

Annex A-1 (Original Provision)

Lot 1

Item No.	% Payment	QTY	Description	<p>Payment shall be made within sixty (60) calendar days after the date of acceptance of goods at the Project Site and upon submission of the following documents:</p>
1	10%	1 Lot	Conduct Engineering Preliminary Design Review and Submission of Inception Report	<ul style="list-style-type: none"> • Request for payment; • Approved Engineering Design; • Approved Submission Report; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR)
2	5%	1 Lot	<p>Submission of Test Plan and Comprehensive Network Design for the full coverage of the recipient sites</p> <p>Detailed designs/drawings / plans showing the Solution Diagram, signed and sealed by Professional Electronics Engineer (PECE) for the nature of detailed designs/plans being submitted.</p>	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR); • Approved Test Plan and Comprehensive Design
3	40%	1 Lot	Delivery of 2,000 units Very Small Aperture Terminal (VSaT) Hardware and 2,000 units Remote Data Cast Receiver/ Cache Server	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts (for 2000 units VSAT); • Signed Delivery Receipts (for 2000 units Remote Data cast Receiver/ Cache Server); • Signed Inspection and Acceptance Report (IAR) • Signed Property Transfer Report (PTR)
4	30%	1 Lot	<p>Implementation in the Schools (Central Elementary, Secondary and Last Mile) of broadband service with a minimum of one transponder inclusive of outbound and inbound pooled capacity.</p> <p>Submission of Commissioning and Test reports of every test accomplished for each cluster and obtaining Cluster Acceptance Certificate for the tested clusters</p>	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR); • Approved Commissioning and Test report; • Cluster Acceptance Certificate for the tested clusters

5	10%	1 Lot	Conduct of Knowledge Transfer	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR); • Signed Training Checklist. • Certificate of Acceptance for the Conduct of Training • Service Level Agreement • Signed Attendance Sheets • Certificates of Attendance • Training Manual
6	5%	1 Lot	Submission of Final Project Acceptance within 12 Months from the completion of Implementation. (Submission of Bank Guarantee)	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Two (2) copies of Progress Report to include among other issues encountered and action taken to resolve the former (Template to be provided by ICTS-TID prior to scheduled delivery); • Two (2) copies of Final Report after completion of delivery; • Certificate of Project Completion

Annex A-2 (Amended Provision)

Lot 1

Item No.	% Payment	QTY	Description	Payment shall be made within sixty (60) calendar days after the date of acceptance of goods at the Project Site and upon submission of the following documents:
1	10%	1 Lot	Conduct Engineering Preliminary Design Review and Submission of Inception Report	<ul style="list-style-type: none"> • Request for payment; • Approved Engineering Design; • Approved Submission Report; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR)
2	5%	1 Lot	Submission of Test Plan and Comprehensive Network Design for the full coverage of the recipient sites Detailed designs/drawings / plans showing the Solution Diagram, signed and sealed by Professional Electronics Engineer (PECE) for the nature of detailed designs/plans being submitted.	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR); • Approved Test Plan and Comprehensive Design
3	20%	1 Lot	Delivery of 1,000 units Very Small Aperture Terminal (VSaT) Hardware and 1,000 units Remote Data Cast Receiver/ Cache Server	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts (for 1000 units VSAT); • Signed Delivery Receipts (for 1000 units Remote Data cast Receiver/ Cache Server); • Signed Inspection and Acceptance Report (IAR) • Signed Property Transfer Report (PTR)
4	20%	1 Lot	Delivery of 1,000 units Very Small Aperture Terminal (VSaT) Hardware and 1,000 units Remote Data Cast Receiver/ Cache Server	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts (for 1000 units VSAT); • Signed Delivery Receipts (for 1000 units Remote Data cast Receiver/ Cache Server); • Signed Inspection and Acceptance Report (IAR) • Signed Property Transfer Report (PTR)
5	30%	1 Lot	Implementation in the Schools (Central Elementary, Secondary and Last Mile) of broadband service with a minimum of one transponder inclusive of outbound and inbound pooled capacity. Submission of Commissioning and Test reports of every test	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR); • Approved Commissioning and Test report; • Cluster Acceptance Certificate for the tested clusters

			accomplished for each cluster and obtaining Cluster Acceptance Certificate for the tested clusters	
6	10%	1 Lot	Conduct of Knowledge Transfer	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Signed Delivery Receipts; • Signed Inspection and Acceptance Report (IAR); • Signed Training Checklist. • Certificate of Acceptance for the Conduct of Training • Service Level Agreement • Signed Attendance Sheets • Certificates of Attendance • Training Manual
7	5%	1 Lot	Submission of Final Project Acceptance within 12 Months from the completion of Implementation. (Submission of Bank Guarantee)	<ul style="list-style-type: none"> • Request for payment; • Billing/ Invoice; • Two (2) copies of Progress Report to include among other issues encountered and action taken to resolve the former (Template to be provided by ICTS-TID prior to scheduled delivery); • Two (2) copies of Final Report after completion of delivery; • Certificate of Project Completion

Lot 1

Detailed Technical Specifications:

Supply, Delivery, Installation Configuration and Maintenance of 2,000 units Very Small Aperture Terminal (VSAT) for DEPED Remote Schools and 2,000 units Web Caching Proxy Appliance		
<u>GENERAL REQUIREMENTS AND SPECIFICATIONS</u>	Bidder's Statement of Compliance	Bidder's Actual Offer
Supply, Delivery, Installation Configuration and Maintenance of 2,000 units Very Small Aperture Terminal (VSAT) for DEPED Remote Schools and 2,000 units Web Caching Proxy Appliance		
The provider must be a valid registered organization in existence for a minimum of five (5) years.		
The bidder must have at least five (5) years of experience in delivering ICT Projects within the Government Sector		
The bidder must have an existing ICT support or help desk unit with 24 by 7 capability.		
The Contractor must have at least a PCAB License of AAA Small B for Communication Facilities. It must be valid upon bid submission. In case of Joint Venture (JV), a Special PCAB License is required for JV, and all JV partners must secure a PCAB License.		
The bidder must provide an NTC certification that they are a Tier 1 ISP. Furthermore, the bidder must also be a grantee of an NTC authority to establish, install, operate and maintain a nationwide wired and wireless broadband network in the Philippines.		

<p>The bidder must have a congressional franchise to construct, install, establish, operate and maintain telecommunications systems throughout the Philippines. Furthermore, the bidder must show proof that it has the capability to provide nationwide coverage with the corresponding infrastructure within twelve (12) months from the date of issuance of the Notice to Proceed</p>		
<p>The bidder must own and operate an existing data center facility.</p>		
<p>The bidder must certify that its domestic operating network can provide national coverage or the capability to provide national coverage within twelve (12) months from the time of issuance of the Notice to Proceed.</p>		
<p>The bidder must establish Carrier Ethernet professional expertise by providing a certification that its network platform is compliant to the latest MEF Carrier Ethernet (2.0).</p>		
<p>The bidder MUST comply all the necessary Government Permits</p>		
<p>The offered radio equipment shall be type approved equipment per National Telecommunication Commission (NTC).</p>		
<p>The bidder must provide Manufacturer’s Authorization that the Bidder is an accredited reseller of the following proposed equipment to be supplied:</p> <ol style="list-style-type: none"> 1. Very Small Aperture Terminal (VSAT) 2. Remote Antenna 3. Modem 		
TECHNICAL SPECIFICATIONS		

Supply, Delivery, Installation Configuration and Maintenance of 2,000 units Very Small Aperture Terminal (VSAT) for DEPED Remote Schools and 2,000 units Web Caching Proxy Appliance

1. The scope of works shall provide broadband connectivity to a direct internet access from Internet Point of Presence from DepEd (Co-location) located in Subicel and Secondary and elementary schools as follows:

a. With a minimum of one transponder pooled capacity for inbound and outbound.

b. DepEd Recipients Sites – 2,000

- a. Region-I xxx Schools
- b. Region-II xxx Schools
- c. Region-III xxx Schools
- d. Region-IVA xxx Schools
- e. Region-IVB xxx Schools
- f. Region-V xxx Schools
- g. Region-VI xxx Schools
- h. Region-VII xxx Schools
- i. Region-VIII xxx Schools
- j. Region-IX xxx Schools
- k. Region-X xxx Schools
- l. Region-XI xxx Schools
- m. Region-XII xxx Schools
- n. CAR xxx Schools
- o. CARAGA xxx Schools

2. DepEd recipient sites access to manage internet broadband services is through wireless (vsat) mode

3. The managed internet broadband services of pooled transponder capacity. System reliability and service availability shall not be lower than 93% at any given time of the day. Transponder allocation for outbound and inbound capacity shall be finalized during the Engineering and Design Review (EDR).

4. The bidder must have a Teleport/HUB in the Philippines with a Multi Satellite connectivity in place before the completion of the project as part of its network resiliency.

