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भारत सरकार—रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
Government of India - Ministry of Railways
Research Designs & Standards Organisation
Lucknow – 226011



Quotation Notice

No. STT/TMS/VG/CCTV 015

Date: 17.05.2020

Sub: Work of **Video Surveillance System for Vigilance Cell Admin Building** at RDSO Lucknow -226011.

Your sealed Quotation offer for above mentioned work is invited by ADE/TMS/RDSO office for the estimated cost of **Rs 1,82,096.00/-** with completion period of **Two Month**. Please submit your quotation offer up to **26.05.2020** till 15:00 Hrs. in the office of ADE/TMS/RDSO. Quotation offer will be opened on the same day at 15:30 Hrs in the chamber of ADE/TMS/RDSO. In case, the 26.05.2020 happens to be a holiday the Quotation offers shall be received and opened on the next working day at the same time and place. Schedule of work is attached on which the offer price in percentage above/below/at par in comparison to the estimated rates is to be quoted. Tenderer should be registered with GST, it is requested to submit GSTIN number along with the offer, failing which will be resulted in cancellation of offer.

Contractor Signatures
(Seal)

ADE/TMS
RDSO/LKO

Annexure –A**Schedule of Work**

S N	Description of Items	Unit	Qty.	Rate in Rs (in figures)	Rate in Rs. (in words)	Amount in Rs. (in Figures)	Amount in Rs. (in Words)
1	Supply of 2 MP Ceiling Mount type Full HD IP colour camera along with all accessories as per Technical Specification. Make:- Hikvision, Bosch, TVT, Honeywell.	Nos.	4				
2	Supply of Network Video Recorder 8 Channel with Two Sata port and Ethernet port. Make:- Hikvision, Bosch, TVT.	Nos.	1				
3	Supply & Installation of 6 TB Surveillance Hard Disk for backup for One Month backup. Make:- WD, Segate, Toshiba.	Nos.	1				
4	Supply, of 32" Display System with wall stand and all Accessories Make: - LG, SONY,Panasonic as per Technical Specification.	Nos.	1				
5	Supply and Installation of Layer-2 Switch PoE 8 Ethernet 10/100/1000 port with 2 combo 10/100/1000 Base-T/ SFP Port per Technical Specification Make: - D-Link, Cisco, Extreme, Juniper,	Nos.	1				
6	Supply of Information outlet with single port faceplate Complete Set.	Nos.	4				
7	Supply & Installation of 9 U Rack with all accessories.	Nos.	1				
8	Supply of CAT-6 UTP Cable (305m/Box) Make:- D-Link. Color – Yellow.	Mtr..	305				
9	Fixing and Termination of information outlet with single port face plate fitted inside box on the wall or any other structure with screw.	Nos.	4				
10	Laying of CAT-6 Cable inside PVC conduit pipe PVC channel and through wire manager of Camera and Rack.	Mtr.	305				

11	Installation, wiring, testing and commissioning of CCTV Equipments as per scope of work and instruction of site in-charge of RDSO to make complete system functional properly.	Job	1				
Total Amount							

You are requested to fill up the rates against scheduled item mentioned above and submit the same in the sealed envelope in the box provided at office of Asstt. Design Engineer/TMS, Telephone Exchange Building, Manak Nagar Lucknow-226011

Quotation shall be Opened at 15:30 Hrs on 26.05.2020

Signature of Tenderer
With Seal

ADE/TMS
RDSO/LKO

TERMS & CONDITION FOR SCHEDULES OF WORKS

The Terms & Condition for schedules of works is as under:

