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Response to WEST VIRGINIA OFFICE OF TECHNOLOGY

Solicitation for **Statewide Contract for Data Transport Services**

RFP: CRFP 0212 SWC2300000001

Submission Date: October 13, 2022 | 1:30 PM EDT

Manhattan Telecommunications Corporation LLC

("MetTel")

TIN: 51-0374236 DUNS: 966868556 UEI: C5D6CL7CMPH5



Quote expiration date: This Proposal/Quote is valid for 120 days or until 1/11/2023

Contractual Point of Contact:

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GLOSSARY ACRONYMS

Acronym	Description
AA	Access Arrangements
AI	Artificial Intelligence
AS	Autonomous Systems
ASR	Access Service Request
BGP	Border Gateway Protocol
BSS	Business Support System
CA	Certificate Authority
CE	Customer Experience
CLEC	Competitive Local Exchange Carrier
CMMI	Capability Maturity Model Integration
CSP	Cloud Service Provider
CSV	Comma-Separated Values
DDOS	Distributive Denial of Service
DIA	Dedicated Internet Access
DOS	Department of State
DSL	Digital Subscriber Line
FCC	Federal Communications Commission
FIPS	Federal Information Processing Standards
FIS	Fidelity Information Services
FISMA	Federal Information Security Management Act
FOC	Firm Order Commitment
FOCN	Firm Order Confirmation Notification
FRN	Funding Request Number
ID	Identification
ILEC	Incumbent Local Exchange Carriers
IP	Internet Protocol
IR	,
2	Inventory Reconciliation
IT	Information Technology
ITIL	Information Technology Infrastructure Library
LAN	Local Area Network
LCON	Local Points of Contact
LDAP	Lightweight Directory Access Protocol
LEC	Local Exchange Carriers
LSR	Local Service Request
LTE	Long Term Evolution
MACD	Moves, Adds, Changes, or Disconnects
MNS	Managed Network Services
MPLS	Multi-Protocol Label Switching
MVNO	Mobile Virtual Network Operator
NFV	Network Function Virtualization
NIST	National Institute of Standards and Technology
NNI	Network Interfaces
NOC	Network Operation Center

Acronym	
PM	Program Manager
PMBOK	Project Management Book of Knowledge
PMI	Project Management Institute
PMO	Program Management Office
PPP	Point-to-Point Protocol
QoS	Quality of Service
RADIUS	Remote Authentication Dial-In User Service
RBAC	Role-based access
RFP	Request for Proposal
ROI	Return on Investment
SIP	Session Initiation Protocol
SLA	Service Level Agreements
SMS	Service Management System
SNMP	Simple Network Management Protocol
SO	Service Order
SOA	Service Order Acknowledgement
SOC	Service Order Confirmation
SOCN	Service Order Completion Notification
SORN	Service Order Rejection Notification
SOW	Statements of Work
SRE	Service Related Equipment
TCR	Telecommunications Change Request
TEM	Telecommunications Expense Management
TFS	Toll Free Services
TIC	Trusted Internet Connection
TO	Task Order
TOP	Transition-Out Plan
TSP	Telecommunications Service Priority
US	United States
USAC	Universal Service Administrative Company
VCO	VeloCloud Orchestrator
VLAN	Virtual Local Area Network
VM	Virtual Machine
VoIP	Voice over Internet Protocol
VPLS	Virtual Private LAN Service
VPN	Virtual Private Network
VPNS	Virtual Private Network Service
VRF	Virtual Routing and Forwarding
WAN	Wide Area Network
WBS	Work Breakdown Structure
WISP	Wireless Internet Service Providers
WVOT	West Virginia Office of Technology



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EXECUTIVE SUMMARY

The West Virginia Office of Technology (WVOT) can achieve a secure, flexible, reliable, and cost-effective next-generation statewide Wide Area Network (WAN) by selecting a service partner who will leverage a variety of technology solutions and partner with other technology companies to provide the most secure, robust, reliable, and comprehensive WAN, Dedicated Internet Access and 4G/5G solutions for the State.

Under the Department of Administration and its Chief Information Officer, The West Virginia Office of Technology (WVOT) sets goals to develop organized information resource management while providing technical assistance in the design and management of information systems to state entities. The State of West Virginia operates and maintains statewide networks for data, video and voice transmission that are shared between government and education entities including state agencies, higher education, K-12 schools, libraries, and county/municipal units of government. In order to continue providing the statewide network into the future, WVOT requires the next-generation statewide Wide Area Network (WAN) known as Data Transport 2.0, that enables a secure, flexible, reliable, and cost-effective services including Ethernet WAN, Dedicated Internet Access (DIA) and Fourth Generation / Fifth Generation (4G/5G) wireless services with value-added support services.

MetTel is a single vendor, that leverages a variety of technology solutions to provide the most secure, robust, reliable, and comprehensive WAN and DIA services. We distinguish ourselves from other communications providers, solutions integrators, transport service providers and resellers of telecommunications infrastructure by leveraging a fully interconnected network of underlying access providers with our wholly owned and operated core services network. We are a registered Competitive Local Exchange Carrier (CLEC) in all 50 states, and we have a true competitive advantage with our Network-to-Network Interfaces (NNIs) with Tier 1 carriers, all the Incumbent Local Exchange Carriers (ILECs), many of the large CLECs (including your current provider), and wireless providers. We leverage these long-standing relationships to deliver the most diverse, cost-effective, robust, and reliable solution for WVOT.

We offer WVOT a unique opportunity for inherent diversity and the advantages of partnering with a Vendor that is agile, forward-thinking, and able to design and implement a customized solution with the flexibility to meet the current needs as well as future growth of WVOT network. MetTel will design a network using the best and most cost-effective paths of connectivity from WVOT locations to our network. We utilize all our extensive wholesale relationships to put the best network components in place that meet or exceed WVOT's requirements. This wholistic approach to network solutions is what separates MetTel from any other carrier in the industry and has made us a trusted partner to our commercial and federal customers.

MetTel has been a leader in communications and digital transformation solutions for Federal, State, local government, education, and enterprise customers since 1996. The MetTel Public Sector Team is headquartered in Washington, D.C. with regional offices located in New York, Boston, Providence, Salt Lake City, San Francisco, and Dallas. We have twenty-six years of experience providing telecommunications services to industry and Government. Our expertise includes the specific Ethernet WAN, DIA and 4G/5G wireless network services WVOT requires. MetTel's proposed solution will allow WVOT to take advantage of its existing investment by terminating into existing State network equipment while transforming existing services.

To meet WVOT's challenge to provide the statewide network into the future and meet both the mandatory requirements and the current goals and future objectives, MetTel offers our industry-leading WAN services platform for secure, agile, optimal, and scalable branch connectivity from edge to data center to cloud. It optimizes branch WAN networking to improve performance over private internet, and wireless links and simplifies WAN operations for increasingly distributed enterprises. With support for the increasing need to access cloud-based enterprise applications, software-defined control and automation, and virtual services delivery, MetTel Ethernet WAN is the perfect solution to transform



WVOT's enterprise network architecture on the MetTel WAN platform, including a variety of technology solutions and partnering with other technology companies when required to provide the best solution. Below are some of the key benefits of implementing the MetTel solution:

- Single Business Systems Support Portal
- Optimized bandwidth usage across the entire organization
- Continuous network uptime for increased productivity
- Managed and ease of cloud onramp
- Centralized and proactive management and problem identification
- Significant cost savings
- Future-proof network to support a digital expansion

MetTel's network is enhanced with MetTel Intelligent Automation, using Artificial Intelligence (AI) to identify, report, and address network incidents, events, or trouble tickets, freeing up IT staff for higher-

skilled work. Leveraging our integrated automation and AI makes MetTel the only US provider designated by Gartner as a Magic Quadrant leader for Managed Network Services (MNS) in the ability to execute and completeness of vision. Additionally, MetTel was Named #1 by Gartner's Market Guide for U.S. Alternative WAN Branch Solution Providers, giving MetTel the highest, and the only perfect score of any vendor. According to Gartner, the three mission-critical capabilities in the MNS market are:



- Service delivery quality
- Network automation
- Customer experience

We leverage our integrated network automation and AI with our service delivery to provide an unparalleled customer experience. With our comprehensive portfolio of network solutions that can boost productivity and provide secure, flexible, reliable, and cost-effective services, our Ethernet WAN can utilize Software Defined-Wide Area Network (SD-WAN) overlay services defined by Metro Ethernet Forum (MEF) 3.0 standards, allowing WVOT to take advantage of future value-added technologies as their requirements evolve. MetTel is pleased to propose our managed SD-WAN solution as the overlaying transport for the WVOT WAN.

MetTel can help WVOT easily transition multiple networks into one seamless multi-services network with statewide and nationwide reach using WAN and SD-WAN technology. This solution allows WVOT to easily converge networks across less expensive and more reliable access methodologies

while decreasing transition timelines and reducing network costs. Our SD-WAN overlay architecture was named the winner of a Gold Stevie® Award in the Software-Defined Infrastructure category in the 18th Annual American Business Awards®. These awards were created in 2002 to honor and generate public recognition of the achievements and positive contributions of organizations and working professionals worldwide.

To meet WVOT's wireless 4G/5G mandatory requirements, current goals, and





future objectives, MetTel will provide the best coverage and options, including unlimited data, for integrating 4G/5G solutions for WVOT to enable the delivery of an optional world-class, end-to-end SD-WAN overlay solution. MetTel is a Mobile Virtual Network Operator (MVNO). As a MVNO, we are uniquely positioned to deliver end-to-end wireless solutions with the best coverage using multi-carrier partners, including AT&T, Verizon, and T-Mobile.

Combining customized and managed telecommunication solutions with a powerful online performance management and support Business Systems Support Portal will enable WVOT to manage inventory, usage, spend, track new trouble tickets, review pending trouble tickets and the performance statistics of installed services from one simple, user-friendly interface 24x7x365. MetTel converges all communications over a proprietary network that gives WVOT one unified view and control point for all their communications and advanced services requirements. The MetTel Portal is a suite of services integrated into a full Business Intelligence Portal, which will provide WVOT centrally managed network

tools providing greater visibility to the network, usage, reports, which enhances discovery into business operations and adherence to the service level performance. MetTel's Portal was built on the foundation of our award-winning Bruin Business Intelligence Portal. MetTel's Portal was featured in the 2021 Gartner Market guide for

Telecommunications Expense Management (TEM) Services and received a Product of the Year Award from Technology Marketing Corporation (TMC) TMCnet.com's Internet Telephony magazine.



Along with our proposed solution, MetTel will provide WVOT a superior customer experience through our proven processes, procedures, tools, and approach to providing services. Our customer support organization consists of two divisions—the Project Management team dedicated to onboarding new customers (Day 1 support) and Customer Care, dedicated to delivering and managing on-going services (Day 2 support). This is a benefit for WVOT, because the assigned Customer Care



Representative is only focused on the customer experience—not repairs, trouble management, or billing issues. MetTel was awarded the coveted Stevie Award for customer service from 2015 through 2022, because we "care" differently. MetTel's processes, procedures, tools, and approach to support our customers' requirements facilitate clear and effective tracking of progress. Our approach provides transparency, through the MetTel Portal, and high-quality services in a timely manner and considers all stakeholders during the installation process.

MetTel's quality management processes, procedures, and service delivery methodologies, with management oversight by our Program Management Office (PMO), drive predictable and positive outcomes and measures performance to ensure compliance with Service Level Agreements (SLA) and all contractual requirements. The PMO oversees all activities such as ordering, operations, and Moves, Adds, Changes, or Disconnects (MACDs) of the WVOT Statewide Contract for Data Transport Services to assure compliance with the contract requirements.

In responding to the WVOT Request for Proposal (RFP), MetTel answered each requirement as outlined in Section 4.0. Part 1 covers the Technology Service and Solution for Ethernet WAN, DIA, and 4G/5G Services. Part 2 covers the Vendor Ethernet WAN Services Migration Plan. Part 3 includes Service and support for WAN, DIA, and 4G/5G Services. For WVOT's convenience, we have provided a table with the mandatory requirements and the current goals and future objectives beneath each section.



MetTel's proposal for WVOT addresses all aspects of the Request for Proposal (RFP). By partnering with MetTel, WVOT will benefit from the support of a single vendor who will leverage a variety of technology solutions and partner with best-of-breed technology companies when required to provide the most secure, robust, reliable, and comprehensive WAN, DIA, and 4G/5G services for West Virginia Office of Technology (WVOT). This will provide WVOT the next-generation statewide WAN known as Data Transport 2.0 while providing a low-risk approach utilizing new technologies with options for technology injection to meet WVOT needs today and well into the future. MetTel's solution will improve WVOT's efficiency with increased reliability and cost-effective data transport services that supports WVOT's requirements, goals and objectives.



1.0 PART 1: TECHNOLOGY SERVICE AND SOLUTION FOR ETHERNET WAN, DIA AND 4G/5G SERVICES [4.3.1.1.1, 4.3.2.1.1]

MetTel has provided Ethernet Wide Area Network (WAN), Dedicated Internet Access (DIA) and Fourth Generation/Fifth Generation (4G/5G) wireless services to clients since these technologies became commercially available, improving these services through experience and innovation. We distinguish ourselves from other communications providers, solutions integrators, transport service providers and resellers of telecommunications infrastructure by leveraging a fully interconnected network of carriers with our wholly owned and operated core services network. We deliver end-to-end wireless solutions with the best coverage using multi-carrier partners, including AT&T, Verizon, and T-Mobile. We are a single vendor who will leverage a variety of technology solutions and partner with best-of-breed technology companies when required to provide the most secure, robust, reliable, and comprehensive WAN, DIA, and 4G/5G services for the West Virginia Office of Technology (WVOT).

Combining customized and managed telecommunication solutions with a powerful online performance management and business systems support (BSS) Portal will enable WVOT to manage inventory, usage, spend, track new trouble tickets, review pending trouble tickets and the performance statistics of installed services from one simple, user-friendly interface. MetTel converges all communications over a proprietary network that gives WVOT one unified view and control point for all their communications and advanced services requirements.

With our comprehensive portfolio of network solutions that can boost productivity and provide secure, flexible, reliable, and cost-effective services, including Ethernet WAN which can utilize Software Defined-Wide Area Network (SD-WAN) overlay services defined by Metro Ethernet Forum (MEF) 3.0 standards, WVOT will be able to take advantage of future value-added technologies as their requirements evolve. MetTel is pleased to offer our award winning managed SD-WAN solution as the transport overlay for WVOT when the State is ready to transition to this technology.

To overcome WVOT's challenges and meet the mandatory requirements, the current goals and future objectives, MetTel offers our industry-leading WAN services platform for secure, agile, optimal, and scalable connectivity from the edge, to the data center or cloud and beyond. It optimizes WAN networking to improve performance over private internet, and wireless links and simplifies WAN operations for increasingly distributed organizations. With support for the increasing need to access cloud-based enterprise applications, software-defined control and automation, and virtual services delivery, MetTel Ethernet WAN is the perfect solution to transform WVOT's enterprise network architecture on the MetTel platform, including a variety of technology solutions and partnering with other technology companies when required to provide the best solution. Below are some of the key benefits of implementing the MetTel solution:

- Single Business Systems Support Portal
- Optimized bandwidth usage across the entire organization
- Continuous network uptime for increased productivity
- Managed and ease of cloud onramp
- Centralized and proactive management and problem identification
- Significant cost savings
- Future-proof network to support a digital expansion

The solution in <u>Exhibit 1.0-1</u> utilizes MetTel's core network backbone transporting Private Multiprotocol Label Switching /Virtual Private LAN Service (MPLS/VPLS) and Internet traffic for the Ethernet topology.



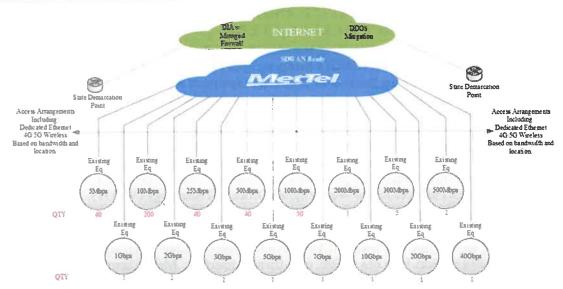


Exhibit 1.0-1: Ethernet WAN Architecture and Design¶ Ethernet WAN access with dedicated internet access and the availability of 4G/5G wireless meets all the WVOT mandatory requirements and goals and objectives.

To meet WVOT's mandatory requirements as well as current goals and future objectives, MetTel will provide Ethernet WAN services that can utilize an SD-WAN overlay as defined in the MEF 3.0 standards. MetTel offers a fully compliant Carrier Grade Ethernet transport service implemented over our core MPLS enabled network. In summary, MetTel meets the following requirements, as shown in Table 1.0-1.

Table 1.0-1: Technology Service and Solution for Ethernet WAN, DIA and 4G/5G Services

Section	Requirement	Mandatory or Goal/Objective	Compliance
4.3.2.1.1.1.	The Vendor must provide Ethernet WAN services that will terminate into existing State network equipment.	Mandatory	1
4.3.2.1.1.2.	The State requires the Vendor to provide standard Ethernet interface options to include 10/100/1000 and 4G/5G.	Mandatory	
4.3.2.1.1.3.	Vendor must propose service options that range between 5Mbps through 40Gbps for standard Ethernet service and 5Mbps through 5Gbps for SD-WAN enabled service	Mandatory	√
4,3.2,1.1,4.	The Vendor will be responsible for all service continuity associated with their WAN service, whether issues are within the Vendor's networks, alternative local-loop vendors, 4G/5G vendors, WISPS, Cable TV vendors or other technology vendors engaged to provide WAN services to the State. The Vendor must be able to coordinate, test and troubleshoot the service continuity and integrity end-to-end.	Mandatory	
4.3.2.1.1.5.	The Vendor must provide services capable of supporting dynamic routing and sharing routes between autonomous systems (AS) on provider networks as well as other public and private networks.	Mandatory	✓
4.3.2.1.1.6.	The proposed WAN services must support the transport of existing applications and services currently being utilized by the State of West Virginia. The Vendor proposed solution must allow existing or future 3rd party applications and services (example: Google Cloud, AWS, Azure) to be accessed or to function in a robust, secure, and reliable manner from the vendors core	Mandatory	
4.3.1.1.1	The State desires that the Vendor have an online performance management and support portal that, at a minimum, the State can use to enter and track new trouble tickets, review pending trouble tickets and the performance statistics of installed services. The State desires that the	Goal/Objective	V



Section	Requirement	Mandatory or Goal/Objective	Compliance
	Vendor have an online performance management and support portal that at minimum the State can use to enter and track new trouble tickets, review pending trouble tickets and the performance statistics of installed services. Please describe your solution's ability to provide an online portal for Ethernet WAN services that meets or exceeds this goal.		
4.3.1.1.1.2.	The State desires that the Vendor provide Ethernet WAN services that utilize SD-WAN overlay services as defined in the Metro Ethernet Forum (MEF) 3.0 standards. https://www.mef.net/service-standards/overlay-services/sd- wan/. Please describe your company's ability to meet this goal.	Goal/Objective	

1.1 Ethernet WAN Service [4.3.1.1.1]

With our extensive portfolio of Ethernet last-mile providers, MetTel exceeds the reach and connection options available on our network versus from any single provider. The capabilities of our fully distributed network core allow us to use a combination of fiber, copper, and wireless, which provides the best opportunity to render the most competitive price for the State at any given location to meet service requirements. Our solution allows the most robust and flexible implementation of Ethernet Services possible, which will terminate into existing State network equipment.

1.1.1 Ethernet WAN services [4.3.1.1.1.4.3.1.1.1.2.]

The MetTel Portal is our online performance management and support portal that the State can use to enter and track new trouble tickets, review pending trouble tickets, and evaluate installed services' performance statistics. See Section 1.1.3 for information on how the MetTel Portal meets the mandatory requirements, current goals, and future objectives for Ethernet WAN.

1.1.2 Ethernet WAN services that utilize SD-WAN overlay [4.3.1.1.1.2, 4.3.2.1.1.1, 4.3.2.1.1.2, 4.3.2.1.1.3, 4.3.2.1.1.4, 4.3.2.1.1.5, 4.3.2.1.1.6]

To meet WVOT's mandatory requirements, current goals, and future objectives, the MetTel core network is enhanced by the overlay implementation of optional SD-WAN service providing connectivity and management options. MetTel's SD-WAN utilizes customized versions of VMware VeloCloud SD-WAN appliances. The VeloCloud Controllers (VCC) and VeloCloud Orchestrator (VCO), which are used to control the enterprise and establishes the management and control planes via the Internet. For data plane connectivity, the branch MetTel SD-WAN Edges will establish overlays to the Hub leveraging both MPLS and Internet. The optional solution in Exhibit 1.1-1 utilizes MetTel's core network backbone transporting Private (MPLS/VPLS) and our integrated SD-WAN overlay transporting Ethernet and Internet traffic for the Ethernet topology.