<ol style="list-style-type: none"> 5. The bidder must have the capability for a network support for full/partial restoration of the network in the event of the failure of Primary Teleport HUB due to any natural disaster. Back-up Teleport should have a distance of at least 50 kms from the main Teleport. 6. A mirror image of the network management system shall be extended to DepEd designated site for full monitoring of the network and limited control functionality. Details of the monitoring and control functions will be defined and agreed between DepEd and the winning bidder during the engineering phase of the project implementation. 7. Recipient sites' modem must have a QoS (Quality of Service) that is fully integrated without the need for third party equipment. Remote modems must be configured, updated, upgraded and reset remotely. 8. Recipient site modem must have a Built-in Automatic Uplink Power Control and an Idle and sleep mode for remote power savings. 9. Recipient site modem must have a roll-off factor down to 20% for in routes. 10. Recipient site modem should support both S2 and S2X in the same HUB. 11. DVB-S2X with 5% Roll-off up to 256 APSK and A-TDMA waveform with up to 16QAM. 12. The remote site space allocation for indoor and outdoor equipment and preparation for power supply shall be the responsibility of DepEd to be defined at the Engineering and Design Review. 		
<p>Minimum / or Equivalent Satellite Specifications</p> <ol style="list-style-type: none"> 1. Polarization: Ku-band Linear 2. Satellite downlink EIRP: Ku-band 50dBW 3. Uplink freq: Transmit (Ku): 14 to 14.50GHz 4. Downlink freq: Receive (Ku): 12.25 to 12.75 GHz and 10.95~11.7GHz 5. Satellite orbital arc: 60E to 170E 6. Satellite commercial service life span until year 2027. 		
<p>Minimum Remote Antenna (Fixed)</p>		

1. Operating Frequency (GHz) must be:
2. Receive (Ku): 12.25 to 12.75 GHz and 10.95~11.7GHz
3. Transmit (Ku): 14 to 14.50GHz
4. Ku-band Reflector permissible size from 0.9m to 1.2m
5. Polarization must be Linear for Ku
6. Elevation Look angle: 60 degree

Modem

1. Network Topology: DVB-S2*/S2X* with Adaptive TDMA Returns
2. Modulation

Downstream

DVB-S2X*/ACM

QPSK, 8PSK,
16APSK, 32APSK,
64APSK, 128APSK,
256APSK

Upstream

Adaptive
TDMA

BPSK, QPSK,
8PSK, 16QAM*

3. Symbol Rates

Downstream

5 to 100 Msps

1-45 Msps

Upstream

128 ksps to
7.5 Msps

Integrated Outdoor Unit (Remotes)

Winning bidder must provide the following technical specifications:

Transmit Frequency (Ku) 14 to 14.50 Ghz

Receive Frequency (Ku) 12.25 to 12.75 GHz and

<p style="text-align: right;">10.95~11.7GHz</p> <p>Input DC Voltage +18 to +60V</p> <p>Receive Local Oscillator Phase Lock</p> <p>BUC RF Power Sizing Max 8 Watts</p> <p>IF Connector “F” Female, 75 Ohms</p> <p>Max IFL Cable 30Meters (max)</p> <p>Temperature - Operational -40°C to +60°C</p>		
<p>Data cast Receiver/Cache Software</p> <ul style="list-style-type: none"> ● Remote receiver software should have the following properties <ul style="list-style-type: none"> ○ portable various architecture (MIPS, ARM, X86) ○ Kernel, OS, Middleware, Application ○ HTTP configuration pages ○ WiFi AP for end user access <ul style="list-style-type: none"> ■ HTML Landing page ○ Integrated <ul style="list-style-type: none"> ■ Auto Detect carrier ■ Targeting filter ■ Software updates 		
<p>Data cast Receiver/Cache Hardware</p> <ul style="list-style-type: none"> ● Remote datacast cache server shall have the minimum specification <ul style="list-style-type: none"> ○ Memory 4GB ○ Internal Storage 64GB eMMC ○ Wireless Connectivity 802.11ac Dual-Band Wi-Fi ○ Bluetooth 4.2 ○ Operating System Ubuntu 18.04.1 ○ Video Output HDMI™ 1.4 (4K @ 30Hz) ○ Audio Output HDMI™ 1.4 3.5mm audio jack ○ Audio Input 3.5mm audio jack ○ Peripheral Interfaces <ul style="list-style-type: none"> ■ RJ-45 Gigabit Ethernet ■ Micro SD card reader ■ USB 2.0 port x 3 ■ USB 3.0 port x 1 ○ Kensington lock ready 		

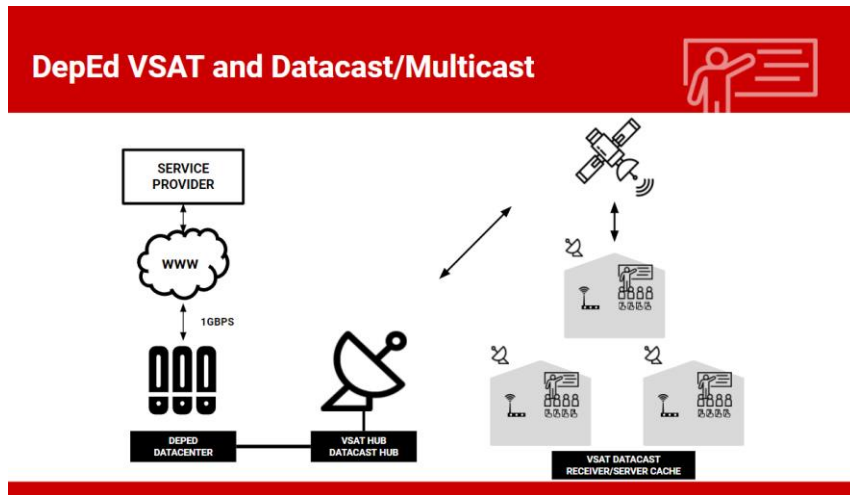
<p>Network Requirements</p> <ol style="list-style-type: none"> 1. Redundancy site for disaster recovery and restoration of service. 2. Must provide dedicated 1 GB bandwidth for a period of 12 months for the VSAT Hardware 3. Must provide dedicated 1GB bandwidth for a period of 12 months for the Data Center to DepEd Central Office 4. The winning bidder must deliver a dedicated internet access over a completely private and secure IP infrastructure. Must support IPv4 and IPv6 Multicast Addresses 5. Subscription must include modem, or multiplexer that will convert the last mile facility (wired or wireless) to Ethernet or Fast Ethernet. Must include all necessary cables and/or peripherals/incidentals to interconnect and operate all equipment, and deliver a working system 6. The bidder must certify that the cable facility being used in the connectivity between the bidder’s circuit is exclusively owned and operated by the proponent. 		
<p>Implementation Services</p> <ol style="list-style-type: none"> 1. <i>VSAT (Very Small Aperture Terminal) Hardware and Connectivity</i> <ol style="list-style-type: none"> a. Communication Links Recipient sites must be directly connected to the DepEd core data network. The satellite beam must have a good coverage nationwide with enough power to support not larger than 1.2m antenna and the required bandwidth for the recipient sites, offered satellite band, must be on the Ku- Band frequency. Secure manage broadband must have automatic power compensation on both downlink and uplink to ensure network connectivity even in inclement weather conditions. <p>Round trip latency of the secure managed broadband connectivity must not exceed 1200msec.</p> 		

All local government permits, if required, will be the responsibility of the bidder.

b. Managed Service Acceptance

After the successful completion of the installation and preliminary calibrations and testing, the contractor must conduct an approved system integration test together with a DepEd representative. DepEd shall issue a certificate of completion to the contractor that proves that the contractor has fulfilled DepEd requirements for the secure managed broadband service.

c. Network Connectivity Block Diagram



d. Local provider provides the following support:

- Keeping sufficient stock for remote hardware such as BUC, LNBS, modems, antennas
- Field engineers ready for deployment within 24 hours upon official notification and confirmation of faulty equipment at remote sites.
- Monthly traffic utilization reporting
- Active monitoring and NOC support
- Service Desk Hotline (Phone and Email Support) 24x7 Support

<ul style="list-style-type: none"> - Incident Management - Problem isolation and troubleshooting - Field Support 		
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<p>Knowledge Transfer</p> <ol style="list-style-type: none"> 1. End User Training (On Line) 2. Documentation (installation procedure and manual) 		
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<p>Helpdesk</p> <ol style="list-style-type: none"> 1. Provide 24 x 7 email, phone, remote and on-site technical support 2. With Service Level Agreement (SLA). * 24X7 email, remote and on-site support services provided to customers for supported systems. 3. Ticket status and summary reports 4. Annual technical assessment and review 5. On-site support 6. Severity Level Classification 		
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Severity	Description	Response Time
4	Request information, an enhancement, or documentation on software, but no impact on operation of software. Recommendation for a future enhancement, reporting of documentation error with low-to-no impact in business. No loss of service	24 Hours
3	Minor loss of service	20 Hours

	<p>Impact is inconvenience, which may require workaround to restore functionality</p> <p>For development environments, where the situation is causing your project to no longer continue or migrate into production</p>			
2	<p>Severe loss of service, Important features are unavailable with no acceptable workaround, but operations can continue in restricted fashion.</p> <p>Service interruptions to some, but not all software modules. Time sensitive issue reported by Customer, which may adversely affect operational, billing, monitoring and productivity</p>	8 Hours		
1	<p>Stopping of programs affecting production data, rendering the system unusable, Complete loss of service severity 1 issues have the following</p> <p>characteristics: data corruption; a critical documented function is not available; system hangs indefinitely, causing unacceptable or indefinite delays for</p>	4 Hours		

	resources or response; system crashes, and crashes repeatedly after restart attempts software-related issue that stops all monitoring, alerting, ticketing and reporting functions resulting in a loss of business productivity			
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CONFIDENTIALITY OF DATA

- WINNING BIDDER shall document detailed procedures/techniques in identifying system security risks and breach(es) and how such shall be handled if detected.
- All project staff of WINNING BIDDER shall be required to sign a non-disclosure agreement.
- The WINNING BIDDER agrees to hold the Proprietary Information in strict confidence. WINNING BIDDER furthermore agrees not to reproduce, transcribe or disclose the Proprietary Information to third parties without prior written approval of DepEd.
- To ensure the confidentiality of all information that will come to the knowledge of the WINNING BIDDER and its employees detailed with DepEd, the WINNING BIDDER and its employees assigned therein shall be considered agents of DepEd. The contract that will be executed heretofore shall be categorical provided that the WINNING BIDDER and its employees, as agents of DepEd, shall uphold strict confidentiality of any information regarding the contract.