1.	The work should be completed within Two month of issue of LOA.
2.	During installation fixing etc, in this work shall be carried out as per direction of Site Engineer.
3.	Completion Period of Work:- The work of Video Surveillance System for Vigilance Cell Admin building should be completed with-in Two Month from the dated of receipt of acceptance letter in all respect
4.	The bidder (whether his quotation accepted or not), shall treat the contents of his quotation as private and confidential. He shall also treat the prices quoted by him as strictly confidential till the quotation is opened.
5.	No CLAIM FOR REJECTION OF BIDDER: The quotation, when submitted shall not constitute an agreement and the bidder shall have no cause of action of claim against the RDSO for rejection of his offer. The RDSO shall always be at liberty to reject or accept at his own discretion and any such action will not be called into question and the bidder shall have no claim in that regard against the RDSO.
6.	CAPIBILITY OF THE BIDDER: The bidders shall provide satisfactory evidence acceptable to RDSO to show that: 1.1 He is an experienced and established contractor who regularly under takes the work of Video Surveillance System and laying of PVC Conduit Pipes, Casing-N- Capping ,CAT-6 Cable and Active equipments configuration & related accessories and removal of old wiring in reputed organizations and has adequate technical knowledge and practical experience in this specific field. The bidder has to establish to the full satisfaction of RDSO his credentials and technical competency for executing such work.
7.	Payment: - (i) 100 % payment will be arranged after satisfactory completion of the work on submission of duly signed bill. (ii) PAN, GSTN & Bank account details including IFSC & MICR code shall be submitted with bill. (iii) Income tax and UPTT etc. will be deducted at source from the bill as per rule as applicable. (iv) Rate & Amount shall be quoted in both words & Figures. (v) Free maintenance period : Six Month
8.	Warranty: Warranty period of each equipment may be different from free maintenance period. Firm has to pass on full warranty benefit to railway. Warranty from OEM for Active equipment to be given in the name of Railway authority. Warranty should be commencing after completion of work.

Acceptance of quotation shall be communicated by FAX/Telex/Telegram/Express Letter or a formal letter of acceptance of quotation by RDSO. When acceptance is communicated by FAX/ Telex/ Telegram/ Express letters, the formal letter of acceptance will be sent to the bidder as soon as possible. Issue of FAX/ Telex/ Telegram/ Express letter should be deemed to conclude the contract.

Signature of Tenderer
With Seal

ADE/TMS
RDSO/LKO

Execution of Schedule of work

Technical Specification & Special Conditions of the Work

Brief Description of work:

1.1 As mentioned in Schedule of Work 'Annexure -A' and as per the direction of site engineer.

2 Video surveillance system :

- 2.1 There is Video Surveillance system in Vigilance Cell Admin building. This work is for Video Surveillance system with recording of minimum one month and provision of display, for CCTV at RDSO Vigilance Cell.
- 2.2 Cameras are to be installed on wall proper wiring and termination through NVR .All these wirings are to be done as per standard practices.
- 2.3 PVC conduit pipes and PVC casing-n-capping channels are to be fixed on the wall properly with help of suitable clamps & screws. All required accessories like T joints, bends screws etc. are to be supplied by contractor as per the site requirements. All required masonry work like making holes in the wall for taking these pipes, repairing of wall after laying pipes are to be done by the contractor.
- 2.4 Network Video recorder and Hard disk for recording are suitable for the cameras, before installation all equipments check by Telecom maintenance section. It will change as per site requirement.
- 2.5 The site engineer of RDSO shall decide the places where the Camera, Rack and other equipments pipes & channels are to laid and Cable wirings are to be provided on the walls such as verandas, Office Hall and other location.
- 2.6 If any breaking work is done on the wall the wall shall be restored to its original condition after the work is completed.
- 2.7 Channels are to be cut on wall/floor for laying PVC conduit pipes inside rooms/offices as decided by RDSO engineer. Wall & Floor are to be repaired to their original condition after completion of these activities.
- 2.8 Camera, Network Video Recorder, Hard Disk, Display System should be proper functioning.
- 2.9 All connecting CAT6 Cables, power board wiring should be laying inside in PVC pipe or Casing-n- capping in a straight alignment and should be neat and clean and nicely executed. The rack must be tightly mounted to the wall.
- 2.10 Various items mentioned in schedule are to be executed as per standard practices being following nationally/internationally as applicable.

Specification of 2 MP Full HD IP Colour Camera.

Camera		
1	Image Sensor	1/2.8" progressive scan CMOS
2	Min. Illumination	Color: 0.01 Lux @(F1.2, AGC ON), 0.028Lux @ (F2.0, AGC ON)

