

REQUEST FOR QUOTATIONS

Procurement of Goods under RFQ/Shopping Procedures

Purchaser: *Meghalaya Basin Management Agency (MBMA)*

Contract title: *Procurement of Office Equipment for UAV & GIS*

RFQ No: *MBMA/CLLMP/72/2021-22/GD-64/264*

S#	Description	Date & Time
1	Date of Issue of RFQ	December 16, 2021
2	Last Date and Time of submission of RFQs	January 7, 2022 at 1600 Hrs.
3	Opening of RFQs	January 7, 2022 at 1630 Hrs.

Applicable Procurement Guidelines/Regulations Date:

[Procurement Regulations July 2016]



MEGHALAYA BASIN MANAGEMENT AGENCY (MBMA)

Regd. Address: House No. L/ A-56 Lower Nongrim Hills,
Shillong, East Khasi Hills, Meghalaya- 793003

(CIN No. U75144ML2012NPL008509)

Phone: +91-364- 2522921/2522992

Website: www.mbda.gov.in, E-mail: admin.mbda@gov.in

MBMA/CLLMP/72/2021-22/GD-64/264

Date: 16th December, 2021

INVITATION FOR QUOTATIONS FOR SUPPLY OF GOODS UNDER SHOPPING PROCEDURES

To

Dear Sir/Madam,

Subject: INVITATION FOR QUOTATIONS FOR SUPPLY OF OFFICE EQUIPMENTS FOR UAV & GIS

Government of India has received a funding from the **International Bank for Reconstruction and Development (IBRD)** in the form of Loan toward the cost of **Meghalaya Community- Led Landscape Management Project (MCLLMP)**, **Meghalaya Basin Management Agency (MBMA)** is the implementing agency of the Project and intends to apply part of the proceeds of this loan to eligible payments under the contract for which this invitation for quotations is issued.

1. You are invited to submit your most competitive quotation for the following goods as per the lots mentioned:-

***Detailed Specifications given at Annexure 1**

Lot	Brief Description of the Goods*	Quantity	Delivery Period	Installation Required (Y/N)
Lot# 1	Workstation (WK)	3	Within 30 Days	Y
Lot# 2	Laptop	3		Y
Lot# 3	Multi-function Color Printer	1		Y
Lot# 4	Offline Storage Space NAS	1		Y
Lot# 5	3KVA Online UPS Systems	4		N
Lot# 6	43 Inches 4k Display with Hard Shell Carrying Case	1		N

***: bidder may apply for one or more Lots, however they are requested to mention the Lot numbers they are bidding for.**

Terms and Conditions

1. **Eligibility:** A Bidder (a) shall not participate in more than one Quotation; (b) shall not have conflict of interest as defined in the Bank's Procurement Regulations; and (c) should not have been (i) temporarily suspended or debarred by the World Bank Group in compliance with the Bank's Anti-Corruption Guidelines and its Sanctions Framework; or (ii) blacklisted or suspended by Central or any State Government Departments in India.
2. **Clarifications & Amendments:** If the Purchaser receives any request for clarification of this RFQ Document, it will upload its response together with any amendment to this document, on www.mbda.gov.in and www.cllmp.com for information of all Bidders. Bidders should check on the website, for any amendments to the terms and conditions and for Award of Contract.
3. **Place of Delivery:** Meghalaya Basin Management Agency, O/o Meghalaya Basin Development Authority, c/o Meghalaya State Housing Financing & Cooperative Society, Upper Nongrim Hills, Shillong - 793003
4. **Quotation Price**
 - a) The bidder must mention the Lot that they are offering. However the quantity offered should be 100% of the requirement for the quoted Lot. Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
 - b) All duties, taxes and other levies payable on the raw materials and components shall be included in the total price.
 - c) Goods and Service Tax (GST) should be indicated separately.
 - d) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - e) The Prices shall be quoted in Indian Rupees only.
 - f) Bidder must expressly mention the name/brand of the items offered by them in the price schedule along with proper product brochures.
 - g) The bidder must mention in details about the product being offered in lieu of the specified specifications and not by simply mentioning "Complied". Quotations with no proper technical specifications/catalogues are likely to be disqualified.
 - h) All Printers should be eco-friendly taking into consideration the life-cycle of the printer. The toners/cartridges should be easily available and economical.