STATEMENT OF COMPLIANCE

I hereby commit to provide the above specified requirements in compliance with the Technical Specifications for the Project: **Procurement of Network Connectivity Solution to Department of Education**

**Name and Signature
of Authorized Representative**

Annex B-2 (Amended Provision)

Lot 1

Detailed Technical Specifications:

Supply, Delivery, Installation Configuration and Maintenance of 2,000 units Very Small Aperture Terminal (VSAT) for DEPED Remote Schools and 2,000 units Web Caching Proxy Appliance		
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The bidder must have at least five (5) years of experience in delivering ICT Projects within the Government Sector		
The bidder must have an existing ICT support or help desk unit with 24 by 7 capability.		
The Contractor must have at least a PCAB License of AAA Small B for Communication Facilities. It must be valid upon bid submission. In case of Joint Venture (JV), at least one member of the JV must have a PCAB License of AAA Small B for Communication Facilities.		
The bidder must provide an NTC certification that they are a Tier 1 ISP. Furthermore, the bidder must also be a grantee of an NTC authority to establish, install, operate and maintain a nationwide wired and wireless broadband network in the Philippines.		
The bidder must have a congressional franchise to construct, install, establish, operate and maintain telecommunications systems throughout the Philippines. Furthermore, the bidder must show proof that it has the capability to provide nationwide coverage with the		

corresponding infrastructure within twelve (12) months from the date of issuance of the Notice to Proceed		
The bidder must own and operate an existing data center facility.		
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The bidder MUST comply all the necessary Government Permits		
The offered radio equipment shall be type approved equipment per National Telecommunication Commission (NTC).		
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TECHNICAL SPECIFICATIONS		
Supply, Delivery, Installation Configuration and Maintenance of 2,000 units Very Small Aperture Terminal (VSAT) for DEPED Remote Schools and 2,000 units Web Caching Proxy Appliance		
1. The scope of works shall provide broadband connectivity to a direct internet access from Internet Point		

of Presence from DepEd (Co-location) located in Subicel and Secondary and elementary schools as follows:

a. With a minimum of one transponder pooled capacity for inbound and outbound.

b. DepEd Recipients Sites – 2,000

- | | |
|----------------|-------------|
| a. Region-I | xxx Schools |
| b. Region-II | xxx Schools |
| c. Region-III | xxx Schools |
| d. Region-IVA | xxx Schools |
| e. Region-IVB | xxx Schools |
| f. Region-V | xxx Schools |
| g. Region-VI | xxx Schools |
| h. Region-VII | xxx Schools |
| i. Region-VIII | xxx Schools |
| j. Region-IX | xxx Schools |
| k. Region-X | xxx Schools |
| l. Region-XI | xxx Schools |
| m. Region-XII | xxx Schools |
| n. CAR | xxx Schools |
| o. CARAGA | xxx Schools |

2. DepEd recipient sites access to manage internet broadband services is through wireless (vsat) mode

3. The managed internet broadband services of pooled transponder capacity. System reliability and service availability shall not be lower than 93% at any given time of the day. Transponder allocation for outbound and inbound capacity shall be finalized during the Engineering and Design Review (EDR).

4. The bidder must have a Teleport/HUB in the Philippines with a Multi Satellite connectivity in place before the completion of the project as part of its network resiliency.

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<p>6. Recipient sites' modem must have a QoS (Quality of Service) that is fully integrated without the need for third party equipment. Remote modems must be configured, updated, upgraded and reset remotely.</p> <p>7. Recipient site modem must have a Built-in Automatic Uplink Power Control and an Idle and sleep mode for remote power savings.</p> <p>8. Recipient site modem must have a roll-off factor down to 20% for in routes.</p> <p>9. Recipient site modem should support both S2 and S2X in the same HUB.</p> <p>10. DVB-S2X with 5% Roll-off up to 256 APSK and A-TDMA waveform with up to 16QAM.</p> <p>11. The remote site space allocation for indoor and outdoor equipment and preparation for power supply shall be the responsibility of DepEd to be defined at the Engineering and Design Review.</p>		
<p>Minimum / or Equivalent Satellite Specifications</p> <ol style="list-style-type: none"> Polarization: Ku-band Linear Satellite downlink EIRP: Ku-band 50dBW Uplink freq: Transmit (Ku): 13.75 to 14.80GHz Downlink freq: Receive (Ku): 12.25 to 12.75 GHz and 10.95~11.7GHz Satellite orbital arc: 60E to 170E Satellite commercial service life span until year 2027. 		
<p>Minimum Remote Antenna (Fixed)</p> <ol style="list-style-type: none"> Operating Frequency (GHz) must be: Receive (Ku): 12.25 to 12.75 GHz and 10.95~11.7GHz Transmit (Ku): 14 to 14.50GHz 		

<p>4. Ku-band Reflector permissible size of 1.2m 5. Polarization must be Linear for Ku 6. Elevation Look angle: 60 degree</p>																	
<p>Modem</p> <p>1. Network Topology: DVB-S2*/S2X* with Adaptive TDMA Returns 2. Modulation</p> <table border="0" data-bbox="113 682 933 976"> <tr> <td colspan="2">Downstream</td> <td>Upstream</td> </tr> <tr> <td>DVB-S2X*/ACM</td> <td>DVB-S2*/ACM</td> <td>Adaptive TDMA</td> </tr> <tr> <td>QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 128APSK, 256APSK</td> <td>QPSK, 8PSK, 16APSK, 32APSK,</td> <td>BPSK, QPSK, 8PSK, 16QAM*</td> </tr> </table> <p>3. Symbol Rates</p> <table border="0" data-bbox="113 1102 885 1228"> <tr> <td colspan="2">Downstream</td> <td>Upstream</td> </tr> <tr> <td>5 to 100 Msps</td> <td>1-45 Msps</td> <td>128 ksps to 7.5 Msps</td> </tr> </table>	Downstream		Upstream	DVB-S2X*/ACM	DVB-S2*/ACM	Adaptive TDMA	QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 128APSK, 256APSK	QPSK, 8PSK, 16APSK, 32APSK,	BPSK, QPSK, 8PSK, 16QAM*	Downstream		Upstream	5 to 100 Msps	1-45 Msps	128 ksps to 7.5 Msps		
Downstream		Upstream															
DVB-S2X*/ACM	DVB-S2*/ACM	Adaptive TDMA															
QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 128APSK, 256APSK	QPSK, 8PSK, 16APSK, 32APSK,	BPSK, QPSK, 8PSK, 16QAM*															
Downstream		Upstream															
5 to 100 Msps	1-45 Msps	128 ksps to 7.5 Msps															
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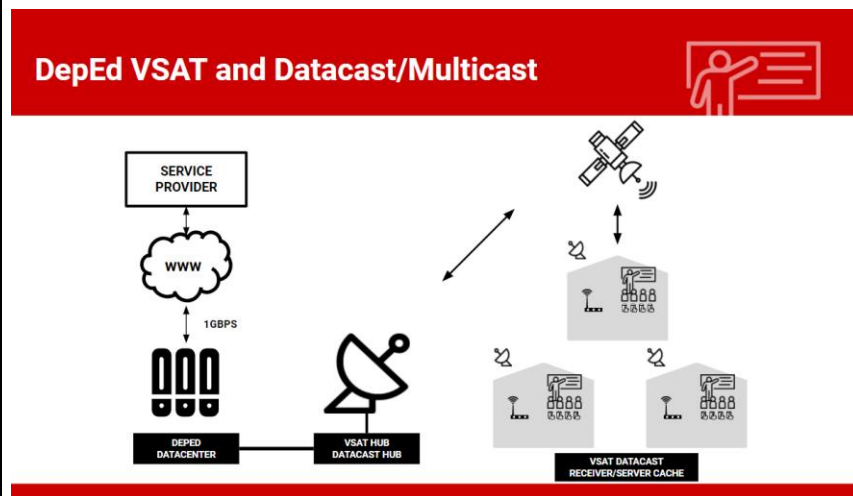
<p style="text-align: right; color: red;">Watts up to 8 Watts</p> <p>IF Connector "F" Female, 75 Ohms</p> <p>Max IFL Cable 30Meters (max)</p> <p>Temperature - Operational -40°C to +55°C</p>		
<p>Data cast Receiver/Cache Software</p> <ul style="list-style-type: none"> ● Remote receiver software should have the following properties <ul style="list-style-type: none"> ○ portable various architecture (MIPS, ARM, X86) ○ Kernel, OS, Middleware, Application ○ HTTP configuration pages ○ WiFi AP for end user access <ul style="list-style-type: none"> ■ HTML Landing page ○ Integrated <ul style="list-style-type: none"> ■ Auto Detect carrier ■ Targeting filter ■ Software updates 		
<p>Data cast Receiver/Cache Hardware</p> <ul style="list-style-type: none"> ● Remote datacast cache server shall have the minimum specification <ul style="list-style-type: none"> ○ Memory 4GB ○ Internal Storage 64GB eMMC ○ Wireless Connectivity 802.11ac Dual-Band Wi-Fi ○ Bluetooth 4.2 ○ Operating System Ubuntu 18.04.1 ○ Video Output HDMI™ 1.4 (4K @ 30Hz) ○ Audio Output HDMI™ 1.4 3.5mm audio jack ○ Audio Input 3.5mm audio jack ○ Peripheral Interfaces <ul style="list-style-type: none"> ■ RJ-45 Gigabit Ethernet ■ Micro SD card reader ■ USB 2.0 port x 3 ■ USB 3.0 port x 1 ○ Kensington lock ready 		
<p>Network Requirements</p>		