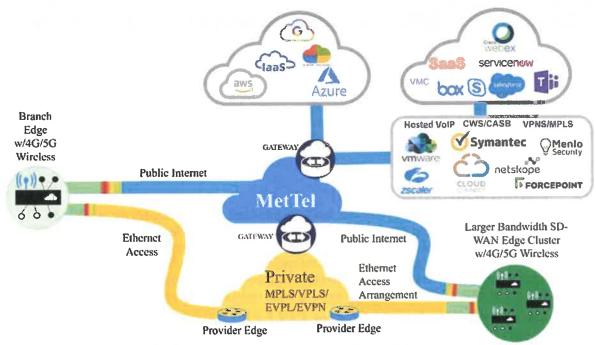


Exhibit 1.1-1: Optional SD-WAN Architecture and Design SD-WAN optionally provides an overlay control mechanism that meets current and future WAN requirements

The VMware SD-WAN solution is comprised of the following three components to separate the control, management, and data plane to create a WAN-agnostic, secure cloud network overlay:

SD-WAN VeloCloud Orchestrator ("VCO") is the management component for SD-WAN. It acts as a single point for configuration, management, monitoring, and troubleshooting. It is required for every VMware SD-WAN deployment and serves as the central point of administration for the enterprise.

For an on-premises solution, the VCO is deployed as a virtual machine (VM) and it can have single or multiple interfaces as per design requirements. The VCO for the on-premises solution is typically deployed in the data center with Internet connectivity on its primary interface that is secured behind the firewall. Ethernet port 0 would be the primary interface used for management connectivity by the VMware SD-WAN Edges, and Ethernet port 1 would be an optional interface used only for VCO disaster recovery (DR).

SD-WAN VeloCloud Controllers ("VCC") handle all control plane functions, such as WAN links discovery, tunnel endpoint IP resolution, route, and policy synchronization, etc. SD-WAN Edges establish VeloCloud multipath (VCMP) tunnels for the controllers and use the tunnels for control plane communication. The Edges detect the bandwidth on their links by measuring the throughput to the Controllers and utilizing the same tunnels to exchange routing updates and other control plane functions with the Controllers. For enterprise on-premises deployments, they are provided as VMs and can be deployed with one or two interfaces as per enterprise network topology; no data plane traffic is expected to traverse the VCC for an on-prem solution.

SD-WAN Hub is a physical or virtual Edge with an elevated role in the hub-and-spoke architecture, where the branches establish persistent overlay tunnels to the Hubs and build dynamic tunnels to each other based on underlying traffic demands. The Hub or Hub cluster is defined by Cloud VPN configuration in the branch's network profile. Configuring Hubs for the branch Edges serves the following use cases:

The branch Edges establish static tunnels to the configured Hubs for access to data centers and their hosted applications.



- The branch Edges may use the Hubs as options for Internet backhaul when utilizing the business policy configuration to forward Internet-bound traffic.
- If "Dynamic Branch to Branch VPN" is enabled in the branch profile, the Hub can facilitate branch to branch traffic before the dynamic tunnels between the branch Edges come up.

The MetTel implementation of SD-WAN service in our core network provides enhanced connectivity, flexibility, and management capabilities. MetTel will provide Ethernet WAN services that terminate into existing State network equipment and standard Ethernet interface options to include 10/100/1000 and 4G/5G with service options ranging between 5Mbps through 40Gbps. MetTel is responsible for all service continuity associated with our WAN service, whether issues are within MetTel's networks, alternative local-loop vendors, 4G/5G vendors, Wireless Internet Service Providers (WISP), Cable TV vendors or other technology vendors engaged to provide WAN services to the State. MetTel will coordinate, test, and troubleshoot the service continuity, integrity end-to-end and provide services capable of supporting dynamic routing and sharing routes between autonomous systems (AS) on provider networks and other public and private networks. Our proposed WAN services support the transport of existing applications and services currently being utilized by the State of West Virginia. Our solution allows existing or future third-party applications and services (i.e., Google Cloud, AWS, Azure) to be accessed or to function in a robust, secure, and reliable manner from MetTel's core network. MetTel's core network can support the services and applications below which have been identified by the State:

- Unified Communication
- Commodity Internet access
- Internet 2 access
- High Volume Database transmissions
- Desktop Virtualization
- Server Synchronization
- Network Monitoring (not an application)
- Security Monitoring (not an application)
- Content Filtering (not an application)
- Virtual Private Networking
- Cloud hosted platforms like the Google Workspace for Business

See <u>Section 1.5</u> for more information on how the MetTel Portal meets the mandatory requirements, current goals, and future objectives for Ethernet WAN service. In summary, MetTel meets the following Ethernet WAN requirements as shown in Table 1.1-1.

Table 1.1-1: Ethernet WAN Service Requirements met by MetTel

Section	Requirement	Mandatory or Goal/Objective	Compliance
4.3.2.1.1.1.	The Vendor must provide Ethernet WAN services that will terminate into existing State network equipment.	Mandatory	1
4.3.2.1.1.2.	The State requires the Vendor to provide standard Ethernet interface options to include 10/100/1000 and 4G/5G.	Mandatory	1
,4.3.2.1.1.3.	Vendor must propose service options that range between 5Mbps through 40Gbps.	Mandatory	1
4.3.2.1.1.4.	The Vendor will be responsible for all service continuity associated with their WAN service, whether issues are within the Vendor's networks, alternative local-loop vendors, 4G/5G vendors, WISPS, Cable TV vendors or other technology vendors engaged to provide WAN services to the State. The Vendor must be able to coordinate, test and troubleshoot the service continuity and integrity end-to-end.	Mandatory	
4.3.2.1.1.5.	The Vendor must provide services capable of supporting dynamic routing and sharing routes between autonomous systems (AS) on provider networks as well as other public and private networks.	Mandatory	✓



Section	Requirement	Mandatory or Goal/Objective	Compliance
4.3.2.1.1.6.	The proposed WAN services must support the transport of existing applications and services currently being utilized by the State of West Virginia. The Vendor proposed solution must allow existing or future 3rd party applications and services (example: Google Cloud, AWS, Azure) to be accessed or to function in a robust, secure, and reliable manner from the vendors core	Mandatory	
4.3,1.1,1.1	The State desires that the Vendor have an online performance management and support portal that, at a minimum, the State can use to enter and track new trouble tickets, review pending trouble tickets and the performance statistics of installed services. The State desires that the Vendor have an online performance management and support portal that at minimum the State can use to enter and track new trouble tickets, review pending trouble tickets and the performance statistics of installed services. Please describe your solution's ability to provide an online portal for Ethernet WAN services that meets or exceeds this goal.	Goal/Objective	
4.3.1.1.1.2.	The State desires that the Vendor provide Ethernet WAN services that utilize SD-WAN overlay services as defined in the Metro Ethernet Forum (MEF) 3.0 standards. https://www.mef.net/service-standards/overlay-services/sd-wan/. Please describe your company's ability to meet this goal.	Goal/Objective	

1.1.3 Dedicated Internet Access Service (DIA) [4.3.1.1.2-4.3.1.1.2.1, 4.3.2.1.2]

To meet WVOT's mandatory requirements as well as current goals and future objectives, MetTel's Dedicated Internet Access (DIA) provides support for the full range of connection requirements to the Internet. We will provide DIA services from the State demarcation point to the Internet backbone, as well as the DIA Service Level Agreements (SLA), found in <u>APPENDIX B</u>. For details on service level benchmarks, the following service categories and associated benchmarks, refer to <u>Table 1.1-2</u>.

Table 1.1-2: MetTel Meets or Exceeds the DIA SLA Benchmarks

Section	Benchmark Goal	Requirement	MetTel Compliance
4.3.2.1.2.2.1.	Service Availability	Vendor DIA Service will be available 99.999% of the time.	V
4.3.2.1.2.2.2.	Denial of Service	Vendor must respond to Denial of Service attacks reported by State within 15 minutes of the State opening a trouble ticket.	
4.3.2.1.2.2.3.	Latency	Vendor service must provide for average round-trip transmissions of 45 milliseconds or less between their regional core backbone routers and the State designated core routers.	1
4.3.2.1.2.2.4.	Network Packet Delivery	Vendor service must provide for a monthly packet delivery of 99.5% or greater between Vendor designated regional core backbone routers and the State designated core routers.	

MetTel will design a network using the best and most cost-effective paths of connectivity from WVOT locations to our network data centers where all spans of our network are monitored and our solutions are executed. We utilize our extensive wholesale relationships to put the best network pieces in place that meet or exceed WVOT's requirements. MetTel peers with multiple Tier 1 internet providers to provide multiple public BGP routing options, and physical interface types to meet WVOT connection requirements using the full Transmission Control Protocol/Internet Protocol (TCP/IP) suite. MetTel will deliver service to each location using a Ethernet handoff and the requested standard connectors. The MetTel Portal provides visibility and management of the DIA service, which exceeds the requirements of this RFP. Inherent to our network backbone, Distributive Denial of Service (DDOS) capabilities are included as part of our Managed Internet Service.

See <u>Section1.1.3</u> for more information on how the MetTel Portal meets the mandatory requirements, current goals, and future objectives for the DIA Online Management Support Portal to track ticket numbers, review pending trouble tickets and the performance statistics of installed services and provide an online portal for DIA services that meet or exceeds this goal. The Cost Proposal (submitted separately) provides pricing for bandwidth at the following levels:



- 50mbps
- 100mbps
- 500mbps
- 1Gbps
- 2Gbps
- 5Gbps
- 10Gbps
- 25Gbps
- 40Gbps

In summary, MetTel meets the following DIA requirements, as shown in Table 1.1-3.

Table 1.1-3: DIA Service Requirements met by MetTel

Section	Benchmark	Requirement	MetTel Compliance
4.3.2.1.2.1.	Vendor must provide dedicated DIA services purchased from the State demarcation point to the Internet backbone.	Mandatory	~
4.3.2.1.2.2.	Vendor must provide DIA Service Level Agreements (SLAs) that meet or exceed the following service categories and associated benchmarks:	Mandatory	No line
4.3.2.1.2.2.1.	Service Availability: Vendor DIA Service will be available 99.999% of the time.	Mandatory	7
4.3.2.1.2.2.2.	Denial of Service: Vendor must respond to Denial of Service attacks reported by State within 15 minutes of State opening a trouble ticket.	Mandatory	7
4.3.2.1.2.2.3.	Latency: Vendor service must provide for average round-trip transmissions of 45 milliseconds or less between their regional core backbone routers and the State designated core routers.	Mandatory	✓
4.3.2.1.2.2.4.	Network Packet Delivery: Vendor service must provide for a monthly packet delivery of 99.5% or greater between Vendor designated regional core backbone routers and the State designated core routers.	Mandatory	
4.3.2.1.2.3.	Vendor must supply IP address blocks up to and including a full Class-C block.	Mandatory	Ī
4.3.2.1.2.4.	Vendor must provide bandwidth pricing for the following levels of Service:	Mandatory	V 17-4
4.3.2.1.2.4.1.	50mbps	Mandatory	√
4.3.2.1.2.4.2.	100mbps	Mandatory	√
4.3.2.1.2.4.3.	500mbps	Mandatory	V
4.3.2.1.2.4.4.	1Gbps	Mandatory	V
4.3.2.1.2.4.5.	2Gbps	Mandatory	✓
4.3.2.1.2.4.6.	5Gbps	Mandatory	✓
4.3.2.1.2.4.7.	10Gbps	Mandatory	✓
4.3.2.1.2.4.8.	25Gbps	Mandatory	√
4.3.2.1.2.4.9.	40Gbps	Mandatory	V
4.3.1.1.2.1	The State desires that the Vendor have an online performance management and support portal that, at a minimum, the State can use to enter and track new trouble tickets, review pending trouble tickets and the performance statistics of installed services. Please describe your solution's ability to provide an online portal for DIA services that meets or exceeds this goal.	Goal/Objective	

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1.1.4 Online Portal for DIA Services [4.3.1.1.2.1]

Central to MetTel's performance is our proprietary online management portal. MetTel provides all services, including billing, repairs, and provisioning status, which are accessible 24x7x365 through the MetTel Portal, a web-based, easy to use, the self-service portal provides featuring administration and user-controllable settings. This portal will effectively enable WVOT to manage and monitor the progress

of transition, overall business operations, and adherence to service level performance. This approach is based on providing transparency in operations and performance for all services. MetTel's portal is based on our award-winning Bruin Business Intelligence Portal. MetTel's Bruin Portal was featured in The 2021 Gartner Market Guide for Telecom Expense Management (TEM) Services and received a Product of the Year Award from Technology Marketing Corporation (TMC), TMCnet.com's Internet Telephony magazine.



Using the MetTel Portal, WVOT will have the ability to monitor all performance of the WAN and DIA services that support the contract. Using the MetTel Portal which includes Intelligent Process Automation, WVOT can observe network traffic, utilization, delays, outages, downlinks, errors, and overutilization with a quick view. MetTel Intelligent Process Automation, using artificial intelligence (AI) and automation, works to identify, report, and address network incidents, events, or trouble tickets that can be accessed through the portal. The MetTel Portal provides the ability to enter and track new trouble tickets, review pending trouble tickets, and the performance statistics of installed services. All components of the MetTel solution can be centrally managed through the toolset within the Portal. See

Exhibit 1.5-1 for the benefits to WVOT of using MetTel Portal.

The MetTel Portal provides the measures and reports used for validating that the SLAs have been met. In support of WVOT operations, the Portal will provide email notifications on critical events to a WVOT-designated email address for quick notification as issues are worked to resolution.

Post-installation of the SD-WAN service, in the event the State decides to move to SD-WAN, the network is supplemented by the

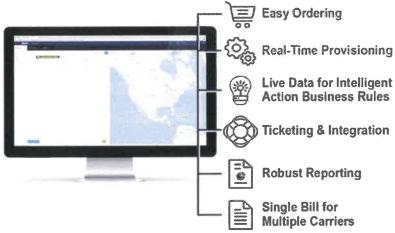


Exhibit 1.1-2: MetTel Portal Benefits \(\Psi\) WVOT benefits from multiple features and services. A single pane of glass provides End-to-End visibility for all of WVOT's WAN, DIA and 4G/5G services.

capabilities of the MetTel SD-WAN Orchestrator. At this time, WVOT has the option of applying network function virtualization (NFV) capabilities to improve performance, and the Orchestrator provides monitoring capabilities greater than traditional MPLS WANs.

1.1.4.1 Service Order Tracking Web Portal [4.3.1.3.3]

The MetTel Portal is a service order tracking web portal, which includes real-time updates for new and pending service orders, including the following data elements:



- Telecommunications Change Request (TCR) Form Number
- Date order was received
- Department/Agency Name where service is being installed
- Department/Agency where service is being installed address
- Projected due date
- Rate element identifier (circuit ID or other)
- Additional order details

The MetTel Portal will provide transparency and fast updates without the need to contact MetTel. Our Customer Care is the overarching support organization with the Customer Care Representatives, project management, and training teams, all of whom work with the portal as their core system. Our approach to providing quality WVOT services order tracking and effective performance monitoring and reporting is encapsulated in the Portal. The Portal provides a powerful, multi-layered workflow engine that enables our internal support organizations' visibility and management for proactive, automated trouble ticket generation should service hit an unacceptable quality level based on prescribed SLA.

Exhibit 1.1-3 below depicts how the MetTel Portal interfaces with our internal teams and how it provides WVOT access to the data needed to support all task areas.

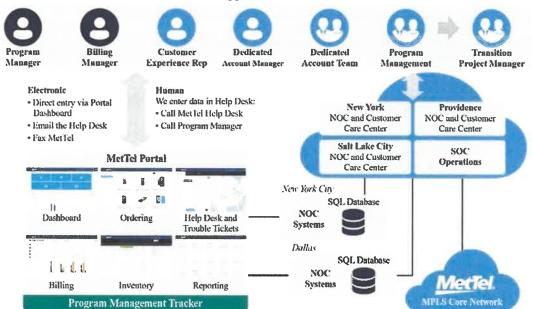


Exhibit 1.1-3: MetTel Portal Interfacing within the MetTel Organization # The Portal offers WVOT access and visibility to data and a direct interface within the MetTel Organization.

1.1.5 4G/5G Wireless Service [4.3.1.1.3-4.3.1.1.3.1., 4.3.2.1.4]

To meet WVOT's mandatory requirements, current goals, and future objectives, MetTel will provide the best coverage and options, including unlimited data, for integrating 4G/5G solutions for WVOT to enable the delivery of an optional world-class, end-to-end wireless solution on either a full time or interim basis. MetTel is a Mobile Virtual Network Operator (MVNO). As an MVNO, we are uniquely positioned to deliver end-to-end wireless solutions with the best coverage using multi-carrier partners, including AT&T, Verizon, and T-Mobile.

With MetTel's 4G/5G solutions, WVOT will be able to utilize 4G/5G service as a full-time or interim WAN service or to provide back-up/redundant service for a site's Ethernet WAN service. MetTel will be responsible for the coordination of the installation and ongoing management of the 4G/5G wireless service. 4G/5G wireless service options include unlimited data without throttling and may be

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added to the network topology design as a supplement to any site for redundancy, or as a primary access method.

MetTel meets the goals and objectives for the single bill. The details on how MetTel provides a single bill that includes 4G/5G wireless service, as well as Ethernet WAN and DIA services, please see Section 3.2.3.

In summary, MetTel meets the following 4G/5G requirements as shown in Table 1.1-4

Table 1.1-4: 4G/5G Service Requirements met by MetTel

Section	Benchmark	Requirement	MetTel Compliance
4.3.2.1.4.1.	services across the state. Further, 5G wireless service is also acceptable if it is available in the area. In all cases, 4G wireless services must be provided.	Mandatory	,
4.3.2.1.4.2.	Upon request from the State, wireless services will be installed at locations where wireless service is available and satisfies the location bandwidth requirements. The state plans to utilize wireless services as a full time or interim WAN service, or to provide back-up/redundant service for a site's Ethernet WAN service.	Mandatory	
4.3.2.1.4.3.	Vendor will be responsible for coordination of the installation and ongoing management of the wireless service	Mandatory	~
4.3.2.1.4.4	State requires that both 4G and 5G wireless service options include unlimited data.	Mandatory	
4.3.2.1.4.5	Throttling of wireless services data is strictly and wholly prohibited.	Mandatory	V
4.3.1.1.3.1.	State desires a single bill from Vendor that includes wireless service as well as Ethernet WAN and DIA services. Please describe your solution's ability to provide an integrated services bill that meets or exceeds this goal.	Goal/Objective	
4.3.1.3.3.	The State desires a service order tracking web portal, including real-time updates for new and pending service orders. The State desires details including the following data elements:	Goal/Objective	√
4.3.1.3.3.1.	Telecommunications Change Request (TCR) Form Number	Goal/Objective	1
4.3.1.3.3.2.	Date order was received	Goal/Objective	√
4.3.1.3.3.3.	Department/Agency Name where service is being installed	Goal/Objective	✓
4.3.1.3.3.4.	Department/Agency where service is being installed address	Goal/Objective	✓
4.3.1.3.3.5.	Projected due date	Goal/Objective	✓
4.3.1.3.3.6.	Rate element identifier (circuit ID or other)	Goal/Objective	√
4.3.1.3.3.7.	Additional order details	Goal/Objective	✓

1.2 E-Rate [4.3.2.1.3]

To meet the mandatory requirements, MetTel is an E-Rate eligible provider with a Service Provider Identification Number (SPIN) of 143028307. Our bill will show E-rate discounts per Funding Request Number (FRN) on the bill for E-rate eligible entities. We understand that schools and libraries apply for eligible services from eligible service providers every year.

1.2.1 General E-Rate Requirements [4.3.2.1.3.3]

MetTel complies with the requirements of the Universal Service Fund (USF) program. MetTel will provide eligible entities the "Lowest Corresponding Price" (LCP) for services (refer to Federal Communications Commission (FCC), Title 47 of the Code of Federal Regulations (CFR) § 54.500(f) and 47 CFR § 54.511(b)). MetTel will offer schools and libraries services at the LCP throughout geographic service areas that include all non-residential customer offerings that are similarly situated to a school or library. Our E-Rate categories appear below in Table 1.2-1.

Table 1.2-1: MetTel E-Rate Categories

Category	Service	RFP Section
Category 1	Telecommunications, Telecommunications Services & Internet Access	4.3.2.1.3.1



Category	Service	RFP Section
Category 2	LAN and WLAN Internal Connections & Basic Maintenance of Internal Connections	4.3.2.1.3.2

MetTel will abide by all E-Rate rules, regulations, and limitations as described by FCC, Universal Service Administrative Company (USAC), and Schools and Libraries Division (SLD) and operate within Rule 47 CFR § 54.511(b), which states that the provider of eligible services shall not charge schools, school districts, libraries, library consortia, or consortia including any of these entities a price above the LCP for supported services, unless the FCC, with respect to interstate services or the state commission with respect to intrastate services, finds that the LCP is not compensatory. All the required forms are in place and are currently up to date. MetTel's bill will show E-rate discounts per Funding Request Number (FRN) on the bill for E-rate eligible entities.

We meet the below qualifications to be eligible to provide the services and receive USAC reimbursement:

- MetTel currently contributes to the Universal Service Fund
- MetTel currently provides telecommunications services on a common carrier basis
- MetTel has filed an FCC Form 498, Service Provider Information Form, and obtained a
 Service Provider Identification Number (SPIN), providing that number as part of this bid
 response, and has an FCC Registration number tied to our Employer Identification Number
 (EIN)
- MetTel has filed an FCC Form 473, Service Provider Annual Certification Form, and does so on an annual basis
- MetTel has filed an FCC Form 499-A, Annual Telecommunications Reporting Worksheet, annually.
- MetTel has completed the FCC Forms 949- A,

Below in Exhibit 1.2-1 is a screenshot of our FCC Form 473 filing from the USAC website:

MetTel works with the applicant school or library to ensure that all services for which E-Rate discounts are being requested under the contracts resulting from this solicitation are indeed eligible services as described in the Eligible Services List (ESL). MetTel has never been in jeopardy of Red Light status. MetTel agrees to notify the State of West Virginia, West Virginia Department of Education (WVDE), and West Virginia Library Commission (WVLC) within 24 hours in the event of being subjected to the "Red Light Rule." The person responsible for E-Rate within MetTel is Chris Reid Eriksen, who can be contacted by phone at (401) 223-0980 or by email at ceriksen@mettel.net. In summary, MetTel meets the mandatory E-Rate requirements.