5. Qualification of Bidders

- a) Have the legal capacity to enter into a contract;
- b) Not be insolvent, in receivership, bankrupt or being wound up or subject to legal proceedings for any of these circumstances;
- c) Not have had your business activities suspended or debarred from public procurement by the State Government of Meghalaya or Government of India.

6. Documents Evidencing Qualification: Bidders are requested to submit copies of the following documents as evidence of your qualification.

- a. Valid trading license/registration or equivalent/Exemption Certificate.
- b. Valid certificate of GST registration;
- c. Certificate of Distributorship/Authorization from Original Equipment Manufacturer (OEM)
- d. Self-declaration to the effect the bidder is not insolvent, in receivership, bankrupt or being wound up or subject to legal proceedings for any of these circumstances.
- e. Self-declaration that the bidder's business activities are not suspended or debarred from public procurement by the State Government of Meghalaya, any other State Government or Government of India.

7. Validity of Quotation: Quotations shall remain valid for a period not less than 90 days after the deadline date specified for submission.

8. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations lot wise that are determined to be substantially responsive i.e. which

- (a) are properly signed ; and
- (b) confirm to the terms and conditions and specifications.
- (c) The Quotations would be evaluated lot wise; GST will not be taken into consideration while evaluating the quotations.
- (d) Any historical information, if required may be asked from the bidders during evaluation of quotes.

9. Award of contract: The Purchaser will award the supply orders to the bidders whose quotations have been determined to be substantially responsive in respective lots and who has offered the lowest evaluated quotation price for that respective lot. The announcement for this assignment will be published in www.cllmp.com and www.mbda.gov.in

- a. Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

- b. The bidder whose quotation is accepted will be notified of the issue of Supply Order by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the supply order (sample form attached).
9. Payment shall be made with 60 days after delivery of the goods.
10. Normal commercial warranty/ guarantee of minimum 1 years shall be applicable to the supplied goods. (extended warranty if required will be mentioned in the technical specifications.)
11. You are requested to provide your sealed quote latest by 1600 hours on January 7, 2022. Quotations that have been submitted on or before time will be opened at 1630 Hrs. on January 7, 2022. Late quotes will be rejected.
12. We look forward to receiving your quotations and thank you for your interest in this project.



(Shantanu Sharma, IAS)

Name: Shantanu Sharma, IAS

Address: Meghalaya Basin Management Agency, Office of Meghalaya Basin Development Authority, Upper Nongrim Hills, Shillong – 793003; Meghalaya

Tel. No.: 0364 -2522921

Email: mbdaprocedurement@gmail.com

FORMAT OF QUOTATION *

Sl. No. ¹	Description of Goods	Specifications (complied or Not complied as per requirement)	Qty.	Unit	Quoted Unit Rate ² Lot wise at destination in Rs.	³ GST and similar other taxes applicable on finished Goods/ Services	*Total Price per line item at Destination - inclusive of discounts, all taxes and duties	
							In Figures	In Words
Lot # 1								
Lot # 2								
Lot # 3								
Lot # 4								
Lot # 5								
Lot # 6								
Total								

Gross Total Cost: Rs.

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs..... (amount in figures) (Rs. amount in words) within the period specified in the Invitation for Quotations.

We also confirm that commercial warrantee/guarantee of 12 months shall apply to the offered goods.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery or collusive agreements with competitors.

Signature of Supplier

¹ A bidder may offer for one or more than one lots.

² Any unconditional discounts if offered shall be specified in this column along with the unit rates.

³ Indicate each applicable tax separately.



MEGHALAYA BASIN MANAGEMENT AGENCY (MBMA)

Regd. Address: House No. L/ A-56 Lower Nongrim Hills,

Shillong, East Khasi Hills, Meghalaya- 793003

(CIN No. U75144ML2012NPL008509)

Phone: +91-364- 2522921/2522992

Website: www.mbda.gov.in, E-mail: admin.mbda@gov.in

SUPPLY ORDER

To:

M/s

.....