<ol style="list-style-type: none"> 1. Redundancy site for disaster recovery and restoration of service. 2. Must provide dedicated 1 Gbps bandwidth for a period of 12 months for the VSAT Hardware 3. Must provide dedicated 1Gbps bandwidth for a period of 12 months for the Data Center to DepEd Central Office 4. The winning bidder must deliver a dedicated internet access over a completely private and secure IP infrastructure. Must support IPv4 and IPv6 Multicast Addresses 5. Subscription must include modem, or multiplexer that will convert the last mile facility (wired or wireless) to Ethernet or Fast Ethernet. Must include all necessary cables and/or peripherals/incidentals to interconnect and operate all equipment, and deliver a working system 6. The bidder must certify that the cable facility being used in the connectivity between the bidder's circuit is exclusively owned and operated by the proponent. 		
<p>Implementation Services</p> <p>1. VSAT (Very Small Aperture Terminal) Hardware and Connectivity</p> <p>a. Communication Links</p> <p>Recipient sites must be directly connected to the DepEd core data network. The satellite beam must have a good coverage nationwide with enough power to support not larger than 1.2m antenna and the required bandwidth for the recipient sites, offered satellite band, must be on the Ku- Band frequency. Secure managed broadband must have automatic power compensation on both downlink and uplink to ensure network connectivity even in inclement weather conditions.</p> <p>Round trip latency of the secure managed broadband connectivity must not exceed 1200msec.</p> <p>All local government permits, if required, will be the responsibility of the bidder.</p>		

b. Managed Service Acceptance

After the successful completion of the installation and preliminary calibrations and testing, the contractor must conduct an approved system integration test together with a DepEd representative. DepEd shall issue a certificate of completion to the contractor that proves that the contractor has fulfilled DepEd requirements for the secure managed broadband service.

c. Network Connectivity Block Diagram



d. Local provider provides the following support:

- Keeping sufficient stock for remote hardware such as BUC, LNBS, modems, antennas
- Field engineers ready for deployment within 24 hours upon official notification and confirmation of faulty equipment at remote sites.
- Monthly traffic utilization reporting
- Active monitoring and NOC support
- Service Desk Hotline (Phone and Email Support) 24x7 Support
- Incident Management
- Problem isolation and troubleshooting
- Field Support

Knowledge Transfer

1. End User Training (On Line)

2. Documentation (installation procedure and manual)

Helpdesk

1. Provide 24 x 7 email, phone, remote and on-site technical support
2. With Service Level Agreement (SLA). * 24X7 email, remote and on-site support services provided to customers for supported systems.
3. Ticket status and summary reports
4. Annual technical assessment and review
5. On-site support
6. Severity Level Classification

Severity	Description	Response Time
4	<p>Request information, an enhancement, or documentation on software, but no impact on operation of software.</p> <p>Recommendation for a future enhancement, reporting of documentation error with low-to-no impact in business. No loss of service</p>	24 Hours
3	<p>Minor loss of service</p> <p>Impact is inconvenience, which may require workaround to restore functionality</p> <p>For development environments, where the situation is causing your project to no longer continue or</p>	20 Hours

	migrate into production			
2	<p>Severe loss of service, Important features are unavailable with no acceptable workaround, but operations can continue in restricted fashion.</p> <p>Service interruptions to some, but not all software modules. Time sensitive issue reported by Customer, which may adversely affect operational, billing, monitoring and productivity</p>	8 Hours		
1	<p>Stopping of programs affecting production data, rendering the system unusable, Complete loss of service severity 1 issues have the following characteristics: data corruption; a critical documented function is not available; system hangs indefinitely, causing unacceptable or indefinite delays for resources or response; system crashes, and crashes repeatedly after restart attempts software-related issue that stops all monitoring, alerting, ticketing and reporting functions resulting in a</p>	4 Hours		

	loss of business productivity			
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CONFIDENTIALITY OF DATA

- WINNING BIDDER shall document detailed procedures/techniques in identifying system security risks and breach(es) and how such shall be handled if detected.
- All project staff of WINNING BIDDER shall be required to sign a non-disclosure agreement.
- The WINNING BIDDER agrees to hold the Proprietary Information in strict confidence. WINNING BIDDER furthermore agrees not to reproduce, transcribe or disclose the Proprietary Information to third parties without prior written approval of DepEd.
- To ensure the confidentiality of all information that will come to the knowledge of the WINNING BIDDER and its employees detailed with DepEd, the WINNING BIDDER and its employees assigned therein shall be considered agents of DepEd. The contract that will be executed heretofore shall be categorical provided that the WINNING BIDDER and its employees, as agents of DepEd, shall uphold strict confidentiality of any information regarding the contract.

STATEMENT OF COMPLIANCE

I hereby commit to provide the above specified requirements in compliance with the Technical Specifications for the Project: **Procurement of Network Connectivity Solution to Department of Education**

**Name and Signature
of Authorized Representative**

Annex C-1 (Original Provision)

Lot 3

Detailed Technical Specifications:

Supply, Delivery, Installation, Configuration and Maintenance of SDWAN (Software-Defined Wide-Area Network) for 500 Identified Schools and 1 Co-Location Facility

Item	Specifications	Bidder's Statement of Compliance	Bidder's Actual Offer
	Compliance to the Term of Reference of the project: Supply, Delivery, Installation, Configuration and Maintenance of SDWAN (Software-Defined Wide-Area Network) for 500 Identified Schools and 1 Co-Location Facility		
1	The provider must be a valid registered organization in existence for a minimum of five (5) years.		
2	The contractor must have at least five (5) years of experience in delivering ICT Projects within the Government Sector		
3	The contractor must have an existing ICT support or help desk unit with 24 by 7 capability.		
4	The contractor must have at least one (1) year experience in providing ICT Hardware, Software or Services in the Government Sector		
	SCOPE OF WORKS		
6	SDWAN (Software-Defined Wide-Area Network) for 500 Identified Schools and 1 Co-Location Facility		
	A. CUSTOMER PREMISES EQUIPMENT (501 Units)		

	<ol style="list-style-type: none"> 1. The proposed Appliance should have dedicated security processor that will help accelerate performance 2. The proposed CPE vendor must have a "Recommended" Rating for NSS Labs 2019 Test on SD-WAN 3. The proposed Appliance must be able to provide Firewall with Embedded SD-WAN approach. SD-WAN services can be added at no additional cost 4. The proposed Appliance's Operating System must be security-hardened and purpose-built operating system 5. The proposed Appliance shall allow administrators to set administration idle timeout up to 480 minutes 6. The proposed Appliance must be able to support the following feature components: Intrusion Prevention System (IPS), Antivirus, Web Filtering, App Control, and Secure SD-WAN 7. A physical topology view that shows the physical structure of your network, including all connected devices and the connections between them. 8. The proposed Appliance shall allow GUI configurations to external services that includes: <ul style="list-style-type: none"> - Multi-cloud support using Cloud and SDN connectors for vendors such as AWS, Microsoft Azure, VMware ESXi, NSX, OpenStack, Cisco ACI and Nuage Virtualized Service Platform, Kubernetes connectors for private and public cloud platforms. - Threat feeds dynamically import an external block lists from an HTTP server in the form of a text file - Provides action to quarantine or ban host IP 9. The proposed Appliance shall provide robust visibility GUI panels and dashboards that: <ul style="list-style-type: none"> - Presents information visually using graphs, bubble charts - Provides action to quarantine or ban host IP - The proposed Appliance shall provide monitoring capabilities including Policy and route checks, Running processes, Aggregate processes information 10. Ability to define policy routes based on Protocol, Incoming Interface, Source Address, Destination 		
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	<p>Address, Destination Ports, Type of Service, Outgoing Interface and Gateway Address</p> <p>11. The proposed Appliance shall support anti-spoofing. This determines whether the packet was received on a legitimate interface by doing a reverse lookup using the source IP address in the packet header.</p> <p>12. The proposed Appliance must have the following VPN capabilities:</p> <ul style="list-style-type: none"> - The proposed appliance must comply/support industry standards IPSEC, and SSL VPN - The proposed appliance must support Hub and Spoke architecture - The proposed appliance must support for two modes of SSL VPN: Web and Tunnel Mode - The proposed appliance must allow creation of Personal bookmarks management: allow administrators to view and maintain remote client bookmarks <p>13. The proposed appliance must support SD-WAN interfaces. These are the ports and interfaces that are used to run traffic. At least one interface must be configured for SD-WAN to function; up to 255 member interfaces can be configured</p> <p>14. Pre defined performance SLA profiles for Office 365, AWS, Gmail</p> <p>15. The proposed Appliance SLA targets are a set of constraints that are used in SD-WAN rules to control the paths that traffic take: Latency threshold, Jitter threshold, Packet loss threshold</p> <p>16. The proposed Appliance shall provide the following path control strategies:</p> <ul style="list-style-type: none"> - Auto: Interfaces are assigned a priority based on quality. - Manual (manual): Interfaces are manually assigned a priority - Best Quality (priority): Interface are assigned a priority based on the link-cost-factor of the interface - Lowest Cost (SLA): Interfaces are assigned a priority based on selected SLA settings. - Maximize Bandwidth (SLA) (load-balance): Traffic is distributed among all available links based on the selected load balancing algorithm. 		
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	<ul style="list-style-type: none"> - The proposed Appliance shall support forward error correction (FEC) on VPN overlay networks. 17. Threat Protection Throughput must be at least 700 Mbps 18. Concurrent Sessions (TCP) must be at least 700,000 19. New Sessions/Sec (TCP) must be at least 35,000 20. IPsec VPN Throughput (512 byte) must be at least 6.5 Gbps 21. Gateway-to-Gateway IPsec VPN Tunnels must be at least 200 22. Client-to-Gateway IPsec VPN Tunnels must be at least 500 23. SSL Inspection Throughput must be at least 630 Mbps 24. Must be Desktop Form Factor Only 25. Required Network Interface per Appliance are: 1x USB Port, 1x Console Port, 2x GE RJ45 WAN Ports, 1x GE RJ45 DMZ Port, 2x GE RJ45 Ports, 5x GE RJ45 Internal Ports 		
	<p><i>B. CORE NETWORK - VPN AGGREGATION GATEWAY APPLIANCE (1 Unit)</i></p> <ol style="list-style-type: none"> 1. The proposed Appliance should have dedicated security processor that will help accelerate performance 2. The proposed Appliance vendor must have a "Recommended" Rating for NSS Labs 2019 Test on SD-WAN 3. The proposed Appliance must be able to provide Firewall with Embedded SD-WAN approach. SD-WAN services can be added at no additional cost 4. The proposed Appliance's Operating System must be security-hardened and purpose-built operating system 5. The proposed Appliance shall allow administrators to set administration idle timeout up to 480 minutes 6. The proposed Appliance must be able to support the following feature components: Intrusion Prevention System (IPS), Antivirus, Web Filtering, App Control, and Secure SD-WAN 7. A physical topology view that shows the physical structure of your network, including all connected devices and the connections between them. 		

