

BRAHMAPURDEVELOPMENT AUTHORITY

RFP No.175/BeDA

Date: 22.01.2024



Request for Proposal (RFP)for Supply and Installation of VRNR in Berhampur City

Issued by:

Brahmapur Development Authority (BeDA)

Court Road, Brahmapur-76004

Ganjam (Odisha)

E-mail ID: bda.brahmapur311@gmail.com



BRAHMAPUR DEVELOPMENT AUTHORITY

Court Road, Brahmapur, Odisha-760004

Phone No.: 0680- 2292797

E-mail ID: bda.brahmapur311@gmail.com

RFP No. 175/BeDA

Dtd.22.01.2024

REQUEST FOR PROPOSAL

BRAHMAPUR DEVELOPMENT AUTHORITY (BeDA) invites sealed proposal in conformity with RFP documents in Two Bid System (Part-I: Technical Bid and Part-II: Price Bid) through Registered Post/ Speed Post/Courier to the office of the undersigned from Registered firms / System Integrators for establishing VRNR system in designated locations in Berhampur City. More details provided in this RFP document.

| Sl. No | Name of Work | Contract Period | Cost of bid document in Rs. (Non-refundable) | EMD in Rs. | Period of Sale of Bid | Date of Opening of Technical Bid |
|--------|---|-----------------|--|--------------------------------------|--|----------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | SUPPLY AND INSTALLATION OF VRNR IN BERHAMPUR CITY | 5 Years | Rs.11800/- (including GST) | Rs. 200000/- (Rupees Two Lakhs Only) | From 24.01.24 at 11.00 AM to 31.01.24 by 5.00 PM | 01.02.24 at 04.00 PM |

The details of the bid and bid document can be downloaded from official website i.e. <https://bdabrahmapur.in/>.

Any clarification can be obtained in the office of the undersigned.

The Authority reserves the right to accept or reject any or all the bids without assigning any reason thereof.

SD/-

Secretary
BeDA, Brahmapur

Memo No. 176 (2)/BeDA, Brahmapur, dt.22.01.2024

Copy to the Advertising Manager, The Indian Express and Sambad, they are requested to publish the RFP notice on their respective daily news paper on 24.01.2024 for once in all editions by using minimum space as per I&PR rate and submit the bill in duplicate for payment.

SD/-

Secretary
BeDA, Brahmapur

Introduction :

BRAHMAPUR DEVELOPMENT AUTHORITY(BeDA) invites Request for Proposal (RFP) in Two-bid forms for **“Supply and Installation of VRNR System”**in designated locations in Brahmapur City from reputed organizations/ System Integrators with proven experience in similar field.

Bid Data Sheet:

| | |
|---|---|
| Availability of Bid Document | Bid Documents can be downloaded from the official website: https://bdabrahmapur.in/ |
| Cost of Bid Document | Rs. 11800/- (including GST) which is non-refundable. |
| Earnest Money Deposit | Rs. 2,00,000/- (Rupees Two lakhs Only) |
| Downloading of Bid Document | From 24.01.2024 at 11.00 AM to 31.01.2024 by 5.00 PM |
| Last Date of Receipt of filled-up Bid Documents | 01.02.2024 by 1.00 PM |
| Date & Time of Opening of Technical Bid | 01.02.2024 at 04.00 PM |
| Date & Time of opening of price bid | To be intimated to the respective bidder who qualify the Technical Evaluation |
| Address for Communication | THE SECRETARY BRAHMAPUR DEVELOPMENT AUTHORITY (BEDA), COURT ROAD, BRAHMAPUR– 760004, GANJAM (ODISHA) Email: bda.brahmapur311@gmail.com (All communications, including the envelopes, should contain the following information, to be marked at the top in bold letters:- “BID DOCUMENT FOR SUPPLY AND INSTALLATION OF VRNR SYSTEM”) |

General Instructions and Eligibility Criteria to the bidder:

1. The Bidder should submit the Bid cost of Rs. 11800/- (including GST) Non-refundable in form of DD in favour of THE SECRETARY, BRAHMAPUR DEVELOPMENT AUTHORITY, BRAHMAPUR payable at Brahmapur.
2. The bidder should submit EMD of Rs. 2,00,000/- (Two Lakhs) in shape of DD in favour of THE SECRETARY, BRAHMAPUR DEVELOPMENT AUTHORITY, BRAHMAPUR payable at Brahmapur.
3. The bidder should submit the bid in two covers i.e. one is TECHNICAL and other is FINANCIAL Cover clearly written on the cover.