Show 10 vientries			Search				
SPIN .	Service Provider Name	Doing Business As	Status	Contact Name	Email	Phone	Spac Filed (FCC Form 473)
143028307	Metropolitan Telecommunic ations Holding Company	MetTel	Active	Chris Reid Eriksen	ceriksen@mettel net	401-223- 0980	2003 2004 2005 20 06 2007 2008 200 9 2010 2011 2012 2013 2014 2015 20 16 2017 2018 201 9 2020 2021

Exhibit 1.2-1: E-Rate Form 473\psi MetTel has filed E-Rate Form 473 in the years that appear in the right-hand column (highlighted in yellow).

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2.0 PART 2: VENDOR ETHERNET WAN SERVICES MIGRATION PLAN [4.3.1.2, 4.3.2.2]

MetTel will provide the finalized Operations Plan to the State within sixty (60) calendar days of contract effective date with scheduling the appropriate meetings, making changes after State input, and meeting deadlines.

2.1 Mandatory Requirements

To meet WVOT's mandatory requirements, current goals, and future objectives, MetTel's migration from WVOT legacy Ethernet WAN services will allow for a seamless implementation of the WVOT infrastructure and minimize the risks to WVOT and its mission.

2.1.1 Project Plan [4.3.2.2.1, 4.3.2.2.2, 4.3.2.2.3, 4.3.2.2.5]

MetTel's project management plan will be submitted to be approved by the WVOT Project Management Office (PMO) before engaging the first agency for Ethernet WAN services implementation. The project management plan includes a detailed project plan for transitioning the legacy installed WAN services to its Ethernet WAN services and identifies the Project Manager. MetTel also includes details on how we will coordinate service migrations with WVOT and mitigate any gaps in service (interruption of service). MetTel coordinates new services acceptance and billing for new services with WVOT in a manner that eliminates any duplicate billing between legacy services and our own. Our project management plan will be submitted and approved by the WVOT Project Management Office (PMO) before engaging the first agency for Ethernet WAN services implementation

2.1.2 Project Manager [4.3.2.2.4]

Using the Project Management Institute (PMI) within the Project Management Book of Knowledge (PMBOK) and standards developed by the Information Technology Infrastructure Library (ITIL) and the Capability Maturity Model Integration (CMMI) process, MetTel's Project Manager provides a high-level project management plan including key components such as a project charter, issue tracking, statements of work (SOW), work breakdown structures (WBS), and implementation schedules.

Ms. Michelle Shader is an experienced and skilled Transition Project Manager in MetTel's New Client Services (NCS) division with expertise in telecommunications and project management. Ms. Shader serves as the focal point of all WVOT transition activities, communicating directly and regularly with her counterpart(s) at WVOT to address and manage strategic and daily transition activities and issues. She will provide a high-level project management plan, including key components such as a project charter, issue tracking, statements of work (SOW), work breakdown structures (WBS), implementation schedules, etc., in accordance with the PMBOK. Ms. Shader has a repertoire of skills and knowledge that will facilitate a reliable and efficient transition of all required services at all WVOT sites before the expiration of existing contracts and ongoing transition management of additional WVOT voice service requirements over the life of the different phases and overall contract.

Ms. Shader will track and report (via written status reports) the following: schedule, scope, budget, issues, risks, specified performance indicators, and other metrics determined appropriate throughout the project and each site implementation. In addition to her responsibilities as Project Manager, Michelle Shader serves as the focal point of all WVOT transition activities, communicating directly and regularly with her counterpart(s) at WVOT to address and manage strategic and daily transition activities and issues, including the following:

- Reviews quote information.
- Requests and obtains all customer service records (CSRs).
- Reviews and scrubs all CSRs.
- Works directly with key stakeholders to schedule a migration plan.
- Updates key stakeholders with status report email, daily updates to detailed tracking documents, and weekly conference calls.



2.1.3 Reports [4.3.2.2.6]

The Project Manager tracks and reports (via written status reports) the following: schedule, scope, budget, issues, risks, specified performance indicators, and other metrics determined appropriate throughout the project and each site implementation. The MetTel Portal provides extensive reporting and visibility into the progress of all work orders and deliverables.

MetTel will deliver weekly reports to WVOT Project Manager. The reports specify the services disconnected and active services based on the transition inventory. We deliver a monthly Project Status Report at the end of every month that includes a data file of the invoiced amount by AB code for the most recently completed billing period; a discussion of transition issues reported by customers or experienced by MetTel during the reporting period or unresolved since the last report; corrective action and status; and a risk analysis and response plan.

- Reports include:
 - Billing Adjustment
 - Billing Invoice
 - Dispute Report
 - Inventory Reconciliation
 - Monthly Billing Information Memorandum
 - Service Level Agreement Report
 - SLA Credit Request Response
 - Trouble Management Incident Performance Report
 - Trouble Management Performance Summary Report

MetTel also provides the reports shown in <u>Table 2.1-1</u>.

Table 2.1-1: Additional Reports

Additional Reports	Reporting Purpose
Order Report	MetTel will provide a report on a monthly basis that lists orders placed and orders completed. The report(s) will contain information pertinent to each order: Order Number, AHC, COR, Task Order, ASRN, Service, Order Action, Expedite Indicator, UBI, any Billing Identifier, Circuit ID, and relevant order dates (SOA, SOC, FOCN, Customer Want Date, SOCN). If the order was updated in progress (supplement), MetTel will report on those associated dates. If the order was completed, MetTel would report on the SLA interval associated with the order and whether the order met the SLA.
Usage Reports	MetTel will provide near real-time call detail or usage reports for used products. Also, describe how WVOT could determine if usage base services are not being used.
Legacy Transition-Off Report:	If an awarded Contractor is an incumbent, it will produce a monthly report of services moved off the legacy contracts (Networx, WITS3, and LSAs).
Network outage incident report	MetTel will provide a report on each network outage. It will detail when the outage began, when the ticket was closed, and the total outage time, as well as a root cause analysis. This report will be delivered within two business days after the ticket is closed.
Service Level Reporting	MetTel will provide monthly reports outlining when contract specified performance metrics for the following services are not met. The report will include the duration, reason for SLA non-compliance
Trouble ticket reports	MetTel will provide reports detailing open and closed trouble tickets, summarized by the WVOT office, aging, and severity information.
Configuration Reports	MetTel will provide reports on detailed network configurations.
Data Usage and Trending Reports	MetTel will provide reports that include analysis of network flow data, traffic within the network, or security reports.
Maintenance Reports	MetTel will provide a report that shows which WVOT circuits will be affected by planned network maintenance by MetTel. The report will display the circuit ID, date and time of planned maintenance, and length of the event. This report will be produced weekly or at an interval that allows WVOT to plan for all network maintenance.
Portal User Reports	MetTel will provide a report detailing the list of users registered to our portal. The list will contain, at a minimum, a list of users, their roles, and their level of access.

MetTel will prepare and submit monthly status reports to the Contracting Officer as requested. Establishing and maintaining appropriate tracking systems to facilitate report submission is not separately billable, nor are costs for copying and distributing reports. Reports will be provided to the Contracting



Officer in both printed and electronic form if requested. The Contracting Officer will approve the format of the report. MetTel will modify the format or subject content of the reports at the direction of the Contracting Officer. Additionally, the Contracting Officer may require MetTel to submit ad hoc reports (oral or written) as needed.

Minimum content requirements of MetTel's Monthly Status Reports are listed in <u>Table 2.1-2</u>.

Table 2.1-2: Monthly Status Report Minimum Content

	Monthly Status Report Contents
a)	Task Order number
b)	For each modification: the date issued and the amount by CLIN
c)	Work orders issued: number, date, purpose, and cost
d)	Funds expended and remaining
e)	A brief current task description: a narrative review of work accomplished during the reporting period and/or significant events, as well as an assessment of work being completed on schedule and within budget.
f)	A graphical report of task status
g)	Status of all ongoing activities in accordance with defined due dates
h)	Identification of problems (including issues that may impact work performance) encountered and recommended solutions, and
i)	Anticipated activity for the next reporting period

2.1.4 Escalation [4.3.1.3.7]

Monitoring and reporting escalation procedures for implementation progress are built into our processes, whether at transition or during the transformation of services. The assigned Program Manager (PM), Ron Glavan, will oversee the many project activities initiated upon the award in collaboration with the Manager Team. The PM coordinates among the Provisioning, Service Delivery, Client Data Analysis, and Customer Experience personnel to ensure that activities are implemented. The PM will closely monitor all transition activities and escalate to the Program Management Officer (PMO) any anomaly or potential deviation from the transition plan and schedule. Should critical issues arise during the transition, the Project Manager will liaise with the PM. The Project Manager and PMO each have access to executive-level supervisors who can provide the necessary corporate resources. MetTel's internal escalation hierarchy for close monitoring and reporting is depicted in Error! Reference source not found.

Table 2.1-3: MetTel's Hierarchical Escalation.

Escalation Level	Name and Title
1	Transition Project Manager, Michelle Shader
	Program Manager, Ron Glavan
2	Program Management Officer, Patrick Amos
3	Senior Vice President / General Manager of Federal Programs, Rob Dapkiewicz
4	COO/EVP, Andoni Economou

MetTel's response to incidents of varying security levels is depicted in the following <u>Table 3.2-4</u>.

Table 2.1-4: Security Level Response

Section	Security Levels	Response Time
4.3.1.3.7.1.	Severity Level 1 is defined as an urgent situation where the customer's services are unavailable and the customer is unable to use/access the network.	MetTel will resolve Severity Level 1 problems as quickly as possible, which should not exceed two (2) business hours on average. If repair inside the 2-hour window is not feasible, then regular 1-hour updates are provided.
4.3.1.3.7.2.	use by the customer. The service may operate but is	MetTel will resolve Severity Level 2 problems as quickly as possible, which should not exceed four (4) business hours on average. If repair inside the 4-hour window is not feasible, then regular 2-hour updates are provided.
4.3.1.3.7.3.	Severity Level 3 is defined as a minor problem that exists with the service, but most of the functions are still usable, and some circumvention may be required to provide service. The Vendor should	MetTel will resolve Severity Level 3 problems as quickly as possible, which should not exceed ten (10) business hours on average. If repair inside the 10-hour window is not feasible, then updates are provided at the start of the



resolve Severity Level 3 problems as quickly as possible, which on average, should not exceed ten (10) business hours. If repair inside the 10-hour window is not feasible, then updates are desired at the start of the next business day and every day thereafter until repairs are complete.

next business day and every day thereafter until repairs are complete.

2.1.5 Change Requests [4.3.2.3.2]

MetTel will work with the WVOT using the established Telecommunications Change Request (TCR) procedures for ordering and implementing these telecommunications services.

2.1.6 Operations Plan [4.3.1.2.1]

The MetTel Project Manager has the overall responsibility for project management and will ensure that the Operation Plan is finalized and will schedule the appropriate meetings, make changes after State input, and ensures deadlines are met. MetTel will provide a finalized and agreed-upon Operations Plan within sixty (60) calendar days of the contract effective date for the management, support, and maintenance of the State's current WAN infrastructure.

2.2 Migration Plan [4.3.1.2.2]

MetTel will ensure all sites listed in RFP Exhibit B are migrated to MetTel's Ethernet WAN service within 365 calendar days from the contract effective date MetTel will accomplish this migration by avoiding migration risks for performance degradation and providing a process to migrate off existing contracts using Ethernet. MetTel will provide testing in parallel, implementing our solution after WVOT approves the test blueprint.

MetTel can deliver a migration to Ethernet WAN, DIA, and 4G/5G in 365 days, leveraging the best industry standards and access methods currently available to a location using a 4 Phased approach as shown below. MetTel will provide WVOT with the most cost-effective access, collaborating and partnering with the State and integrating Network to Network Interfaces (NNIs) with over 120 different local access providers. Through our 4 Phased approach, MetTel will connect to WVOT locations that are in highly-populated areas. MetTel will manage this migration as Phase 1.

2.2.1 Phase 1: Migration Period [4.3.1.2.2]

The key to successful migration requires close coordination and cooperation with the MetTel Project Manager. MetTel will work with WVOT to capture critical migration data, such as Local Points of Contact (LCON) and other key dependencies from WVOT gathered from coordinating site surveys and reviewing existing WVOT performance data. During this initial phase, MetTel will complete a site survey of WVOT site locations, reviewing the facility layouts, testing all connections, determining the age of current equipment, and if a demarc extension is needed. The MetTel site survey teams use a standard questionnaire and survey checklist but tailor them to specific needs or unique site requirements for each location, such as LAN traffic patterns and local VLANs. Our survey and installation will include any necessary drawings or pictures to support the efforts required to implement the required services. The deliverable from each survey is a report outlining specific details and the results of the survey. Each report is provided to WVOT stakeholders for review.

MetTel recommends a parallel deployment strategy where new services are to be provided by MetTel, which include the installation of SD-WAN enabled premises devices, and new site AAs as required in our Cost Proposal (submitted separately), are strategically ordered in a cadence that allows parallel connectivity with the WVOT. MetTel follows procedures where the services are monitored during an initial testing period to validate continuity and error-free operation. Upon validation of all testing and continuity of performance, MetTel will activate dynamic routing protocols to give our path precedence during migration while allowing for any rollback functionality of the incumbent carrier-provided service in the event of performance degradation.



MetTel uses fallback/contingency plans developed to address service problems that prevent a successful cutover. The new access is installed at all sites that have adequate facilities from the LEC with which MetTel has relationships. New equipment is installed at all sites. The fallback is to keep the previous service active until verification of the new service is live and revert to the existing services access and equipment if needed. MetTel Provisioning Team coordinates closely with WVOT site personnel on on-site surveys, installs, and service testing schedules. MetTel's site survey and validation processes ensure that necessary facility build-out and site preparations are initiated early in the migration process. MetTel monitors and documents all WVOT, LEC, and building owner site preparation activities. Prior to the cutover date, the MetTel Lead Deployment Engineer validates that site preparation work is complete.

2.2.2 Phase 2: Migration and Stability [4.3.1.2.2]

MetTel's solution is the perfect match for providing WVOT with an "enhanced as-is" network. MetTel Phase 2 migration will include the migration of the current WVOT service to the WAN infrastructure deployed in Phase 1. After completing Phase 1 and securing WVOT's approval of MetTel's Final Migration Plan that incorporates data captured during Phase 1, MetTel will migrate all MPLS and WAN management and operation functions, stabilize the service, and plan and deploy needed critical enhancement to the network infrastructure.

It is MetTel's recommendation to limit Phase 2 to modest improvements to network performance with minimal disruption. MetTel proposes using the WAN-enabled devices that were deployed during Phase 1 to support AA and Ports at WVOT locations. This deployment is intended to work in parallel with the existing WVOT network infrastructure to maintain the legacy configurations. The advantage of this step is to provide a means of continued network discovery; MetTel will have visibility into the traffic currently managed through the WVOT Edge devices.

By placing an Edge appliance at the designated WVOT service site, MetTel will have access to the existing WVOT core network allowing the engineering team to learn the internal routing tables. Using this information, MetTel will set up a testing platform allowing WVOT to conduct proof-concept testing to gain confidence in the WAN migration. MetTel may require consultation with WVOT technical personnel to ensure we have access to performance reporting and historical data and configuration and mapping of Virtual Routing and Forwarding (VRFs). A complete understanding of the current LAN configuration will be required to ensure compatibility for proposed enhancements. During this discovery period, Mr. Shawn Kendig, Director of Solution Architecture and Engineering and Technical Support Representative, will consult with WVOT technical personnel to determine any other discovery items that may be required.

MetTel will deploy VMware VeloCloud Appliances that have native WAN capabilities to all WVOT sites, along with the installation of Ethernet-based AA, which will be a combination of Dedicated MPLS AA, DIA, and 4G/5G wireless access. These AAs will connect WVOT locations to the MetTel core network. MetTel proposes connecting and operating the WAN Service Related Equipment (SRE) in line with the existing WVOT MPLS network. This will allow the new VMware VeloCloud Appliances to learn the traffic patterns and routing on the existing network, laying the foundation for Phase 2 in the MetTel process. The MetTel-supplied Edge equipment is WAN-capable, and the equipment accepts the WVOT-required Ethernet bandwidth connection on the LAN (inside) interface. For example, the outside interfaces support 1Gbps for the 100Mbps locations and up to 10Gbps for the 1Gbps locations.

With the deployment of correctly-sized and pre-configured WAN appliances, MetTel can match WVOT's current service with minimum disruption to ongoing operations. This strategy does not preclude WVOT from executing any of the options in our Cost Proposal (submitted separately) for expanded bandwidth. Still, MetTel recommends waiting to add new VPNS bandwidth. A unique capability of MetTel's WAN for supporting bulk file transfers is that bandwidth is bonded on multiple circuit to allow rapid bulk file transfers. Other WAN solutions limit bulk transfers to one access arrangement at a time. MetTel's WAN solution allows WVOT to bond multiple and diverse AA. With



MetTel, WVOT can add cost-effective bandwidth (e.g., internet with a tertiary 4G wireless internet that is combined with MPLS Ethernet access to provide different approaches for supporting WVOT's locations' bandwidth needs).

As required, MetTel's solution will support speeds up to 40Gbps. These upgrades are supported by the SREs proposed in our service solution approach. MetTel will increase bandwidth using a change order to upgrade the provisioned AA and WAN port. Because equipment may require a software upgrade to support the bandwidth, WAN software licensing by bandwidth is part of our service deployment process. MetTel will test the upgraded service performance against the Service Level Agreements (SLA) as part of executing a change order. As part of MetTel's Cost Proposal, we have included alternative technologies (e.g., 4G, 5G, etc.) to provide WVOT the potential for ordering additional bandwidth or alternative access methods that will benefit WVOT.

We propose to begin test and verification in Phase 2, using Phase 1 to coordinate the setup of a WVOT-specific laboratory location to allow advanced testing of our Phase 2 strategy. This advanced testing is intended to provide WVOT familiarity with the platform and confirm that the configuration supports the goal of a modernized WAN and voice/collaboration infrastructure. Building the test environment will allow the MetTel Edge device to create traffic reports and usage patterns to assist in creating the overall cutover plan for Ms. Michelle Shader, MetTel Project Manager for WVOT. This approach will let WVOT and MetTel determine the best cutover plan for each site and help proactively eliminate problems. Having traffic usage patterns will show high usage periods at each site and identify potential data loss risks. At the end of Phase 2, MetTel and WVOT will have confidence in the success of the transformation of the WAN before WVOT approves Phase 3.

Within the proposed testbed, MetTel recommends that WVOT select a subset of WVOT locations willing to simultaneously host production traffic and test traffic to be separated from the production. At the same time, WVOT and MetTel conduct traffic and application tests under the direction of WVOT. There is no test as vital production traffic. MetTel's implementation approach allows WVOT the flexibility to conduct lab and production tests without negatively impacting users' performance.

MetTel plans for laboratory testing allowing WVOT to access cloud services beyond the traditional perimeter-based security framework of the current and emerging Trusted Internet Connection (TIC) requirements. MetTel's backbone network includes Cloud Service Provider (CSP) access from our network nodes using Megaport capabilities.

2.2.3 Phase 3: WAN Readiness [4.3.1.2.2]

Phase 3 will focus on WAN optimization, testing the underlying transport. SD-WAN optimization would leverage the DIA port pricing proposed to gain cost savings to improve performance and availability as directed by the information in our Cost Proposal (submitted separately). While most providers require new AA to deploy DIA, MetTel's AA pricing and solution can and will support MPLS ports and easy migration to DIA ports when needed. This unique flexibility is enabled based on how MetTel terminates AA into our backbone nodes, where the AA is an independent asset from the MPLS or DIA port.

MetTel will provide continuous testing and performance verification for all migration phases, including lab testing. MetTel's network design and capabilities allow WVOT to create test use cases in the production network without adversely impacting the experience of WVOT users and thus, not disrupting the delivery of the WVOT mission. In Phase 3, MetTel will execute the detailed design for a new WAN-based architecture, as defined in MetTel's final migration plan with the final design after WVOT approval. MetTel will document the results expected based on laboratory tests conducted during earlier phases as part of the final design. Key to MetTel's proposed design is MetTel's WAN-enabled network Edge routers deployed and migrated during Phase 2.

MetTel's WAN solution provides direct and secure methods to connect WVOT locations to Cloud services directly. MetTel provides Megaport Cloud Access directly from the MetTel backbone nodes.



Any solution added during Phase 3 will undergo testing in partnership with WVOT to ensure costs, performance, and security align with all WVOT mission objectives.

Phase 3 implementation is executed by change orders for the existing WVOT infrastructure, providing an easy roll-back capability in the unlikely event of unexpected performance of any site and an extremely low-risk path to enable WAN.