	<ol style="list-style-type: none"> 8. The proposed Appliance shall allow GUI configurations to external services that includes: 9. Multi-cloud support using Cloud and SDN connectors for vendors such as AWS, Microsoft Azure, VMware ESXi, NSX, OpenStack, Cisco ACI and Nuage Virtualized Service Platform, Kubernetes connectors for private and public cloud platforms." 10. Threat feeds dynamically import an external block lists from an HTTP server in the form of a text file 11. Provides action to quarantine or ban host IP 12. The proposed Appliance shall provide robust visibility GUI panels and dashboards that: 13. Presents information visually using graphs, bubble charts 14. Provides action to quarantine or ban host IP 15. The proposed Appliance shall provide monitoring capabilities including Policy and route checks, Running processes, Aggregate processes information 16. Ability to define policy routes based on Protocol, Incoming Interface, Source Address, Destination Address, Destination Ports, Type of Service, Outgoing Interface and Gateway Address 17. The proposed Appliance shall support anti-spoofing. This determines whether the packet was received on a legitimate interface by doing a reverse lookup using the source IP address in the packet header. 18. The proposed Appliance must have the following VPN capabilities 19. The proposed appliance must comply/support industry standards IPSEC, and SSL VPN 20. The proposed appliance must support Hub and Spoke architecture 21. The proposed appliance must support for two modes of SSL VPN: Web and Tunnel Mode 22. The proposed appliance must allow creation of Personal bookmarks management: allow administrators to view and maintain remote client bookmarks 23. The proposed appliance must support SD-WAN interfaces. These are the ports and interfaces that are used to run traffic. At least one interface must be configured for SD-WAN to function; up to 255 member interfaces can be configured 24. Predefined performance SLA profiles for Office 365, AWS, Gmail 		
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	<p>25. The proposed Appliance SLA targets are a set of constraints that are used in SD-WAN rules to control the paths that traffic take: Latency threshold, Jitter threshold, Packet loss threshold</p> <p>26. The proposed Appliance shall provide the following path control strategies:</p> <p>27. Auto: Interfaces are assigned a priority based on quality.</p> <p>28. Manual (manual): Interfaces are manually assigned a priority</p> <p>29. Best Quality (priority): Interface are assigned a priority based on the link-cost-factor of the interface</p> <p>30. Lowest Cost (SLA): Interfaces are assigned a priority based on selected SLA settings.</p> <p>31. Maximize Bandwidth (SLA) (load-balance): Traffic is distributed among all available links based on the selected load balancing algorithm.</p> <p>32. The proposed Appliance shall support forward error correction (FEC) on VPN overlay networks.</p> <p>33. Proposed VPN aggregation must at least have the following throughputs and specifications:</p> <p>34. Firewall Throughput must support at least 145 Gbps</p> <p>35. Concurrent Sessions (TCP) must be at least 49.5 Million</p> <p>36. New Sessions/Sec (TCP) must be at least 450,000</p> <p>37. IPsec VPN Throughput (512 byte) must support throughput of at least 135 Gbps</p> <p>38. Gateway-to-Gateway IPsec VPN Tunnels must support max of 39,500</p> <p>39. Client-to-Gateway IPsec VPN Tunnels must support max of 190,000</p> <p>40. Required Network Interface per appliance are: 1x USB Management Port, 1x Console Port, 2x GE RJ45 Management Ports, 2x 25 GE SFP28 / 10 GE SFP+ / GE SFP HA Slots, 22x 25 GE SFP28 / 10 GE SFP+ / GE SFP Slots, 4x 100 GE QSFP28 / 40 GE QSFP+ Slots</p> <p>41. Includes 15x Short Range Tranceivers</p>		
	<p>C. CENTRAL MANAGEMENT APPLIANCE (1 Unit)</p> <p>1. Proposed Solution must be able to have central management of multiple appliances with policy provisioning and audit logs.</p>		

	<ol style="list-style-type: none"> 2. Proposed Solution must be able to provide visibility of the attack surface through accurate detection, automated correlation and rapid response features. 3. Proposed Solution must have SD-WAN management capabilities. Enhanced SD-WAN monitoring for each SD-WAN link member with visibility of link status, application performance, and bandwidth utilization. 4. Proposed Solution must have a set of commonly used security policies that can be grouped in a Policy Block and inserted as needed in different Policy Packages. 5. Proposed Solution must be able to support Multi-Tenancy & Role Based Administration 6. Must support workflow for audit and compliance for review, approval and audit policy changes from a central place, including automated processes to facilitate policy compliance, policy lifecycle management, and enforced workflow to reduce risk for policy changes. 7. For scalability, proposed Management Appliance should be able to manage up to 10K devices 8. Proposed appliance must have 2x10GbE SFP+, 2x1GbE RJ-45 Network Interfaces 9. Proposed appliance Storage Capacity must be at least 200 TB 10. Proposed appliance must support at least RAID 0/1/5/6/10/50/60 levels 11. Proposed appliance must have Removable Hard Drives and Redundant Hot Swap Power Supplies 		
	<p><i>D. CENTRAL LOGGING AND REPORTING APPLIANCE (1 Unit)</i></p> <ol style="list-style-type: none"> 1. Proposed Solution must support Advanced Threat Detection & Correlation to allow Security & Network teams to immediately identify and respond to network security threats across the infrastructure. 2. Proposed Solution must support Automated Workflows & Compliance Reporting to provide customizable dashboards, reports and advanced workflow handlers for both Security & Network teams to accelerate workflows & assist with regulation and compliance audits. 		

	<ol style="list-style-type: none"> 3. Proposed Solution must support Multi-tenancy and administrative domains 4. Proposed Solution must support SOC management center and helps secure overall network by providing actionable views of log and threat data. 5. Proposed Solution must support Automated Incident Response capability 6. Proposed Solution must have built-in templates with sample reports 7. Proposed solution must be able to generate custom data reports from logs by using the Reports feature 8. Proposed solution must be able to run reports on-demand or on a schedule with automated email notifications, uploads and an easy to manage calendar view 9. Proposed Solution must have the capability to create custom reports with built-in charts and datasets ready for creating your own custom reports, with flexible report formats include PDF, HTML, CSV and XML. 10. Platform Specifications for Logging and Reporting Appliance: <ul style="list-style-type: none"> - Proposed Logging and Reporting Appliance must be able to process at least 8,000 GB/day of logs at 100K log/sec - The proposed solution must be hardware appliance based - Proposed appliance must support at least RAID 0/1/5/6/10/50/60 disk redundancy - Must have at least 200 TB Usable Storage Capacity per appliance. - Proposed appliance must have Removable Hard Drives and Redundant Hot Swappable Power Supplies - Proposed appliance must have 2x SFP+, 2x1GbE RJ-45 Network Interfaces 		
	<p><i>E. Implementation Services for SDWAN for 500 Identified Schools and 1 for DEPED Co-Location Facility</i></p> <ol style="list-style-type: none"> 1. Pre-works: <ul style="list-style-type: none"> - Create an inventory of equipment - Labelling of Asset Number and Naming - Firmware Upgrade to Standards 		

	<p>2. CPE Pre-Configuration</p> <ul style="list-style-type: none"> - Configuring the Management IP Address - Configuring the standard policy on CPE - Configuring the Secure SDWAN on CPE - Configuring routing policy on CPE - Configuring and enabling IPSEC VPN on CPE - Configuring Security Hardening on CPE - Configuring Secured Access for administrators - Enabling IPS - Enabling AV - Enabling and Configuring Web Filtering <p>3. CPE Deployment</p> <ul style="list-style-type: none"> - Delivering Pre-Configured CPE to ISP provider - Installation and Connectivity Diagram to be provided to ISP provider - Final Configuration Review <p>4. User Acceptance Testing</p> <ul style="list-style-type: none"> - Internet Connectivity Testing - Bandwidth Testing - Speed Testing - VPN Connectivity Testing - LMS Access Testing - CPE Monitoring Verification - CPE Management Verification - UAT Documentation <p>5. Analytics and Reports</p> <ul style="list-style-type: none"> - Customization of Report - Provision relevant log information and the list of controls, reports and dashboards to be considered. - Creation of Dashboard based on customer requirements - Generation of Monthly Report - Conduct training for ICT Personnel 		
	<p><i>F. Knowledge Transfer</i></p> <ol style="list-style-type: none"> 1. End User Training (Online/Virtual) 2. Documentation (Installation procedure and Manual) 		
	<p><i>G. Warranty and Local Support</i></p>		

1. Three (3) years warranty on all the components for the proposed solution upon delivery in DepEd Central Office
2. 24 by 7 phone and email support for product concerns (defects, replacements), security database updates.
3. Remote configuration and implementation support through central management
4. Quarterly maintenance and health checks
5. Report generation
6. Security policy creation and deployment
7. With Service Level Agreement (SLA): 24 by 7 email, remote support services
8. Ticket status and summary reports
9. Annual technical assessment and review
10. Severity Level Classification

Severity	Description	Response Time
4	<ul style="list-style-type: none"> ▪ Request information, an enhancement, or documentation on software, but no impact on operation of software. ▪ Recommendation for a future enhancement, reporting of documentation error with low-to-no impact in business. No loss of service 	24 Hours
3	<ul style="list-style-type: none"> ▪ Minor loss of service ▪ Impact is inconvenience, which may require workaround to restore functionality ▪ For development environments, where the situation is causing your project 	20 Hours

	to no longer continue or migrate into production			
2	<ul style="list-style-type: none"> ▪ Severe loss of service, Important features are unavailable with no acceptable workaround, but operations can continue in restricted fashion. ▪ Service interruptions to some, but not all software modules. Time sensitive issue reported by Customer, which may adversely affect operational, billing, monitoring and productivity 	8 Hours		
1	<ul style="list-style-type: none"> ▪ Stopping of programs affecting production data, rendering the system unusable, Complete loss of service severity 1 issues have the following characteristics: data corruption; a critical documented function is not available; system hangs indefinitely, causing unacceptable or indefinite delays for resources or response; system crashes, and crashes repeatedly after restart attempts software-related issue that stops all monitoring, alerting, ticketing and 	4 Hours		

	reporting functions resulting in a loss of business productivity			
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II. CONFIDENTIALITY OF DATA

- WINNING BIDDER shall document detailed procedures/techniques in identifying system security risks and breach(es) and how such shall be handled if detected.
- All project staff of WINNING BIDDER shall be required to sign a non-disclosure agreement.
- The WINNING BIDDER agrees to hold the Proprietary Information in strict confidence. WINNING BIDDER furthermore agrees not to reproduce, transcribe or disclose the Proprietary Information to third parties without prior written approval of DepEd.
- To ensure the confidentiality of all information that will come to the knowledge of the WINNING BIDDER and its employees detailed with DepEd, the WINNING BIDDER and its employees assigned therein shall be considered agents of DepEd. The contract that will be executed heretofore shall be categorically provide that the WINNING BIDDER and its employees, as agents of DepEd, shall uphold strict confidentiality any information regarding the contract.