Dear Sirs,

Sub: Supply of

Reference: Your Quotation no..... Dated

1. Your quotation no.....of(Date) for the supply of **has been accepted. You are requested to** supply the following goods/equipment at the rates quoted by you and specified against each as per the specifications and terms & conditions specified hereunder:

SL.No	Brief description of goods/ equipment	Specifications	Quantity to be supplied	Unit Rate (Rs.)	Total Price (Rs.)
Lot # 1					
Lot # 2					
Lot # 3					
Lot # 4					
Lot # 5					
Lot # 6					
			Total		

1. Delivery Period:days from the date of issue of this supply order.
2. Place of delivery
3. Consignee Address:
4. GST if any will be paid at actual prevailing on the date of supply (if not already included in the cost above.

5. Extended Warranty/Guarantee shall be minimum 12 months from the date of delivery and acceptance.
6. Payment shall be made within 60 days of delivery; and acceptance of the goods/equipment.

(Purchaser)

Date:

Name: Shantanu Sharma, IAS

Designation: Executive Director &
Additional Project Director, CLLMP, MBMA

Place: Shillong, Meghalaya

SPECIFICATIONS

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
1	Workstation	Processor	10th Generation Intel® Core™ i7 processor/ 10th Generation Intel® Core™ i9 processor	3	
		RAM	64GB (2x32GB) with expandable memory support upto 128 GB.		
		Chipset	Intel® W480 chipset or Higher		
		Graphics Card	Dedicated NVIDIA P1000/ T1000 (4GB) Graphic card or Higher		
		Hard Drive	Primary Hard Drive 2TB SSD & Secondary Hard Drive 4TB SSD		
		Operating System	Windows 10 Pro 64		
		Communications	Intel® Wi-Fi 6 AX201 (2x2) and Bluetooth® 5 combo		
		Certifications	ENERGY STAR® certified and EPEAT		
		Accessories	Mouse and Keyboard (USB interface)		
		Ports	Min 10 USB Ports; 2 DisplayPort; 1 RJ-45; 1 headphone/microphone combo		
		Additional Software	Remote Graphics Software (RGS)		
		Monitor	Display Size: Min 31.5 inches Panel: IPS Resolution: 2560x1440QHD viewing Angle: 178°X178° Aspect Ratio: 16:9 Contrast ratio: 3000:1 Static connectivity: USB-C, ,DP, HDMI, VGA, 4-USB 3.1 Adjustment: Height adjust		
		Warranty	3 years on-site warranty		
Power Supply	Min 700W or Higher				
2	Laptop	Chassis	Aluminium / Carbon Fiber / Mg Alloy	3	
		Processor:	Intel Core i7-1165G7 with Intel Iris X Graphics (2.8 GHz base frequency, up to 4.7 GHz with Intel Turbo Boost Technology, 12 MB L3 cache, 4 cores		
		Chipset and motherboard	System on Chip and OEM logo to be embossed on the motherboard - no stickers allowed		
		Wireless and bluetooth	Intel Dual Band Wi-Fi 6 AX201 and Bluetooth 5.0		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Memory	16 GB DDR4 SDRAM (3200 MHz) upgradable to 32 GB with 2 DIMM slots customer replaceable		
Hard Disk Drive	1 TB SSD				
Display	14" diagonal, FHD (1920 x 1080), IPS, narrow bezel, anti-glare, 250 nits				
Keyboard	spill resistant keyboard with gesture support				
Ethernet	Interface Integrated Ethernet 10/100/1000 NIC				
Ports	1 USB Type C (power delivery) 3 USB 3.1 1 HDMI 1 RJ-45 1 AC power 1 Headphone/Microphone Combo Jack 1 Standard Security Lock				
Weight	maximum weight 1.5 Kg , same should be mentioed in OEM brochure				
Security	Integrated Fingerprint Reader, Hardware TPM, Power on authentication, security lock slot				
Speaker / Microphones	Integrated two stereo speakers; HD audio Integrated dual array microphone				
Battery	Min 12 hours or higher battery life				
Operating System	Windows 10 Professional				
Warranty	3 Years Comprehensive Warranty on laptop and 3 years on battery				
AC Adapter	Standard Indian Adaptor				
3	Multi-function Color Printer	Type of Machine	Multifunction Machine	1	
Print Technology	Laser				
Type of Printing	Colour				
Cartridge Technology	Separate Drum and Toner (Mono Component)				
Developer Unit	No				
Platen/Flatbed Size	Platen: Up to 8.5 x 11.7 in/A4 DADF: 8.5 x 14 in./216 x 356 mm				
Paper Size (Original/Image)	A4/A4				
RAM size (MB)	Memory 2GB				
Hard Disk Capacity(GB)	0				
Minimum Speed per Minute as per ISO/IEC 24734 in A4 Size-Mono	Up to 28 ppm color and black-and-white				

