service Level Agreement that Hughes will provide to a Credit Customer in the amount of \$500 for each late report.

**Attachment D to  
Addendum 1 to  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

The Schedules I-V are hereby amended as set forth below and supersedes all prior documents submitted by Hughes ("HNS") or discussed by the parties.

**SCHEDULE I  
COMMUNICATIONS SERVICES DESCRIPTION**

**I. Communications Services**

**A. Overview**

Depending upon availability at a Customer remote location, Customer may receive any of the following offerings for its Communications Services:

- (1) DSL Services
- (2) Cable Services
- (3) T-1 Services
- (4) Fiber Services (U-Verse/FiOS)
- (5) Cellular Wireless Services

As used in this Schedule, "**Wireline Services**" shall mean DSL, Cable, T-1, or U-Verse/FiOS Services. When Hughes orders a wide area circuit (wireline or wireless) from an underlying carrier, the order is placed for a circuit with a particular service plan based on speed. An example would be DSL at 384 kbps by 1.5 Mbps. Those speeds are based on what is anticipated to be the rate at which the modem will synchronize with the circuit. The speeds are "up to" speeds as the modem may sync at a lower speed due to line conditions. Additionally, for traffic carried within a secure tunnel across the circuit, the effective throughput will be reduced due to the packet and encryption overhead. The performance experienced by a user will also vary depending on potential areas of congestion within the general Internet, server loading, and application specific performance. Throughput is subject to being constrained further depending on the security profile implemented within a network on the HR4700. As more security functions are added, throughput may decrease.

**B. Site Term Commitment**

Customer acknowledges that HNS' suppliers require a minimum site service term to receive the pricing set forth in Schedule I. If Customer terminates services at one or more locations prior to the end of the Term of this Agreement, or cancels any circuit or site after placing an order with HNS, Customer may be required to pay any applicable circuit cancellation and/or early termination charges outlined in Attachment B of this Schedule.

C. DSL Service

DSL Service consists of one "Layer 3" Internet based connection from Customer location to the HNS NOC. Layer 3 ADSL Services are dependent upon the DSL Service Provider and the interconnectivity between its network and the HNS Network Operations Center (NOC).

Shared Line ADSL utilizes an existing phone line and Dedicated Line ADSL utilizes a separate dedicated line. For Shared Line ADSL the telephone line is provided by the Customer and for Dedicated Line ADSL the telephone line is provided by HNS. The actual data rate achieved at a particular site is dependent on its distance from the nearest serving central office and the quality of the physical plant.

At each DSL location HNS will install a CPE route and a DSL modem which is used to connect to the telephone line, if permitted by the DSL Service Provider.

For locations where the existing telephone line cannot be used to support Shared Line ADSL, Customer must provide a new telephone line ("Plain Old Telephone Service" or "POTS") to be used to support Shared Line ADSL. Installation of the POTS line must precede installation of the Shared Line ADSL installation.

Note: If, upon actual installation, HNS is not able to provide the speeds indicated in the pricing schedule, HNS will notify Customer of what is achievable and request Customer authorization to proceed with the installation at the lower speed.

D. Cable Service

Cable Service consists of a "Layer 3" Internet based connection from Customer location to the HNS NOC. At each Cable location HNS will install a CPE router and a cable modem.

E. T-1 Service

T-1 Service consists of a "Layer 3" Internet-based connection from a Customer location to the HNS NOC. At each T-1 location HNS will install a CPE router and a T-1 CSU/DSU.

F. Cellular Wireless Service

Cellular Wireless Services shall include fourth generation "4G" LTE wireless services from multiple wireless providers. At each Customer location, HNS will supply an LTE capable wireless access device that provides an over the air interface through an integrated wireless modem and a 10/100 Ethernet port interface that connects to the Hughes-provided CPE. The CPE establishes a VPN connection to the HNS NOC via an IPSec tunnel over the cellular wireless service for all traffic destined for Customer's data center.

Amplification devices including antennas that are required to increase the signal to suitable levels shall be provided as necessary and charges applied as set forth in Schedule I.

Hughes provides two offerings for the cellular wireless service, primary wireless service and backup wireless service. Primary wireless service includes pooled average plans in the range of 2-10GB per month, as specified in the pricing schedule. Primary service is intended for use at a location where wireless is serving as the primary transport for the site. Primary services are also required for any application where wireless is the only transport deployed at a location.

Backup wireless service includes pooled average plans in the range of 50MB-250MB, as specified in the pricing schedule. Backup service is appropriate for locations with wireline primary connectivity where wireless is a secondary network at the site. All wireless plans are pooled across carriers within the same plan. For example, the usage for a 2GB plan will be pooled across all Customer sites with the 2GB plan, regardless of the carrier. Hughes shall determine which carrier will be utilized at each location. Hughes will provide a report of actual usage across all Sites served under the service on a monthly basis. In the event total usage across all sites subscribed to this service in a given month exceeds the aggregate bandwidth included in the service plan for those locations for the month, overage charges will apply as set forth in Schedule I.

G. U-Verse and FiOS Services

U-Verse and FiOS Services consist of a "Layer 3" Internet-based connection from a Customer location to the HNS NOC and can be delivered at various speeds. At each U-Verse and FiOS location, HNS will install a router, while the U-Verse or FiOS modems will be provided by the underlying carrier.

H. Fixed Wireless Service

Fixed Wireless service is a line of sight based service. At each location, Hughes will install a Fixed Wireless Antenna along with the termination equipment (Transport Layer Equipment), which will connect to the Hughes-managed CPE (Local LAN Appliance). The termination equipment has 10/1000 Ethernet port interface which connects to the Hughes-provided CPE. The CPE establishes a VPN connection to the Hughes NOC via an IPSEC tunnel over the cellular wireless service for all traffic destined for the customer's data center.

I. Asymmetric Ethernet Service

Asymmetrical Ethernet (AsyE) utilizes the existing copper (phone lines) at a Customer location to deliver a dedicated broadband solution. The provider bonds a minimum of two copper loops to deliver service speeds ranging from approximately 8M up to 50M. The bonding of the circuits is done at the site utilizing a Zyxel 873. Should one of the loops go down, the remaining loops remain up while the degraded circuit is being worked. Copper is distance sensitive, and delivery of service, therefore, is sensitive to distance from the providers Central Office (CO). The actual data rate achieved at a particular site is dependent on the distance from the supporting Central Office (CO) and the quality of the physical plant.

J. Satellite Services

1. Overview

- a. Satellite Services include full duplex satellite communications services between Customer's designated locations in the contiguous United States. Hughes will provide transponder capacity on a Ku-band satellite. The satellite is configured with redundant traveling wave tube amplifiers ("TWTAs"), which provide inherent backup capability in the event of a primary TWTAs failure. Extra capacity can be made available by mutual written agreement to provide for network growth if required.