4. The Financial Bid will be opened for those who qualify in the Technical Criteria.
5. The Award will be made on the basis of financial bid.
6. The total 5 years comprehensive warrantee on all the product will be given by the bidder.

The bidder must possess the requisite experience, strength, technical know-how and capability in providing the services necessary to meet the requirements as described in the RFP document(s).

The invitation to proposal is open to all bidders who qualify the eligibility criteria as given below:

OEM Criteria

1. The VRNR (Vehicle Registration Number Reader) solution OEM must have experience in native level integration with the existing Unified Command and control (UCC) platform (Make: Genetec) present at Berhampur Municipal Corporation. Authorization from the UCC OEM required.
2. The VRNR solution for Camera, IR illuminator & OCR software must be from the same OEM for a better result and compatibility.
3. The OEM should have successfully implemented min 02 safe city projects in India, on or before the date of bid submission for a law enforcement or public safety in last 7 FY 's.
4. The VRNR system should able to read Odisha (OD) number plate with accuracy level of at least 95% during both day & night including strobe lighting condition.
5. The VRNR solution OEM should be the original owner of product with Intellectual property rights. No 3rd party or white labelled products should be proposed.
6. The VRNR solution OEM should provide Online Learning Management System for Skill Enhancement of the Operator using the system.
7. The VRNR solution OEM should submit a well-documented SDK for further developments and integration with 3rd party systems along with online support portal outlining all the 3rd party integrations and 24/7 support on SDK package.
8. The software should have Cyber-Security certifications from ULcertification.
9. The VRNR solution OEM must ensure minimum 5 years of onsite support service for smooth implementation and functioning of the project.
10. The VRNR solution OEM must demonstrate integration of camera with the existing UCC platform functioning at the Berhampur Municipal Corporation control room where it can be managed, controlled and operated from a single platform
11. The VRNR Solution OEM shall have implementation experience in INDIA.
12. The VRNR OEM should have Global presence for last 10 years and presence in India. Valid

documentation needs to be provided.

13. The VRNR solution OEM must have certified and well trained / experienced engineers in India for better service support.
14. The VRNR solution OEM must be able to customize the application as required.
15. The VRNR solution OEM should have certification of security assessments from any reputed agency.
16. The VRNR solution OEM must ensure the secondary storage of the data in case of failure of the primary storage device.
17. The VRNR solution OEM must ensure 05 years of warranty.
18. The VRNR solution OEM must have advance replacement facility against faulty hardware for smooth implementation and functioning of the project.
19. The VRNR solution OEM must ensure to provide hardware (Camera, IR Illuminator and Local Processing unit if provided separately) of ruggedized military standard to sustain the vibration and shock. Certificate needs to be enclosed.
20. The OEM shall not have been blacklisted or Barred or poor /non-/ Poor-performance issue by any State/Central Government or PSU Organization or bilateral/multilateral funding agencies on date of submission of the proposal. Declaration on letterhead to be submitted.

Bidder Criteria

1. Project Experience: - The Sole bidder should have completed at least 03 nos of city surveillance/similar projects with VRNR implementation (completed implementation with Maintenance OR completed implementation and satisfactory performance certificate of the completed project).
2. Turnover of Bidder: - The Sole bidder should have average annual turnover of INR 20 Crore for the last 3 audited financial years (2020-21, 2021-22 and 2022-23) from the business in the area of bid items / ITES (Intelligent Traffic Enforcement System) system integration services. Submit certificate through CA statutory format.
3. Existing hardware, software and videowall available in the Control room must be utilized by the bidder.
4. The bidder must provide all the latest version of equipment, software, perpetual licenses and other items for implementations of the project.
5. The bidder must provide authorization letter (MAF) from the OEM.
6. Bidder must have minimum 02 certified professionals for VRNR and I&UCCC platform for implementation and maintenance of the project.