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Minimum Speed per Minute as per ISO/IEC 24734 in A4 Size-Colour	min 28		
		Scanning Feature Availability	Yes		
		Duplexing Feature Availability	Black-and-white: Up to 9 cpm (copies per minute) 8.5 x 11 in./A4/210 x 297 mm		
			Color: Up to 8 cpm (copies per minute) 8.5 x 11 in./A4/210 x 297 mm		
		Faxing Feature Availability	Broadcast Sending (up to 200 destinations) Delayed Start (up to 24 hours) Fax Address Book (up to 200 speed dials)		
			Fax Forward to Email		
			Fax Forwarding and Local Print Polling Receive Reject Junk Fax		
			Secure Fax Receive		
		Speed of Fax, If Fax Feature is available	33.6 kbps		
		Networking Feature Availability			
		If yes, Type of Network Interface	Connectivity--10/100/1000 Base-T Ethernet		
		Wi-Fi Availability	Yes		
		If yes,Wi-Fi Type	Wi fi 802.11 b/g/n		
		Original Document Feeder Type	Single-pass Duplex Automatic Document Feeder (DADF) with 50-sheet capacit		
		Number of Main Paper Tray	Tray 1		
		Each Main Paper Tray Capacity (Number)	250 sheets		
		Bypass Facility	yes		
		If Yes, Bypass Tray Capacity	50 sheets		
		Standard Capacity Print Cartridge:	One of each (Cyan, Magenta, Yellow): 1,000 print capacity5		
		Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Yellow colour (Number of prints)	1000		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Yield of the cartridge/Ink Tank/Ink Pack supplied with Machine as per ISO/IEC: 19798/2007(E) for Magenta colour (Number of prints)	1000		
		Starter Capacity Print Cartridge:	Black: 1,500 print capacity		
		Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Cyan (Number of Prints)	48000		
		Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Yellow (Number of Prints)	48000		
		Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Magenta (Number of Prints)	48000		
		Life of Drum in terms of number of Prints in case of Separate Drum and Toner cartridge technology - Black (Number of Prints)	47420		
		Duty Cycle (No of Prints/month)	Up to 50,000 pages/month		
		Minimum Operating Temperature (Degree C)	10		
		Maximum Operating Temperature (Degree C)	32		
		Minimum Operating Humidity (%RH)	20		
		Maximum Operating Humidity (%RH)	80		
		BIS Registration under CRS of Meity	Yes		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		BIS Registration Number	R-41020249		
		Other Certifications Available	UL,CE,FCC,RoHS		
		Dimension (mm x mm x mm)	420*506*500		
		Weight (Kg)	30.7		
		On Site OEM Warranty (Year)	1		
4	Offline Storage Space NAS	Rack mount	NAS Controller Should be rack mounted with a form factor of not more than 2U	1	
		Processor	Single processor with 8 Core and 2.1 GHz.		
		Memory	32GB Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory from Day 1		
		Hard Drives	Minimum Usable Storage Space 150 TB-SSD driver		
		Storage expandability	Offered storage shall be supplied with 28 Number of SSD Bays.		
		Network Connectivity	Min. 4 X 1Gbps and 2 x 10Gbps ethernet port from Day 1		
		Protocols support	ISCSI, FTP, FTPS, CIFS/SMB 3.1.1, HTTP, HTTPS, NFS 4.1, WebDev etc.		
		Fault Tolerance for internal drives	Offered NAS shall support Raid 0, Raid 1, Raid 1+0, Raid 5 and Raid 6 for internal drives. Offered Raid controller shall have minimum of 4GB flash back write cache.		
		Fault Tolerance for external drives	Offered NAS shall support Raid 0, Raid 1, Raid 1+0, Raid 5 and Raid 6 for external drives. Supported Raid controller shall have minimum of 4GB flash back write cache.		
		Network Client Types Support	Should support Windows 10, Windows 2016/2019, , HP-UX, AIX, SOLARIS, Linux etc.		
		Operating System	Microsoft Windows Server IOT 2019 - 64 bit edition (NAS optimized) including powered OS drivers		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		De-duplication	<p>Offered NAS shall have block based De-duplication which can be enabled for for all required volumes. De-duplication engine shall have:</p> <ol style="list-style-type: none"> 1. Flexibiity to decide the multiple schedules when de-duplication process can be run. 2. Flexibility to limit the time period of de-duplication process so that production operations remains intact. 3. Flexibility to bypass the recent files under the de-duplication process so that production operations remains intact. 4. License for De-duplication shall be provided. 5. Shall support more than 64TB of file system for de-duplication. 		
		File screening and quota management	<ol style="list-style-type: none"> 1. Offered NAS shall have support for file screening so that adminirator can ensures that users shall not be able to store unwanted files on offered NAS device. 2. Offered NAS shall have Quota management for both Volume and Directory. 3. Software for both File screening as well as Quata management shall be provided. 		
		File Management	<ol style="list-style-type: none"> 1. Shall have flexibility to expire or move files to different folder / Location / Volumes / drives on the basis of polices like day of creation / modification / access of on the basis of file pattern like extension. 2. Shall also be able to expire or move files to different folder / Location / Volumes / Drives on the basis of content classification within files. 		
		SAN storage (iSCSI based)	Integrated iSCSI for block access over LAN.		
		Snapshots	Point in time copies of your data to guard against data corruption.		
		Encryption and compression	Shall have support for encryption and Compression. License for both of same shall be offered.		
		Cloud Integration	<p>Offered NAS shall be able to integrate with Microsoft Azure - running with valid subscription with following features:</p> <ol style="list-style-type: none"> 1. Azure File Sync 2. Azure backup 		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Replication	Offered NAS shall also be supported with leading NAS replication softwares in the industry and shall also have 150TB license for replication through DFS-R		
		Web Based Management	Shall have web based interface to manage and monitor system health, capacity, performance, hardware events, quotas, snapshots, authentication and network services		
		Capacity Insights	Capacity planning with a granular historical utilization dashboard with growth rate and usage trends		
		Power Supply and FAN	Offered NAS shall also have Hot Plug redundant power supply and FAN		
		Warranty	5 years		
	Offline Storage Space NAS(27U NRS 600 Series)	Type of Server Racks	Rack Enclosures		
		Size of Server Rack Enclosure	27U		
		Depth of the Rack (mm)	Upto 1200		
		Mount Type	Free-Standing		
		Front glass Door	Yes		
		Type of glass used in front door	Transparent Toughened Glass		
		Material used for rear door	SPCC Quality Cold Rolled Steel Metal		
		Both rear and front doors with Perforation	No		
		Side Panels With Key Locks and Slam Latch	Yes		
		Secure Locks	Available		
		Rear split door design	No		
		Keyboard Tray Sliding and Rotary	No		
		Shelf For CRT/TFT Display	Yes		
		Cable channel in rear side for cable management	Yes		
		Support cable entry from top or bottom	Yes		
		Vertical & Horizontal managers	Yes		
		Numbers of Rack trays	1		
		Number of Fan For Heat dissipation (nos)	4		
		Number of fan trays	1		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Heavy Duty Caster Wheels	Yes		
		If yes, then Front Break Options	Available		
		Load Bearing Capacity (Kgs)	750 kilogram		
		If Wall mount racks then ,Swing-Out Racks	NA		
		Dust or water resistant	No		
		PDU Power Strips	Available		
		Weight (Kg)	90 kilogram		
		Basic Frame	steel folded		
		Construction	Welded or CKD		
		Top & Bottom Cover	Bolted to Frame with Cable entry exit cut outs		
		Front Door	Lockable Toughened Glass Door OR Lockable Perforated Steel Door		
		Rear Door	Lockable Steel Door - Plain / Vented / Perforated		
		19” Mounting Angle	Formed Steel		
		Std. Equipment Mounting	DIN Std. 10mm Sq. Slots		
		Standard Finish	Powder coated		
		Standard Colour	Grey & Off White OR Black		
		Standard Mounting	Caster wheels (2 with Brake & 2 without Brake) OR Levelers OR Plinth		
		Rack Standard	Conforms to DIN 41494 or equivalent standard		
		Static Load	750Kg with casters. 1250Kg with Levelers / Plinth		
		Warranty	05 Years Onsite Warranty		
	Offline Storage Space NAS(Ruckus 24 Ports Managed Non PoE Layer 2 Access Switch)	Type of Switch	Managed		
		Technology	Non PoE		
		Number of 1G Copper Ports	24		
		No. of 10 G SFP+ Port (Uplink)	4		
		Switching capacity (data rate, full duplex)	132 Gbps		
		Forwarding capacity (data rate, full duplex)	98 Mpps		
		10/100/1000 Mbps RJ45 downlink	24		
		100/1000 Mbps SFP downlinks	0		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		10/100/1000 Mbps RJ45 uplinks (full duplex only, no PoE)	2		
		1/10 Gbps SFP/SFP+ uplinks	4		
		PoE/PoE+ ports	0		
		PoH / PoE / PoE+ 802.3bt ready ports1	0		
		Dual hot-swap power supplies	0		
		Maximum PoE Class 3 ports (15.4 W per port)	0		
		Base IPv4/v6 Layer 3 routing (static routing, RIP)	Yes		
		Aggregated stacking bandwidth (data rate, full duplex)	480 Gbps		
		Stacking density (maximum switches in a stack)	12		
		Stacking ports (maximum ports2 usable for stacking)	Min Up to 4×10 GbE SFP+		
		Maximum stacking distance (distance between stacked switches)	10 km		
		Campus Fabric	Fabric Port Extender (PE)		
		Power inlet (AC)	C14		
		Airflow	Fanless		
		Ports	USB Type-C port; RJ45 serial port; USB Type-A port; RJ45 Ethernet port;		
		Connector options	<ul style="list-style-type: none"> · 10/100/1000 Mbps RJ-45 · 1 Gbps SFP ports · 1/10 Gbps SFP+ ports* · Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45* · Console management: RJ45 serial port and USB Type-C port with serial communication device class support* · File transfer: USB port, standard-A plug* 		
		DRAM NVRAM (Flash) Packet buffer size	<ul style="list-style-type: none"> · 1 GB · 2 GB · 8/10/12/24 port: 2 MB, 48 port: 4 MB 		