- b. HNS standard satellite service plans consist of a remote satellite terminal installed at each location. Each location will connect via satellite to the HNS Network Operations Center (NOC) facility. Unless otherwise specified in Schedule I, Customer will put in place a backhaul connection between HNS' NOC, and the customer's data center at its own expense. Customer understands and agrees that applications that are encrypted outside of the satellite network will not perform as well as unencrypted applications that allow all of the satellite spoofing and acceleration tools to perform their normal functions.
1. Primary Satellite Services. For primary satellite transport, Customer's location(s) need to subscribe to an Enterprise Service plan (E-level plan), as outlined in Schedule I.
  2. Backup Satellite Services. For backup satellite transport, Customer's location(s) need to subscribe to an Access Continuity Service Plans (AC plan), as outlined in Schedule I. In the event of a connection failure at any of the locations with Access Continuity Services, all prioritized traffic will be routed over the satellite connection until the primary terrestrial connection is restored. Customer acknowledges that the Access Continuity Service is dependent upon the Customer site router performing automatic switchover from the primary MPLS link to the satellite backup configured link. Customer further acknowledges that failure of the site router will result in unavailability of the network, and that any outage caused by failure of the site router will not be counted against the calculation of any availability SLA.

## **II. Installation**

### **A. Planning and Scheduling**

For Customer's Initial Order (as defined in Schedule I), installations will be performed according to a detailed installation schedule to be developed and maintained by HNS, with the cooperation of Customer. Based upon the mutually approved installation schedule, the HNS installation management team will develop a master installation schedule, which will include schedules for site survey reports, to the extent HNS determines they are necessary, site preparation, and installation/commissioning of the Equipment and Services. The master installation schedule will be updated periodically by HNS as additional installations are scheduled and planned installations are completed. Customer personnel must provide access to the site during normal business hours, and occasionally after normal business hours to allow timely completion of the installation. Customer will have read-only access to the current schedule via HNS' Customer Care Portal. Customer is to receive e-mail notification of any update to installation schedule and at least 24 hours advanced notice of any updated in-person site visit.

For any additional locations ordered by Customer, the timing of installations will be in accordance with the Time to Install Service Level Agreement in Section 1.1 of Attachment C.

### **B. Site Survey and Buildout Costs (Cable Sites Only)**

For cable sites identified by HNS as requiring a site survey, HNS will perform the site survey to identify technically suitable locations for installing the Equipment and cables. Hughes works

with its cable providers to negotiate cable buildout waivers whenever possible, in consideration of a longer term commitment (typically 36 months per site). If a site survey shows that no buildout costs are required, and Customer elects to not proceed with the cable installation, HNS will charge Customer the standard site survey and report fee outlined in Attachment B. For sites not receiving a buildout waiver, if a site survey shows that buildout costs are required, and Customer elects to not proceed with the cable installation, no site survey charge will apply.

C. Site Survey (Satellite Sites Only)

For Satellite Services sites identified by HNS as requiring a site survey, HNS will perform the site survey to identify technically suitable locations for installing the indoor and outdoor Equipment and cables. HNS will not charge Customer for a site survey that HNS (or its contractor) requires, provided that Customer proceeds with the installation. HNS will, however, charge Customer for any site survey requested by Customer, regardless of whether Customer proceeds with installation.

D. Buildout Costs (T-1 and DSL Sites)

For T-1 and DSL sites, site surveys are not typically done. If HNS' underlying wireline provider arrives at a site to install services and determines that there are additional "buildout" requirements to receive service at that particular location, the provider will give notice of additional cost and obtain Customer's approval before performing any buildout. If notice and approval are given, provider will perform the required buildout at that time and Customer will pay such buildout charges, provided the buildout charges do not exceed \$250. In the event that the buildout charges will exceed \$250, HNS will provide Customer a quote for the necessary buildout, and Customer will have the option whether to proceed with installation. If Customer elects to proceed with installation, HNS will invoice Customer for the applicable buildout charges at that time. If Customer elects to cancel the installation, Customer will be responsible for the circuit cancellation charge in Section 4.C.2 of this Schedule (\$250).

E. FiOS and U-Verse Sites

For FiOS and U-Verse sites, if HNS' underlying wireline provider arrives at a site to install services and determines that there are additional "buildout" requirements to receive service at that particular location, the provider will give notice of additional cost and obtain Customer's approval before performing any buildout. If notice and approval are given, provider will perform the required buildout at that time and Customer will pay such buildout charges, provided the buildout charges do not exceed \$250. In the event that the buildout charges will exceed \$250, HNS will provide Customer a quote for the necessary buildout, and Customer will have the option whether to proceed with installation. If Customer elects to proceed with installation, HNS will invoice Customer for the applicable buildout charges at that time. If Customer elects to cancel the installation, Customer will be responsible for a \$250 circuit cancellation charge.

F. Installation Process

The installation process consists of the following major steps:

- a. Preparation of installation specification document based upon specific Customer guidelines and requirements, such document to be reviewed and approved in

writing by the parties.

- b. Customer informs onsite personnel of the planned installation and arranges for access to sites. Customer provides the required installation information for the sites. The required installation information includes:
  - Contact, Address, Telephone Number
  - Alternate Contact, Address, Telephone Number
  - Site Number, Address
  - Building Manager, Address, Telephone Number
  - Building Owner, Address, Telephone Number
  - Such other information as HNS may reasonably request.
- c. HNS performs site surveys at sites identified by HNS as requiring site surveys.
- d. Customer obtains necessary landlord approvals.
- e. HNS obtains construction permits at sites identified by HNS as requiring permits.
- f. HNS prepares sites identified by HNS as requiring preparation.
- g. HNS installs and commissions the remote Equipment in accordance with the standard installation description included in Schedule III for the applicable Communications Service.

### **III. Standard Installations for Communications Services**

#### **A. Wireline Installations**

##### **1. Standard Commercial Wireline Installation**

HNS performs a standard commercial wireline installation as follows:

- Customer submits a list of sites to Hughes, including any additional documentation required for access to the property
- Hughes confirms service availability per site.
- HNS submits the order to the appropriate underlying wireline service provider.
- HNS confirms that the wireline service has been delivered to the site by the underlying wireline service provider
- Basic inspection of inside wiring from the phone closet to an existing functional inside wiring between the phone closet and the designated jack location.
- For shared line ADSL, tracing and completing all necessary cross connects on existing functional inside wiring between the phone closet and the designated jack location.
- For other DSL (SDSL, ISDL and dedicated line ADSL), perform standard inside wiring services. Standard inside wiring is defined as 100 feet of wiring beyond the demarc. Schedule I, Section 4 provides the charges for additional wiring.
- HNS will use existing unused wiring or run new inside wiring between the phone closet and the designated jack location if out of available pairs. The additional charge for new wiring is provided in Section 4 of Schedule I.

- Installation of wireline Equipment
- Interconnecting of wireline Equipment to Satellite Equipment (if applicable) and Customer data equipment using existing Ethernet cables.
- Perform the Equipment installation testing procedure and record data.
- Notify the ESC that the Customer site is in operation and that Service coverage is to begin.