STATEMENT OF COMPLIANCE

I hereby commit to provide the above specified requirements in compliance with the Technical Specifications for the Project: **Procurement of Network Connectivity to Department of Education**

**Name and Signature
of Authorized Representative**

Annex C-2 (Amended Provision)

Lot 3

Detailed Technical Specifications:

Supply, Delivery, Installation, Configuration and Maintenance of SDWAN (Software-Defined Wide-Area Network) for 805 Identified Schools and 1 Co-Location Facility			
Item	Specifications	Bidder's Statement of Compliance	Bidder's Actual Offer
	Compliance to the Term of Reference of the project: Supply, Delivery, Installation, Configuration and Maintenance of SDWAN (Software-Defined Wide-Area Network) for 805 Identified Schools and 1 Co-Location Facility		
1	The provider must be a valid registered organization in existence for a minimum of five (5) years.		
2	The contractor must have at least five (5) years of experience in delivering ICT Projects within the Government Sector		
3	The contractor must have an existing ICT support or help desk unit with 24 by 7 capability.		
4	The contractor must have at least one (1) year experience in providing ICT Hardware, Software or Services in the Government Sector		
	SCOPE OF WORKS		
	SDWAN (Software-Defined Wide-Area Network) for 805 Identified Schools and 1 Co-Location Facility		
	A. CUSTOMER PREMISES EQUIPMENT (805 Units)		

	<ol style="list-style-type: none">1. The proposed Appliance should have dedicated security processor that will help accelerate performance2. The proposed CPE Solution manufacturer must be recognized and recommended by an independent information security research and advisory organization and/or testing laboratory on software-defined wide network (SD-WAN) to ensure compliance with global security standards.3. The proposed Appliance must be able to provide Firewall with Embedded SD-WAN approach. SD-WAN services can be added at no additional cost4. The proposed Appliance's Operating System must be security-hardened and purpose-built operating system5. The proposed Appliance shall allow administrators to set administration idle timeout up to 480 minutes6. The proposed Appliance must be able to support the following feature components: Intrusion Prevention System (IPS), Antivirus, Web Filtering, App Control, and Secure SD-WAN7. A physical topology view that shows the physical structure of your network, including all connected devices and the connections between them.8. The proposed Appliance shall allow GUI configurations to external services that includes:<ul style="list-style-type: none">- Multi-cloud support using Cloud and SDN connectors for vendors such as AWS, Microsoft Azure, VMware ESXi, NSX, OpenStack, Cisco ACI and Nuage Virtualized Service Platform, Kubernetes connectors for private and public cloud platforms.- Threat feeds dynamically import an external block lists from an HTTP server in the form of a text file- Provides action to quarantine or ban host IP9. The proposed Appliance shall provide robust visibility GUI panels and dashboards that:		
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	<ul style="list-style-type: none"> - Presents information visually using graphs, bubble charts - Provides action to quarantine or ban host IP - The proposed Appliance shall provide monitoring capabilities including Policy and route checks, Running processes, Aggregate processes information <p>10. Ability to define policy routes based on Protocol, Incoming Interface, Source Address, Destination Address, Destination Ports, Type of Service, Outgoing Interface and Gateway Address</p> <p>11. The proposed Appliance shall support anti-spoofing. This determines whether the packet was received on a legitimate interface by doing a reverse lookup using the source IP address in the packet header.</p> <p>12. The proposed Appliance must have the following VPN capabilities:</p> <ul style="list-style-type: none"> - The proposed appliance must comply/support industry standards IPSEC, and SSL VPN - The proposed appliance must support Hub and Spoke architecture - The proposed appliance must support for two modes of SSL VPN: Web and Tunnel Mode - The proposed appliance must allow creation of Personal bookmarks management: allow administrators to view and maintain remote client bookmarks <p>13. The proposed appliance must support SD-WAN interfaces. These are the ports and interfaces that are used to run traffic. At least one interface must be configured for SD-WAN to function; up to 255 member interfaces can be configured</p> <p>14. Pre defined performance SLA profiles for Office 365, AWS, Gmail</p> <p>15. The proposed Appliance SLA targets are a set of constraints that are used in SD-WAN rules to control the paths that traffic take: Latency threshold, Jitter threshold, Packet loss threshold</p> <p>16. The proposed Appliance shall provide the following path control strategies:</p>		
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	<ul style="list-style-type: none"> - Auto: Interfaces are assigned a priority based on quality. - Manual (manual): Interfaces are manually assigned a priority - Best Quality (priority): Interface are assigned a priority based on the link-cost-factor of the interface - Lowest Cost (SLA): Interfaces are assigned a priority based on selected SLA settings. - Maximize Bandwidth (SLA) (load-balance): Traffic is distributed among all available links based on the selected load balancing algorithm. - The proposed Appliance shall support forward error correction (FEC) on VPN overlay networks. <p>17. Threat Protection Throughput must be at least 700 Mbps</p> <p>18. Concurrent Sessions (TCP) must be at least 700,000</p> <p>19. New Sessions/Sec (TCP) must be at least 35,000</p> <p>20. IPsec VPN Throughput (512 byte) must be at least 6.5 Gbps</p> <p>21. Gateway-to-Gateway IPsec VPN Tunnels must be at least 200</p> <p>22. Client-to-Gateway IPsec VPN Tunnels must be at least 500</p> <p>23. SSL Inspection Throughput must be at least 630 Mbps</p> <p>24. Must be Desktop Form Factor Only</p> <p>25. Required Network Interface per Appliance are: 1x USB Port, 1x Console Port, 2x GE RJ45 WAN Ports, 1x GE RJ45 DMZ Port, 2x GE RJ45 Ports, 5x GE RJ45 Internal Ports</p> <p>26. Must have minimum Single Radio (2.4GHz/5GHz), 802.11 a/b/g/n/ac-W2 Wireless Interface with integrated antennas</p>		
	<p>B. CORE NETWORK - VPN AGGREGATION GATEWAY APPLIANCE (2 Units in HA Set-up)</p> <p>1. The proposed Appliance should have dedicated security processor that will help accelerate performance</p>		

	<ol style="list-style-type: none">2. The proposed Appliance Solution manufacturer must be recognized and recommended by an independent information security research and advisory organization and/or testing laboratory on software-defined wide area network (SD-WAN) to ensure compliance with global security standards3. The proposed Appliance must be able to provide Firewall with Embedded SD-WAN approach. SD-WAN services can be added at no additional cost4. The proposed Appliance's Operating System must be security-hardened and purpose-built operating system5. The proposed Appliance shall allow administrators to set administration idle timeout up to 480 minutes6. The proposed Appliance must be able to support the following feature components: Intrusion Prevention System (IPS), Antivirus, Web Filtering, App Control, and Secure SD-WAN7. A physical topology view that shows the physical structure of your network, including all connected devices and the connections between them.8. The proposed Appliance shall allow GUI configurations to external services that includes:<ul style="list-style-type: none">- Multi-cloud support using Cloud and SDN connectors for vendors such as AWS, Microsoft Azure, VMware ESXi, NSX, OpenStack, Cisco ACI and Nuage Virtualized Service Platform, Kubernetes connectors for private and public cloud platforms."- Threat feeds dynamically import an external block lists from an HTTP server in the form of a text file- Provides action to quarantine or ban host IP9. The proposed Appliance shall provide robust visibility GUI panels and dashboards that:		
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	<ul style="list-style-type: none"> - Presents information visually using graphs, bubble charts - Provides action to quarantine or ban host IP - The proposed Appliance shall provide monitoring capabilities including Policy and route checks, Running processes, Aggregate processes information <p>10. Ability to define policy routes based on Protocol, Incoming Interface, Source Address, Destination Address, Destination Ports, Type of Service, Outgoing Interface and Gateway Address</p> <p>11. The proposed Appliance shall support anti-spoofing. This determines whether the packet was received on a legitimate interface by doing a reverse lookup using the source IP address in the packet header.</p> <p>12. The proposed Appliance must have the following VPN capabilities</p> <ul style="list-style-type: none"> - The proposed appliance must comply/support industry standards IPSEC, and SSL VPN - The proposed appliance must support Hub and Spoke architecture - The proposed appliance must support for two modes of SSL VPN: Web and Tunnel Mode - The proposed appliance must allow creation of Personal bookmarks management: allow administrators to view and maintain remote client bookmarks <p>13. The proposed appliance must support SD-WAN interfaces. These are the ports and interfaces that are used to run traffic. At least one interface must be configured for SD-WAN to function; up to 255 member interfaces can be configured</p> <p>14. Predefined performance SLA profiles for Office 365, AWS, Gmail</p> <p>15. The proposed Appliance SLA targets are a set of constraints that are used in SD-WAN rules to control the paths that traffic</p>		
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take: Latency threshold, Jitter threshold, Packet loss threshold