MetTel will maintain the test environment during Phase 3, emphasizing and improving performance using capabilities, testing network and cloud appliances. During this phase, MetTel intends to emphasize our focus on testing and strategizing on the shift to modernizing WVOT's network security by testing virtualized technologies that are easily added to the new WAN. The MetTel team will develop a site deployment plan based on the business requirements explained in this proposal and in-depth discussion with WVOT key personnel.

2.2.4 Phase 4: Implement WAN Optimization Strategies [4.3.1.3.1]

MetTel considers Phase 4 as the steady-state period that continually tests future technologies for implementation into migrating all new Ethernet WAN networks, thus creating a technical environment of continuous improvement for WVOT and the network. MetTel will migrate WVOT's 467 sites in the RFP's Exhibit B.

If MetTel's work requires presence at a State site, MetTel will provide WVOT at least 72 hours' notice before arriving at the site and comply with State law and policies, including but not limited to background checks for contractors, vendors, and visitors. Our success stories include large retail customers such as Walgreens, The Gap, Staples, Signet Jewelers, and Fidelity Information Services (FIS), along with government customers such as the United States Department of Agriculture (USDA), Navy Recruiting Command, and Marine Corps Recruiting Command. The success in these large network service migrations is based on leveraging our robust network and relationships with underlying carriers, maintaining constant communication with our customers, and adhering to our quality management processes. Our experience, organizational structure, evolved processes, and highly skilled migration team are well-positioned to meet these challenges successfully. MetTel's meetings were developed based on our experience successfully delivering network services to our customers.

In summary, MetTel meets the following Migration Plan requirements, as shown in <u>Table 2.2-1</u>.

Table 2.2-1: Migration Plan Requirements met by MetTel

Section	Benchmark	Requirement	MetTel Compliance
4.3.2.2.1.	The Vendor must provide a detailed project plan and Project Manager for transitioning the legacy installed WAN services to its Ethernet WAN services.	Mandatory	√
4.3.2.2.2.	Vendor project plan must include details on how it will coordinate service migrations with WVOT and include details for their plan to mitigate any gaps in service (interruption of service).	Mandatory	
4.3.2.2.3.	Vendor must coordinate new services acceptance and billing for new services with WVOT in a manner that eliminates any duplicate billing between legacy services and new Vendor services.	Mandatory	√
4.3.2.2.4.	Vendor must assign an experienced and skilled Project Manager who will provide a high-level project management plan including key components such as a project charter, issue tracking, statements of work (SOW), work breakdown structures (WBS), implementation schedules, etc. in accordance with the Project Management Body of Knowledge (PMBOK) or other industry standard project management methodology stated in West Virginia State Code (§5A-6-4b). The link can be found at: http://www.legis.state.wv.us/WVCODE/Code.cfm?chap= 05a&art=6#06	Mandatory	ora litter to Touted partiests and governous recognised making seed an orall with making seed the Contract of the Contract of Lances and Tickles
4.3.2.2.5.	The project management plan must be submitted and approved by the WVOT Project Management Office (PMO) prior to engaging the first agency for Ethernet WAN services implementation.	Mandatory	<i>,</i>



Section	Benchmark	Requirement	MetTel Compliance
4.3.2.2.6.	The successful Vendor's Project Manager must track and report (via written status reports) the following: schedule, scope, budget, issues, risks, specified performance indicators, and other metrics determined appropriate throughout the project and each site implementation.	Mandatory	

3.0 PART 3: SERVICE AND SUPPORT FOR WAN AND DIA AND 4G/5G SERVICES [4.3.2.3-4.3.2.3.23.2.5.]

To meet WVOT's mandatory requirements, current goals, and future objectives, our Customer Care Representatives and our Network Operation Center (NOC) will provide 24x7x365 support. Our team will ensure that service management standards and SLAs are met, and industry best practices are applied.

3.1 Managed Internet Service [4.3.2.3.23.2–4.3.2.3.23.2.5]

We offer a comprehensive Managed Internet Service that addresses the full needs and requirements of WVOT. Our bundled solution includes ongoing monitoring, maintenance, upgrade, and management to ensure WVOT service requirements are met, including the following:

- Circuit, Edge router, and Internet access
- Installation and ongoing support for bundled service to include licensing fees and maintenance costs
- Replacement/upgrade of routers as requested to support increased bandwidth demands to provide adequate throughput

As a managed solution, we will replace equipment 24 months following the End of Support notification by the manufacturer and replace any equipment failures will be addressed with replacement equipment shipped for the next business day delivery.

3.1.1 Service and Support [4.3.1.3.2.4]

MetTel's Network Operations Center (NOC) is responsible for all tiers of support. We will provide direct support for Tier 1, 2, and some Tier 3 for all State networking components. Some Tier 3 and all Tier 4 support is provided through our affiliation with various equipment manufacturers and service provider partners, however, MetTel maintains responsibility for resolution for all issues reported into the NOC, which is accessible by the State 24x7x365 via a toll-free number.

3.1.1.1 Network Operation Support Center [4.3.1.3.8, 4.3.2.3.1]

To meet WVOT's mandatory requirements, current goals, and future objectives, MetTel's Network Operation Center (NOC) responsibilities are included with other associated services such as program, design, engineering, integration testing, and migration support. Our primary NOC support to State is based in Holmdel, NJ, with the backup NOC in Salt Lake City, UT. Engineers at these NOCs are continuously monitoring activity and events on customer-specific network elements and resources as well as shared elements and resources. Our NOCs are staffed to comfortably manage the volume of activity created by the networks even at their busiest times. NOC personnel will include Customer Care personnel as issues or activities are observed within the network that needs to be brought to the attention of the State. Our network engineers benefit from sophisticated monitoring systems which utilize automation to perform and address routine activities. These systems enable engineers to monitor and investigate activities or conditions that may not yet be detected by automation. Working with the NOC engineers are engineers focused solely on security-related issues.

The MetTel Portal is the primary tool in our Operations Model (Ops Model) and is included as a tool in our NOCs. It is a secure, hosted, real-time portal accessible through any standard internet browser, tailored explicitly to baseline standards required of the services provided under the WVOT contract. It is designed to enable operations processes and workflows (e.g., fault management, change and configuration management, and trouble reporting). In addition, the portal provides multi-site and service visibility and control with a map-based dashboard, configuration sync, remote diagnostics, and automatic monitoring



and alerts. We will provide accounts for approved State users and customize the portal with the business rules and functionality applicable to specific service requirements. The portal provides role-based access (RBAC) for authorized State users. Specific modules within the portal will give State approved users a higher level of control of service performance, inventory, and costs. Section 1.1.3 of our response contains detailed information on how the MetTel Portal meets the mandatory requirements, current goals, and future objectives for Service and Support.

In close coordination with State's NOC, MetTel's NOC performs State-specific requirements shown in <u>Table 3.2-3</u> using a range of multi-purpose tools.

Table 3.1-1: MetTel's NOC Provides State-Specific Tasks

State NOC Requirement	MetTel's Solution
Monitoring Support	 MetTel uses various monitoring agents and tools for physical and logical layer connections and configurations; State approved users can view results of real-time monitoring via MetTel's Portal The Portal provides a live view of the network, historical data, key data graphs, customized maps, and near real-time data that allow the user to spot network problems at a glance Monitoring intervals are set at less than 15 minutes but are customizable
Fault Management	 InterMapper tools provide real-time monitoring, discovery, and fault management InterMapper interprets and correlates events; integrates the reports from the monitoring agents on each of our network components, and supports our ticketing and recovery processes Provides fault detection, isolation, correlation, and recovery
Configuration Management	 Multiple monitoring tools and agents monitor defined network components, their configurations, and relationships with other components
Capacity Management	 Our embedded network management tools monitor key capacity characteristics (e.g., component processing loads, storage, and circuit usage) that provide insights into network and component capacity Automated capacity monitoring is done against established thresholds We create long- and short-term capacity resource and utilization forecasting reports that include
Performance Management	 capacity statistics, impacts and risk analysis, and capacity planning analysis MetTel has embedded performance management and reporting capabilities into our network that will proactively gather network statistics and evaluate network performance over time These tools collect vital data to diagnose and resolve availability issues and problems.

3.2 Approach and Methodology [4.3.1.3.2]

A. Project Review Meetings

Communication and collaboration are the cornerstone of a successful program. With that in mind, we recommend and will plan to facilitate Project Review Meetings weekly, unless otherwise directed by WVOT, with formal Program Reviews occurring on a monthly basis. The topics covered at each Project Review Meeting include, but are not limited to, the following topics:

- Review of the most recent Migration Planning Report
- Overall project schedule and milestones
- Current risk assessment and mitigation strategies
- Issues and resolution
- Previous action items and status
- Deliverables submitted during the preceding week and upcoming deliverables

B. Monthly Program Review Meetings

MetTel will conduct monthly Program Review Meetings with WVOT, consisting of technical staff, program managers, and/or executives. We employ these monthly meetings to provide transparency into our operations, either in person or via teleconference. Topics at our Monthly Program Review Meeting include but are not limited to service-specific delivery, acceptance, and performance, invoices, and billing detail, adjustments, disputes, and staffing issues.



C. Other Meetings

MetTel will participate in other meetings as requested by WVOT. Post-award, the Project Manager is responsible for holding ad hoc meetings on any new topics requested by WVOT, as well as MetTel's implementation plans for starting discussions on the following:

- Architecture and Design
- Implementation
- Ordering and Billing
- Service and Support
- Project Management

3.2.1 Architecture and Design [4.3.1.3.2.1]

MetTel will participate in architecture and design meetings as requested by WVOT, including daily scrum calls. MetTel will work seamlessly with any incumbent or parallel provider to jointly plan and initiate other meetings proactively or as needed.

3.2.2 Implementation [4.3.1.3.2.2]

The Project Manager holds regular meetings with WVOT to track progress and validate each step of the implementation of each service. MetTel will comply with relevant standards, policies, processes, and procedures. MetTel has decades of experience with large network infrastructure service migration projects.

Exhibit 3.2-1 shows our process.

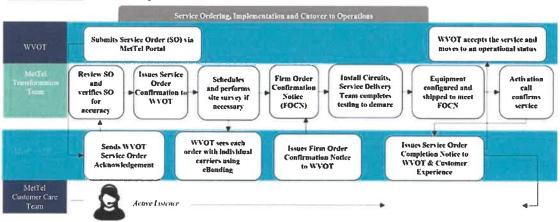


Exhibit 3.2-1: MetTel's Service Ordering Process Leads to Efficient Implementation \(^+\) With MetTel's ordering processes, WVOT receives the advantages of a transparent approach and a web-based ordering system for services, giving WVOT the visibility to audit and confirm all billing information at any time and process bulk and simultaneous orders.

The Project Manager will report MetTel's performance against milestones during the regularly scheduled meetings. These industry-standard milestones are used to determine schedule challenges and are regular enough to allow the Project Manager to mitigate delay risks to ultimately accomplish the contract standards. These tasks and milestones are defined during the migration planning review meeting held by the Project Manager. The Work Breakdown Structure (WBS) elements used for managing the WVOT intervals for delivering data services are described in detail in Table 3.2-1.

Table 3.2-1: MetTel's Standard Notification Process

Task/ Milestone	MetTel's Standard Process
WVOT Order	 We will provide WVOT with a MetTel Portal account that will allow WVOT authorized
	users to order services directly into the MetTel back-office systems.

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Task/ Milestone	MetTel's Standard Process
	 MetTel accepts manual orders using a format and submission method mutually agreed upon with WVOT. We will work with WVOT on any custom Telecommunications Change Request procedures for ordering.
Service Order Acknowledgement (SOA)	 Within one (1) business day of Service Order (SO) If SO is invalid, MetTel submits a Service Order Rejection Notification (SORN) within five (5) days of SO If SO is valid, we will submit a Service Order Confirmation (SOC) notification within
	five (5) days of SO.
SO Accuracy Verified	 MetTel works with WVOT to ensure all information is accurate and complete
Service Order Confirmation (SOC)	 MetTel's portal is eBonded to carrier systems, providing order confirmations automatically shared WVOT users portal interface. Upon receiving the carrier order acknowledgment, we confirm the SO with WVOT.
Site Survey Conducted	 For WVOT, MetTel intends to conduct a site survey for every location to validate service availability, and Site Facility Capacities (power & space) MetTel will provide advanced notice of any site survey or installation of equipment or service at WVOT locations. MetTel personnel will require the proper clearance, credentials, and approval to work onpremises. WVOT must provide access approval to MetTel in advance of the installation date.
MetTel Processes Order Through eBonding	 MetTel's eBonding enables us to flow-through orders directly to the carriers. MetTel has built all the carrier's rules and policies into our systems to facilitate all items contained within Access Service Requests (ASR) and Local Service Requests (LSR). Therefore, the orders flow through MetTel and the receiving carrier automatically – no swivel-chairing between systems.
Access Provisioning	 The carrier completes the provisioning of access based on established provisioning intervals for the ordered speed and configuration.
Firm Order Confirmation Notification (FOCN)	 When MetTel provisions local access services from an underlying Local Exchange Carrier, we will submit a Firm Order Confirmation Notification (FOCN) indicating its Firm Order Commitment (FOC) date within one (1) business day of receiving the FOC date from the local provider. If WVOT does not need to obtain local access services from an underlying LEC, MetTel
	will submit a FOCN indicating its FOC date no later than the earlier of (1) 5 days after SOC or (2) 10 days before the FOC date.
Demarc Extension	 MetTel Service Delivery tests the service between the demarc and the equipment, if applicable
Provisioning and Testing	 MetTel works with WVOT to schedule and complete testing of the service. WVOT's location staff and project manager(s) must support testing, review test results, and accept service upon a successful test. MetTel will monitor and regulate the transition of service and locations to ensure no location is left isolated.
Transition Service	 All locations remain live throughout the entire migration process. Two circuits are active at WVOT location at the time of migration, but only one is connected. At cutover, the new circuit is connected and if there is any trouble with the new service, traffic is still active and available on the original network connection it can be swung back.
Service Order Completion Notification (SOCN)	 Upon completion of the order, MetTel will submit a Service Order Completion Notification (SOCN) within three (3) days of installation and testing unless otherwise specified in by WVOT's Contracting Officer. If the WVOT reports a problem within the acceptance period, MetTel will fix, test, and submit a new SOCN.
Acceptance and Operations	Upon acceptance from WVOT, the service is handed over to the operations team for lifecycle management. This hand-off is seamless to WVOT.

3.2.3 Ordering and Billing [4.3.1.1.3.1, 4.3.1.3.2.3, 4.3.2.3.3]

MetTel will provide the State's monthly bill in an editable format such as Excel and/or commaseparated values (CSV). The State will be able to open the file in Google Sheets without the need for modifications. MetTel's bill will be sent within ten (10) business days from the end of the billing cycle.



MetTel will invoice on a consistent monthly billing cycle across all services. Services installed or disconnected for a partial month must be prorated based on the date the service is accepted by the State or by the disconnect due date on the TCR. For new services, MetTel will not bill the State until the State has accepted the services as functional. MetTel will not bill the State for services after the disconnect due date listed on the submitted TCR. If a billing error is discovered by the State, the State shall notify MetTel, in writing, of the errors, and the errors will be corrected prior to the next billing cycle. MetTel billing errors will be credited back to the State from the effective date of the error.

To meet WVOT's mandatory requirements, current goals, and future objectives, our provisioning team works with our order entry group to validate each order's accuracy and completeness no matter the method of submission. Our portal issues WVOT a Service Order Acknowledgement (SOA). Each order is assigned a unique Order ID number in the portal for tracking purposes. The MetTel Provisioning Team reviews each order to ensure no errors or data fields prevent external orders from being processed and accepted by our underlying carriers. If, at any point in the review process, an issue arises or clarification is required, our Customer Care gathers the necessary internal key stakeholders to resolve the issue and continue with the orders.

We designed the MetTel Portal to help automate our audits, inspections, and enforcement of quality standards and SLAs associated with Invoice Management/Billing, Inventory Management and Ordering, and the Help Desk. Error checking is built into each of the portal modules to automate processes to prevent errors from happening, thus greatly increasing quality, as detailed in <u>Table 3.2-2</u>.

Table 3.2-2: Quality Checks in the MetTel Portal

441.414.414.414	Table 3.2-2: Quality Checks in the MetTel Portal
MetTel WVOT Portal Modules	WVOT Beneficial Quality Cheeks
Ordering Order new services Update line descriptions Real-time order status	 Only authorized WVOT users can place orders Orders are placed with the Ordering Wizard, which prevents WVOT from choosing invalid product and service combinations, increasing quality. Only orders with a valid configuration can be placed, and the status of an order can be viewed at any time.
Invoice Management • Automated invoice processing Customizable invoice approval	 WVOT authorized users can view and manage charge history, cost analysis, invoice management, account management, and contract management all online via the Portal. Data is provided in a variety of views, including color-coded graphs to ensure quality communication.
Billing Bill validation Cost allocation Rebill Billing /invoice history Historical billing data	 WVOT can view all billed services and account activity, including invoices, balances, pending payments, and other performance metrics such as Billing Data Accuracy and Billing Charges for accuracy. This module is tied into MetTel's back-office system; therefore, most steps are automated, greatly improving quality. The online availability of data also greatly reduces dispute resolution time.
Inventory Management Real-time inventory status Search for lines or accounts by multiple criteria Summary/detail/map view Services turn on/off	 The inventory of WVOT services catalog is complete and accurate because it has a direct link to and from our consolidated Service Catalog. Online inventory continuously provides accurate and timely inventory status to WVOT. WVOT Electronic Inventory Reconciliation (IR) reports are automatically generated monthly.
MetTel WVOT Portal Modules	WVOT Beneficial Quality Checks

The monthly bill is accessible 24x7x365 on the MetTel Portal. It includes the following fields:

- Billing Month
- Billed Entity Name
- Customer Name/Account (if different from the billed entity)



- Service Location
- Service Period
- Circuit or Service ID
- Price Sheet Billing Component (Ex. Ethernet WAN 10MB)
- Itemized Cost for Individual Billing Components
- Itemized Cost for Any One-Time or Non-Recurring Charges
- Itemized Cost for Any Surcharges and Total Cost
- E-rate discounts per Funding Request Number (FRN)
- Cost matching the contract rates for the specified services

3.2.4 Invoicing [4.3.2.3.5, 4.3.2.3.6, 4.3.2.3.7]

MetTel will invoice on a consistent monthly billing cycle across all services. Services installed or disconnected for a partial month will be prorated based on the date the service is accepted by WVOT or by the disconnect due date on the TCR. For new services, MetTel will not bill WVOT until WVOT has services have been accepted as functional. MetTel will not bill WVOT for services after the disconnect due date listed on the submitted TCR. If WVOT discovers a billing error and notifies MetTel in writing of the error, any error will be corrected prior to the next billing cycle. MetTel billing errors will be credited back to WVOT from the effective date of the error.

3.2.5 Service and Support [4.3.1.3.2.4]

MetTel's Network Operations Center (NOC) is responsible for all tiers of support. We will provide direct support for Tier 1, 2, and some Tier 3 for all State networking components. Some Tier 3 and all Tier 4 support is provided through our affiliation with various equipment manufacturers and service provider partners, however, MetTel maintains responsibility for resolution for all issues reported into the NOC, which is accessible by the State 24x7x365 via a toll-free number.

Network Operation Support Center [4.3.1.3.8, 4.3.2.3.1]

To meet WVOT's mandatory requirements, current goals, and future objectives, MetTel's Network Operation Center (NOC) responsibilities are included with other associated services such as program, design, engineering, integration testing, and migration support. Our primary NOC support to State is based in Holmdel, NJ, with the backup NOC in Salt Lake City, UT. Engineers at these NOCs are continuously monitoring activity and events on customer-specific network elements and resources as well as shared elements and resources. Our NOCs are staffed to comfortably manage the volume of activity created by the networks even at their busiest times. NOC personnel will include Customer Care personnel as issues or activities are observed within the network that needs to be brought to the attention of the State. Our network engineers benefit from sophisticated monitoring systems which utilize automation to perform and address routine activities. These systems enable engineers to monitor and investigate activities or conditions that may not yet be detected by automation. Working with the NOC engineers are engineers focused solely on security-related issues.

The MetTel Portal is the primary tool in our Operations Model (Ops Model) and is included as a tool in our NOCs. It is a secure, hosted, real-time portal accessible through any standard internet browser, tailored explicitly to baseline standards required of the services provided under the WVOT contract. It is designed to enable operations processes and workflows (e.g., fault management, change and configuration management, and trouble reporting). In addition, the portal provides multi-site and service visibility and control with a map-based dashboard, configuration sync, remote diagnostics, and automatic monitoring and alerts. We will provide accounts for approved State users and customize the portal with the business rules and functionality applicable to specific service requirements. The portal provides role-based access (RBAC) for authorized State users. Specific modules within the portal will give State approved users a higher level of control of service performance, inventory, and costs. Section 1.1.3 of our response contains detailed information on how the MetTel Portal meets the mandatory requirements, current goals, and future objectives for Service and Support.



In close coordination with State's NOC, MetTel's NOC performs State-specific requirements shown in <u>Table 3.2-3</u> using a range of multi-purpose tools.