Lot	Item	Specification	Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Quality of Service (QoS)		
		<ul style="list-style-type: none"> · ACL Mapping and Marking of ToS/DSCP (CoS) · ACL Mapping and Marking of 802.1p · ACL Mapping to Priority Queue · Classifying and Limiting Flows Based on TCP Flags · DiffServ Support · Honoring DSCP and 802.1p (CoS) · MAC Address Mapping to Priority Queue · Priority Queue Management using Weighted Round Robin (WRR), Strict Priority (SP), and a combination of WRR and SP 		
		Traffic management		
		<ul style="list-style-type: none"> · ACL-based inbound rate limiting and traffic policies · Broadcast, multicast, and unknown unicast rate limiting · Inbound rate limiting per port · Outbound rate limiting per port and per queue 		
		Security		
		<ul style="list-style-type: none"> · 802.1X authentication · MAC authentication · Flexible authentication · Web authentication · DHCP snooping · Dynamic ARP inspection · Neighbor Discovery (ND) Inspection · Bi-level Access Mode (Standard and EXEC Level) · EAP pass-through support · IEEE 802.1X username export in sFlow · Protection against Denial of Service (DoS) attacks · Authentication, Authorization, and Accounting (AAA) · MAC Address Locking MAC Port Security · Advanced Encryption Standard (AES) with SSHv2 · RADIUS/TACACS/TACACS+ · Secure Copy (SCP) · Secure Shell (SSHv2) · Protected Ports · Local Username/Password · Change of Authorization (CoA) RFC 5176 · Trusted Platform Module · RADSEC (RFC 6614) · Encrypted Syslog (RFC 5425) 		
		SDN features		
		<ul style="list-style-type: none"> · OpenFlow1 v1.0 and v1.3 · OpenFlow with hybrid port mode · Operates with an OpenDayLight Controller 		
		High availability		
		<ul style="list-style-type: none"> · Layer 3 VRRP/VRRP-E protocol redundancy · Real-time state synchronization across the stack · Hitless failover and switchover from master to standby stack controller · Hot insertion and removal of stacked units · Layer 2 VSRP switch redundancy · In Service Software Update (ISSU) 		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Layer 2 feature set	802.1s Multiple Spanning Tree <ul style="list-style-type: none"> · 802.1x Authentication · Auto MDI/MDIX · BPDU Guard, Root Guard · Dual-Mode VLANs · MAC-based VLANs, Dynamic MAC-based VLAN activation · Dynamic VLAN Assignment · Dynamic Voice VLAN Assignment · Fast Port Span · GVRP: GARP VLAN Registration Protocol · IGMP Snooping (v1/v2/v3) · IGMP Proxy for Static Groups · IGMP v2/v3 Fast Leave · Inter-Packet Gap (IPG) adjustment · Link Fault Signaling (LFS) · MAC Address Filtering · MAC Learning Disable · MLD Snooping (v1/v2) · Multi-device Authentication · Per-VLAN Spanning Tree (PVST/PVST+/PRST) · Mirroring: Port-based, ACL-based, MAC Filter-based, and VLAN-based · PIM-SM v2 Snooping · Port Loop Detection · Private VLAN · Remote Fault Notification (RFN) · Single-instance Spanning Tree · Trunk Groups (static, LACP) · Uni-Directional Link Detection (UDLD) · Metro-Ring Protocol (MRP) (v1, v2) · Virtual Switch Redundancy Protocol (VSRP) · Q-in-Q and selective Q-in-Q · VLAN Mapping · Topology Groups 		
		Base Layer 3 IP routing feature set	<ul style="list-style-type: none"> · IPv4 and IPv6 static routes – RIP v1/v2, RIPng · ECMP · Port-based Access Control Lists · Layer 3/Layer 4 ACLs · Host routes · Virtual Interfaces · Routed Interfaces · Route-only Support · Routing Between Directly Connected Subnets 		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		IEEE standards compliance	802.1AB LLDP/ LLDP-MED · 802.1D MAC Bridging · 802.1p Mapping to Priority Queue · 802.1s Multiple Spanning Tree (MST) · 802.1w Rapid Reconfiguration of Spanning Tree (RSTP) · 802.1x Port-based Network Access Control (PNAC) · 802.3 Carrier Sense Multiple Access/Collision Detection (CSMA/CD) · 802.3ab 1000BASE-T · 802.3 10Base-T · 802.3ad Link Aggregation (Dynamic and Static) · 802.1 AX-2008 Link Aggregation · 802.3ae 10 Gigabit Ethernet · 802.3af Power over Ethernet · 802.3at Power over Ethernet Plus · 802.3bz Multigigabit Ethernet · 802.3u 100Base-TX · 802.3x Flow Control · 802.3z 1000Base-SX/LX · 802.3 MAU MIB (RFC 2239) · 802.1Q VLAN Tagging · 802.1BR Bridge Port Extension · 802.3az Energy Efficient Ethernet		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Management	<ul style="list-style-type: none"> · DHCP Auto Configuration · Configuration Logging · Digital Optical Monitoring · Display Log Messages on Multiple Terminals · Embedded Web Management (HTTP/HTTPS) · Embedded DHCP Server · Industry-standard Command Line Interface (CLI) · Ruckus SmartZone, Ruckus Cloud, Ruckus Unleashed · CLI activation of optional software features · USB file management and storage · Macro for batch execution · Out-of-band Ethernet Management · RSPAN · TFTP · TELNET Client and Server · SSH / SSH V2 · Bootp · SNMPv1/v2c · DHCP Server and DHCP Relay · SNMPv3 Intro to Framework · Architecture for Describing SNMP Framework · SNMP Message Processing and Dispatching · SNMPv3 Applications · SNMPv3 User-based Security Model · SNMP View-based Access Control Model SNMP · sFlow · Network Time Protocol (NTP) · Multiple Syslog Servers · SCP · Virtual Cable Tester (VCT) 		
		Warranty	05 Years Onsite Warranty		

