

No.F.37.03/2015-NM (Display)/Part-I
Government of India
Ministry of Culture
National Museum
Janpath, New Delhi-110011

January 1, 2016

Sub: Procurement of Digital Camera (IP) and its accessories in the National Museum – regarding

National Museum, Janpath invites sealed tenders under two bid system i.e. Technical Bid and Financial Bid for the procurement of Digital Cameras along with its accessories like DVR/NVR, Rack etc. for the use in the National Museum. Sealed Tender may be submitted in sealed envelopes super scribed as “Procurement of Digital (IP) Cameras and its Accessories” addressed to the Deputy Curator (Exhibition), National Museum, Janpath, New Delhi so as to reach the undersigned by **02.00 p.m. on or before 15th February 2016**. Technical Bid will be opened on the same day i.e. **15th February 2016 at 03.00 p.m.** by the Committee, National Museum in the presence of the tenderers or their representatives who may like to be present.

TERMS AND CONDITIONS

1. The Invitation is open to all registered/well-established genuine suppliers who have PAN/TAN/VAT/TIN registration in their name.
2. “TENDER’ should be written in block letters on the top of the Envelope. Last date of submission of the quotation and office reference no. may also be mentioned, on the envelope.
3. The Tenderes whose Technical Bids are accepted will be informed about the date and time for opening the Financial Bids.
4. The firm/agency is required to work in the National Museum on the terms and conditions prescribed by the National Museum only. Canvassing directly or indirectly in connection with tender is strictly prohibited and the tenders submitted by the firm who resort to canvassing are likely to be rejected.

5. The Tenderer must have an experience of at least 10 years in CCTV field with at least two installations in Museums in India. This must be supported with documentary proof without which the bid will be rejected summarily.
6. The tenderer must submit an OEM and MAF authorization to bid for National Museum CCTV Tender. Without this authorization, the bid will be rejected summarily.
7. All the equipment for this CCTV tender must be from one manufacturer for the sake of ease of installation, integration and maintenance after expiry of Guarantee period.
8. Gadgets / equipments should be Underwriter Laboratory (UL) listed or have European Conformity (CE) certification, wherever required.
9. The Video Management software, NVR Joystick and Cameras should be of the same make.
10. All software and firm ware upgrades shall be free of cost. All the IP cameras shall be freely accessible and programmable from the control room.
11. The power supply available shall be 220V/50 Hz AC+/- 10% All modules of the surveillance system should work using this power supply only with requisite converters, if required.
12. All the cameras and other modules of Video Surveillance System shall be modular in construction. In case of upgradation of such modules in future, it shall be possible to upgrade them without replacing the entire modules.
13. The specification of IP Video Surveillance System covers technical specification and requirement of IP Video Surveillance System consisting of Indoor IP Dome Cameras, Recording NVR/servers with built-in Video Management Software, Professional Full HD LED Display etc. for surveillance of the facility from a centralized location.

14. The entire system shall be based on non proprietary open architecture where the Video Management software can work and integrate with any make of standard cameras and encoders, and IT hardware.
15. The proprietor or his agent shall be available on his telephone (Office as well as residence) and also on mobile phone so as to enable this office to call him in emergency cases.
16. A copy of the Terms and Conditions as given in the Tender documents and declaration form as per prescribed format, should be duly signed and sealed by the tenderers in all pages, thereby conveying his acceptance of the same, and submit it along with the Technical Bid.
17. The firm/agency will also be responsible for delivery of the goods in good condition in the office of National Museum at his own risk and cost.
18. It should be mentioned whether the products for which rates are quoted are from authorized dealer or not.
19. The cost of each unit with brand is to be mentioned clearly. Wherever MRP is indicated on the product, the quotation should indicate whether discounts are allowed on MRP and if so, how much.
- 20. Any other charges, if any, such as packing and forwarding, delivery charges sales tax etc. should be mentioned clearly and separately. In case nothing is mentioned in this regard then it will be presumed that the rates quoted by the firm are inclusive of all such charges/taxes and no claim otherwise will be entertained in this regard later on.**
- 21. In case the rates are found to be more than prevailing market rates at any stage, the payment will be restricted to that rate/price and the firm/agency will not have any right to challenge this. No representation will be entertained in this regard.**

22. The Technical and Financial Bids will be accepted, only if they are neatly typed. Handwritten bids will not be accepted. Cutting/overwriting etc. in the Financial Bids will not be accepted.
23. PLEASE SUBMIT EMD (EARNEST MONEY DEPOSIT) FOR AN AMOUNT OF RS.100000.00 (RUPEES ONE LAKH ONLY) IN THE FORM OF DEMAND DRAFT IN FAVOUR OF D.D.O., NATIONAL MUSEUM, NEW DLEHI. QUOTATIONS WITHOUT EMD SHALL BE LIABLE FOR REJECTION.
24. Tender incomplete in any form is liable to be rejected outright.
25. Dispute, if any arising between the successful firm/agency and the National Museum shall be resolved amicably, failing which it shall be referred to an Arbitrator, mutually acceptable to both parties, appointed by the Director General/Administrator, National Museum as per the Arbitration and Conciliation Act 1996. Alternatively, this shall be subjected to the exclusive jurisdiction of court at Delhi.
26. Director General/Administrator, National Museum reserves the right to accept or reject all the tenders in part or full or divide the work among two or more parties without assigning any reason whatsoever and in such case bidder/intending bidders, shall not have any claim on office of Director General, National Museum, New Delhi.

