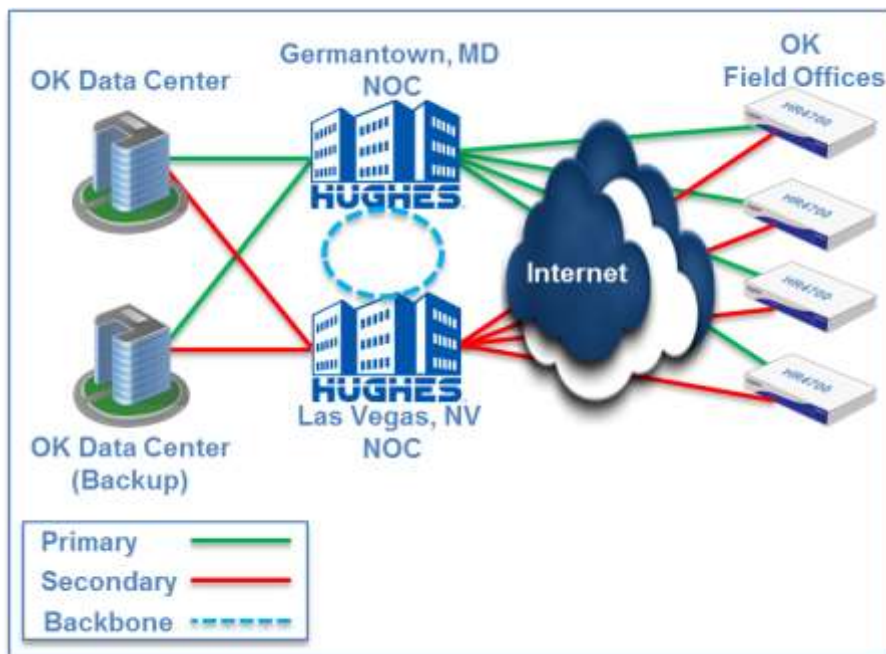# CONDENSED PRICING EDITION

State of Oklahoma contract with HUGHES NETWORK SYSTEMS Contract NO. 1014

HUGHES PRICING NARRATIVE

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, as shown below, 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.

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.

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

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 FTTI- 75.0M/75.0M	$1,840.00	$314.98
	FIBER FTTI - 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 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

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 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

Performance Optimization Pricing

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

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 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

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 Incremntal 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

OPERATIONS SUPPORT PRICING

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 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

HUGHES LABOR RATE PRICE

	Service	Hourly Rate
Hughes Labor Rate	This rate will be for specific installation, program support, program management or services required by government agency.	$165.00

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.
- The T&M charge is the sum of the "Hourly Rate" plus the "Travel Zone Charge" shown below. The Travel Zone Charge is charged for each direction of travel. Material is charged at cost plus 20%.

Time Work is Performed	Hourly Rate
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

Distance	Travel Zone Charge
0 – 25 miles	$ 77
26 – 50 miles	$143
51 – 100 miles	$286
101+ miles	$473

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	$250 per site
"No Access" Fee (applies when the LEC needs access to the Customer premises and Customer denies access to the LEC)	$99 per site
Re-provisioning fee (applies when Customer's telephone line is disconnected and DSL must be re-provisioned) (note that a re-provisioning of service also restarts the clock for any minimum site term commitment and the calculation of any applicable circuit termination or cancellation charges)	$99 per site
Re-provisioning fee for "slamming" (applies when Customer has given authority to a third party to transfer DSL service and the HUGHES service must be re-provisioned)	$250 per site

Miscellaneous support services including, but not limited to:
 	
   • Obtain permits and approvals
 	
   • Provision of specially required additional or special documentation
 	
   • Attendance at meeting before local planning or zoning boards
	$90/hour plus all direct expenses at cost plus 20%

Union Labor/Electrician	Individual Case Basis
Plenum cable	Individual Case Basis