A standard installation for Asymmetric Ethernet Service is the same as for Wireline Services, except that 300 feet of cabling is included.

## 2. Non-Standard Wireline Installation

Instances where HNS' underlying wireline services provider assesses civil works charges for installation extras associated with getting service to the property or instances where extensive inside wiring is required to complete an installation (such as tracing and testing through multiple units, telephone closets or multiple stores, or moving an existing jack to another location), will be considered non-standard and will be completed on a quotation basis.

3. Customer acknowledges that installation and commissioning of Wireline Services requires work to be done both by the Local Exchange Carrier (LEC) and by HNS. The LEC performs its work first, and then HNS arrives to install the CPE. If the LEC completes its work and, through no fault of HNS or its installation subcontractors, commissioning of the CPE is delayed by more than two (2) additional weeks, Customer's monthly service charges for the site will go into effect. Service charge will only go into effect if installation and commissioning of services were agreed to beforehand in writing by both parties and delay was due in no part to HNS. For clarity, "writing" shall include the installation calendar utilized in the customer gateway.

## 4. Cancellation of a Wireline Installation

If HNS schedules a site visit to install equipment or cutover a wireline circuit previously installed by a Local Exchange Carrier (LEC), and Customer reschedules that installation date with less than seven (7) days prior notice, Customer must pay HNS an installation cancellation charge of \$200. If Customer reschedules an installation date with at least seven (7) days prior notice, there is no installation cancellation charge. If an installation is cancelled and not rescheduled within three (3) weeks, HNS considers it to be a termination rather than a cancellation. This section is subject to the site visit having been agreed to beforehand in writing by both parties. For clarity, "writing" shall include the installation calendar utilized in the customer gateway.

## B. Cellular Wireless Installations

### 1. Standard Commercial Cellular Wireless Installation

HNS performs a standard commercial wireless installation as follows:

- Interconnecting of wireless modem, wireless access device and router.
- Perform the Equipment installation testing procedure and record data.
- Notify the ESC that the Customer site is in operation and that Service coverage is to



begin.

## 2. Non-Standard Cellular Wireless Installations

- Instances where an exterior antenna is required to complete an installation will be considered non-standard and will be completed on a quotation basis.

### C. Installation of Fixed Wireless Equipment – Standard Installation

Hughes will schedule a standard installation of the Fixed Wireless equipment which includes the Antenna on the roof up to 300 feet of LAN cable to the appropriate location where the termination equipment needs to reside. Once equipment testing and verification is done Hughes will schedule a second visit to install the Hughes CPE.

Hughes initially provides best estimations of service availability and speed. Exact capabilities are determined via physical visitations either several days prior or on the day of installation at the service provider's discretion and/or depending upon circumstances of the installation. In the event that local transport layer installation of equipment cannot be completed for any reason, Hughes may cancel the install at its discretion. In such event, Customer will not be charged.

Fixed Wireless Involves a two-step installation process. While both may occur on the same day some may not. Step one involves installing the exterior Microwave dish in interfacing transport switch. The second part involves the installation and commissioning of the Hughes CPE LAN interface appliance.

If additional charges and/or equipment beyond initial estimates are required to complete the installation of Fixed Wireless, Hughes will notify Customer and provide a written quote. Customer will then have the option of proceeding with the installation or cancelling the Fixed Wireless order without penalty.

### D. Satellite Services Installations

#### 1. Standard Commercial Satellite Services Installation

For sites identified as requiring preparation by HNS, HNS will perform the following tasks:

- a) Construct a standard antenna mounting point of the standard type (as described in Paragraph E below).
- b) Provide suitable access for the connecting cable from the exterior of the building to the interior and through up to one (1) concrete, masonry, or fire barrier wall between the indoor and outdoor units.

Standard installations include those commercial locations that are 1-2 stories from the ground in the contiguous US and Puerto Rico, is limited to locations where all site preparation requirements can be performed by the Equipment installation contractor, and

does not apply to buildings requiring union subcontracting or use of local facilities personnel. A standard installation excludes efforts to structurally reinforce walls or roofs, landscaping, tree removal, excavation into pavement for cable conduit, roof penetrations, or restricted roof access requiring cranes or helicopters. The following describes HNS standard installation of the remote HNS router and outdoor equipment, the completion of which shall be defined as "Commissioning":

Antenna mounting options:

- Non-penetrating roof mount
- Tri-mast wall mount
- Ground pole mount up to 6' above ground

The HNS installer will choose the type of antenna mount, based on the specific details of the location. For network implementations that require more than 30% of the locations to be ground pole mounts, additional charges will apply.

All ground pole mount antennas will be installed a minimum of 5 ft. off the ground (from base of antenna) and out of reasonable reach of small children. Wall mounts will not be mounted to surfaces or building materials that cannot support the wall mount (for example, stucco, aluminum, or vinyl siding).

The typical cable run will be less than 300 feet, based on the profile of the customer remote locations. For network implementations where greater than 30% of the locations are in large buildings requiring cable runs longer than 300 feet, additional charges will apply.

- Ballast as required for the wind zone of each particular site.
- Assembly of the non-penetrating mount and placement of ballast.
- Ground cable to an existing water pipe or existing grounded structural steel member consisting of #8 gauge wire up to 15 feet in length. Additional length, can be provided on a cost plus 20% basis, if required.
- Dual IFL cable (standard RG-6 coaxial) runs of up to 300 feet each of non-plenum cable for connecting the antenna to the indoor unit. Indoor unit will be located according to the Customer Installation Specification.
- CAT5 data cable of up to 25 feet if required and termination at labeled wall plates for up to 2 devices
- Perform initial commissioning procedures, with cooperation of the Hub operator.
- Perform the Equipment installation testing procedure and record data.
- Notify the ESC that the Customer site is in operation and that Service coverage is to begin.

Where necessary, HNS will mount the antenna to an outside wall using HNS standard roof/wall mounting brackets or on a rooftop using standard HNS non-penetrating mount.

**Note:** Wall mounts must not be mounted to surfaces or building materials that cannot support the wall mount (for example, stucco, aluminum siding, or vinyl siding).

## 2. Non -Standard Satellite Services Installation

Installations with specifications outside the above will be treated as non-standard. Examples of such instances are cable runs above the specified length, additional cable drops, and installation sites that are typically high-rise buildings located in cities such as New York, Chicago, San Francisco, etc.

At those locations where standard installations do not apply, HNS will conduct a site survey at Customer's request in order to determine the price for the non-standard Equipment installation. Such price will include the cost of using union or local facilities personnel, if required.