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered	
5	3KVA ONLINE UPS SYSTEMS	Capacity (in kVA / kW)	3.0 kVA/2.4.0 kW Single Phase Input / Single Phase Output	4		
		Technology and Capability	a) True Online configuration with double conversion UPS			
			with Micro Control Based			
			b) UPS should be designed at Rated PF of 0.8 Minimum			
		(1Ph Input & 1Ph Output)	(Isolation transformer should be provided on the input side			
			of the UPS systems), Input Voltage range should be minimum			
			160-300 V AC			
		Input				
		Input facility -Phases / Wires	1-Phase / 2-Wire & Gnd (Phase & Neutral + Ground)			
		Input Voltage Range	230V 160 - 300V AC (On 100% Load)			
			160 - 300V AC (On 100% Load)			
			110 -300 VAC (On 60% Load condition)			
		Input Power Factor	0.99 on Full Load			
		Input Current Harmonic Distortion (THDi)	< 10%			
		Generator Compatibility	Compatibility to genset supply required			
		Output				
		Nominal Output voltage	230 V			
		Output Voltage Regulation	±1%			
		Nominal Output Frequency	50Hz ± 0.1 Hz			
		Output Frequency Regulation	47.5 to 52.5Hz			
		Output Wave Form	Pure sine wave			
		Output Voltage Distortion (THDv)	<2% Linear Load			
			<5% Non Linear Load			
		Crest Factor	,3:1			
		Efficiency				
		AC/AC (overall efficiency)	Up to 92%			
(Double Conversion)						
Overload capacity						
105 - 110%	10 mins					
111 - 130%	1min					