3	Shutter Speed	1/3 s to 1/100, 000 s
4	Slow Shutter	Yes
5	Auto-Iris	No
6	Day & Night	IR cut filter
7	Digital Noise Reduction	3D DNR
8	WDR	DWDR
9	Angle Adjustment	Pan: 0° to 355°, tilt: 0° to 70°, rotate: 0° to 355°
	Lens	
10	Focal length	2.8 mm, 4 mm, 6mm
11	Aperture	F2.0
12	Focus	Fixed
13	FOV	2.8 mm, horizontal FOV 114.8°, vertical FOV 62°, diagonal FOV 135.5° 4 mm, horizontal FOV 86°, vertical FOV 46.5°, diagonal FOV 102.5° 6 mm, horizontal FOV: 54°, vertical FOV: 30°, diagonal FOV: 62°
14	Lens Mount	M12
	IR	
15	IR Range	Up to 40 m
16	Wavelength	850 nm
	Compression Standard	
17	Video Compression	Main stream: H.265/H.264 Sub stream: H.265/H.264/MJPEG Third stream: H.265/H.264
18	H.264 Type	Main Profile/High Profile/Baseline Profile
19	H.265 Type	Main Profile
20	Video Bit Rate	32 Kbps to 8 Mbps
	Image	
21	Max. Resolution	1920 × 1080
22	Main Stream Max. Frame Rate	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
23	Sub-stream Max. Frame Rate	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240) 60Hz: 30fps (640 × 480, 640 × 360, 320 × 240)
24	Third Stream Max. Frame Rate	50Hz: 1fps (352 × 240, 320 × 240) 60Hz: 1fps (352 × 240, 320 × 240)
25	Image Enhancement	BLC, 3D DNR, HLC

26	Image Setting	Saturation, brightness, contrast, sharpness, AGC, white balance adjustable by client software or web browser
27	Day/Night Switch	Auto, scheduled, day, night
28	Network	
29	Alarm Trigger	Motion detection, video tampering alarm, illegal login
	Protocols	TCP/IP, ICMP, HTTP, HTTPS, DHCP, DNS, RTP, RTSP, RTCP, NTP, IGMP, QoS, UDP
30	General Function	Anti-flicker, heartbeat, mirror, password protection, privacy mask, watermark
31	Firmware Version	V5.5.70
32	API	ONVIF (PROFILE S), ISAPI
33	Simultaneous Live View	Up to 6 channels
34	User/Host	Up to 32 users 3 levels: Administrator, Operator, and User
35	Client	iVMS-4200, Hik-Connect, iVMS-5200, iVMS-4500
36	Web Browser	IE8+, Chrome 31.0-44, Firefox 30.0-51, Safari 8.0+
37	Interface	
38	Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
	General	
39	Operating Conditions	-30 °C to 60 °C (-22 °F to 140 °F), humidity: 95% or less (non-condensing)
	Power Supply	12 VDC ± 25%, 5.5 mm coaxial power plug PoE (802.3af, class 3)
40	Power Consumption and Current	12 VDC, 0.4 A, Max: 5 W PoE: (802.3af, 36 V to 57 V), 0.2 A to 0.1 A, Max: 6.5 W

Specification of Network Video Recorder

1	IP video input	8-ch
2	Incoming bandwidth	60 Mbps
3	Outgoing bandwidth	80 Mbps
4	HDMI/VGA output resolution	HDMI: 4K (3840 × 2160)/30Hz, 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz
		VGA: 1920 × 1080/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz

5	Audio output	1-ch, RCA (Linear, 1 KΩ)
6	Decoding format	H.265/H.264/H.264+
7	Recording resolution	8MP/6MP/5MP/4MP/3MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF
8	Synchronous playback	8-ch
9	Capability	4-ch @ 1080p
10	Network protocols	TCP/IP, DHCP, HIK Cloud P2P, DNS, DDNS, NTP, SADP, SMTP, NFS, iSCSI, UPnP™, HTTPS
11	SATA	1 SATA interface for 1HDD
12	Capacity	Up to 6TB capacity for each disk
13	Two-way audio	1-ch, RCA (2.0 Vp-p, 1kΩ)
14	Network interface	1 RJ-45 10 M/100 Mbps self-adaptive Ethernet interface
15	USB interface	2 × USB 2.0

Specification of 32" Display System

Size	32"
Display Type	LED
Panel Technology	IPS
Resolution	1366 x 768 (HD)
Aspect Ratio	16:09
Audio Output	10 X 2 W
Broadcasting System	PAL/SECAM, DVB-T2/C
Interface	HDMI -2, USB 2.0, AV in, Component In, Digital Optical Audio Out, Headphone Out, RS232C,
Warranty	The Display system should be supplied with minimum Three years OEM warranty.
Documentation	Supplier should produce authorization letter from OEM with supply of item. The supplier shall provide the complete operation, maintenance and installation manuals in English for the product under procurement.
Make/Model	Sony, Panasonic, Samsung Make and model number should be mentioned while submitting the tender along with datasheet.