**SCHEDULE II**  
**NETWORK OPERATIONS, NETWORK MANAGEMENT,**  
**AND MAINTENANCE SERVICES**

**I. Network Operations**

Hub and network operations centers are staffed 24 hours per day, 365 days per year, with HNS technical support personnel. The Enterprise Support Center ("ESC") is responsible for network operations and management including configuration management, onsite maintenance and management of Hughes' hub facilities, and field dispatch for resolution of Equipment problems at Customer's locations. HNS will make the ESC available 24 hours per day, 365 days per year by toll free telephone access and Customer Gateway access for resolution of problems with the Services. The ESC provides a single point of contact for the administration and tracking of Customer trouble reports, HNS personnel contact names, telephone numbers, and other trouble reporting and escalation procedures.

**II. Network Management**

- A. Customer's help desk personnel will use the Customer Gateway to see the status of the network and remote sites, as well as to track trouble tickets. Trouble tickets may be generated for site specific issues or for network level problems. Customer's help desk personnel also will use the Customer Gateway to open trouble tickets and to view the details and status of trouble tickets, whether they are created automatically through HNS' fault management system or by help desk personnel.
- B. HNS also offers the option to the customer for email alerts whenever an automatic ticket is opened by the Fault Management system. This option can also be extended to include an automatic prompting of Customer's Tier 1/Tier 2 Help Desk in the event that Customer's helpdesk does not act on an automatically generated trouble ticket within a fixed amount of time. This is an optional and configurable feature enabled upon Customer's request.
- C. The Network Management Services that are included as part of the Services outlined in this Attachment include:
  - 1. **Fault Management** - provides status monitoring and alarm management, including remote site equipment, dedicated customer network infrastructure equipment, backhaul, and the NOC infrastructure. The Fault Management system generates alarms and automatic tickets for remote sites based on defined rules and thresholds. The Fault Management system provides a top level status view of the customer's network and detailed views of individual devices.
  - 2. **Geographical Map** - The Fault Management system provides a geographic map view showing a map populated with all of the remote sites and their status indicated by color codes. A zoom-in capability allows the user to view individual remote sites. The map also has the weather information overlaid on the map to indicate rain activities in different regions (relevant for satellite locations). Weather information from the National Weather Service is used for this purpose and is updated every 12 minutes.



3. **Proactive Monitoring (Site Level Ticket Generation)** - The Fault Management system automatically generates trouble tickets in the Customer Gateway based on alarms when the primary or the backup (VADB) network at an individual site goes down. The system automatically clears the tickets when network connectivity is restored.
4. **Proactive Monitoring (Network Level Ticket Generation)** – The Fault Management system automatically generates trouble tickets in the Customer Gateway based on alarms associated with network elements that affect a group of remote site locations. Examples could be an IP Gateway, geographical region, DSL service provider, etc. These alarms are calculated using correlation techniques, network hierarchy, and predetermined threshold levels. These alarms are generated in anticipation that if multiple devices have multiple alarms (more than the defined thresholds), there is a high probability that the root cause of the problem is at a higher level network element. When the network level alarms are generated, all the associated individual alarms for the remote sites are suppressed. A trouble ticket is opened in the Customer Gateway based on the network level alarm. This Network Level trouble ticket contains the list of all sites affected. The network level ticket is directly assigned to the operations team and the resolution process starts immediately.
5. **Performance Management** - provides monitoring and reporting capabilities for the data flowing through the customer's network. These capabilities include utilization reports for traffic analysis and troubleshooting at the aggregate network level as well as the site level. The traffic reports are useful for understanding the network utilization and trends and for forecasting and capacity planning exercises.
  - a. The Standard Traffic Reports allow the customer to view aggregate traffic data at the network and site level on demand. The reporting interface provides multiple filters to Customer to choose from and run the appropriate report for a custom time period. The reports include traffic volume and top talkers and can be viewed by inbound or outbound traffic. Data is available with a 3 hour lag and goes up-to one year. The data is available at hourly granularity for the first 3 months and then at daily granularity.
  - b. MRTG (Multi-Router Traffic Grapher) reports are also provided which show near real-time aggregate network bandwidth utilization. The graphs show utilization for overall network by inbound and outbound traffic. The daily graphs are based on five (5) minute traffic samples. The weekly, monthly and yearly graphs rollup averages from a previous graph. If Customer has elected to implement Virtual Automatic Dial Backup (VADB), then VADB utilization reports will be provided showing site usage. These real time reports include graphical representation of all sites currently in an active VADB session during the specified timeframe.

### **III. Maintenance**

#### **A. Maintenance Plans and Response Times**

##### **1. Available Maintenance Plans**

Maintenance plans are defined by the hours during which Customer can receive a field dispatch to repair or replace malfunctioning Equipment. Customer will select a maintenance plan on a site-by-site basis from the plans set forth below. Once selected, HNS shall have no obligation to provide a higher level maintenance plan, except by mutual written agreement of both parties (including payment to HNS of the applicable charge).

- 1) Normal Maintenance Plan (8:00 a.m. to 5:00 p.m., local time, Monday through Friday, holidays excepted)
- 2) Extended Maintenance Plan (8:00 a.m. to 8:00 p.m., local time, Monday through Saturday)
- 3) Extended Plus Maintenance Plan (8:00 a.m. to 8:00 p.m., local time, 365 days per year)
- 4) 18 x 7 Maintenance Plan (6:00 a.m. to 12:00 midnight, local time, 365 days per year)
- 5) Continuous Maintenance Plan (24 hours per day, local time, 365 days per year).
- 6) Next Business Day Maintenance Plan (8:00 a.m. to 5:00 p.m., local time, Monday through Friday, holidays excepted, beginning the next business day after a call is received). Customer's call shall be considered received the same day when received by HNS between the hours of 8:00 a.m. and 5:00 p.m., local time at the remote site, Mondays through Fridays, holidays excluded. Calls shall be considered received the following business day if received by HNS at any other time.
- 7) Next Calendar Day Maintenance Plan (8:00 a.m. to 5:00 p.m., local time, 365 days per year, beginning the next day after a call is received). Customer's call shall be considered received the same day when received by HNS between the hours of 8:00 a.m. and 5:00 p.m., local time at the remote site. Calls shall be considered received the following day if received by HNS at any other time.

##### **2. Response Times**

After authorization, Hughes will dispatch a customer service representative ("CSR") to Customer's premises. For sites with a Next Business Day Maintenance Plan, Hughes will dispatch a CSR to be onsite before the end of the next Hughes business day after receiving the call. For sites with a Next Calendar Day Maintenance Plan, Hughes will dispatch a CSR to be onsite before the end of the next calendar day after receiving the call. For sites with other maintenance plans, Hughes will dispatch a CSR to the Customer site in accordance with the maintenance response time table given below (measured from the time of authorization by Hughes).

### Maintenance Response Time Table

<u>Distance from Service Office</u>	<u>Response Time</u>
0 - 50 miles	4 hours
51 - 100 miles	5 hours
101 - 150 miles	6 hours
151 - 200 miles	10 hours
Over 200 miles	24 hours

Response times will be met for at least 90% of all service calls placed in a given calendar month.