16. The proposed Appliance shall provide the following path control strategies:
 - Auto: Interfaces are assigned a priority based on quality.
 - Manual (manual): Interfaces are manually assigned a priority
 - Best Quality (priority): Interface are assigned a priority based on the link-cost-factor of the interface
 - Lowest Cost (SLA): Interfaces are assigned a priority based on selected SLA settings.
 - Maximize Bandwidth (SLA) (load-balance): Traffic is distributed among all available links based on the selected load balancing algorithm.
17. The proposed Appliance shall support forward error correction (FEC) on VPN overlay networks.
18. Proposed VPN aggregation must at least have the following throughputs and specifications:
 - Firewall Throughput must support at least 145 Gbps
 - Concurrent Sessions (TCP) must be at least 49.5 Million
 - New Sessions/Sec (TCP) must be at least 450,000
 - IPsec VPN Throughput (512 byte) must support throughput of at least 135 Gbps
 - Gateway-to-Gateway IPsec VPN Tunnels must support max of 39,500 Client-to-Gateway IPsec VPN Tunnels must support max of 190,000
19. Required Network Interface per appliance are: 1x USB Management Port, 1x Console Port, 2x GE RJ45 Management Ports, 2x 25 GE SFP28 / 10 GE SFP+ / GE SFP HA Slots, 22x 25 GE SFP28 / 10 GE SFP+ / GE SFP Slots, 4x 100 GE QSFP28 / 40 GE QSFP+ Slots
20. Includes 16 units 25GE/10GE Dual Rate SFP28 transceiver module, short

	range, and 4 units 10GE SFP+ Passive Direct Attach Cable, 3 m		
	<p>C. CENTRAL MANAGEMENT APPLIANCE (1 Unit)</p> <ol style="list-style-type: none"> 1. Proposed Solution must be able to have central management of multiple appliances with policy provisioning and audit logs. 2. Proposed Solution must be able to provide visibility of the attack surface through accurate detection, automated correlation and rapid response features. 3. Proposed Solution must have SD-WAN management capabilities. Enhanced SD-WAN monitoring for each SD-WAN link member with visibility of link status, application performance, and bandwidth utilization. 4. Proposed Solution must have a set of commonly used security policies that can be grouped in a Policy Block and inserted as needed in different Policy Packages. 5. Proposed Solution must be able to support Multi-Tenancy & Role Based Administration 6. Must support workflow for audit and compliance for review, approval and audit policy changes from a central place, including automated processes to facilitate policy compliance, policy lifecycle management, and enforced workflow to reduce risk for policy changes. 7. For scalability, proposed Management Appliance should be able to manage at least 4K devices 8. Proposed appliance must have at least 2x GbE RJ45 ports, 2x 25GbE SFP28 Network Interfaces 9. Proposed appliance Storage Capacity must be at least 60 TB <ul style="list-style-type: none"> - Proposed Logging and Reporting Appliance must be able to process at least 60,000 logs per second - Must have at least 90 TB Usable Storage Capacity per appliance. 		

	<p>- Proposed appliance must have 2x GbE RJ45, 2x SFP28 Network Interfaces</p>		
	<p>D. CENTRAL LOGGING AND REPORTING APPLIANCE (1 Unit)</p> <ol style="list-style-type: none"> 1. Proposed Solution must support Advanced Threat Detection & Correlation to allow Security & Network teams to immediately identify and respond to network security threats across the infrastructure. 2. Proposed Solution must support Automated Workflows & Compliance Reporting to provide customizable dashboards, reports and advanced workflow handlers for both Security & Network teams to accelerate workflows & assist with regulation and compliance audits. 3. Proposed Solution must support Multi-tenancy and administrative domains 4. Proposed Solution must support SOC management center and helps secure overall network by providing actionable views of log and threat data. 5. Proposed Solution must support Automated Incident Response capability 6. Proposed Solution must have built-in templates with sample reports 7. Proposed solution must be able to generate custom data reports from logs by using the Reports feature 8. Proposed solution must be able to run reports on-demand or on a schedule with automated email notifications, uploads and an easy to manage calendar view 9. Proposed Solution must have the capability to create custom reports with built-in charts and datasets ready for creating your own custom reports, with flexible report formats include PDF, HTML, CSV and XML. 10. Platform Specifications for Logging and Reporting Appliance: <ul style="list-style-type: none"> - Proposed Logging and Reporting Appliance must be able to process at least 8,000 GB/day of logs at 100K log/sec 		

	<ul style="list-style-type: none"> - The proposed solution must be hardware appliance based - Proposed appliance must support at least RAID 0/1/5/6/10/50/60 disk redundancy - Must have at least 200 TB Usable Storage Capacity per appliance. - Proposed appliance must have Removable Hard Drives and Redundant Hot Swappable Power Supplies - Proposed appliance must have 2x SFP+, 2x1GbE RJ-45 Network Interfaces 		
	<p><i>E. Implementation Services for SDWAN for 805 Identified Schools and 1 for DEPED Co-Location Facility</i></p> <p>1. Pre-works:</p> <ul style="list-style-type: none"> - Create an inventory of equipment - Labelling of Asset Number and Naming - Firmware Upgrade to Standards <p>2. CPE Pre-Configuration</p> <ul style="list-style-type: none"> - Configuring the Management IP Address - Configuring the standard policy on CPE - Configuring the Secure SDWAN on CPE - Configuring routing policy on CPE - Configuring and enabling IPSEC VPN on CPE - Configuring Security Hardening on CPE - Configuring Secured Access for administrators - Enabling IPS - Enabling AV - Enabling and Configuring Web Filtering <p>3. CPE Deployment</p> <ul style="list-style-type: none"> - Delivering Pre-Configured CPE to ISP provider - Installation and Connectivity Diagram to be provided to ISP provider - Final Configuration Review <p>4. User Acceptance Testing</p> <ul style="list-style-type: none"> - Internet Connectivity Testing - Bandwidth Testing - Speed Testing - VPN Connectivity Testing - LMS Access Testing - CPE Monitoring Verification - CPE Management Verification 		

	<ul style="list-style-type: none"> - UAT Documentation <p>5. Analytics and Reports</p> <ul style="list-style-type: none"> - Customization of Report - Provision relevant log information and the list of controls, reports and dashboards to be considered. - Creation of Dashboard based on customer requirements - Generation of Monthly Report - Conduct training for ICT Personnel 								
	<p><i>F. Knowledge Transfer</i></p> <ol style="list-style-type: none"> 1. End User Training (Online/Virtual) 2. Documentation (Installation procedure and Manual) 								
	<p><i>G. Warranty and Local Support</i></p> <ol style="list-style-type: none"> 1. Three (3) years warranty on all the components for the proposed solution upon delivery in DepEd Central Office 2. 24 by 7 phone and email support for product concerns (defects, replacements), security database updates. 3. Remote configuration and implementation support through central management 4. Quarterly maintenance and health checks 5. Bidder must submit a certification from the Manufacturer of the Proposed Solution that the Bidder is a Certified Reseller and Partner of the Proposed Solution 6. Report generation 7. Security policy creation and deployment 8. With Service Level Agreement (SLA): 24 by 7 email, remote support services 9. Ticket status and summary reports 10. Annual technical assessment and review 11. Severity Level Classification <table border="1" data-bbox="199 1696 959 1850"> <thead> <tr> <th data-bbox="199 1696 362 1738">Severity</th> <th data-bbox="362 1696 773 1738">Description</th> <th data-bbox="773 1696 959 1738">Response Time</th> </tr> </thead> <tbody> <tr> <td data-bbox="199 1738 362 1850"></td> <td data-bbox="362 1738 773 1850"></td> <td data-bbox="773 1738 959 1850"></td> </tr> </tbody> </table>	Severity	Description	Response Time					
Severity	Description	Response Time							

4	<ul style="list-style-type: none"> ▪ Request information, an enhancement, or documentation on software, but no impact on operation of software. ▪ Recommendation for a future enhancement, reporting of documentation error with low-to-no impact in business. No loss of service 	24 Hours		
3	<ul style="list-style-type: none"> ▪ Minor loss of service ▪ Impact is inconvenience, which may require workaround to restore functionality ▪ For development environments, where the situation is causing your project to no longer continue or migrate into production 	20 Hours		
2	<ul style="list-style-type: none"> ▪ Severe loss of service, Important features are unavailable with no acceptable workaround, but operations can continue in restricted fashion. ▪ Service interruptions to some, but not all software modules. Time sensitive issue reported by Customer, which may adversely affect operational, billing, monitoring and productivity 	9 Hours		

1	<ul style="list-style-type: none"> ▪ Stopping of programs affecting production data, rendering the system unusable, Complete loss of service severity 1 issues have the following characteristics: data corruption; a critical documented function is not available; system hangs indefinitely, causing unacceptable or indefinite delays for resources or response; system crashes, and crashes repeatedly after restart attempts software-related issue that stops all monitoring, alerting, ticketing and reporting functions resulting in a loss of business productivity 	4 Hours						
<p><i>H. Provision for Internet Service</i></p> <p>Must provide dedicated 1Gbps internet bandwidth for a period of 12 months to DEPED Co-Location Facility</p>								
<p><i>I. Manpower Requirements</i></p> <table border="1" data-bbox="203 1543 966 1890"> <tr> <td data-bbox="203 1543 966 1690">Proposed Project Team Members must be current employees of the bidder. Bidder must submit, as proof, a copy of team member's certificate of employment</td> </tr> <tr> <td data-bbox="203 1690 966 1732">1. Project Manager</td> </tr> <tr> <td data-bbox="203 1732 966 1858"> <ul style="list-style-type: none"> · At least 5 years work experience as a project manager handling Public Sector Projects </td> </tr> <tr> <td data-bbox="203 1858 966 1890"> <ul style="list-style-type: none"> · Oversees over-all project management </td> </tr> </table>			Proposed Project Team Members must be current employees of the bidder. Bidder must submit, as proof, a copy of team member's certificate of employment	1. Project Manager	<ul style="list-style-type: none"> · At least 5 years work experience as a project manager handling Public Sector Projects 	<ul style="list-style-type: none"> · Oversees over-all project management 		
Proposed Project Team Members must be current employees of the bidder. Bidder must submit, as proof, a copy of team member's certificate of employment								
1. Project Manager								
<ul style="list-style-type: none"> · At least 5 years work experience as a project manager handling Public Sector Projects 								
<ul style="list-style-type: none"> · Oversees over-all project management 								