Table 3.2-3: MetTel's NOC Provides State-Specific Tasks

State NOC Requirement	MetTePs Solution
Monitoring Support	 MetTel uses various monitoring agents and tools for physical and logical layer connections and configurations; State approved users can view results of real-time monitoring via MetTel's Portal The Portal provides a live view of the network, historical data, key data graphs, customized maps, and near real-time data that allow the user to spot network problems at a glance Monitoring intervals are set at less than 15 minutes but are customizable
Fault Management	 InterMapper tools provide real-time monitoring, discovery, and fault management InterMapper interprets and correlates events; integrates the reports from the monitoring agents on each of our network components, and supports our ticketing and recovery processes Provides fault detection, isolation, correlation, and recovery
Configuration Management	 Multiple monitoring tools and agents monitor defined network components, their configurations, and relationships with other components
Capacity Management	 Our embedded network management tools monitor key capacity characteristics (e.g., component processing loads, storage, and circuit usage) that provide insights into network and component capacity Automated capacity monitoring is done against established thresholds We create long- and short-term capacity resource and utilization forecasting reports that include capacity statistics, impacts and risk analysis, and capacity planning analysis
Performance Management	 MetTel has embedded performance management and reporting capabilities into our network that will proactively gather network statistics and evaluate network performance over time These tools collect vital data to diagnose and resolve availability issues and problems.

3.2.5.2 Network Outages [4.3.1.3.4, 4.3.1.3.7]

Our NOC maintains communication and technical interfaces with carrier partners and have negotiated agreements in place for tiered support and expertise on a 24x7x365 basis. Communication interfaces include the sharing of outage and degradation details to aid in troubleshooting incidents and events, lessons learned, and shared reports of outages and repairs. These interfaces along with capabilities inherent within our network, allow for viability into network service outages. MetTel's NOC will contact the State's engineering points of contact by phone within thirty (30) minutes of any known network outage that affects multiple sites on WVOT's network. This verbal notification is followed by a written report that provides an explanation of the problem, the cause of the problem, the solution to the problem, the estimated time for recovery, and the steps taken or to be taken to prevent a reoccurrence. MetTel will dispatch onsite technicians to the location, as necessary, within twelve (12) hours of the outage.

MetTel Network Operation Center (NOC) provides all tiers of support, and advanced technical expertise is staffed with resources proficient in spoken and written English and maintains and takes responsibility for trouble tickets reported by the State until resolved to provide a tiered support escalation process. We assess and report on the severity of the issue/support problem to determine the average problem resolution response time, as outlined in <u>Table 3.2-4</u>. Our Network Operation Center's structure, processes, and procedures for handling trouble tickets, resolving those tickets, and reporting back to the State's point of contact are described in <u>Section 3.1.1.1</u>.

Table 3.2-4: Security Level Response

Section	Security Levels	Response Time
4.3.1.3.7.1.	Severity Level 1 is defined as an urgent situation where the customer's services are unavailable and the customer is unable to use/access the network.	MetTel will resolve Severity Level 1 problems as quickly as possible, which should not exceed two (2) business hours on average. If repair inside the 2-hour window is not feasible, then regular 1-hour updates are provided.



4.3.1.3.7.2.	and/or repeated failures resulting in limited effective use by the customer. The service may operate but is	MetTel will resolve Severity Level 2 problems as quickly as possible, which should not exceed four (4) business hours on average. If repair inside the 4-hour window is not feasible, then regular 2-hour updates are provided.
4.3.1.3.7.3.	Severity Level 3 is defined as a minor problem that exists with the service, but most of the functions are still usable, and some circumvention may be required to provide service. The Vendor should resolve Severity Level 3 problems as quickly as possible, which on average, should not exceed ten (10) business hours. If repair inside the 10-hour window is not feasible, then updates are desired at the start of the next business day and every day thereafter until repairs are complete.	MetTel will resolve Severity Level 3 problems as quickly as possible, which should not exceed ten (10) business hours on average. If repair inside the 10-hour window is not feasible, then updates are provided at the start of the next business day and every day thereafter until repairs are complete.

3.2.5.3 Unplanned Outages [4.3.2.3.10]

Any unplanned service outage at the individual circuit level will be resolved fully within 24 hours. Beyond the initial 24-hour outage where an individual service is not fully functional, one day of credit will be applied to WVOT's bill per day and will not be averaged across all WVOT installed services. Service outage credits are applied against the individual site/service where the outage occurred.

WVOT will have the ability to enter trouble and service requests directly into the MetTel Portal. For any service request or trouble event, WVOT will have transparency into the activities supporting that event, facilitated by the eBonding of MetTel's Portal with access provider's systems. This self-reporting allows WVOT users access to real-time details of events leading up to ticket close-out. MetTel will also provide the following services based on trouble events, as shown in <u>Table 3.2-5</u>.

	Table 3.2-5:	Service	Outage	Approach
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Unique Requirement	MetTel Approach	
Incident-Based Service Outage Credits	 Applies to events where service is interrupted for a duration exceeding 24 hours. MetTel will apply a Time to Restore credit based on the Service Level Agreement. 	
Detailed Outage Reports	 Within 24 hours of receiving a request, MetTel will deliver a Detailed Outage Report to the Contracting Officer that includes a summary of the incident and actions taken toward resolution. Details will include problem management activities to prevent incidents/problems long-term, actions and improvement for future similar issues, and a list of stakeholders engaged in the processes to resolve issue(s). 	

WVOT will have access to Service Level Agreement Report, which is available using the MetTel Portal. As a value add, the MetTel Portal includes our InterMapper tool that provides access to our operations and billing systems' embedded performance collection and management capabilities. Using the InterMapper capabilities, WVOT has access to critical performance reporting on availability, latency, jitter, packet delivery rate, and packet loss, allowing us to report key performance indicators. Historical reports are also available, providing a comprehensive view of performance and tracking of credits.

3.2.5.4 Planned Upgrades, Modifications [4.3.1.3.5]

MetTel will provide written notification of ten (10) business days or more in advance of any planned upgrades, modifications, etc., that may affect the State's customers to WVOT's engineering points of contact. This will also be communicated during the weekly Project Review Meetings.

3.2.5.5 Emergency Maintenance [4.3.1.3.6]

While these situations will be kept to a minimum, MetTel will provide notification of three (3) business days or more in advance of emergency maintenance. Our notification process for emergency maintenance includes a documented support and escalation structure in the event of an issue during maintenance.



3.2.6 Project Management [4.3.1.3.2.5]

MetTel will provide WVOT a superior migration experience through our proven processes, procedures, tools, and approach to transitioning services from incumbent service providers. Our customer support organization consists of two divisions—the Project Management team dedicated to onboarding new customers and transitioning services (Day 1 support) and Customer Care, which is dedicated to delivering and managing ongoing services (Day 2 support). This benefits WVOT because the assigned Deployment Engineers are only focused on migration—not repairs, trouble management, or billing issues. MetTel was awarded the coveted Stevie Award for customer service from 2015 through 2022 because we prioritize the customer experience.

MetTel's business model facilitates validation of migration readiness based on industry best practices adopted by the Project Management Institute (PMI) within the Project Management Book of Knowledge (PMBOK) standards developed by the Information Technology Infrastructure Library (ITIL) and the Capability Maturity Model Integration (CMMI) process. The MetTel business model focuses on the processes of Service Design, Service Transition, and Service Operations. These processes provide clear and effective tracking of service orders, order status, trouble reporting, and inventory management to enhance productivity throughout migration and beyond. We document and improve these processes and workflows, as needed, to customer requirements to ensure continuous high levels of support. We have also applied lessons learned to our approach based on government and commercial contracts of similar scope and complexity to the requirements of WVOT. Our business model and corporate experience performing work on similar projects have prepared MetTel to meet and exceed the requirements of WVOT's Statewide Contract for Data Transport Services. As a result, MetTel will deliver solutions that allow WVOT to enhance its enterprise communication management capabilities, diminish workloads, and provide its users with increased flexibility and opportunities to reduce operating costs.

3.2.7 Weekly Status Report [4.3.2.3.9]

MetTel will provide and update a weekly status report using the provided TCR log and agree to meetings to discuss as needed.

3.2.8 Disentanglement [4.3.2.3.13]

At the conclusion of an awarded contract to MetTel, MetTel will develop and provide a detailed disentanglement/transition-out plan (TOP). As part of the TOP, MetTel will submit a written Phase-Out Plan to the Contracting Officer 90 calendar days prior to the expiration of the contract. The Phase-Out activities are coordinated with the Contracting Officer, and the plan will detail the activities needed to assure continuity of operations and the execution of a smooth and timely transition.



In performing the TOP, MetTel will conduct the transition by cooperatively working with the followon provider to plan and conduct a coordinated transition-out without disruption or degradation of current service performance. MetTel acknowledges the requirement to allow WVOT or the replacement provider(s) continued access to all billing, ordering, and trouble ticketing systems and processes that have been employed in servicing WVOT, in accordance with methods and procedures to be agreed upon prior to the contract close out.

Unique elements of the TOP include:

• MetTel will maintain sufficient qualified staff to meet all requirements of this effort. MetTel will submit a weekly status report of phase-out activities to the Contracting Officer



- beginning the seventh calendar day following the award of a successor contract until otherwise notified by the Contracting Officer to discontinue.
- MetTel will share the inventory of all State-leased equipment transferred to WVOT and used under MetTel's management and operational control or is maintained by MetTel.
- MetTel will maintain the operational status of all State-leased property as appropriate and continue all work in progress until the successor assumes responsibility for State-leased property. MetTel will turn over all State-leased property in accordance with instructions provided by the Agency.
- MetTel will provide timely support and cooperate with the successor and WVOT during the transition-out period. MetTel will fully and timely support requests for information and data requested by WVOT that are necessary to ensure a seamless transition of services to the successor. MetTel will provide the information requested within 15 business days from WVOT's request.
- MetTel will deliver electronic copies of all WVOT's data and information stored in MetTel's MS systems in the format requested by WVOT within 15 business days from WVOT's request for the information.
- MetTel will not destroy or dispose of any WVOT data and information stored in its systems without prior authorization from WVOT. When disposing of WVOT data and information MetTel will follow WVOT's data disposition policies.
- MetTel will provide electronic copies of all WVOT device configurations and security policies and rule sets for all security devices managed and operated under the scope of this contract using the electronic format specified by WVOT within 15 business days from WVOT's request for such information.

3.2.9 Installation [4.3.2.3.17, 4.3.2.3.18, 4.3.2.3.19, 4.3.2.3.20, 4.3.2.3.21, 4.3.2.3.22, 4.3.2.3.23]

MetTel's installation services will include all required products and services needed to install a functional service, including planning/engineering, termination, cross-connects, splices, terminating hardware setup, programming, mounting, and related documentation. Leveraging our implementation best practices, MetTel will extend service to the required termination location beyond the minimum point of entry. We will work closely with WVOT during implementation to develop standards for labeling demarcation points with the site-specific service identification information. We will comply with all applicable codes, licenses, certifications, and standards in the State of West Virginia as it relates to the proposed installation services. MetTel will perform adequate testing after installation services are performed to ensure services are operating properly when turned up, and we agree to the following installation timelines and requirements:

- Forty-five days (45) circuit install interval from order acceptance when there is no special construction required
- In those cases where a forty-five (45) day installation intervals may not be possible due to extenuating circumstances, we will install a wireless connection, at the same speed, as a bridge until the new circuit can be installed
- Where special construction is required, MetTel will provide an installation timeline to the State for review and cost approval
- The costs associated with expediting a service installation is included in our Cost Proposal (submitted separately).
- Routers will be leased by the State and will support access speed of service with ownership retained by MetTel for all licensing fees and maintenance costs.
- Replacements/upgrades will be processed within 24-months following the End of Support notification by the manufacturer in order to maintain support and software update eligibility
- In the event of a failure, a replacement router will be shipped for the next business day delivery



MetTel understands the desired installation interval of forty-five days (45) following five calendar days from the time the State submits an order and MetTel accepts the order. In preparation for the installation intervals and the 365-day initial migration period for all 467 sites in RFP Exhibit B, we have already begun working with several underlying access providers. Using our Carrier Performance Repository, we pulled service availability data on all 467 sites. This data gives us insight into which underlying access providers will best meet WVOT requirements while minimizing the need for special constructions.

3.2.10 Managed Internet Service [4.3.2.3.23]

We offer a comprehensive Managed Internet Service that addresses the full needs and requirements of WVOT. Our bundled solution includes ongoing monitoring, maintenance, upgrade, and management to ensure WVOT service requirements are met, including the following:

- Circuit, Edge router, and Internet access
- Installation and ongoing support for bundled service to include licensing fees and maintenance costs
- Replacement/upgrade of routers as requested to support increased bandwidth demands to provide adequate throughput

As a managed solution, we will replace equipment 24 months following the End of Support notification by the manufacturer and replace any equipment failures will be addressed with replacement equipment shipped for the next business day delivery.

In summary, MetTel meets the following Service and Support requirements as shown in Table 3.2-6.

Table 3.2-6: Service and Support Requirements met by MetTel

Section	Benchmark	Requirement	MetTel Compliance
4.3.2.3.1.	Vendor must provide a network operation support center(s) for all tiers of support that is available 24x7x365 and is accessible via a toll-free number.	Mandatory	7
4.3.2.3.2.	Vendor must work with the WVOT using the established Telecommunications Change Request (TCR) procedures for ordering and implementing these telecommunications services.	Mandatory	₹
,4.3.2.3.3.	For auditing, billing, and support purposes, the State requires any service with an associated rate to be identified on its monthly bill. As such, the State must be provided, at a minimum, the following:	Mandatory	¥
4.3.2.3.3.1.	Billing Month	Mandatory	√
4.3.2.3.3.2.	Billed Entity Name	Mandatory	✓
4.3.2.3.3.3.	Customer Name/Account (if different from billed entity)	Mandatory	1
4.3.2.3.3.4.	Service Location	Mandatory	✓
4.3.2.3.3.5.	Service Period	Mandatory	√
4.3.2.3.3.6.	Circuit or Service ID	Mandatory	✓
4.3.2.3.3.7.	Price Sheet Billing Component (Ex. Ethernet WAN 10MB)	Mandatory	√
4.3.2.3.3.8.	Itemized Cost for Individual Billing Components	Mandatory	1
4.3.2.3.3.9.	Itemized Cost for Any One-Time or Non-Recurring Charges	Mandatory	1
4.3.2.3.3.10.	Itemized Cost for Any Surcharges and Total Cost	Mandatory	1
4.3.2.3.3.11.	The cost identified in the bill must match the contract rates for the specified services.	Mandatory	1
4.3.2.3.4.	The Vendor must provide the State's monthly bill in an editable format such as Excel and/or csv, and the State must be able to open the file in Google Sheets without the need for modifications. The Vendor's bill must be received within ten (10) business days from the end of the billing cycle. The Vendor should provide a copy of their bill as part of their response.	Mandatory	,
4.3.2.3.5.	The Vendor must invoice on a consistent monthly billing cycle across all services. Services installed or disconnected for a partial month must be prorated based on the date the service is accepted by the State or by the disconnect due date on the TCR. For new services, the Vendor must not bill the State until the State has accepted the services as	Mandatory	



Section	Benchmark	Requirement N	1etTel Compliance
	functional. The Vendor shall not bill the State for services after the		
	disconnect due date listed on the submitted TCR.		THE STREET
4.3.2.3.6.		Mandatory	✓
	Vendor, in writing, of the errors and the errors should be corrected		
	prior to the next billing cycle, but must be corrected within two (2)		
	billing cycles.		
1.3.2.3.7.	Vendor billing errors must be credited back to the State from the	Mandatory	and the second
	effective date of the error. The State reserves the right to withhold		
	payment, in part or in full, until credit is received. Additionally, the		
	Vendor must acknowledge and accept that the State cannot unilaterally		
	waive any of its dispute rights.		and the second
1.3.2.3.8.	If the Vendor has multiple contracts with the State of West Virginia,	Mandatory	∀
	the Vendor must provide separate billing for each contract.		
1.3.2.3.9.	The Vendor must provide and update a weekly status report using the	Mandatory	- V
	provided TCR log and agree to meetings to discuss as needed.		
4.3.2.3.10.		Mandatory	✓
	fully resolved within 24 hours. For each day beyond the initial 24-hour	1	
	outage that an individual service is not fully functional, one day of		
	credit will be applied to the State's bill. Credit shall be received		
	starting at Hour 25 and no partial-day credits will be accepted. Service	1	
	credit will be defined as monthly service cost divided by the number of		
	days in that month. Service outage credits must not be averaged across		
	all State installed services. Service outage credits must be applied		
	against the individual site/service where the outage occurred.		
4.3.2.3.11.	The State requires an Account team (including Account Support	Mandatory	/
	Representative, Technical Support Representative, Solution		
	Implementation Support Representative, Contract Manager, Billing		
	Support Representative, Security/Compliance Specialist, and Project		
	Manager) for the winning solution and life of the contract. Vendor		
	must describe in detail the responsibilities of key roles and staff's		
	experience in working in these roles. The State reserves the right to		
	request, and the Vendor must provide a new employee for any reason.		
4.3.2.3.12.	The Vendor's bill must show E-rate discounts per Funding Request	Mandatory	✓
	Number (FRN) on the bill for E-rate eligible entities.		
4.3.2.3.13.	The State expects full, complete, and timely cooperation in	Mandatory	✓
	disentangling the relationship in the event that the Agreement expires		
	or terminates for any reason. In the event of expiration or termination,		
	the State expects that the Vendor shall, among other things: return all		
	State data and documentation to the State, including but not limited to		
	configuration information; transfer ownership of all leased equipment		
	at no cost to the State (other than the payments already received by the		
	Vendor under the Agreement); and, allow the State or the replacement		
	provider(s) continued access to all billing, ordering, and trouble		
	ticketing systems, and processes that have been employed in servicing		
	the State, in accordance with methods and procedures to be agreed		
	upon and established in the Agreement. Please acknowledge your		
	acceptance of this.		
4.3.2.3.14.	If, as part of its proposal, the Vendor submits appendices or other	Mandatory	✓
	supplemental materials, the Vendor must denote specifically in those		
	materials where the relevant information is located.		
4.3.2.3.15.	The Vendor's installation services must include all required products	Mandatory	1
	and services needed to install a functional service. This includes	THE PARTY OF	
	planning/engineering, termination, cross-connects, splices, terminating		
	hardware setup, programming, mounting, and related documentation.		
4.3.2.3.16.	The Vendor must be capable of extending the service to the required	Mandatory	1
	termination location beyond the minimum point of entry. The		
	additional cost for the extension of service must be provided in the	1	
	Pricing Section.		
	The Vendor must clearly label demarcation points with the site-specific	Mandatory	V
4.3.2.3.17.	The Vendor must clearly label demarcation noints with the site-specific	ivi anuaun v	•



Section	Benchmark	Requirement	MetTel Complianc
	the location of customer equipment where applicable, along with the identification of whether the Vendor or subcontractor will be providing the extension.		
4.3.2.3.18.	The Vendor must comply with all applicable codes, licenses, certifications, and standards in the State of West Virginia as it relates to the proposed installation services.	Mandatory	
4.3.2.3.19.	The Vendor must perform adequate testing after installation services are performed to ensure services are operating properly when turned up for the customer. The Vendor may be required to provide documentation of test results if so requested.	Mandatory	
4.3.2.3.20.	The Vendor must agree to the following installation timelines:	Mandatory	✓
4.3.2.3.20.1.	Forty-five days (45) where no special construction is required.	Mandatory	V
4.3.2.3.20.1.1.	For each day beyond the forty-five (45) day installation intervals defined or agreed to above, where the new service is not installed within the installation timelines, liquidated damages of \$500 per day will be assessed at the State's discretion.	Mandatory	*
4.3.2.3.20.1.2.	Where special construction is required, Vendor must provide an installation timeline which must be approved by the state.	Mandatory	V
4.3.2.3.21.	The Vendor must provide a cost associated with expediting a service installation request on the Cost Sheet.	Mandatory	/
4.3.2.3.21.1.	The vendor will refund in full service expedite fee should agree upon expedite date not being met.	Mandatory	- NY W-
4.3.2.3.22.	The State will only pay special construction costs for new or legacy sites if other options (e.g.: 4G/5G wireless or other service provider facilities) are not available or if increased State bandwidth requirements cannot be met by existing telecommunication carrier facilities at the location. Special construction shall be approved at the State's discretion.	Mandatory	•
4.3.2.3.23.	The Vendor must provide the following two value- added installation and managed service options.	Mandatory	*
4.3.2.3.23.1.	The state of the s	Mandatory	1
4.3.2.3.23.1.1.	Vendor provided edge router (Cisco or equal) will be leased by the state and must support access speed of service.	Mandatory	THE Y
4.3.2.3.23.1.2.	Vendor retains ownership of the Router and is responsible for all licensing fees and maintenance costs.	Mandatory	V
4.3.2.3.23.1.3.	Vendor must replace/upgrade the Router within 24-months following the Cisco End of Support notification in order to maintain support and software update eligibility.	Mandatory	
4.3.2.3.23.1.4.	Vendor is required to provide replacement router upon failure within 8x5xNext Business Day.	Mandatory	✓
4.3.2.3.23.1.5.	Vendor must replace/upgrade Router as requested by the State to support increased bandwidth demands and provide adequate throughput.	Mandatory	S harman
4.3.2.3.23.1.6.		Mandatory	Į.

4.0 PART 4: SECURITY FOR WAN AND DIA SERVICES [4.3.2.4-4.3.2.4.3]

MetTel's Security Operations Center (SOC) monitors all of the equipment for our WAN and DIA service to proactively detect malicious activity and remediate threats that are found. The benefit to WVOT is that our solution secures end-service delivery to recipients and employees with enhanced security, end-to-end availability, resilience, scalability, flexibility, and service and cost stability. Our solution provides WVOT with the enhanced security capabilities in <u>Table 3.2-1</u>.