Note:

7. It is mandatory to submit the specified documents in support of the above eligibility criteria and the company/firm/agency is likely to be disqualified if failed to provide any of the specified documents.
8. Bidders are required to furnish compliance of all the Sections mentioned in this RFP, bringing out clearly deviation if any.

Key features Software

1. The system shall be able to capture vehicles up to differential speeds upto 200km/h.
2. The platform shall provide the user interface for configuration and monitoring over any network, accessible locally or from a remote connection.
3. The platform shall consist of the Configuration UI for system configuration and the Surveillance UI for monitoring. The platform shall be Windows based and provide an easy-to-use graphical user interface (UI).
4. The platform shall seamlessly merge Vehicle registration number reader (VRNR) and video functionalities within the same user application.
5. The platform shall allow the user to protect a read or hit from deletion for a configurable period of time.
6. The platform shall allow the user to correct a plate read manually.
7. The platform shall allow the user to import KML files to assist in creating geo-fenced parking zones.
8. The platform shall allow the user to create a hotlist without the need for any attribute information other than license plate number.
9. The platform shall allow the user to search the configured hotlists and permits for any data in any of the specified fields.
10. The platform shall allow the user to generate a read report specifically targeted to those reads that generated a hit.
11. The platform shall allow for map-based viewing of real-time read monitoring.
12. The platform shall generate alert / alarm of the pre-defined events in the UCC centre and existing mobile app used by the field user.
13. The platform shall allow the user to search for full or partial license plate numbers.
14. The platform shall allow the user to search for a license plate by using wildcards.
15. The platform shall allow the user to toggle between Thumbnail or Full-Size images in a report.
16. The platform Shall allow the user to import (copy & paste) multiple License Plates at once to run a report against.
17. The system shall allow the user to generate inventory reports based on a specific location.
18. The system shall allow the user to generate inventory reports based on a specific license plate.

Scope of Work

BRAHMAPUR DEVELOPMENT AUTHORITY is interested in placing VRNR system at designated locations across the City. The design and components should be compatible to the existing system available with BeMC (Berhampur Municipal Corporation). (Bidders are encouraged to visit the facility in BeMC premises to make a better proposal)

The broad scope of work is as under:

- The Complete scope should be supply, Installation and commissioning of VRLR System in existing Command and Control Centre of Berhampur Municipal Corporation as per Bill of Quantity specified in the Bid document.
- Any other suitable condition omitted in the RFP, the same will be reflected in the agreement.

Operations, Maintenance and Support

Operation, Maintenance and day to day support for the Project will be given by the Bidder at approved cost.

Data Maintenance & Security:

The selected agency shall ensure that user information is secured and is not accessible to any unauthorized entity. It must also be ensured that solution is designed for end- to-end security for the network to prevent any unauthorized changes and use of the network. User / usage specific data

Service Terms:

- The entire scope of the work depends on the technical skill and experience in management of the same level or kind of infrastructure.
- It is mandatory for Bidder to deploy qualified professional to install, commission & maintain the proposed Network, as defined under scope of work.
- The Bidder has to submit regular schedule of man power availability & get it approved by TENDERER, before deployment.
- The Bidder will have to carry out reinstallation of any of the equipment 'Free of Cost, if required.
- The Bidder need to manage & maintain various records related to the services extended to the Government.
- In case of failure of any system or equipment, the Bidder needs to replace or repair the faulty part/component/device to restore the services at the earliest. The cost of the repairing or replacement of faulty Cable/component/device has to be entirely born by the Bidder.
- All expenses related to cable/component/device, including hiring of specialized technical expertise, in case required, has to be borne by the Bidder as part of Contract Agreement.
- Bidder shall submit test procedures covering various test cases and expected results of these tests relating to various systems being commissioned for the network.

- The bidder should be required to undertake the insurance for all components of the Project which has been procured under this RFP.