<ul style="list-style-type: none"> · Prioritizes, plans, tracks and reports project progresses 		
<ul style="list-style-type: none"> · Must have a formal training and certified for project management 		
<ul style="list-style-type: none"> · Trained and certified by an accredited training provider for Data Privacy Act for 2012 or equivalent training and certification 		
<p>2. Assistant Project Manager</p>		
<ul style="list-style-type: none"> · Takes care of the project documentation and archiving of relevant files for the project 		
<ul style="list-style-type: none"> · Must have a formal training and certified as an associate project manager 		
<p>3. At least Two (2) Network Engineers</p>		
<ul style="list-style-type: none"> · Each must at least have 3 years work experience as a Network Engineer 		
<ul style="list-style-type: none"> · Must have a formal training and expert – level certification for the proposed network solution 		
<p>4. Local Helpdesk Technical Support</p>		
<ul style="list-style-type: none"> · Must dedicate a minimum of 5 Technical Engineers for Local Technical Support 		
<ul style="list-style-type: none"> · At least three (3) of which must be considered as subject matter experts (SMEs) of the proposed solution and have completed the highest level of training from the principal manufacturer. A certification or proof of course/training completion must be submitted 		
<ul style="list-style-type: none"> · Must have a capability of providing 24 by 7 support coverage 		

II. CONFIDENTIALITY OF DATA

- WINNING BIDDER shall document detailed procedures/techniques in identifying system security risks and breach(es) and how such shall be handled if detected.
- All project staff of WINNING BIDDER shall be required to sign a non-disclosure agreement.

- The WINNING BIDDER agrees to hold the Proprietary Information in strict confidence. WINNING BIDDER furthermore agrees not to reproduce, transcribe or disclose the Proprietary Information to third parties without prior written approval of DepEd.
- To ensure the confidentiality of all information that will come to the knowledge of the WINNING BIDDER and its employees detailed with DepEd, the WINNING BIDDER and its employees assigned therein shall be considered agents of DepEd. The contract that will be executed heretofore shall be categorically provide that the WINNING BIDDER and its employees, as agents of DepEd, shall uphold strict confidentiality any information regarding the contract.

STATEMENT OF COMPLIANCE

I hereby commit to provide the above specified requirements in compliance with the Technical Specifications for the Project: **Procurement of Network Connectivity to Department of Education**

Name and Signature
of Authorized Representative

Annex E- Bidder's Information Sheet



Republic of the Philippines
Department of Education
Procurement Management Service
BAC Secretariat Division

BIDDER'S INFORMATION SHEET

Directions: Please fill out all information requested legibly. Also, place a checkmark (✓) in the box(es) corresponding to all applicable items.

To be filled by ProcMS-BAC Secretariat only:

Control No.: _____

PROJECT NO.: **2021-ICT83(006)-BI-CB-027**
 PROJECT: **Procurement of Network Connectivity to Department of Education**
 TOTAL ABC: **PhP700,000,000.00**

Cost of Bidding Documents =	Lot 1	PhP 40,000.00
	Lot 2	PhP 10,000.00
	Lot 3	PhP 25,000.00
	All	PhP 75,000.00

DATE : _____

GENERAL INFORMATION

FULL NAME OF FIRM/COMPANY: _____
 ADDRESS : _____
 TEL. NO(S). : _____
 FAX NO(S). : _____
 EMAIL ADD. : _____

PERSON MANAGING AFFAIRS OF THE FIRM

NAME : _____
 POSITION : _____
 TEL. NO. : _____
 MOBILE NO. : _____

AUTHORIZED REPRESENTATIVE

NAME : _____
 POSITION : _____
 TEL. NO. : _____
 MOBILE NO. : _____

Where did you find out about this project? PhilGEPS DepEd website Bulletin Board

Your Firm/Company will join in the following lots: Lot 1
 Lot 2
 Lot 3

Bid Docs: OR No: _____ Date: _____ Amount: _____

Received from Procurement Management Service - BAC Secretariat Division the following:

	Document(s)	Received by:		Date Received
		Printed Name	Signature	
<input type="checkbox"/>	Bidding Documents			
<input type="checkbox"/>	Annex A			
<input type="checkbox"/>	Annex B			
<input type="checkbox"/>	Annex C			
<input type="checkbox"/>	Annex D			
<input type="checkbox"/>	Annex E			
<input type="checkbox"/>	Bid Bulletin No. 1			

- Notes:**
1. Interested Bidders may signify their intent to purchase the Bidding Documents through email at procurement@depedcentral.bacsecretariat@deped.gov.ph by assembling the form.
 2. Upon receipt of the bidder's information sheet, the BAC Secretariat Division will send through email the details of the 0000 0000 Trust Fund Account for payment.
 3. Upon payment, Bidders may send through email the proof of payment before the deadline for submission of bids indicated in the Invitation to Bid, Bidding Documents or Bid Bulletin.
 4. Upon receipt of proof of payment, the BAC Secretariat will send the electronic copy of the Bidding Documents.

Room M-511, 5th Floor, Mabini Building, DepEd Complex, Morao Avenue, Pasig City 1600
 Telephone No.: (02) 8633-9242; 8636-8542
 Email Address: depedcentral.bacsecretariat@deped.gov.ph

This form is not for sale, and may be reproduced. Information to be provided may be supported by additional documents for firm's security.

Annex F- Price Schedule Form

Price Schedule Form									
Name of Bidder:									
ITB No.:									
Project Title: Procurement of Network Connectivity Solution to Department of Education									
LOT 1					ABC: Php 425,000,000.00				
1	2	3	4	5	6	7	8	9	10
Items	Description	Country of Origin	Quantity	Unit Price EXW per item	Transportation and Insurance and all other costs incidental to delivery, if applicable	Sales and other taxes payable if Contract is awarded	Cost of Incidental Services, if applicable	Total Price per unit (co 5+6+7+8)	Total Price delivered Final Destination (col 9) x (col 4)
1	BUC		2,000						
2	Antenna		2,000						
3	LNB		2,000						
4	Antenna Mounting		2,000						
5	Modem		2,000						
6	Caching Device		2,000						
7	Implementation & Knowledge Transfer		1						
8	Local Technical Support for 1 year		1						
Total Price		Total Price in Words:							
_____ Name and Signature of Authorized Representative									
Date:									
Note: 1.Total Bid Price (i.e. Total Lot Price) exceeding the ABC shall be ground for the rejection of the bid.									

Price Schedule Form

Name of Bidder:

ITB No.:

Project Title: **Procurement of Network Connectivity Solution to Department of Education**

LOT 2

ABC: Php 75,000,000.00

1	2	3	4	5	6	7	8	9	10
Items	Description	Country of Origin	Quantity	Unit Price EXW per item	Transportation and Insurance and all other costs incidental to delivery, if applicable	Sales and other taxes payable if Contract is awarded	Cost of Incidental Services, if applicable	Total Price per unit (co 5+6+7+8)	Total Price delivered Final Destination (col 9) x (col 4)
1	Point to Point (PTP) Customer Premise Equipment		305						
2	Data Transport Service		305						
3	Implementation Services		305						
4	Support Services for 1 year		1						

Total Price		Total Price in Words:	
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Name and Signature of Authorized Representative

Date:

Note:

1.Total Bid Price (i.e. Total Lot Price) exceeding the ABC shall be ground for the rejection of the bid.

Price Schedule Form

Name of Bidder: _____
 ITB No.: _____
 Project Title: **Procurement of Network Connectivity Solution to Department of Education**

LOT 3 ABC: Php 200,000,000.00

1	2	3	4	5	6	7	8	9	10
Items	Description	Country of Origin	Quantity	Unit Price EXW per item	Transportation and Insurance and all other costs incidental to delivery, if applicable	Sales and other taxes payable if Contract is awarded	Cost of Incidental Services, if applicable	Total Price per unit (co 5+6+7+8)	Total Price delivered Final Destination (col 9) * (col 4)
	HARDWARE								
1	CUSTOMER PREMISES EQUIPMENT		805						
2	VPN AGGREGATION GATEWAY APPLIANCE		2						
3	CENTRAL MANAGEMENT APPLIANCE		1						
4	CENTRAL LOGGING AND REPORTING APPLIANCE		1						
	HARDWARE GLOBAL SUPPORT SUBSCRIPTION								
5	CUSTOMER PREMISES EQUIPMENT - GLOBAL SUPPORT		805						
6	VPN AGGREGATION GATEWAY APPLIANCE - GLOBAL SUPPORT SUBSCRIPTION		2						
7	CENTRAL MANAGEMENT APPLIANCE - GLOBAL SUPPORT		1						
8	CENTRAL LOGGING AND REPORTING APPLIANCE - GLOBAL SUPPORT SUBSCRIPTION		1						
	OTHER REQUIREMENTS								
9	DEDICATED INTERNET SERVICE (1GB) for 1Year		1						
10	IMPLEMENTATION SERVICES		1						
11	LOCAL TECHNICAL SUPPORT (3 years)		3						

Page 1

Total Price		Total Price in Words:	
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 Name and Signature of Authorized Representative Date:

Note:
 1.Total Bid Price (i.e. Total Lot Price) exceeding the ABC shall be ground for the rejection of the bid.