Table 3.2-1: MetTel's Technical Capabilities to Enhance and Ensure Security

Capability	MetTel Implementation
Inspection	MetTel's network architecture ensures that WVOT's WAN traffic is properly identified, routed
Mercan .	(redirected), and scanned.

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Capability	MetTel Implementation	
Tunneling Standards	MetTel provides a full suite of tunneling standards for security implementation. IPsec, MPLS, L2TP, GRE, IP-in-IP, and SSL/TLS for remote access are implemented as required by WVOT.	
Encryption Algorithms	All encryption algorithms are implemented in accordance with FIPS 140-2 and other relevant FIPS publications and modules. Encryption algorithms include but are not limited to 3DES, RC4, and AES 128 and AES 256.	
Authentication	MetTel supports a variety of customer, third-party, and internal authentication mechanisms. These include but are not limited to RADIUS, Internal LDAP, tokens, PKI, and X.509 certificates.	
IPv4 Support	MetTel supports IPv4 as both the encapsulating and encapsulated protocol.	
IPv6 Support	MetTel supports IPv6 as both the encapsulating and encapsulated protocol.	
QoS Modes	MetTel supports customizable QoS in the multiple standardized modes, including best effort, Aggregate CE interface ("hose" level), site-to-site level ("pipe" level), Intserv (RSVP) signaled, and Diffserv marked.	
QoS on Access	MetTel supports QoS across a subset of the AA networks, including 802.1p Prioritized Ethernet, MPLS-based access, Multilink Multiclass PPP, and QoS-enabled Wireless for LTE, Wireless 802.11.x. Also supported are cable high-speed access (DOCSIS 1.1), QoS-enabled Digital Subscriber Line (DSL) and QoS-enabled Satellite Broad Band Access. QoS availability is dependent on location and carrier support for the specified QoS.	
Application-level QoS	MetTel supports the following application-level QoS objectives: the Intserv model for selected individual flows and the Diffserv model for aggregated flows.	
Isolation and Layering	MetTel implementation of VPN uses RFC 4365 often called BGP/MPLS VPNs to provide isolation of traffic and routing service that is only shared with sites with authenticated and authorized membership in the VPN. Using physical separation of routers and standard VLAN and MPLS and VRF technology, the MetTel VPNS is layered such that any single point of entry requires traversing multiple secured layers.	
Multiple VPNs	MetTel supports multiple VPNs by allowing permanent and temporary access to one or more VPNs for authenticated users across a broad range of AAs.	
Secure Routing	The MetTel VPN provides secure routing services using BGP/MPLS protocols to provide full routing capability on the VPN enforced by a VPN-wide security policy supported by Cisco edge and core routers.	
Security Management	MetTel provides encryption, decryption, and key management profiles as part of the security management system to meet specific requirements of WVOT.	
Authentication of Temporary Access users	Mechanisms for authentication of temporary access users are provided on servers that are MetTel-, WVOT-, or third-party provided.	

4.1 MetTel's Cyber Security and Privacy Management Program [4.3.2.4.1]

MetTel's cybersecurity and privacy management program is deeply rooted in our requirement to adhere to strict National Institute of Standards and Technology (NIST) standards to safeguard our internal business support systems (BSS) as part of our work with the Federal Government. As a benefit to WVOT, we will utilize the same systems and security protocols in the delivery and support of the Data Transport 2.0 program. The BSS used to support WVOT uses the same underlying infrastructure as our Federal Portal which is accredited at the Federal Information Security Management Act (FISMA) moderate standards. We report on and provide the following security deliverables to the Federal Government for our FISMA BSS. The reports in <u>Table 4.1-1</u> below can be provided to WVOT when requested.

Table 4.1-1: Security Plan Deliverables

#	Item	Reference	Frequency
1.1	POA&M Updates	NIST SP 800-53 R5; CA-5	Quarterly
1.2	Vulnerability Scan Reports	NIST SP 800-53 R5; RA-5	Quarterly
2.1	SSP	NIST SP 800-53 R5: PL-2	Annual
2.2	Security Accreditation Boundary Document (BSD)	NIST SP 800-37 R1	Annual
2.3	User Certification/Authorization Review	NIST SP 800-53 R5: AC-2	Annual
2.4	Information Security Awareness and Training	NIST SP 800-53 R5: AT-1	Annual
2.5	System(s) Baseline Configuration Standard Document	NIST SP 800-53 R5: CM-2	Annual
2.6	System Configuration Settings	NIST SP 800-53 R5: CM-6	Annual
2.7	Contingency Plan	NIST SP 800-53 R5: CP -2	Annual
2.8	Configuration Management Plan	NIST SP 800-53 R5: CM-9	Annual
2.9	Contingency Plan Test Plan	NIST SP 800-53 R5: CP-4	Annual
2.10	Contingency Plan Test Report	NIST SP 800-53 R5: CP-4	Annual



#	Item	Reference	Frequency
2.11	Incident Response Test Report	NIST SP 800-53 R5: IR-3	Annual
2.12	Incident Response Plan	NIST SP 800-53 R5: IR-8	Annual
2.13	Information System Interconnection Agreements	NIST SP 800-53 R5: CA-3	Annual
2.14	Rules of Behavior	NIST SP 800-53 R5: PL-4	Annual
2.15	Privacy Impact Assessment (PIA)	NIST SP 800-53 R5: AR-2, AR-3 and AR-4)	Annual
2.16	Independent internal and external penetration tests and reports	NIST SP 800-53 R5: CA-7 &RA-5)	Annual
2.17	Annual FISMA Assessment	NIST SP 800-53 R5: CA-2	Annual
2.18	Continuous Monitoring Plan	NIST SP 800-53 R5: CA-7	Annual
2.19	Code Review Report	NIST SP 800-53: SA-11	Annual
3.1	Access Control Policy and Procedures	NIST SP 800-53 R5: AC-1	Biennial
3.2	Security Awareness and Training Policy and Procedures	NIST SP 800-53 R5: AT-1	Biennial
3.3	Audit and Accountability Policy and Procedures	NIST 800-53 R4: AU-1	Biennial
3.4	Identification and Authentication Policy and Procedures	NIST SP 800-53 R5: IA-1	Biennial
3.5	Incident Response Policy and Procedures	NIST SP 800-53 R5: IR-1	Biennial
3.6	System Maintenance Policy and Procedures	NIST SP 800-53 R5: MA-1	Biennial
3.7	Media Protection Policy and Procedures	NIST SP 800-53 R5: MP-1	Biennial
3.8	Physical and Environmental Policy and Procedures	NIST SP 800-53 R5: PE-1	Biennial
3.9	Personnel Security Policy and Procedures	NIST SP 800-53 R5: PS-1	Biennial
3.10	System and Information Integrity Policy and Procedures	NIST SP 800-53 R5: SI-1	Biennial
3.11	System and Communication Protection Policy and Procedures	NIST SP 800-53 R5: SC-1	Biennial
3.12	Key Management Policy	NIST SP 800-53 R5: SC-12	Biennial

In summary, MetTel has a robust cyber security and privacy management program that is governed by NIST standards, adherence to strict Federal Government requirements, and is supported by a staff of security-cleared personnel. This enables us to meet the WVOT security requirements, as shown in Table 4.1-2.

Table 4.1-2: Security for WAN and DIA Services Requirements met by MetTel

Section	Benchmark	Requirement	MetTel Compliance
4.3.2.4.1.	The Vendor will be responsible for the physical and cyber security of the network infrastructure that provides services to the State.	Mandatory	*
4.3.2.4.2.	The Vendor will be responsible for resolving all security vulnerabilities that may affect equipment or transmission services provided to the customer.	Mandatory	
4.3.2.4.3.	The Vendor's policies, services, processes, or employees cannot create conflicts with the State's standard security policy requirements. In the event of a standard security policy conflict, the State's policy will prevail. (Policies available at http://www.technology.wv.gov)	Mandatory	<i>¥</i>
4.3.1.4.1.	The Vendor should support customer evaluation of security incidents and compliance verification evaluations as deemed necessary by the customer.	Goal/Objective	
4.3.1.4.2.	The Vendor should have an established and documented policy governing personnel security to include the validation of employee trustworthiness.	Goal/Objective	Ý
4.3.1.4.3.	The Vendor should describe its company's cyber security and privacy management program, including an overview of the governance structure, cyber security strategy, and the experience of personnel in key security and privacy roles.	Goal/Objective	

4.2 Resolving all Security Vulnerabilities that may Affect Equipment or Transmission Services [4.3.2.4.2]

MetTel supports and collaborates with customers to establish, implement, and maintain a 24x7 vulnerability scanning service providing the following services:

• Perform external vulnerability scanning to test nodes in the network, including web environments



Periodically Initiate and complete internal vulnerability scanning of networks, including
operating systems and application software, for potential openings, security holes, and
improper configuration; take appropriate actions and recommend further steps to WVOT.

Our Vulnerability Scan Reports comply with NIST SP 800-53 R4; RA-5. MetTel will be responsible for resolving all security vulnerabilities that may affect equipment or transmission services provided to WVOT including but not limited to those in the following <u>Table 4.2-1</u>.

Table 4.2-1: Security Vulnerability Support

		V 1.1	
#	Description	Response	
1.	Non-compliant devices, by operating system platform	Fully complies	
2.	Device Operating System versions, by hardware platform	Fully complies	
a.	Device wipe actions	Fully complies	
-	Passcode reset actions	Fully complies	
	User/devices with failed authentication	Fully complies	
d.	Aggregate data on failed authentications	Fully complies	
	Devices with blacklisted applications	Fully complies	

MetTel is responsible for maintaining FAR 52.239-1 privacy and security safeguards. MetTel will not publish or disclose in any manner (without the CO's written consent) the details of any MetTel designed or developed safeguards under this task order or otherwise provided by the government with the exception of disclosure to a Consumer Agency for purposes of security assessment and authorization verification.

MetTel affords the government logical and physical access to the MetTel facilities, installations, technical capabilities, operations, documentation, records, and databases within 72 hours of the request to carry out a program of inspection to safeguard against threats and hazards to the security, integrity, and confidentiality of any non-public government data collected and stored by MetTel.

Automated audits include, but are not limited to, the following methods:

- Authenticated and unauthenticated operating system/network vulnerability scans
- Authenticated and unauthenticated web application vulnerability scans
- Authenticated and unauthenticated database application vulnerability scans

Automated scans can be performed by government personnel, or agents acting on behalf of the government, using government operated equipment, and government specified tools. MetTel automated scan or audit results may be accepted at the government's discretion in lieu of government performed vulnerability scans with scanning tools and their configuration approved by the government. Results of MetTel-conducted scans are provided, in full, to the government.

4.3 Personnel Security [4.3.2.4.3]

As a prime contractor to the Federal Government, WVOT will benefit from our established internal personnel security policy to maintain our accreditation with the Government. All MetTel employees who support network design, configuration, support, management, and operation functions have attained and must maintain Public Trust clearance as a term of employment. This requirement of employment will extend to the WVOT Data Transport 2.0 program. As part of administrative procedures, we perform enhanced background examinations of our staff members and follow federal background investigation protocols. All MetTel staff take an annual Government IT Security Awareness Training Course before being permitted access to our systems and in order to maintain access.

Technical Safeguards. MetTel applies the principle of role-based access, ensuring only those MetTel staff with a verified need for network infrastructure access are granted access. In addition to role-based access, every MetTel Team user has individually, specifically-assigned access rights and privileges that apply the principle of "least access." All user access to our internal network is fully logged, and our SumoLogic system analyzes the log files in near real-time. Log alerts are investigated immediately based on the severity of the alert.



Physical Safeguards. Data centers, NOCs, and SOC have physical protections, such as cipher locks and controlled access, to protect our physical facilities. Our personnel adhere to Federal Government as well as any specified WVOT-specific procedures, policies, rules, and regulations governing the conduct of personnel or protection of government facilities and data while performing or completing activities and operations on government premises.

5.0 QUALIFICATIONS AND EXPERIENCE [4.4]

The account management team identified to support WVOT brings a wealth of industry experience, having supported programs of similar size and scope. The section that follows will highlight this experience, as well the degrees and certifications attained by account team members. The team's ongoing and continued education, coupled with practical real-world telecommunications experience, will provide an immediate impact and value to the WVOT Data Transport 2.0 program.

5.1 Qualification and Experience Information [4.4.1–4.4.1.3]

The account management team identified to support WVOT brings a wealth of industry experience, having supported programs of similar size and scope. The section that follows will highlight this experience, as well the degrees and certifications attained by account team members. The team's ongoing and continued education, coupled with practical real-world telecommunications experience, will provide an immediate impact and value to the WVOT Data Transport 2.0 program.

5.1.1 Past Projects Completed [4.4.1.1]

The tables below reference a few of the notable projects of the 1500+ completed by MetTel.

5.1.1.1 Past Project Completed – Signet Jewelers

Customer/Agency Name	Signet Jewelers		
Contract Title	Telecommunications Managed Services		
Location	Nationwide		
Type of Project	SD-WAN Hybrid Network		
Goals and Objectives	MetTel's scope of work with Signet Jewelers included SD-WAN, cloud firewall, network access with wireless backup, VoIP, and digital transformation of all aspects of Signet's business and operations. MetTel teamed with VeloCloud, now part of VMware, on more than 200 enterprise SD-WAN customer engagements across retail, hospitality, healthcare, and financial services for the contract with Signet.		
low These Were Met	Signet benefited through accessible, scalable, and reliable resources – driving greater connectivity, a simpler and flatter network topology, quality of customer service, and increased employee productivity.		
Number of Circuits Deployed	3500		
Customer Reference	Name:	David Coulson	
	Phone #:	330-665-6370	
	Email Address:	david.coulson@signetjewelers.com	
roject Manager	Name:	Lori Ann Thomas	
	Phone #:	212-359-5193	
	Email Address:	lthomas@mettel.net	

Managed SD-WAN & IP Telephony. The company's internet connections now come from multiple sources—phone line, DSL, cable, and broadband—which provides much more bandwidth than before and nearly eliminates downtime. Bonded MPLS increased throughput, and 4G backup provides disaster recovery. And SD-WAN provides QoS to ensure crystal-clear VoIP calls.

Bruin Platform. Because of MetTel's easy-to-use communication management platform, the company now receives one invoice for its entire telecom ecosystem, has complete visibility into its inventory, can easily order/change its services, and has the support of a dedicated customer service team. Signet now concentrates on its core business while MetTel manages its complete communication system.

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On-Time, On Schedule & On Budget. MetTel deployed the SD-WAN within one week, with no downtime, and Signet began realizing positive ROI right away and has better connections for less cost. And most importantly, their network is more secure, more reliable, and more resilient. MetTel technicians manage and monitor their SD-WAN, so Signet can focus on their customers.

Customer Satisfaction

"We were impressed that SD-WAN service
utilized both the primary and backup circuits
in real-time to provide seamless failover as well
as combined bandwidth of the two circuits."

— Stan Heimerl,
IT Manager at Signet Jewclers

Complexity. MetTel had to find a solution to manage eighteen different networks across more than 3,000 sites, an untenable situation that MetTel has successfully solutioned and managed. Having over twenty telecom vendors made tracking costs and service delivery nearly impossible for Signet. Inefficient legacy technology patched together ad hoc in the past created a scenario not conducive to upgrades for Signet. Inconsistency in communications performance between stores and HQ impacted the timely information flow, negatively impacting the customer experience. MetTel understood Signet's pain points and successfully simplified Signet's network to work efficiently, improving internal communications between over 3,000 locations across the globe and lowering costs for Signet.

5.1.1.2 Past Project Completed – The Gap

Customer/Agency Name	The Gap		
Contract Title	Telecommunications Managed Services		
Location	Nationwide		
Type of Project	Multiprotocol Label Switching (MPLS), Voice Service, Voice over Internet Protocol (VoIP), Managed Network Services (MNS), Access Arrangements (AA), Service Related Equipment (SRE), Cable and Wiring (CW)		
Goals and Objectives	Many The Gap stores are located in multi-tenant retail spaces such as malls. Many spaces did not have adequate facilities or inside wiring to support the needed speeds and services for The Gap's transition to Ethernet data services. The readiness of these facilities was essential to the project's success.		
How These Were Met	MetTel worked with their wholesale partners to prepare The Gap's locations for the technology upgrade. We designed a project plan and arranged for MetTel's staff to perform site readiness and enablement at sites across the country. Some activities included demarcation point location, cabling availability, power availability, environmental conditioning, and other steps required to remedy deficiencies found in the verification process. The result was a smooth transition to the new service, availability of The Gap's enhanced capabilities, and reliable ongoing operations.		
Number of Circuits Deployed	2000+		
Customer Reference	Name:	Judith McMillen	
	Phone #:	925-474-5246	
	Email Address:	Judith_mcmillen@gap.com	
Project Manager	Name:	Lori Ann Thomas	
	Phone #:	212-359-5193	
	Email Address:	lthomas@mettel.net	

MetTel provided Ethernet and Managed Services to facilitate a robust, flexible, and standardized data infrastructure for all The Gap's store locations across the country. The client's initiatives to deploy digital signage, guest Wi-Fi, QR scanning, roaming check-out, and loss prevention cameras required more bandwidth than The Gap had, posing challenges for this major retailer.

The increase in bandwidth requirements led The Gap to consider cable internet, DSL, and 4G cellular options. These options drove increased costs and added the complexity of managing multiple carriers with only consumer-grade service levels and no QoS for voice services over data. As a trusted partner, MetTel designed and deployed a Managed Ethernet Transport Service that delivered the high-speed internet required across the entire

Customer Satisfaction

"MetTel provides a great deal of transparency
and honesty to how they conduct
business... MetTel continues to be a very
nimble partner, with minimal issues being
escalated up to my level."

— Judith Millen,
Lead Business Systems Analyst at The Gap



The Gap infrastructure. Our comprehensive suite of services exceeded The Gap's business requirements and brought many efficiencies that were not available with alternative vendors.

MetTel became the single point of contact for all DSL, Cable, and 4G LTE services and normalized project management and deployment methodologies across over 1,000 of The Gap's locations. The MetTel Team replaced single Wide Area Network technologies with two diverse and redundant services, reduced costs, and increased bandwidth.

MetTel provides Voice Service across all 2,700 The Gap retail locations, totaling over 13,000 POTS lines. MetTel's SIP Trunking solution offers The Gap flexibility, functionality, and features of VoIP while keeping capital expenditures to a minimum. MetTel provides The Gap MNS for the services (data and voice circuits) that The Gap procures through MetTel. MetTel has arrangements with over 5,500 local, certified low voltage inside wiring contractors that allow The Gap to have immediate and scheduled access to skilled resources for repair, installation, and smart hand needs.

Contractor's Corrective Actions: By having MetTel consolidate thousands of invoices into one, The Gap could reduce the resources required to coordinate invoice processing. MetTel's online portal has provided central access for all billing, reporting, and repair issues. The consolidated billing platform and extensive reporting capabilities allow for accurate forecasting. The Gap was also provided with a customized toll-free customer service number with direct access to the dedicated account representative, thus facilitating information sharing and expediting call processes. Through the initial implementation and on an ongoing basis, MetTel provided a dedicated team of experts to ensure that all projects were delivered according to expectations and that all SLAs were met. During the transition, MetTel's New Client Services team worked to categorize the customer's telecom inventory and the intended usage for each line. MetTel identified over 500 obsolete lines, resulting in annual savings of \$400,000. Additionally, the team found lines that did not belong to The Gap; MetTel achieved annual savings of nearly \$60,000 by disconnecting the lines.

5.1.2 Proposed Staffing Plan [4.4]

MetTel has hand-selected experienced telecommunications professionals for the seven key positions: Brian Skoletsky as Account Support Representative, Shawn Kendig as the Technical Support Representative, Leslie Duckett as the Solutions Implementation Support Representative, Kandi Hart as the Contract Manager, Michael Thacker as the Billing Support Representative, Ken Rudnick as the Security/Compliance Specialist and Michelle Shader as the Project Manager. In addition to the seven key positions requested, MetTel has added an eighth position, Ron Glavan as the Program Manager. Mr. Glavan will have overarching responsibility for the Data Transport 2.0 program throughout the life of the contract. All eight are current MetTel employees, have decades of experience in their related disciplines, and have in-depth experience with large contracts. A summary of the qualifications for all key personnel are listed below in Table 5.1-4.

5.1.2.1 Retention

MetTel ensures that our team members remain satisfied, engaged, and passionate about their roles to alleviate frequent project personnel turnaround. We work closely with service delivery partners to coordinate, collaborate, and communicate regularly to maintain a stable workforce. In addition to financial mechanisms—including retention bonuses for key functions, skills, and domain knowledge—we provide employee incentives and programs, such as career path and skill set development, commitment to work/life balance, along with open communications that have been successful in achieving our industry-leading employment and retention rates. These retention strategies have shown to keep top performers and our personnel in key personnel positions committed to our clients, maximizing staffing stability while continuously increasing the value they bring to clients across the life of the contract.