#### B. Spare Parts Support

Hughes will provide spares as part of this Agreement and preposition an inventory of spare parts at Hughes-designated local maintenance facilities that cover Equipment sites used by Customer. Spares for DSL modems, satellite antenna subsystems, including reflectors, mounts, and if applicable, certain video equipment, will be centrally stocked at a designated location in the continental United States. Hughes will replace malfunctioning Equipment components on a one-for-one exchange basis with a functionally equivalent spare part.

#### C. Maintenance Obligations

Maintenance activities are divided into two categories: customer premises ("CP") related and non-CP related.

##### (a) Non-CP Issues:

For all non-CP related issues that Hughes confirms as problems, Hughes will resolve the issues by troubleshooting and taking corrective action in the wireline network within Hughes' infrastructure or its underlying suppliers' infrastructure. The local loop, central office equipment, access and national network issues are in this category.

##### (b) CP Issues:

Hughes will provide corrective maintenance for the CP Equipment in accordance with the terms provided in this Agreement. Customer's Help Desk must first verify the malfunction and work with remote site personnel to isolate the problem. Hughes will restore Customer's malfunctioning Equipment to good working condition by performing the following corrective maintenance as required:

- i. Diagnostic testing to determine the existence and cause of the malfunction
- ii. Hughes will dispatch replacement CP Equipment to the Customer Location for replacement by the Hughes field technician, provided that the site is under a maintenance plan.
- iii. If necessary, repair or replacement of interconnecting cables, or reloading initializing instructions and recommissioning

- iv. Verification of proper operation and completion of service report.
- v. Notification to the ESC and the Customer that Equipment has been restored to operational status

D. Maintenance Exclusions

Maintenance does not include any of the following services. If Customer specifically requests any of the following services, the Time and Materials rates specified in Pricing Note 10 of Attachment B to Addendum 1 will apply and the following will not:

- 1) Maintenance, repair, or replacement of parts damaged or lost through catastrophe, lightning, theft, misuse, fault, or negligence of the Customer, or causes external to the Equipment, including, but not limited to, failure of, or faulty, electrical power or air conditioning, operator error, failure, or malfunction of data communication Equipment not provided to Customer by Hughes, or from any cause other than intended and ordinary use.
- 2) Changes, modifications, or alterations in or to the Equipment by anyone other than Hughes other than Hughes-approved upgrades and configuration changes
- 3) Reorientation/repointing of a satellite antenna when caused by Customer or when required to repoint to a different satellite.
- 4) Deinstallation, relocation, or removal of the Equipment or any accessories, attachments, or other devices

### **SCHEDULE III PERFORMANCE OPTIMIZATION SERVICES SCHEDULE**

#### **I. Overview**

The HughesON Performance Optimization Service (“Optimization Service”) delivers Quality of Service (“QoS”) and/or performance and bandwidth optimizations for Customer applications. The Optimization Service incorporates the Hughes ActiveQoS™ with ActiveClassifier™ and ActiveCompression™ technologies, enabling enterprises to meet voice, video and data convergence needs, and to deliver better application performance and reduced transaction response times on broadband networks.

#### **II. Required Equipment**

##### **A. Hughes-Provided Equipment**

The Optimization Service requires Hughes-managed Wireline Services at each location.

Equipment element(s) required at each Customer remote location as part of the Optimization Service:

- Minimum of one HR Branch Gateway CPE with Performance Optimization

Equipment element(s) required at the Hughes NOC or Customer Datacenter:

- Minimum of one Acceleration Gateway server

##### **B. Customer-Provided Equipment**

Customer must provide 120-volt power connections for the HR Branch Gateway CPE and all other equipment at each Customer location that is in close proximity to the Hughes-provided equipment.

#### **III. Included Features**

The Optimization Service includes the following features:

- **Hughes ActiveQoS™** delivers end-to-end QoS through an integrated combination of network capacity monitoring, prioritization, and dynamic rate limiting.
  - This functionality is implemented both in software residing on the HR Branch Gateway CPE and the Acceleration Gateway located at the Hughes NOC (or Customer datacenter).
  - ActiveQoS performs real-time capacity estimation of the available circuit capacity to allow it to control all traffic flows to and from the WAN.
  - Bi-directional latency is determined and tracked by this feature.
  - Packet loss is monitored and mitigation is performed via multiple techniques.
  - Supports both peered (in the VPN tunnel) and peerless (split-tunnel, outside VPN tunnel) traffic flows from the Customer remote location.

- **Hughes ActiveClassifier™**
  - This feature automatically classifies the data traffic flowing through the system and assigns a prioritization level for access to WAN bandwidth. This permits, for example, VoIP traffic to receive highest priority to ensure voice quality. Transactions such as POS and other near real-time transactions would receive higher priority than web traffic or file transfer types of data traffic.
  - At Customer's request, Hughes can remotely override the automatic classification with a manual classification configuration based upon standard IP header elements such as IP protocol, IP addressing, session port, and DSCP value.
  - There are eight (8) classes of service defined with this feature.
  - Traffic classification is automatic by default and individual flows are reclassified dynamically based on traffic load and packet type.
  - Automatic traffic classification and prioritization is enabled by default for split-tunnel network access if employed at the Customer remote location
  - Supports both peered (in the VPN tunnel) and peerless (split-tunnel, outside VPN tunnel) traffic flows simultaneously
- **Hughes ActiveCompression™** is an optional two-stage compression technology incorporating long-range and short-range compression techniques, which deliver bandwidth expansion gains for applications.
  - The short-range compression is designed to compress traffic by identifying byte patterns within each data packet in a user session.
  - The long-range compression looks at data across all user sessions to identify byte sequences that may be compressed.
  - The ActiveCompression feature determines which compression method is best suited to the traffic flowing through the system at any time without adding any appreciable delay to the traffic flow due to compression. In some instances both short-range and long-range compression may be applied if doing so does not add any delay to the data transmission.
  - This feature monitors the CPU resource required to perform compression. If it detects the CPU resources exceeding a predefined threshold, the compression feature will automatically disable itself to prevent degrading the performance of traffic through the system.
  - This feature is implemented in software residing on the HR Branch Gateway CPE and the Acceleration Gateway server(s).
  - This feature is for peered traffic (in VPN tunnel) flows only.

#### **IV. Service Limitations**

Customer acknowledges the following:

- Hughes ActiveCompression™ cannot be purchased and deployed independent of Hughes ActiveQoS™.
- Hughes ActiveClassifier™ is included with ActiveQoS™ and cannot be deployed independently.



- ActiveQoS is not qualified for use over Satellite Services or Cellular Wireless Services to support real-time applications such as VOIP due to the rapid changes in capacity.
- ActiveCompression generally is not qualified for Satellite Services, but is qualified for use on certain Jupiter-based Satellite Services provided by Hughes
- ActiveCompression does not support split-tunnel data traffic flows. This feature only works for peered (in VPN tunnel) traffic. Customer traffic split directly to the Internet will not be compressed.
- No additional performance SLAs are offered with the Optimization Service.
- The Optimization Service will not be available if the HR Branch Gateway CPE suffer a hardware failure.