Specification for the Products

1. SPECIFICATION OF 5MP VARIFOCAL LENS NETWORK BULLET CAMERA

| Sl.No | Parameter | Technical Specification | Compliance (Yes/No) |
|-------|---------------------|--|---------------------|
| 1 | Sensor type | 1/2.9-inch CMOS | |
| 2 | Total sensor pixels | 3072 (H) x 1728 (V) or 2592 (H) x 1944(V) | |
| 3 | Sensitivity | Color 0.4 lx, Mono 0.04 lx, With IR 0.0 lx | |
| 4 | WDR | 120db | |
| 5 | True Day/Night | Auto, Color, Monochrome | |
| 6 | Noise reduction | iDNR / 3DNR with separate temporal and spatial adjustments | |
| 7 | Intelligent defog | Intelligent Defog automatically adjusts parameters for best picture in foggy or misty scenes (switchable) | |
| 8 | Video Stream | Upto three streams the second and third stream are variable based on the setup of the primary stream. | |
| 9 | Video compression | H.265 , H.264 ; M-JPEG | |
| 10 | Max. frame rate | 25 fps or better | |
| 11 | IR Range | Minimum 30- 50m | |
| 12 | Lens type | Automatic Varifocal 2.8/3.5 to 10 /14mm | |
| 13 | Lens adjustment | Motorized zoom/focus | |
| 14 | Audio | Two-way, full duplex | |
| 15 | Audio Line In/Out | 1 in/ 1 out | |
| 16 | Alarm In/Out | 1 in /1 out | |
| 17 | Ethernet | 10/100 Base-T, auto-sensing, half/full duplex | |
| 18 | Ethernet connector | RJ45 | |
| 19 | Connectivity | ONVIF Profile S, | |
| 20 | Analysis Type | Edge Based Analytics | |
| 21 | Alarm rules | Rule based alarms and tracking, Line crossing, Enter / leave field, Follow route, Loitering, Idle / removed object, People counting, Crowd, density estimation, Object classification(human, Car, Bus, Bike) | |
| 22 | Other functions | Sharpness, Backlight compensation, Contrast enhancement, Display stamping (Name/logo/Time), Pixel counter | |

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| 23 | Analog Video Output | Required | |
| 24 | Memory card slot | Min. 512 GB support | |
| 25 | SD card health monitoring | Extreme lifetime and health monitoring support that provides early service indication | |
| 26 | Protocols: | IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/ RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), SNMP (V1, V3, MIB-II), 802.1x, DNS, DNSv6, DDNS (DynDNS.org, selfHOST.de, no-ip.com), SMTP, iSCSI, UPnP (SSDP), DiffServ (QoS), LLDP, SOAP, Dropbox™, CHAP, digest authentication | |
| 27 | Encryption | TLS1.0/1.2, AES128, AES256 | |
| 28 | Data Security: | <ul style="list-style-type: none"> · Secured connections supported (HTTPS) · Password enforcement at initial set up · Execution of 3rd party software is disabled · Firmware updates via OEM digitally signed firmware files only · Detect changes in a configuration · Support of customer specific certificates · Support of Microsoft Active Directory for safe management of user access rights · Regular updates via security | |
| 29 | MTBF | > 100,000 hrs | |
| 30 | Dual Power Supply for redundancy | POE IEEE 802.3af/POE+ IEEE 802.3At | |
| 31 | Operating temperature | -20 to 50 degree | |
| 32 | Humidity | 20% to 90% humidity (Non condensing) | |
| 33 | Ingress protection | IP 66/IP67 | |
| 34 | Impact protection | IK10 | |
| 35 | Certifications: | CE, FCC, UL, VCCI, BIS | |

2. VRNR SENSOR

| Sl.No | Item | Technical Specification | Compliance (Yes/No) |
|-------|---------------|--|---------------------|
| 1 | VRNR sensor | 1920 x 1200 @ 30 fps; progressive scan Monochrome CCD LPR camera; global shutter speed | |
| 2 | Capture range | 3 - 45 m | |
| 3 | LPU Processor | Processor – min.1.6 GHz Intel Atom E3950 Quad | |