5.1.3 Account Team [4.4.1.2]

MetTel's staffing approach demonstrates our commitment to meeting the requirements for WVOT in support of the Data Transport 2.0 program and the rapid migration of the network. The team selected to



support WVOT is organized to proactively collaborate and communicate, both internally and externally, including senior-level communications with WVOT and end-users, in a manner that establishes a collaborative team environment and enhances performance. MetTel's transparent organizational structure utilizes web-based communication tools and offers clear escalation paths to ensure consistent and effective communications between internal management, technical personnel, and WVOT personnel. Since communication within MetTel flows bi-directionally throughout the organization, the environment in which we operate provides WVOT the benefit of information and ideas that are quickly and concisely cascaded throughout the company.

MetTel's Account team is dedicated and agile, capable of managing our proposed communications approach to execute WVOT requirements, with demonstrated success and experience. MetTel's executive leadership team is eager to develop and nurture a long-standing partnership with WVOT, to deliver quality products, services, and support through the Data Transport 2.0 program. Table 5.1-1 below shows how the MetTel WVOT team members correspond to WVOT Account team roles.

Table 5.1-1: Account Team Roles

WVOT Role	MetTel Title	Personnel
Program Manager	Program Manager	Mr. Ron Glavan, MBA
Account Support Representative	Director, Client Executive	Mr. Brian Skoletsky
Technical Support Representative	Director of Solution Architecture and Engineering	Mr. Shawn Kendig
Solution Implementation Support Representative	Customer Care Representative	Ms. Leslie Duckett
Contract Manager	Director of Contracts	Ms. Kandi Hart
Billing Support Representative	Executive Director Client Data Analysis	Mr. Michael Thacker
Security/Compliance Specialist	Security	Mr. Ken Rudnick, CISSP
Project Manager	Transition Project Manager	Ms. Michelle Shader, PMP



5.1.3.1 Organizational Chart

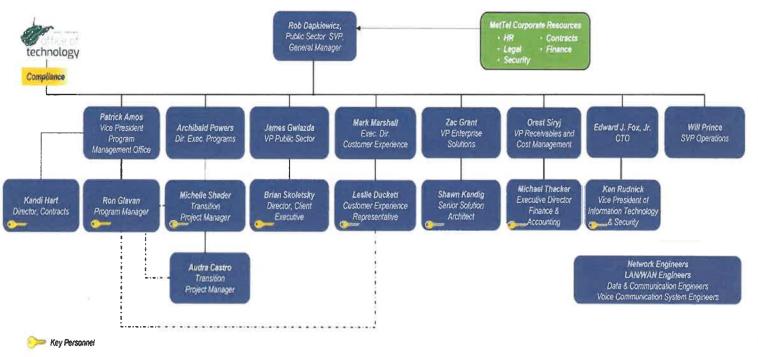


Exhibit 5.1-1: WVOT PMO Organization Structure ¶ MetTel's organization structure for WVOT with direct lines of communication and quick escalation points at the executive level.



MetTel's WVOT PMO will act as the primary interface between MetTel and WVOT. The PMO will provide resources and value-added processes, tools, technologies, training, and support for WVOT management and operations processes. The PMO will be engaged at every phase of the WVOT contract, including the initial like-for-like migration of existing services, transformation, and modernization of those services as required, and ongoing service maintenance and operations, performance management, quality management, risk management, and inventory management. We recognize that Government customers have unique requirements; therefore, we have identified and trained SMEs within this functional area who know our Government customers and who provide service support reflective of that knowledge.

Our proposed Program Manager (PM), Ron Glavan, is part of the Project Management Office (PMO), led by Patrick Amos. Providing oversight and driving contract compliance, Mr. Glavan has the operations authority to engage in direct lines of communication with senior executive leadership throughout MetTel to ensure access to the resources required for an efficient, timely, and well-executed WVOT migration and ongoing operations. The MetTel organization affords WVOT a single escalation tier from Mr. Glavan directly to MetTel executive leadership. This demonstrates our executive commitment to the success of the WVOT migration and transformation of the contract.

As reflected in Exhibit 5.1-1, the Program Manager is supported by dedicated support resources that he will matrix-manage. The Transition Project Manager, Michelle Shader reports all performance and progress to our Public Sector Senior Vice President and General Manager, Mr. Rob Dapkiewicz, the MetTel Executive Sponsor for WVOT.

MetTel's PMO and the assigned PM are responsible for maintaining the resource management plan, which identifies the key resources within the various teams required to support the program. In accordance with MetTel's best practices, the resources shown in <u>Table 5.1-2</u> are organized according to the role in which they support the program, including the position responsibilities for supporting the program objectives. Resources that are offered as Key Personnel are designated with the Key Graphic.

Table 5.1-2: MetTel's Dedicated WVOT Roles and Responsibilities

Tab	le 5.1-2: MetTel's Dedicated WVOT Roles and Responsibilities	
Role	Responsibilities	
Program Manager — Ron Glavan	Mr. Glavan leads all aspects of WVOT effort as the single point of contact for the WVOT management team. He is responsible for managing the overall performance of the contract and its administration. He directs staff that maintain daily operations and successful execution of the project. Manages development and submission of all contract deliverables. He facilitates and conducts WVOT Program reviews with the customer. He advises MetTel Executive Leadership regarding performance and WVOT Program initiatives.	
Account Support Representative – Brian Skoletsky Mr. Skoletsky acts as the customer advocate within MetTel and owns the overall customer relationship. He is responsible for business development as well as bringing new capabilit innovations to the WVOT.		
Technical Support Representative – Shawn Kendig	As Technical Support Representative, Mr. Kendig will lead the development and implementation of MetTel's technical solution for WVOT services, including continued service support and quality assurance oversight through the life of the contract. Mr. Kendig provides design, implementation, and provisioning insight and expertise to public sector entities' complex data architectures. He will draw on an extensive background with Local Exchange Carriers (LECs), Competitive Local Exchange Carriers (CLECs), and other service providers developing, installing, and implementing data network elements.	
Solution Implementation Support Representative – Leslie Duckett	Ms. Duckett, a dedicated and highly experienced MetTel Customer Care Representative, is solely focused on the WVOT Project. After services are transitioned into operations, she is WVOT's primary Point of Contact (POC) for customer service operations.	
Contract Manager — Kandi Hart	Ms. Hart is responsible for preparing, negotiating, and recording public sector contracts on behalf of MetTel. Her duties include researching a contract's terms, alerting parties to renewals or extensions, and tracking all contractual communications between MetTel and WVOT.	



Role	Responsibilities	
Billing Support Representative — Michael Thacker	Mr. Thacker directs MetTel billing, inquiries, and dispute resolution activities. He ensures that all invoices and billing details, adjustments, and disputes are promptly addressed in accordance with contract requirements.	
Security/Compliance Specialist — Ken Rudnick	As Vice President of Information Technology & Security, Mr. Ken Rudnick oversees the security of systems, networks, and enterprise information. With his team, he develops and implements controls based on industry standards for information security and resiliency. Mr. Rudnick will provide the vision and leadership necessary to manage the risk to the organization and will ensure business alignment, effective governance, system and product availability, integrity, and confidentiality.	
Project Manager – Ms. Shader is responsible for overall migration planning, execution, and service implementation reviews the results of quality control and quality assurance activities and trends and takes in action as needed to address migration risks and issues. Ms. Shader champions, supports and implements process improvement activities and measures results.		
PMO Vice President — Patrick Amos		
Executive Director, Compliance — Jasper Saunders	Mr. Saunders supports the PMO Vice President as needed to document and analyze performance metrics, identify trends, and recommend corrective actions.	
Corporate Quality Manager — James Salame	Mr. Salame implements, maintains and manages the QMP, which is automated in the Mettel Portal. He performs quality assurance audits, reviews audit results, and analyzes inspection trends. Mr. Salame manages processes for taking corrective and preventive actions and implements process improvement ideas.	
All Program Staff	All program staff check for quality during all phases of day-to-day work and share responsibility for reporting, integrity, or security concerns with appropriate leadership.	

5.1.3.2 Staff Qualifications [4.4.1.2]

Below, <u>Table 5.1-3</u> delineates the qualifications and experience of the personnel proposed for key roles.

Table 5.1-3: Staff Qualifications

Key Personnel	Education/Certification*	Experience	Additional Experience
Program Manager — Ron Glavan	 Cleveland State University, BA – Cum Laude MBA – Ashland University Six Sigma – White, Yellow, Green Belt Certified. CompTIA Project+ Certified. 	large scale complex network	Process improvement training and course taken and used. M365 training and classes taken on process automation.
Account Support Representative – Brian Skoletsky	 Indiana University of Pennsylvania, B.S. — Marketing Sale Certifications with Cisco, Juniper, Dell, IBM Tivoli, Oracle, VMware, EMC, Net App, and Splunk 	Mr. Skoletsky has a 20-year track record in the public sector, supporting his client's mission. His experience spans Telecom Services, Networking IT Infrastructure, Cloud and Software/Hardware Solutions.	Proven at building strong collaborative relationships to help agencies solve problems. Successfully worked with strategic IT System Integrators, solution partners, and internal teams to support mission success.
Technical Support Representative — Shawn Kendig	 Cisco CCNA Cisco CCNA – Datacenter Cisco CCNP SPROUTE Microsoft Windows 7 Microsoft Server 2008 Enterprise Engineer FORTINET NSE 1+2 	telecommunications industry	12+ years of experience in network architecture and design.



Key Personnel	Education/Certification*	Experience	Additional Experience
Solution Implementation Support Representative — Leslie Duckett	US Government Clearance	Focused on Customer Support at MetTel HQ and is a member of MetTel's Operations Team. After services are transitioned into operations, she is the customer's primary POC for customer service operations, including billing and ordering.	15 years of experience in telecommunications
Contract Manager — Kandi Hart	 Bachelor's Business Management Business Contracts Certification 	Ms. Hart has experience organizing, directing, and managing contract functions of multiple complex IT projects for large Federal, SLED, and commercial customers.	23 years of experience in Government Contracting
Billing Support Representative — Michael Thacker	Bachelor of Science Degree	Mr. Thacker directs MetTel billing, inquiries, and dispute resolution activities. Ensures that all invoices and billing details, adjustments, and disputes are promptly addressed in accordance with contract requirements.	23 years experience in MetTel
Security/Compliance Specialist — Ken Rudnick	BS, Computer and Information Systems Security/Information Assurance CISSP	Mr. Rudnick has over 30 years of international experience in IT	Oversees security of systems, networks, and enterprise information. With his team, he develops and implements controls based on industry standards for information security and resiliency. Provides the vision and leadership necessary to manage the risk to the organization and will ensure business alignment, effective governance, system and product availability, integrity, and confidentiality.
Project Manager – Michelle Shader, PMP	• PMP	Ms. Shader has experience organizing, directing, and managing contract functions of multiple complex IT projects for large Federal government customers	20 years of program management experience, telecommunications, and networking

^{*}Note: Staff certifications or degrees applicable to this project

5.1.4 Incident Management Process [4.4.1.3]

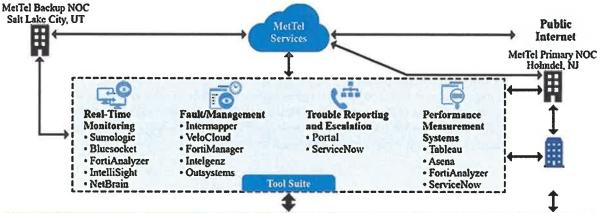
MetTel's support for incident management and cyber threats is accomplished through our security operations center (SOC) and network operations center (NOC). In the case of cyber threats, our SOC incident response team isolates, remediates, recovers, and learns from incidents that are found through our threat detection and incident reporting processes. Exhibit 5.1-2 depicts our approach to incident handling. Security alerts will be provided to WVOT via MetTel's Portal for incidents affecting WVOT services. Our incident reporting includes notes on our investigative process, indicators of compromise, evidence-based assertions for specific threats or attacks, and detailed remediation recommendations. From the time of discovery, all information, threat intelligence, and the approach and steps taken to investigate an incident are documented in our portal and are accessible to WVOT authorized users. We will provide WVOT the ability to trace the response lifecycle of each incident and participate in the response through the portal.





Exhibit 5.1-2: MetTel's Security Incident Handling Model¶Proactive end-to-end security response process protects WVOT Network.

MetTel has a network management and operations model (Ops Model) in place to ensure the availability and reliability of WVOT's network infrastructure and systems. Our Ops Model includes support activities such as design and engineering, implementation, management, security, and day-to-day operations activities. This holistic model ensures the availability, confidentiality, and reliability of Data Transport 2.0 services provided by MetTel to WVOT. Exhibit 5.1-3 illustrates the major components and functions of our operations model.



Processes & Network Disaster Recovery • Change and Configuration Management • Network Availability • Problem Management • Incident Management • Incident Management • Security Incident Response

Exhibit 5.1-3: MetTel's Network Management and Operations Model¶ Designed to ensure the performance of DOS's network infrastructure system.

MetTel's primary and secondary NOCs have a variety of tools in their tool suite. These tools help NOC personnel perform vital operational tasks such as real-time monitoring, fault management, trouble reporting and escalation, and performance measurement. Our NOC personnel use these tools to manage and configure all of MetTel's services. MetTel's ticketing system is used by the NOC and SOC staff to track and report issues both internally and externally to the customer. Information from these tools is provided to WVOT-approved users via our portal.

Incident Management: We use the Information Technology Infrastructure Library (ITIL) as our primary set of best practices for managing all services we provide to our customers. We tailored ITIL's Incident Management, Event Management, and Problem Management processes to meet the WVOT-specific Data Transport 2.0 performance metrics. For WVOT, this results in a set of tightly integrated operational workflows to monitor, manage, report on, troubleshoot, administer, and repair WVOT services

There are three characteristics of the ITIL Incident Management workflow that we tailored to provide us the capability to better support WVOT performance requirements: automatic event notification, two-stage escalation, and integration of the Service Management System (SMS) Database into our data network resolution and recovery procedures. Incident Management is a part of the services we provide WVOT; however, in addition, we've enhanced the expedited and escalated activities to support the greater performance metrics.



- Incidents may come into our Incident Management workflow via email, phone, our portal, or through our automatic event notification procedures. We integrate automatic event notification as an input into our Incident Identification step. This means we maximize utilization of SNMP and other service monitoring protocols and tools to automatically monitor and capture performance level breaches before they lead to outages or degradations. Our Incident Management workflow is part of our MetTel Portal.
- Any performance level breaches are automatically sent to our Tier 1 Help Desk, where a ticket is automatically created, logged, categorized, and raised in the portal to the attention of a Help Desk agent for resolution. The agent reviews the ticket details, assigns a priority, and initiates our Major Incident Procedure if required. (Major Incidents may include site, location, or complete service outages. We will work with WVOT to determine and define Data Transport 2.0 Major Incidents and appropriate actions to take. Action may be notification of WVOT stakeholders, internal MetTel notification, or the initiation of service backup plans).
- Upon completion of our agent's initial diagnosis, they then determine whether our Tier 1 Help Desk can resolve the Incident or whether technical and/or function escalation is required (See below for an explanation of our two-stage escalation procedures). If possible, our agent resolves the Incident, verifies with the user that the Incident is resolved, then closes the ticket in the portal. Otherwise, technical escalation is initiated to our Tier 2 NOC via phone call and the portal.
- Our experts at our Tier 2 NOC have the expertise and tools to take additional Incident resolution actions. If they cannot resolve the Incident, they have the authority to escalate to our Tier 3 carrier partners. Our Help Desk agents track the Incident in our portal through closure to ensure all Incidents are addressed and worked.



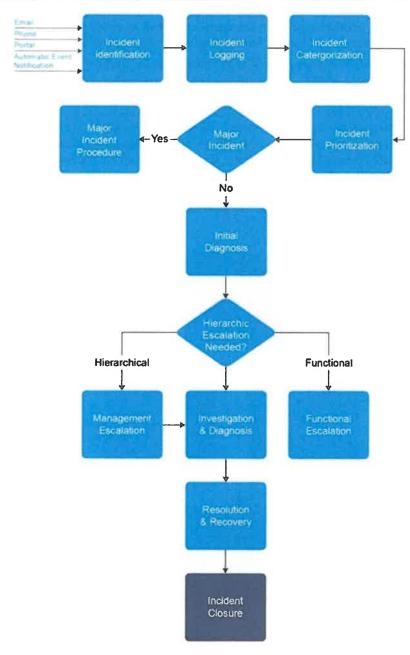


Exhibit 5.1-4: MetTel's Tailored Data Transport 2.0 Incident Management Workflow Tailored incident management allows the resolution of non-standard events

Most incidents are resolved by our Tier 1 agents. However, our *Two-stage Escalation* means we have Technical Escalation and Hierarchical Escalation procedures. For Data Transport 2.0 services, our Technical escalation procedure means that our Tier 1 agents can immediately raise the issue to Tier 2 and 3 experts to resolve the incident when it is beyond the capabilities of our Tier 1 agents. Hierarchical escalation means that, as the situation requires, we raise incidents to our Customer Care lead (Ms. Leslie Duckett), our Program Manager (Mr. Ron Glavan), or to other senior leaders in MetTel. Hierarchical escalation takes place when there is a major outage or in instances when resolution is taking longer than the performance SLAs dictate. Hierarchical escalation ensures senior MetTel personnel are informed of



the issue and can be prepared to take any necessary action, such as allocating additional resources or involve carrier partners' or other experts. In some cases, depending upon the severity or impact of the Incident, our Tier 1 personnel may follow Technical and Hierarchical escalation procedures.

Event Management: We use the ITIL Event Management workflow, shown in Exhibit 5.1-5. Using management protocols (e.g., SNMP) and agents integrated into the Data Transport 2.0 service components, we are able to automate the monitoring, troubleshooting, and notification of defined events that indicate issues with WVOT's Data Transport 2.0 services. Automated agents monitor the service against predefined events and automatically detect, filter, and notify our Tier 1 Help Desk agents, so they can take action. This notification takes place by the automatic creation of an incident ticket that is injected into our Incident Management workflow. Tier 1 agents receive the automatically generated ticket and begin the Incident Management process. It results in the resolution of the event and ticket and closure of the incident. This allows us to proactively identify and act upon TFS performance issues before they impact the service. For WVOT, this provides a highly reliable and stable Data Transport 2.0 platform.

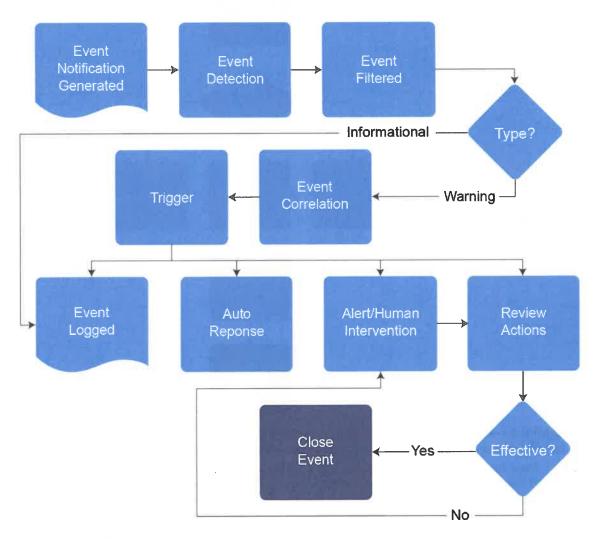


Exhibit 5.1-5: MetTel's Tailored Event Management Workflow # Structured event management rapidly resolved issues.



Problem Management. We define a "problem" as the underlying root cause of one or more incidents or recurring incidents. Using our problem management process, we identify root cause, document and communicate known errors, and initiate actions to remove the root cause. Our Incident Management and Problem Management processes are closely related and use many of the same tools, categorization, and priority coding. Incident Management captures the data and information needed for Problem Management to get to the root cause. Incident Management is reactive and immediate, while Problem Management takes a proactive and long-term view, meant to solve issues before they cause other incidents.

Our NOC Service Manager leads our Problem Management process. He organizes Problem Teams from personnel across MetTel as needed. Different problems may require different technical skills or experience. The Problem Team reviews incident tickets, resolution actions, operational logs, maintenance records, and recurring issues to identify potential problems. The team then uses analysis, testing, and/or evaluation to determine the root cause and resulting fixes. Once they identify a fix, the Problem Team raises it for possible initiation as a project to be implemented to remove the root cause. In completing their actions, the Problem Team may identify temporary resolution actions and provide this information to Tier1, 2, or 3 personnel for their action. Our Problem Management activities result in minimization of the adverse impact of incidents and problems on WVOT's Data Transport 2.0 network and proactively removes errors.