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered		
		Battery Backup					
Backup Required	Min 180-Minutes	Battery Bank Van	Min 96000VAH (8 nos of 12v/100AH battery + M. S battery rack)				
Batteries Type (VRLA)	Sealed Maintenance Free (SMF) - 12V Cells	Battery Makes	Amara Raja (Quanta make) / Panasonic / Exidepowersafe				
Communication		RS232	Available				
Intelligent slot	Optional - SNMP	Operating temperature	0~40°C Continuous				
Electrical		Input terminal	Input Breaker + Terminal				
		Output terminal	Terminal				
Features		Converter mode	Available				
		Bypass parameters configurable	Available				
		Display	LED + LCD Display				
Mechanical		Ingress protection	IP 20				
Mandatory Requirement		Standards					
		Safety	EN 62040-1				
		EMI / EMC	EN 62040-2				
		Performance	IEC 62040-3				
		Certification	CE				
		Certification	ISO 9001 : 2008				
		RoHS	Yes				
		Warranty	3-years on UPS & 2 year Batteries				
6	43 Inches 4k Display with Hard Shell Carrying Case	Memory Storage Capacity	16 GB			1	
Ram Memory Installed Size	2.5 GB	Operating System	Tizen				
Hardware Interface	USB, HDMI	Tuner Technology	DVB-T2				
Resolution	4K						