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| | | core (2MB L2 cache), 4GB RAM. Or higher | |
| 4 | OS | Linux / windows. | |
| 5 | Illuminator | Pulsed LED illuminator for effective use in 0 lux (total darkness) Environments | |
| 6 | Context camera sensor | 1920 x 1200 @ 30 fps; color; global shutter | |
| 7 | Operating temperature | (-40°C to 65°C) ambient | |
| 8 | On-board analytics | Vehicle type, vehicle color, speed estimation, direction of travel, virtual loop, etc. | |
| 9 | Power supply | Should support both <ul style="list-style-type: none"> • POE +/- PoE++ (802.3bt) • 24V DC input | |
| 10 | Sealing (water/dust protection) | IEC 60529: IP66/IP67/IP 68 | |
| 11 | Still image compression | JPEG compression for VRNR and Context still images | |
| 12 | Data interface | LAN: 1 x 10/100/1000 Base-T Ethernet port | |
| 13 | Video streaming | H.264 @ up to 30 fps | |
| 14 | Vibration & shock | IEC 60068-2-64: 5~100Hz 0.5 g rms IEC 60068-2-27: 10g 16ms half-sine MIL-STD-810H §514.8 | |
| 15 | Impact | IEC 62262: IK09 | |
| 16 | Electromagnetic immunity & emissions | FCC ICES-003 Issue 4 CISPR32 / EN55032 CISPR35 / EN55035 | |
| 17 | EMC directive (CE marking) | 2014/30/EU | |
| 18 | Safety | IEC/EN 62471. | |
| 19 | External I/Os | 2 inputs / 2 outputs | |
| 20 | TCP/IP Communication | Support both IPV4 & IPV6 | |

3. SPECIFICATIONS LAYER-2 - 8 PORT INDUSTRIAL POE SWITCH

| SL. No. | Parameter | 8 Ports , PoE+ 2x1G SFP and 2x1G RJ45 Uplink, Industrial Switch, | Compliance (Yes/No) |
|---------|----------------|--|---------------------|
| 1 | Type of Switch | Layer 2 Switch with full IPv6 support along with IPv4 & Dual Stack configurable. Non-Blocking Architecture | |
| 2 | Port Density | a. 10/100/1000Base-T: 8 Nos with PoE+ Support (802.3af and 802.3af) | |
| | | b. 1G SFP Uplink Ports: 2 Nos. | |

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| | | c. 1G RJ45 Uplink Ports: 2 Nos. | |
| | | d. Each port must have a dedicated LED for system status and for individual port status | |
| 3 | PoE Budget | 240W | |
| 4 | PoE Capabilities | Below Smart PoE features shall be supported: i) Dynamic and Static allocation of power to end host ii) PoE Port priority iii) PoE Traffic Monitor | |
| 5 | Switching capacity | 24 Gbps or better, non-blocking | |
| 6 | Forwarding performance | 17.86 Mpps or better | |
| 7 | Memory | 1GB Ram and 1GB Flash | |
| 8 | Power Supply | Dual Redundant DC Power Supplies (48V to 54V) | |
| 9 | Console Port | Available | |
| 10 | MAC Address Table Size | min. 16000 entries | |
| 11 | Operating Temperature Range (Degree C) | -30°C to +70°C | |
| 12 | Operating Humidity (RH) (%) | 5% to 95% (non condensing) | |
| 13 | IPv6 Compliance | It should be IPv6 Compliant and should be capable of working on IPv6 without any additional hardware/software | |
| 14 | Switching Features | a) Supports 9 KB Jumbo frames. b) 4000 VLANs (802.1Q), VLAN tagging. c) IEEE (802.1D)STP, RSTP(802.1w), MSTP (802.1s). d) IEEE 802.3ad LACP- Link Aggregation. e) IEEE 802.1AB LLDP. f) Support for Multicast, IGMPv1/v2, IGMPv3 Snooping. g) IEEE 802.1p prioritization, DiffServ/COS. h) Broadcast and Multicast Suppression. i) ACLs/filters. j) Support for Rate limiting/Queue Shaping. k) Dynamic VLAN Assignment. l) DHCP Client, DHCP Relay for IPv4 and IPv6. m) NTP (IPv4 and IPv6) n) Configuration backup and restoration o) Port Mirroring p) ERPS q) Private VLAN | |