5.1.5 Experience [4.4.1.1]

5.1.5.1 Experience Reference # 1 – National Archives and Records Administration

Customer/Agency Name	National Archives and Records Administration		
Contract Title	Enterprise Infrastructure Solutions 88310321F00035		
Summarization	Data Network Services, Voice Services, and Conferencing Services:		
	The National Archives and Records Administration (NARA) is an independent agency establishe in 1934 to identify, protect, preserve, and make publicly available the historically valuable record of all three branches of the Federal government. NARA manages the Federal Government's archives, administers a system of Presidential Libraries, operates museums, conducts education and public programs, provides oversight of government-wide records management activities, and provides temporary storage of other agencies' records on their behalf. NARA and its Headquarters (HQ) location supports 44 site locations nation-wide consisting of Federal Records Centers, Regional Archives, Presidential Libraries and Museums, and the Federal Register.		
		ons, NARA supports more than 4,000 employees, agency personnel and y support the NARA mission and make U.S. Government records and data	
Goals and Objectives	MetTel assisted NARA with their EIS transition including their goal for the Network and Voice Services transformation to a fully integrated Software Defined-Wide Area Network (SD-WAN) based architecture. MetTel developed a transition approach that used MetTel's leading SD-WAN capabilities that are native in MetTel's backbone to deliver a network that will enable NARA to provide direct access to cloud services and to add cloud security appliances that will improve remote access and direct connectivity from any user to NARA resources.		
	network performance v goal of allowing NAR	f MetTel primary goa was to limit Phase 2 to modest improvements to with minimal disruption to the delivery of the mission. With a secondary A to achieve the immediate cost benefits of EIS savings while providing a ving the NARA Network and Voice Services goals for the agency.	
Total Number Of Circuits Deployed			
Length of Time for Deployment	383		
Reference	Name:	Kevin Monohan	
	Phone #:	kevin.monahan@nara.gov	
	Email Address:	301) 837-1805	

5.1.5.2 Experience Reference # 2 – United States Department of State (DOS)

Customer/Agency Name United States Department of State (DOS)



Contract Title Summarization

GS00Q17NSD3008 / 19AQMM20F2595

option, additional (non-domestic) locations.

The U.S. Department of State (DOS) leads America's foreign policy through diplomacy, advocacy, and assistance. The DOS Telecommunications, Wireless, and Data (TWD) Services Division provides centralized management control over equipment, services, and maintenance for unclassified voice and data telecommunications. MetTel supports the DOS TWD mission with a diverse wide area network (WAN) providing comprehensive telecommunications services for integrated network connectivity across a multitude of locations throughout the Continental U.S. (CONUS), Virgin Islands, Puerto Rico, Hawaii, Canada (OCONUS), and, as an

MetTel provides DOS a fully meshed and managed Layer-3 Multi-Protocol Label Switching (MPLS) network, using Virtual Private Network Service (VPNS) across DOS locations. DOS plans to transform its network to a fully functional, MetTel-managed, hybrid Software Defined Wide-Area Networking (SD-WAN) overlay solution converging data, voice, and video services across the WAN to take advantage of software-defined networking (SDN) and network function virtualization (NFV) technologies. Because of the geographic diversity of the agency and locations served by DOS, MetTel has coordinated new site installations with multiple Local Exchange Carriers (LECs) in urban, suburban, and rural environments. MetTel is responsible for the management, network monitoring, troubleshooting, and service restoration of the IPS/MPLS services. MetTel is the agency's single point of accountability for all networks managed under this service, including operations, maintenance, and administration. Our dedicated team provides complete project management for design, engineering, implementation, installation, access coordination, provisioning, equipment configuration, and service activation.

Goals and Objectives

Access Arrangements (AA). MetTel provides DOS Access Arrangements in the form of both copper and fiber last-mile connectivity access for IPS, VPNS, Ethernet, and broadband-based services across DOS locations and the internal agency customer base. MetTel aggregates and procures these services from different underlying carriers, offering DOS the flexibility to choose from different last-mile technology based on availability, carrier diversity requirements, serviceability, and functionality while aggregating them into a simple billing support and escalation process.

Internet Protocol Service (IPS). MetTel provides IPS connection options and interface types to meet DOS's requirements for connectivity. Implementing IPS includes the following:

- IPS ports are built in the production configuration.
- · Access circuits specified per the location are installed and verified.
- SRE is cross-connected to the MetTel IPS circuit.
- External system connections and equipment configurations are tested, including IP Addressing/customization requirements.
- Service performance metrics are measured and verified to be within specified limits.
 Virtual Private Network Services (VPNS). MetTel's best-practice method to provide VPNS service is through the Interconnection / bridged network process. We use our existing MPLS NNIs and establish a VRF function on our network, which gives us participation in the customer network. The VRF serves as a gateway function where the existing DOS network connects to the MetTel network without requiring anything from the customer. MetTel can then monitor and regulate the transition of service and locations to ensure no location is isolated. All locations remain live throughout the entire transition process. At the time of transition, two circuits are active at the customer location. If there is any trouble with the new service, traffic is still active and available on the original network connection. As the new service is tested and confirmed, the old service is discontinued. No "hot cuts" are required, and all customer locations remain active consistently, and visible on the network. This method eliminates all risk of location outages. Other carriers use methods that may cause service disruptions to customer locations. The Interconnection method is standard practice for MetTel.

Ethernet Transport Services (ETS). MetTel provides DOS Ethernet links which are transported using MPLS Label Switched Paths (LSPs) inside an outer MPLS tunnel or over partner SONET networks. Because ETS uses a combination of fiber, copper, and wireless, implementation varies depending upon the type of connectivity and equipment at each location. In general, to implement ETS for DOS, MetTel performs the following:

- SRE is installed in the production configuration. Access circuits specified per the location are installed and verified.
- SRE to provide the UNI is installed and verified to be operational.
- External system connections and equipment configurations are tested.



- · Ordered features are verified at the connections.
- Service performance metrics are measured and verified to be within acceptable limits.

Managed Network Services (MNS). MetTel provides DOS MNS for their data services that DOS procures through MetTel. MetTel provides a dedicated account team that participates in regularly scheduled conference calls to discuss ongoing projects, day-to-day management and service issues, technical support, maintenance support, billing issues, service problems, and other management issues that may arise. MetTel creates and maintains an issues-tracking worksheet and updates it regularly and in advance of weekly meetings. MetTel's project manager provides a single point of contact and project management for the initial installations of DOS's voice and data network.

Service-Related Equipment (SRE). MetTel provides DOS with service equipment. DOS orders various types of equipment, such as routers, switches, or other equipment needed to provide data communication services. MetTel dispatches and manages the installation, move, add, change, delete (MACD), and technical support and troubleshooting for the various pieces of equipment.

Cable and Wiring Service (CWS). MetTel has arrangements with over 5,500 local, certified low voltage inside wiring contractors that allow DOS immediate and scheduled access to skilled resources for repair, installation, and smart hand as needed. MetTel's smart hand resources have been instrumental in providing DOS and its different departments access to technicians for a variety of projects that have allowed for standardized resource delivery regardless of where the sites are located.

National Security Emergency Preparedness (NS/EP). DOS ordered data services with Telecommunications Service Priority (TSP) circuits. Each order placed through MetTel contained two fields for identifying whether a service had a TSP code for restoration or installation service priority, or both. Each order identified as having the TSP priority is flagged and tagged in the MetTel Portal to ensure it receives the proper priorities. In the event of a failure of any kind, the NOC would automatically be notified that the service has a restoration priority above other traffic.

Operations Support System/Business Support System (OSS/BSS). MetTel has provided DOS access to our Portal for their oversight of active orders and any outage tickets. The Portal also provides ticket tracking as well as invoice review and management of charges in a static environment. As part of the BSS access, DOS has a Customer Care representative available to them 24/7 to facilitate trouble ticket generation as required.

Complexity. The complexity of the DOS contract is high due to the need to transition multiple locations in each geographic area. As more DOS internal customers desire to exercise central management of their data infrastructure, the addition of other locations to the contract will continue to gain traction.

Progress to-date. At present, MetTel has completed roughly thirty circuit in full and delivered roughly five loops pending equipment arrival. There are currently twelve additional orders in progress. As this is an IDIQ/BPA contract, this number does not express the actual final order volume.

Problems/Situations that have affected performance. To date, DOS has only had equipment issues in the procurement of equipment for their network due to the ongoing semiconductor shortage as well as the TAA-required compliance of all equipment procured for DOS to be installed in their networks. MetTel has worked to mitigate the time issue by advance purchasing some equipment. While this is not MetTel's normal process, the need to have equipment more readily available was deemed worth the risk to preserve timelines and SLA on delivery of services.

Total Number Of Circuits <mark>46</mark> Denloyed

Deployed Length of Time for Deployment

Reference

9/14/2020 - 9/13/2033

Name: Logan Liskovec
Phone #: 202-453-8999
Email Address: liskoveclz@state.gov

5.1.5.3 Experience Reference #3 – Fidelity Information Systems

Customer/Agency Name Fi
Contract Title M
Summarization FI

Fidelity Information Systems
Master Service Agreement

FIS is a Fortune 500 and S&P 500 company with 20,000+ clients in over 130 countries, powering billions of financial transactions annually. Before their modernization, the near-real-time nature of FIS transactions required a network that could accommodate increases in application and performance bandwidth demands;





-		
	to congestion or latency	capable of prioritizing some connections over others, which could respond y. This transition included multiple circuits per site, diverse access rent access providers per region and site.
	in the SD-WAN capabi broadband internet circ application performanc continued transforming Because SD-WAN pro- dynamic multipath opti the price per megabit o Intelligent Process Auti identifies, reports, and	a hybrid approach and transformed to broadband as they gained confidence lilities. Customers like FIS have SD-WAN designs that combine MPLS, suits, and 4G/LTE into one SD-WAN controlled network for optimal see, including real-time voice and video. With SD-WAN deployed, FIS their clients' networks and digitally deploying future applications. vides the ability to use any circuit with any carrier, technology, and imization (DMPO), FIS has seen significant cost savings and driven down f WAN circuits. Additionally, our Managed SD-WAN platform provided omation (IPA). This Artificial Intelligence (AI)-driven automation addresses network incidents and events. For example, the AI engine commends remedial steps, or performs the action independently when an
Goals and Objectives	billing, and inventory s system available 24×7> value of managed servi capabilities. This value against budget, circuit inventory. These autor	It to support the FIS Program Management Team's pricing, ordering, support, generating reports through an automated, user-friendly, online ×365. The MetTel Portal distinguishes itself from others by enhancing the ices and providing advanced business intelligence and data analytic e-add allows customers like FIS to obtain detailed insight into expenditures utilization (live and historical), SLA performance, and complete services mated tools' system-to-system interface capabilities reduce errors and speed or orders, trouble ticket resolution, and billing accuracy.
	controlled network for Because SD-WAN pro like capabilities and dy savings and driven dow WAN platform provide (AI)-driven automation the trouble correlation recommends remedial	ned MPLS, broadband internet circuits, and 4G/LTE into one SD-WAN- optimal application performance, including real-time voice and video. vides the ability to use any circuit with any carrier, using any technology, mamic multipath optimization (DMPO), FIS has seen significant cost with the price per megabit of WAN circuits. Additionally, our Managed SD- ed Intelligent Process Automation (IPA), which uses artificial intelligence in to identify approaches to address network incidents and events, improving and assessment processes. The AI engine either notifies technicians and steps or performs the action independently. The following Exhibit 5.1-6 is currently used by MetTel operations, using IPA to resolve tickets and metwork automatically.
	troubleshoot through the Orchestrator. The port fewer senior engineers' operational efficiency millions of dollars in sarealized in multiple was automation of many furnitroubles.	t in MetTel's SD-WAN management training program, learning to the graphical user interface of the MetTel Bruin Portal and the SD-WAN tall has helped reduce mean time to repair (MTTR) as FIS now requires be scalations. Overall, moving to MetTel SD-WAN has given FIS improve while maximizing performance for their customers. FIS was able to realize avings due to their transition to MetTel services. Those savings were the substitution of the services themselves and the anctions that third parties were handling. MetTel's fully managed services usic to the service reducing the total cost of ownership.
Total Number Of Circuits Deployed	1147	
Length of Time for Deployment	11/1/2018 - Present	
Reference	Name:	John Pieratt
	Phone #:	602-337-3410
	Email Address:	John, pieratt@fisglobal.com



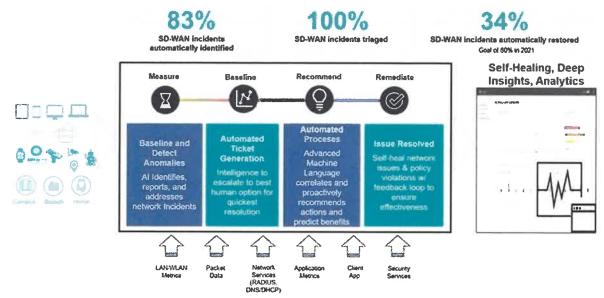


Exhibit 5.1-6: Intelligent Process Automation (IPA)— Uses analytics and artificial intelligence to improve the ticket management process, providing a self-healing network

In summary, MetTel meets the following Qualifications and Experience requirements as shown in Table 5.1-4.

Table 5.1-4: Qualifications and Experience Requirements met by MetTel

Section	Benchmark	Requirement	MetTel Compliance
4.4.	Qualifications and Experience: Vendor should provide information and documentation regarding its qualifications and experience in providing services similar to those requested in this RFP. Information and documentation should include, but is not limited to, copies of any staff certifications or degrees applicable to this project, proposed staffing plans, descriptions of past projects completed (descriptions should include the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met), references for prior projects, and any other information that vendor deems relevant to the items identified as desirable or mandatory below.	Mandatory	•
4.4.1.	Qualification and Experience Information: Vendor should describe in its proposal how it meets the desirable qualification and experience requirements listed below.	Mandatory	
4.4.1.1.	Vendor should provide three (3) examples demonstrating at least three (3) years of experience in providing state-wide or region-wide Ethernet Wan Services of a similar size and scope as this project, with at least one example being a public entity. Vendor should provide a summarization of each project including goals and objectives, total number of circuits deployed, length of time deployment took, if still in service, and reference for each example.		√
4.4.1.2.	The State desires an Account Team (including Account Support Representative, Technical Support Representative, Solution Implementation Support Representative, Contract Manager, Billing Support Representative, Security/Compliance Specialist, and Project Manager) for the winning solution and life of the contract. Vendor should describe in detail the responsibilities of key roles and staff's experience in working in these roles.	Mandatory	
4.4.1.3.	Vendor should describe its experience and provide an overview of their incident management process and cyber threat intelligence sharing process for incidents associated with the vendor provided solution.	Mandatory	✓



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571-259-3674



APPENDIX A: CONTRACTUAL PAGES



Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia Centralized Request for Proposals Info Technology

Proc Folder: 1111127 Doc Description: Statewide Contract for Data Transport Services

Reason for Modification:

Proc Type: Statewide MA (Open End)

Date Issued Solicitation Closes Solicitation No Version 2022-09-28 2022-10-13 13:30 CRFP 0212 SWC2300000001

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION 2019 WASHINGTON ST E

CHARLESTON WV 25305

US

VENDOR

Vendor Customer Code:

Vendor Name: MetTel

Address: 1090 Vermont Ave NW #1100

Street:

City:

Washington, DC 2003

State:

District of Columbia

Country: USA

Zip: 20005

Principal Contact: Kandi Hart, Director of Contracts

Vendor Contact Phone: 571-259-3674 Extension:

FOR INFORMATION CONTACT THE BUYER

Jessica L Hovanec 304-558-2314

jessica.l.hovanec@wv.gov

Signature X

FEIN# 51-0374236

10/11/2022 DATE

All offers subject to all terms and conditions contained in this solicitation

Date Printed: Sep 28, 2022

Page: 1

FORM ID: W/V-PRC-ORFP-002 2020/05





Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia Centralized Request for Proposals Info Technology

Proc Folder:

1111127

Doc Description: Addendum #1 Statewide Contract for Data Transport Services

Reason for Modification:

Addendum #1 to provide additional information related to

the specifications.

Proc Type:

Statewide MA (Open End)

Date Issued Solicitation Closes 2022-10-07 2022-10-13 13:30

Solicitation No. CRFP 0212 SWC2300000001 Version

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON WV 25305

US

VENDOR

Vendor Customer Code:

Vendor Name : MetTel

Address: 1090 Vermont Ave NW 1100

Street:

City:

State:

Washington, DC

Country: US Zip: 20005

Principal Contact: Kandi Hart, Director of Contracts

Vendor Contact Phone: 571-259-3674

Extension:

FOR INFORMATION CONTACT THE BUYER

Jessica L'Hovanec

304-558-2314

jessica.l.hovanec@wv.gov

Vendor

Signature X

FEIN#

10/11/2022 DATE

All offers subject to all terms and conditions contained in this solicitation

Date Printed: Oct 7, 2022

Page: 1

FORM ID: WAY-PRC-CRFF-002 2020/05



DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Na	ume and Title) Kandi Hart, Director of Contracts	_
(Address)	1090 Vermont Ave, 11th Floor Washington, DC 20005	_
(Phone Nur	mber) / (Fax Number) 571-259-3674	_
(email addr	ress) khart@mettel.net	

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services, that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

MetTel		
(Company)		
(Signature of Authorized Representative) Andoni Economou, COO/EVP	10/11/2022	
(Printed Name and Title of Authorized Represen 212-607-2004	tative) (Date)	
(Phone Number) (Fax Number)		
aeconomou@mettel.net		
(Email Address)		

Revised 09/12/2022

CRFP No.: SWC2300000001 October 13, 2022 Technical | A-3



REQUEST FOR PROPOSAL

WV Office of Technology - Data Transport Services

6.7. Availability of Information: Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

MetTel	
(Company)	
Andoni Economou, COO/EVP	
(Representative Name, Title)	
212-607-2004	
(Contact Phone/Fax Number)	
October 11, 2022	
(Date)	

Revised 07/01/2021



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APPENDIX B: SERVICE LEVEL AGREEMENT



Service Level Agreement (Advanced Voice, Data & IP Services)

MetTel is committed to providing our customers the highest level of satisfaction in their dealings with our account management, network support and customer care teams. At MetTel we understand the importance of telecommunications services to the health and growth of your business. We are dedicated to establishing and maintaining efficient and cost effective communications solutions for your business operation. This Service Level Agreement applies to MetTel US data service products (other than MPLS, broadband (including without limitation DSL, Cable and EoC) and point to point) rated DS1 or greater within the 48 contiguous United States ("Services") for customers with minimum two-year term commitments.

We commit the following to State of West Virginia ("Customer"):

1. Billing

MetTel guarantees that a designated individual at Customer will receive an electronic invoice within three (3) business days of the monthly billing date. If it is not received in this time-frame, the payment interval will be extended by one business day for each business day it is delayed.

2. Customer Support

Customer support is available 24 hours a day, 7 days a week. Customer can reach their Dedicated Account Manager (backed up by team members and the Major Account department) at a toll free number, from 8 AM (EST) to 9 PM (EST) with questions regarding service or billing matters. An emergency toll free number will be provided for contact at other times. Customer will receive a customized escalation list as follows:

Level	Name	Office	Cell
New Client Services	TBD	TBD	TBD
1st Levet – Dedicated Account Manager	TBO	TBD	TBD
2 nd Level – Executive Director – Customer Care	Mark Marshall	212-359-5113	
3 rd Level – Executive Director – NCS	Doug Parobeck	212-607-2103	
4th Level – Vice President, Customer Operations	Will Prince	212-607-2125	
Chief Operating Officer	Andoni Economou	212-607-2004	

3. Repair

A repair ticket will be generated immediately upon notification during business hours and within three (3) hours of notification at all other times of day. Customer shall also have online access to MetTel's app.Bruin.com (or its successor) to report and track all trouble tickets. A Service unable to transmit or receive data for more than four (4) continuous business hours shall be deemed a "Service Outage" (subject to the limitations below). For each day a Service experiences a Service Outage, MetTel will give Customer a credit in an amount equal to the pro-rated charges for two days of the MetTel monthly recurring charge applicable to the affected Service, on the following month's bill (not to exceed fourteen (14) days pro-rated for the affected Service for such month). Only those facilities on the interrupted portion of the Service will receive a credit. To obtain the credit, Customer must notify MetTel of the Service Outage and request the applicable credit in writing within 30 days of the occurrence of the qualifying Service Outage.

Should any location experience a Service Outage on a substantial number of Services at one time, that trouble shall be immediately escalated to 4th level and handled by the Vice President, Customer Operations. Under these circumstances, the Vice President, Customer Operations shall provide updates to Customer at teast to be compared to the compared to the customer Operations shall provide updates to Customer Operations.

4. Chronic Conditions

If a line or circuit experiences more than three related Service Outages with the same root cause, over any thirty (30) consecutive day period, the affected Service shall be deemed to have experienced a "Chronic Outage", and the Customer shall have the option to (a) obtain Service Outage credits as set forth herein; or (b) terminate the affected Service without incurring any termination fee upon written notice to MetTel within ten days of the qualifying Service Outage.

A Service Outage is an outage that is within MetTel's sole control (terminating at the edge of the carrier network) and shall not include outages that are related to customer premise equipment or activities on customer premises, third parties such as customer's telephone equipment vendors or unavailability of services provided over or dependent on the Services. In addition, a Service Outage shall not include an interruption in service arising from a cable cut, major disaster, act of God or other events beyond the reasonable control of MetTel, including without limitation those events identified under "Limits on Liability" in the Master Service Agreement. Service Outages are measured from the time a trouble ticket is opened with MetTel to the time the Service is restored.

This SLA becomes effective when incorporated into a related Master Service Agreement for the Services covered hereby. MetTel reserves the right to alter this SLA upon 30 days written notice to Customer prior to the change taking effect. Remedies under this SLA will not apply if: (i) Customer is in breach of its Agreement with MetTel; (ii) Customer has a past due balance with MetTel under the Agreement; or (iii) Customer is otherwise not in good financial standing with MetTel. Customer's rights hereunder are exclusive; in no event shall any failure to meet any service levels constitute, or be deemed to constitute, a breach by MetTel of the Agreement with Customer.

MetTel welcomes the opportunity to provide you with high quality telecommunications services and dedicated customer care.

MetTel Proprietary & Confidential Information

MSA IP SERVICES 120720

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CRFP No.: SWC2300000001 October 13, 2022 Technical | B-1



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