#### **V.      Activation of the Optimization Service**

The Optimization Service is activated via remote configuration of the HR Branch Gateway CPE performed by Hughes. Hughes will remotely activate and configure the features for Customer. Customer and Hughes will mutually develop a rollout plan for activation of the features across Customer's entire network.

## SCHEDULE IV HUGHES MANAGED SECURITY SERVICES

### I. Overview

Hughes Managed Security Services are available for Customer sites with a Hughes-managed HR4x00 Branch Gateway. The Branch Gateway will establish a management tunnel connection to the Hughes Network Operations Center (NOC). The Hughes managed CPE is capable of supporting split-tunnel designs (i.e., corporate VPN traffic is segregated from general Internet traffic at the store level). Hughes' Basic Security Services are included with the HR4x00. In addition to Basic Security Services, Content Filtering and Enhanced Security Services are available as an option as described in Section II below.

### II. Managed Security Services

#### A. Basic Security Services

As part of Basic Security Services, Hughes will configure and manage the following on Customer's behalf:

- **Firewall:** Policies that allow/prevent packets to specified destinations within Customer's network infrastructure
- **LAN segmentation:** PCI compliant segmentation between physical interfaces and virtual (VLAN) sub-interfaces

#### B. Content Filtering Services

If Customer elects Content Filtering Services, Hughes will configure and manage the following on Customer's behalf in addition to the Basic Security Services:

- **Profile based URL web filtering (White/Black List) and category based web filter:** Defined at the network level and then pushed to the remote CPEs. It is expected that there will be twenty or fewer profiles covering this service.
- Reports for Web Content Filtering through the Network Management Portal (NMP):
  - Top 10/20/50 Sites accessed among all sites
  - Top 10/20/50 sites denied among all sites.

#### C. Enhanced Security Services

If Customer elects Enhanced Security Services, Hughes will configure and manage the following on Customer's behalf in addition to the Basic Security and Content Filtering Services:

- **Intrusion Detection:** IDS monitoring and logging with automated signature updates.

- **Antivirus/Anti-malware:** Antivirus support and signature download. Automated content updates keep defenses up-to-date. Antivirus employs advanced virus, spyware, and heuristic detection engines to prevent both new and evolving threats from gaining access to Customer's network.
- **Reporting:** Reports provided on daily basis through the Network Management Portal (NMP) as described below:
  - IDS events (24 hours period)
  - IDS events Sources
  - Antivirus Events (24 hour period)
  - Unique Blocked domains (24hour period)
  - Unique configuration changes ( 24 hour period)
  - Failed Administrative Login Attempts (24 hour period)
  - Top blocked services (24 hour period)
  - Web Content Filtering
    - Top 10/20/50 sites accessed among all sites
    - Top 10/20/50 sites denied among all sites

Hughes will maintain electronic copies of the firewall and security logs and reports for a minimum of twelve (12) months.

### III. Service Limitations

1. Enabling IDS, Firewall Policy Denial, or Antivirus logging may significantly increase bandwidth usage for management traffic on the network, which could affect user performance.
2. Generating the Web Content Filtering reports requires pulling the log data from the HR4x00 across the wide area network. This may cause a reduction in user performance due to the volume of data contained in the log files.
3. If Customer desires to implement split tunneling with Standard Security Services and maintain PCI compliance, Customer is responsible to ensure that its network is either properly LAN segmented to accommodate the split tunneling or Customer provides the additional security functionality required to protect the card data environment.
4. For wireless sites, IDS monitoring and logging, Antivirus, and Firewall Policy Denial will generate WAN traffic that will count toward Customer's data usage in applicable 3G/4G data plans.
5. URL and Category based Web Content Filtering rules are defined at a network level with configurations pushed out to HR4x00 devices at the remote site. The filtering is performed at the remote site by the HR4x00 if split tunneling configurations are being used or in the absence of split tunneling, may be performed centrally at the Hughes NOC. Filtering rules are not uniquely configured at the site level. The Filtering rules are uniform across all Customer sites.
6. Hughes will update White/Black List of URL's and other CPE profile changes only during Hughes' scheduled monthly maintenance window. If a filter setting is

preventing access to a site to which Customer requires access, and such lack of access is having an adverse effect on Customer's business, Customer can request that the change be made immediately at no additional charge.

## **SCHEDULE V WI-FI SERVICES**

### **ENTERPRISE WI-FI**

#### **I. Overview**

Hughes Enterprise Wi-Fi Service is designed to address enterprise wireless LAN needs at Customer branch locations. Enterprise Wi-Fi is typically used for applications such as inventory management, mobile device deployment to employees, or customer assistance. Enterprise Wi-Fi Services provide a secure, private enterprise connection to run corporate applications over a Wireless LAN (WLAN) connection at a site and is generally provided for use/by enterprise owned and employee operated devices.

#### **II. Required Equipment**

The pricing in this Amendment for Enterprise Wi-Fi assumes that Customer either has existing or is ordering contemporaneously with this service an Access Point and Guest Wi-Fi Services at the applicable location(s). This Amendment does not provide for the purchase or provision of Enterprise Wi-Fi Services without Guest Wi-Fi Services.

The parties have agreed upon a “distributed” architecture with “virtual” controllers. “Distributed” refers to the manner in which Wi-Fi controllers are deployed throughout Customer’s network. In a distributed Wi-Fi deployment, controllers necessary to support Customer’s network exist in software within the Access Points deployed at the Customer site. No physical controllers are required; therefore controllers are referred to as “virtual” controllers.

#### **III. Enterprise Wi-Fi Features**

##### **A. Service Features**

Hughes Enterprise Wi-Fi Services are provided within 802.11 b/g/n/ac spectrum. Hughes provides a dedicated Wi-Fi network configured on Customer’s Enterprise LAN to support Enterprise Wi-Fi services. There are two types of configuration supported for Enterprise Wi-Fi.

The Enterprise Wi-Fi network connects to the secure, encrypted IPsec tunnel from Hughes managed CPE to Hughes datacenter. From the Hughes datacenter, data is processed and dropped off onto Customer network.

The Enterprise Wi-Fi network can also be configured to have Enterprise traffic sent directly from the remote site to customer designated network using the Internet connection at the site. The management traffic from each site is collected at the Hughes datacenter.

To provide Customer network access user authentication for Enterprise Wi-Fi service set identifier (SSID) is required. The SSID will be configured for WPA2 and a pre-shared key (PSK). As an additional security measure, the SSID is not broadcasted throughout the location. Locations within the Customer's network will consist of access points that are configured for the same SSID at each location.