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| 15 | Management | <ul style="list-style-type: none"> a) Console Management Port on the front panel. b) Zero Touch Provisioning c) SMMP v1,v2 and v3 Support. d) SSHv2 Support. e) Telnet Support, TFTP, FTP, SCP and SFTP client. f) Port Mirroring. g) Industry Standard CLI with built in Scripting tool/Event Scheduler. h) TACACS+ support and facility to log user commands over Syslog/Accounting i) Dying Gasp for Switch down event detection j) TWAMP support k) RMON l) TACACS Accounting | |
| 16 | Quality of Service | <ul style="list-style-type: none"> a) IEEE 802.1p Priority. b) Diff. Serv Marking /TOS/Classification/remarking c) 8 Nos. QoS Queues per Port d) Shaping and Policing | |
| 17 | Security Feature | <ul style="list-style-type: none"> a) 802.1x: Port security, Single and Multiple Authentications, MAB b) RADIUS / TACACS+ Authentication support c) MAC limiting per Interface/Port d) SSH Remote Login e) HTTPs f) SNMPv3 g) MAC lockdown, MAC notification h) ACL - L2/L3/L4, IPv4 & IPv6 i) DHCP snooping, DAI, IPv6 ND Inspection | |
| 18 | Mounting | Rack / DIN Rail Mounting | |
| 19 | Certification | <ul style="list-style-type: none"> a) IPv6 Logo Ready certified b) 60068-2 ESS c) 60068-2 Environmental d) EMI EMC EN55032/55024 e) EMI EMC IEC61000-4 f) QM-333 Cyclic g) Safety IEC 62368-1 h) Safety EN 62368-1 i) RoHS | |
| 20 | MII Clause | Proposed Products should be Make In India products with at least 60% Local Content as per Class 1 local supplier as defined in public procurement | |
| 21 | Certification | FCC Certification-FCC Part 15-B:2014 | |
| 22 | OEM Criteria | OEM Should be Trusted source certified, ISO9001, ISO14001 | |

4. SPECIFICATIONS 6 CORE FIBER OPTIC CABLE

| SL.No | Technical Specification | Compliance (Yes/No) |
|-------|--|---------------------|
| 1 | 6 Core Single Mode Outdoor Armored Fiber Optic Cable | |
| 2 | Corrugated Steel tape Armored | |
| 3 | Central loose tube with jelly compound, Glass Yarns In between steel Tape & Loose Tube | |
| 4 | Sequential meter marking | |
| 5 | The fibre should fulfil the requirement of IEC 793-2:1992, EN 188101, ITU-T Recommendation G.652 | |
| 6 | Outer Diameter: 9.0±0.3mm | |
| 7 | Thickness of HDPE Jacket: 1.8±0.2mm | |
| 8 | Pulling Tension: Short Term (1000N) | |
| 9 | Crush Load: 2000N/100mm | |
| 10 | Bend Radius: Short Term (20D) | |
| 11 | The fiber type is a Matched Cladding Single Mode | |
| 12 | Fiber dual coated with acrylate coating. | |
| 13 | The fiber is optimized for operation at 1310 nm and at 1550 nm. | |
| 14 | Nominal Mode Field Diameter: 9.2 μm | |
| 15 | Cladding Diameter: 125 μm | |
| 16 | PMD (ps/km): 0.2 | |
| 17 | Cable Cut-off Wavelength: 1260nm | |
| | Attenuation (of cable with fibers): | |
| 18 | At 1310 nm: <= 0.36 dB/km | |
| 19 | At 1550 nm :<= 0.22 dB/km | |

5. SPECIFICATIONS OF FIBER RACKMOUNT LIU LOADED TYPE 12/24 PORT

| SL. No | Specification | Compliance (Yes/ No) |
|--------|---|----------------------|
| 1 | The Fiber Rackmount LIU loaded having Adapter panel fixed on drawer base frame, with Adapters and with Pigtails and assembled with splice tray as per the Loaded fiber port requirement and their applicable accessories. | |