Lot	Item	Specification		Total quantity	Compliance (Y/N) – Against each line item & what is being offered
		Special Features	Voice Assistants, Tap View, Multi View, PC Mode, Universal Guide, Auto Game Mode & Game Motion Plus, Super Ultra Wide Game View & Game Bar, Web Browser, Screen Mirroring		
		Mounting Hardware	1N LED TV, 1N Power Cord, 1N Remocon, 2N Stand-Top, 1N OC		
		Remote Control Description	Bixby and Alexa Voice Assistant		
		Remote Control Type	Bluetooth Voice Assistants		
		Display Technology	QLED		
		Standing screen display size	43"		
		Display Type	Quantum HDR + HDR 10+		
		Viewing Angle	178 Degrees		
		Image Aspect Ratio	16:09		
		Supported Image Type	GIF, JPEG		
		Resolution	3840 x 2160 pixels		
		Audio Output Mode	Surround		
		Supported Audio Format	Mp3_audio, Wma		
		Speaker Surround Sound Channel Configuration	Dolby Digital Plus		
		Audio Wattage	20 Watts		
		Wattage	20.00		
		Power Source	AC		
		Batteries Required	No		
		Refresh Rate	60 Hz		
		Total Usb Ports	2		
		Connector Type	Wi-Fi, USB, Ethernet, HDMI		
		Maximum Operating Distance	9 Feet		
		Mounting Type	Wall Mount & Table Mount		
		Media Format	AVI, MPEG		
		Remote Control Included?	Yes		
		Supports Bluetooth Technology	Yes		
		Case	Hard shell carrying case		
		Warranty	1 year		