#### **B. Support Features**

In the event mobile devices are unable to access a given access point, Hughes will provide troubleshooting assistance by confirming the status of the access point, forwarding of relevant logs, resetting the AP as required, and the current and historical information concerning device connections to the wireless network. When the Wi-Fi service is able to support other wireless devices, Hughes is not responsible for resolving issues related to the Customer's wireless devices that are unable to connect to the wireless network.

On a schedule determined by Customer, but no more frequently than once every quarter, Hughes will change the SSID or pre-shared key (PSK).

#### **IV. Customer Responsibilities**

Customer is responsible to provide the following at each site prior to installation:

- Electrical power for the Branch Gateway.
- At each location, Customer is responsible for the configuration of all Customer devices that utilize the Hughes Enterprise Wi-Fi service.
- If customer is opting for the Enterprise traffic to be sent directly from remote site to customer designated network, then customer should provide the necessary network details to be configured prior to scheduling of installation at any of these sites.
- Customer should provide the name of the Enterprise Wi-Fi SSID, which will not be broadcast for security purposes. The SSID will be uniform across all the Customer locations.

#### **V. Service Limitations**

The Customer acknowledges the following:

- Enterprise Wi-Fi Security/Firewall policies will generally be uniform across Customer's different format of locations
- Actual performance obtained when accessing remote server content is determined by the underlying WAN transport and the available capacity on the WAN. This is independent of the number of simultaneously connected users on the Wi-Fi service.
- When other non-Hughes provided access points are deployed within the same building, interference from those devices may result, causing



performance of the Hughes-provided Enterprise Wi-Fi service to degrade.

## **GUEST WI-FI**

### **I. Overview**

Hughes Guest Wi-Fi Services enable Customer to leverage private network connectivity to support public Wi-Fi access for guest users at a site.

### **II. Required Equipment**

The pricing in Attachment B includes the provision of one (1) access point at each designated location. The parties have agreed upon this number of access points to provide coverage in the main guest-facing area only. Other areas such as the back-office, parking lot, or storerooms will not receive coverage.

- **Access Points (“AP’s”):** at each Customer-designated location, Hughes will install one (1) access point to achieve the mutually agreed upon coverage. Pricing for additional AP’s is set forth in Exhibit A.
- **Access Point Mount:** for each AP, the mount is included and allows AP to be mounted on flat surface (i.e. wall, ceiling) or soft-lid ceiling
- **Power over Ethernet (PoE) Switch:** As an option, Hughes can provide a Cisco 300 PoE 24-port LAN switch at each Customer location to provide LAN connectivity and power to each AP.
- **Power-over-Ethernet (PoE) adapters:** Optionally, adapters can be provided to insert AC power into the Ethernet cable connection to each AP. This allows both LAN connectivity and power to be provided simultaneously to each AP installed via the same connection from the Customer LAN switch. Pricing for each adapter is set forth in Exhibit B to Addendum 1.

### **III. Guest Wi-Fi Features**

#### **A. Service Features**

Hughes provides Guest Wi-Fi Services in the 802.11 b/g/n/ac spectrum. The Hughes Guest Wi-Fi Service provides a secure, encrypted IPSec tunnel from the AP to the Hughes datacenter for AP management traffic. Internet access is provided to guest users via a Guest Wi-Fi Service Set Identifier (SSID). No login credentials are required on the Guest Wi-Fi SSID. This Guest Wi-Fi SSID is broadcast throughout the location by the access point(s) deployed throughout the Customer network, which announce the same SSID at each location. For all guest users with Wi-Fi-enabled devices that connect to the Guest Wi-Fi Service, Hughes provides DHCP services. User-generated Internet traffic is sent directly from the APs at customer location to the Internet via “split-tunnel” across the private network connectivity.

Using a captive portal located in the Hughes NOC (the “Captive Portal”), those Wi-Fi-enabled devices will present the guest user with a splash page. At each location receiving Guest Wi-Fi Services in Customer’s network, the splash page presents the user with the same “Terms and Conditions for Acceptable Use.” Hughes can work with the customer to create graphics for the splash page and the verbal content for the “Terms and Conditions for Acceptable Use.” Splash page services assume that customer will use standard templates provided by Hughes, with basic functionality and Customer messaging. If Customer desires a custom splash page or targeted messaging for different store locations or types, Hughes can provide an individual professional service quote for such services.

The Captive Portal will require the guest to accept the “Terms and Conditions for Acceptable Use” before allowing the guest to gain access to the Guest Wi-Fi Service. Once the “Terms and Conditions for Acceptable Use” are accepted, the captive portal will redirect the guest to a URL of Customer’s choice. There will be no more than twenty (20) different URLs for redirection.

As an option, Hughes offers an Advanced Captive Portal Feature. Under this feature, Hughes will provide the ability for Customer to collect end user specific information which can be harvested by the customer for internal data analytics and specific customer program tie-ins.

For every Guest Wi-Fi location within Customer’s network, Hughes will design in conjunction with Customer and provide a standard window cling decal specific to each brand to be installed by location personnel. This decal informs the end user that the Guest Wi-Fi Service is available.

Every month, Customer will have access to standard reports through the Customer Gateway for guest Wi-Fi user traffic activity and user device statistics.

## **B. Optional Support Features**

Hughes can provide Tier 1 Helpdesk Support for Customer’s restaurant guests and store personnel. For calls made to the Tier 1 Helpdesk, Hughes will attempt to assist the individual with connectivity problems with their device and questions with the Guest Wi-Fi service provided.

Tier 1 Support is available 24 hours a day, 7 days a week, 365 days per year basis, and is provided on a best efforts basis. Hughes does not guarantee that all guest issues can be resolved.

- Hughes will ensure Wi-Fi service is active and operational.
- Hughes will respond to inquiries concerning various standard mobile/PC devices (including, but not limited to: Android, IOS, and Windows.
- Hughes will not be responsible for resolving any guest device connectivity issues due to firewalls, VPNs, non-standard Wi-Fi implementations, etc.

#### **IV. Customer Responsibilities**

Customer is responsible to provide the following at each site prior to installation:

- Electrical power for AP's or provision for POE power provided by compatible LAN switch.
- Customer provides graphics assets desired for window cling decal.
- Customer provides the location for the window cling decal and installs the cling decal.
- Customer provides language for Terms and Conditions on splash page.
- At locations with higher ceilings, the Hughes installer may need to use a scissor lift during installation of APs. Customer is responsible for closing dining areas as necessary and informing guests as necessary to address any safety concerns. The cost of any lifts are extra and will be billed per Exhibit B to Addendum 1, Section 4.N.