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| 2 | Suitable to mount at different positions (depth wise) on standard 1U 19 inch racks. Drawer type to pull out for easy maintenance when assembled in racks. | |
| 3 | Cold Rolled Steel material with black powder coating | |
| 4 | Three types of cable entry holes for different size cables through cable glands, covered with rubber cable grommets/covers. | |
| 5 | Splicing of 24 fibers in each plastic fiber splicing trays with integrated cable spool design. | |
| 6 | Non removable top cover and no rear cover. Drawer type to pull out for better access of interior. | |
| 7 | As per the Loaded fiber port requirement, Loaded 6/12/24 (SC Simplex) adapters with SC SIMPLEX Pigtailed on rackmount ports. | |
| 8 | As per the Loaded fiber port requirement Accessories kit consists of Cable management rings/Cable saddles, Cable glands (PG13.5, 2 no's), Splice rods, Blanking clips, Velcro ties, Cable ties, Cable inlet/outlet hole covers(2 types, 2 no's each) | |
| 9 | Cable management rings/Cable saddles can be mounted inside the rackmount, no provision to mount outside in front of the adapter panel. | |
| 10 | Suitable for storing up to 3 meter of 900 μm tight buffered fiber pigtail per adapter. | |
| 11 | Panel Dimensions : 482 x 220 x 44.3 mm (Length x Width x Height) | |
| 12 | Splice Tray Dimensions : 220 x 90 x 15 mm (Length x Width x Height) | |
| 13 | Port identification numbers printed on the Adapter panel | |
| 14 | Standards: Comply as per ANSI/TIA-568-C.3, ISO/IEC 11801, RoHS Compliant. | |
| 15 | Operating Temperature: -20 °C to +70° C | |
| | Installation Temperature: -20 °C to +70° C | |
| | | |

6. SPECIFICATION OF ON-LINE UPS-1 KVA

| SL. No | Parameter | Specification | Compliance (yes/ No) |
|--------|---------------|---|----------------------|
| 1 | Configuration | 1 KVA On-Line UPS Should have IGBT BOTH INVERTER & RECTIFIER STAGE, inbuilt cold start function | |
| 2 | Technology | HIGH FREQUENCY DOUBLE CONVERSION DESIGN, EMI /RFI NOISE FILTER | |

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|----|---------------------------------|--|--|
| 3 | Capacity & Output Power Factor | 1 KVA & 0.80 | |
| 4 | Operating Voltage Range | 110-300 VAC (Based on load at 50%), 160-300 VAC (Based on load at 100%) | |
| 5 | Operating Frequency Range (HZ) | 46 - 54 \pm 0.5Hz OR 56 -65 \pm 0.5Hz AUTO SENSING | |
| 6 | Output Voltage | 220/230/240 \pm 1% | |
| 7 | Output Frequency | 50 Hz/ 60 Hz \pm 0.2% ON BATTERY MODE | |
| 9 | Overload Capacity | >110% , 30 SECNDS TURN TO BYPASS MODE ,>150% 300 MILI SECNDS TURN TO BYPASS MODE | |
| 10 | Crest Factor | 3:1 | |
| 11 | Noise (Db) | <45 DB , (1 METER) | |
| 12 | Efficiency | > 91% | |
| 13 | Harmonic Distortion | <2 % THD (Linear Load); <5 % THD (Non-linear Load) | |
| 14 | TEMPERATURE & RH | Temp: 0–45 Deg C | |
| 15 | | Relative Humidity: 0 to 95% non-condensing | |
| 16 | Audible Alarms | Battery low voltage, abnormal power supply, ups failure, over load | |
| 17 | LCD INDICATION | LCD DISPLAY INDICATING (input & out voltage / input & out frequency, load watt/ va percent, inverter temperature) OPERATION MODE SUCH AS : ONLINE , ON BATTERY , ON BYPASS | |
| 18 | Battery Back-up & Other Details | The system must be capable of providing requisite battery back-up time of 60 minutes In-Built Battery back-UP using Sealed Maintenance Free Batteries. (Minimum VAH: 1512) | |
| 19 | | The UPS OEM should be ISO 27001 -2013 , ISO-50001,RoSH , ISO 14001-2015 ,ISO 45001, ISO 9001-2015 , CE,BIS certified , | |
| 20 | | The offered UPS model should have CE & RoHS Compliance from Indian agency | |
| 21 | | Copies of the above certifications should be submitted with the technical Bid (compulsory) | |
| 22 | After Sales Support | UPS OEM should have a dedicated Toll-Free No. for service call logging & resolution. | |

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| | &Manufacturer's Credibility | | |
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7. SPECIFICATION OF SPD-(SURGE PROTECTION DEVICE)

| Sl.No | Parameter | Specifications | Compliance (Yes/No) |
|-------|---------------------------------------|--|---------------------|
| 1 | Nominal voltage | 48V | |
| 2 | MCOV | 64V | |
| 3 | Load current | 1.5A | |
| 4 | Frequency | 250MHz | |
| 5 | Impulse current rating(10/350µS) | 1kA | |
| 6 | Nominal discharge current(8/20µS), C2 | 3kA | |
| 7 | Total discharge current(8/20µS) | 20kA | |
| 8 | Voltage protection level | <100V @ 3kA | |
| 9 | Insertion loss | <1dB @ 250MHz | |
| 10 | POE Compliance | Type 1&2 according to IEEE802.3af,at and Type3&4 POE according to IEEE802.3bt | |
| 11 | Mounting | DIN rail and surface mount | |
| 12 | Connection cable | STP and UTP cable | |
| 12 | Ambient temperature | -40Deg C to +75Deg C | |
| 13 | Compliance | Design comply to ANSI/TIA568.2-D, TIA/EIA-568- B.2-1, IEC61643-21. Testing in progress | |
| 14 | Certification | Tec | |

ANNEXURE-1

Proposed Locations with Device details:

| SL NO. | Description | VRNR Sensor | Evidence Sensor | GI Pole with cantilever |
|--------|-----------------------|-------------|-----------------|-------------------------|
| 1 | Lanjipalli NH | 4 | 1 | 2 |
| 2 | Fast gate Chowk | 6 | 2 | 2 |
| 3 | Andhapasara Chowk | 4 | 2 | 2 |
| 4 | Gopalpur jn | 4 | | 2 |
| 5 | Lochapada Road | 4 | 2 | 2 |
| 6 | Talamentu Chowk | 4 | 2 | 2 |
| | Total Quantity | 26 | 9 | 12 |

Note: Proposed locations and Quantity may vary as per Administrative decision.

FINANCIAL BID SUBMISSION FORM

The Details Bill of Materials and Financial Bid submission as detailed below:

| SI. NO. | Description | Qty | UOM | Unit Rate (INR) | Amount (INR) |
|-----------------|--|------|-----|-----------------|--------------|
| 1 | UL listed 5 MP Bullet Camera with IR 60 Mtrmotorised varifocal Lense, IP67 with mounting Clamp | 9 | Nos | | |
| 2 | Weather Proof Box for Cameras | 9 | No | | |
| 3 | VRNR camera- Edge based AI ML camera UL Certified | 26 | Nos | | |
| 5 | L2 Fully Managed Industrial grade 8 Port Giga PoE Switch poe Output with 2 SFP Port. | 6 | Nos | | |
| 6 | 24 port LIU with loaded | 3 | No | | |
| 7 | SC-LC Patch Cord | 12 | Nos | | |
| 8 | 1000 Base 1310nm SM Transceiver Module | 12 | Nos | | |
| 9 | Cat 6 double jacketed UTP Cables Outdoor | 10 | Box | | |
| 10 | OFC - 6 Core SM-Type Armoured cable with Laying, Termination accessories | 2000 | Mtr | | |
| 11 | CCTV &VRNR Cantilever Galvanized Pole,Foundation , Proper Chemical Earthing, SPD | 12 | Nos | | |
| 12 | Water & Dust proof 15 U Metal Out Door Rack with PDU, Fan etc. | 3 | Nos | | |
| 13 | Out Door Rack Base Foundation with Steel Barricade | 3 | Nos | | |
| 14 | 1 KVA Online UPS with External Battery Rack, Cables etc. | 3 | Nos | | |
| 15 | Electrical work per Location | 3 | LS | | |
| 16 | Cable Conduits & HDPE Pipe | 6 | LS | | |
| SOFTWARE | | | | | |
| 17 | IP camera connection License | 9 | Nos | | |
| 18 | Failover camera connection License | 9 | Nos | | |
| 19 | VRNR Connection License | 26 | Nos | | |

| SERVICE WORK | | | | | |
|----------------------------|--|---|-----|--|--|
| 20 | Site Survey, Planning, Designing, Installation, Commissioning & Testing of the complete system with 05 years of onsite maintenance | 1 | Lot | | |
| Total Amount in Rs. | | | | | |

(Amount in Words _____)

(The above Quoted price should be Exclusive of GST)

Note: The Quantity and Items may vary as per actual execution at site.

Implementation time line:

The bidder should complete the work within 60 days of getting the work order.

The undersigned has the right to accept or reject any or all the bids without assigning any reason thereof.

SD/-
Secretary, BeDA
Brahmapur