#### **V. Service Limitations**

Customer acknowledges the following:

- Security profiles must be uniform across Customer's locations.
- The Captive Portal can provide a single "Terms and Conditions for Acceptable Use" to all guest devices across all Customer locations.
- The Captive Portal does not provide integration with external services such as customer loyalty programs.
- Each AP can support up to 25 – 30 active user devices.
- The distance limitation for AP's to obtain power from a PoE switch / adapter is 300 feet. For AP cable runs that exceed this distance (e.g., multi-story locations), additional switch infrastructure may be required.
- Actual performance obtained when accessing Internet content is determined by the underlying WAN transport and the available capacity on the WAN. This is independent of the number of simultaneously connected users on the Wi-Fi service. For example, although a deployment of 2 APs may support up to 60 users, the WAN transport may only support 30 simultaneous users before performance degrades based on the available capacity of that WAN.
- When other non-Hughes provided access points are deployed within the same building, interference from those devices may result, causing performance of the Hughes-provided Guest Wi-Fi service to degrade. To minimize interference of other access points, Hughes-deployed access points will be mounted at least ten feet away from non-Hughes access points.
- The Guest Wi-Fi service is delivered only on the primary communications path for locations that have backup network services.

## **VI. Installation of Equipment**

At each Customer location, Hughes will install and provision at least one wireless AP to achieve mutually agreed coverage area. Standard installation assumes soft-lid ceilings and includes the AP hardware, and AP mount. Where necessary, Hughes can also install a Power-over-Ethernet (PoE) adapter at an additional charge so that AC power is not required at each AP installation point.

Standard installation assumes that the AP's will be installed on the soft-lid ceiling at each location. Although a standard installation assumes soft-lid ceilings, AP's can be installed on any flat surface. Where soft-lid ceilings exist, Hughes will conceal the Ethernet cables so that they are not visible. Where soft-lid ceilings are not present, Hughes will use its best reasonable efforts to conceal the Ethernet cables. The PoE adapter (if applicable) will be installed near the Customer LAN switch at Customer's location. As an option, Hughes can provide a managed switch for this purpose. This switch normally resides in a back-office, telecommunications closet or telecommunications room. The optional PoE adapter or PoE switch will require electrical power, which Customer must provide. Other Hughes-managed devices, such as a CPE or switch, will be installed in a back-office, telecommunications closet or telecommunications room.

## **VII. Disclaimer**

Hughes disclaims any warranties whatsoever with respect to the Guest Wi-Fi Services to be provided to guest end users at locations receiving Guest Wi-Fi Services ("Guests"). In addition, Hughes assumes no liability, and Customer hereby indemnifies and holds Hughes harmless from and against any claim from any third party, including Guests, arising from the use of the Wi-Fi Service. Further, Customer agrees that the terms of use governing Guests' use of the Wi-Fi Service will be substantially similar to those set forth below.

(Insert Customer Name) provides limited but free Internet access points or "hot spots" during most hours, except during maintenance procedures, for Customer's guest's personal use with portable computers or devices capable of receiving wireless signals. These access points allow customers to access the Internet from their web-enabled devices when within range of these access points.

As with most public wireless "hot spots," (insert Customer name)'s wireless connection is not secure. Any information being sent or received could potentially be intercepted by another wireless user. Cautious and informed wireless users should not transmit their credit card information, passwords and any other sensitive personal information while using any wireless "hot spot."

Users assume all associated risks and agree to hold harmless (insert Customer Name), Hughes Network Systems, LLC and their respective employees for any personal information (e.g. credit card) that is compromised, or for any damage caused to users' hardware or software due to electric surges, security issues or consequences caused by viruses or hacking. All wireless access users should have

up-to-date virus protection on their personal laptop computers or wireless devices. (Insert Customer name) provides access to Web-based email only. For Microsoft Outlook or other email services, the users must connect with their own Internet Service Provider (ISP).

(insert Customer name)'s staff may provide general information on the settings necessary to access the Internet via these connections, but are not responsible for any changes users make to their computer settings and cannot guarantee that a user's hardware will work with this wireless connection. If a user has problems accessing the Internet over these connections, (insert Customer name)'s staff cannot assist in making changes to the user's network settings or perform any troubleshooting on the user's computer. Users should refer to their owner's manuals or other support services offered by their device manufacturer.

Use of these access points is governed by the **(Insert Customer Name) Wi-Fi Appropriate Use Policy — which is available at (insert URL here)**. All users are expected to use Hughes' wireless access in a legal and responsible manner, consistent with the public service and informational purposes for which it is provided. Users should not violate federal, state or local laws, including the transmission or receiving of child pornography or harmful material, fraud, or downloading copyrighted material.

**Attachment E to  
Addendum 1 to  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

**SERVICE ORDER NUMBER \_\_\_\_\_**

This Order Number \_\_\_\_ ("Order \_\_\_\_") is made and entered into as of \_\_\_\_\_ (the "Order # Effective Date") by and between Hughes Network Systems, LLC (Hughes), and **INSERT AGENCY NAME** ("Customer") and forms a part of and is incorporated by reference into Oklahoma Statewide Contract No. 1014 by and between the parties dated as of \_\_\_\_\_ (the "Agreement"). Capitalized terms used and not otherwise defined herein shall have the meanings ascribed thereto in the Agreement.

1. General Description of Services to Be Performed and Equipment to be Provided

TBD

2. Equipment. A table listing the name of the Equipment to be provided, the locations to which the Equipment is to be delivered, the required delivery dates, quantities required and the relevant prices is set forth below:

Equipment Description	Destinations	Required Delivery Date(s)	Quantity	Unit Price	Extended Price

3. Services. A table listing the Services to be provided, the locations at which Services are to be performed, the required Service Commencement dates, Site Service Term and the relevant prices is set forth below:

Service Description	Locations	Required Commencement Date (s)	Site Service Term (in months)	Unit Price per month	Qty requested	Extended Price per month



IN WITNESS WHEREOF, the parties hereby execute and deliver this Service Order as of the Service Order Effective Date first written above.

Hughes Network Systems, LLC

**INSERT AGENCY NAME**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment F to  
Addendum 1 to  
STATE OF OKLAHOMA CONTRACT WITH HUGHES NETWORK SYSTEM  
RESULTING FROM OKLAHOMA STATEWIDE CONTRACT NO. 1014**

**Negotiated Additional Terms to the Solicitation**

The Solicitation is hereby amended as set forth below.

**Solicitation, Section B Special Provisions, Subsection B.2.3. is hereby added:**

Per Solicitation, Section B Special Provisions, Subsection B.2.1, the State approves Supplier's use of the following as a subcontractor(s) under this Contract: 2Pifi, AT&T, AT&T U-Verse/IPBB, AT&T Wireless, Bell, BellAliant FibreOP, BullsEye Telcom, CableOne, CenturyLink, Charter Spectrum, ComCast, Cox, DSR, Fibe – Bell, Frontier, GlobalCapacity, Granite, Level(3), Mediacom, Optimum, Radiant, Rogers Cable, Robers Wireless, Spectrotel, SuddenLink, Telus, Time Warner, Verizon, Verizon FiOS/FTTI, Windstream. Without waiving the order of precedence herein, the state accepts the terms and conditions of these approved subcontractors to the extent the terms and conditions do not reduce any rights or enlarge any obligations of the State or authorized users as set forth in the Solicitation.