(K.K. Sharma)
Deputy Curator (EC)

SYSTEM DESCRIPTION

- A. 48 IP Cameras are connected to 4 Nos. of Layer 2 Ethernet Switches
- B. The L2 Ethernet Switches are connected in a self-healing-ring pattern and in-turn connected with the main switch at control room, also as a part of the ring.
- C. The NVRs shall be connected to the Network Ethernet Switch on LAN
- D. The NVR shall have a Full HD capable Direct HDMI output to connect to the displays.
- E. Video Surveillance System shall consist of Indoor IP Dome Cameras, recording NVRs, Professional Full HD Displays and associated Ethernet cable, Video Cable, Power Cable, twisted pair cable etc. Bidder should consider all necessary network equipment and accessories to provide a LAN/WAN infrastructure dedicated for Video Surveillance network which should be not less than 1 Gbps speed
- F. The overall system shall be view and monitored on 3 Nos. of 65” professional Full HD LED Displays from the Security Control Room..
- G. Any Camera should be viewable Live from remote locations, Android phone, smart phones etc.

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| Sl.No | Item Description | Qty. | Unit Price | Total Price |
|-------|---|---------|------------|-------------|
| 01. | SITC of 2 MP / Day and Night / IR illuminators / Triple Codec (H. 264, MPEG – 4, MJPEG)/ Real-Time Compression / Simultaneous Multiple Streams / Tamper Detection / Vandal Proof / PoC / On-board Storage / Varifocal, Auto-Iris – 2.6 mm to 10 mm, Mounting Bracket with Cable Management and all required Accessories, As per detailed specifications (Annexure I). Make: WV-SFV631L Panasonic | 48 Nos. | | |
| 02. | 16 CH NVR Standalone, Rack mount, Network Video Recording Storage System: for recording real time audio video and data applications. Including Indian style power Cords. Each NVR shall have 2 Nos. of 6 TB SATA HDD providing a storage capacity of 12 TB so as to record at 1080 P resolution, supports H.264, MPEG-4 and MJPEG and upto 30 fps per camera and provide a backup for minimum 28 days. The NVR shall have direct Full HD HDMI output, As per detailed specifications Annexure I. Make: WJ-NV200K/G Panasonic | 03 Nos. | | |
| 03. | 65” Full HD LED Professional Display for 24x7x365 Surveillance Application, with all mounting bracket, cables and accessories Annexure I. Make: TH-65LFE8W Panasonic | 03 Nos. | | |
| 04. | SITC of Layer 2 Switch – 20 x 10/100/1000 BASE –T (X) Ports PoE/PoE+ ports, with PoE power budget of at least 400w, 2 Gigabit combo Ports, redundant self healing ring capable, MAC based port security, IGMP, SNMP etc. for CCTV operations. Make: CWGE26FX2TX2 4MSPOE: COMNET | 04 Nos. | | |
| 05. | SITC of Layer 2 Switch- 6x 10/100/1000 BASE-T(X) Port, 2 Giagabit Combo Ports, redundant self healing ring capable MAC based port security, IGMP, SNMP etc. for CCTV operations. Make: CWGE9MS COMNET | 01 | | |
| 06. | Installation/Commissioning charge if any | | | |

Technical Specifications of (B1) – IP IR Full HD Vandal Resistant & Waterproof Dome Camera

| Sl.No. | Super Dynamic Dome Network Camera Specifications Complied / Not | Complied / Not Complied / Deviation, if any |
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| 1 | Camera shall have super high resolution at Full HD/1,920 x 1,080 images up to 60 fps created by high sensitivity MOS Sensor. | |
| 2 | The cameras shall have Multiple H.264 (High profile) streams (max. 4 streams) and JPEG streams ensure simultaneous real time monitoring and high resolution recording. | |
| 3 | Camera shall have Maximum Screen Size of 2,048 x 1,536 at 30fps. | |
| 4 | The camera shall have Wide Dynamic Range of 130 db or better. The camera shall also have ABS (Adaptive Black Stretch) to transform shadows and dark areas into natural and crisp images in real time, electronic sensitivity-up for real surveillance purposes under severe conditions. | |
| 5 | High sensitivity with Day / Night (IR) function: Lux Level : 0.04 lx (Color), 0.01 lx (B/W) at F1.3 | |
| 6 | The camera shall have infrared (IR) LED that shall make it possible to take pictures at zero lux. IR LED shall be controlled to match the environment; thereby the camera shall provide clear images of human faces without white blur. | |
| 7 | The camera shall have High Speed ABF (Auto Back Focus) mechanism for automatic and remote back focus adjustment. ABF shall engage and reposition the imaging assembly at the camera or remote from the browser. | |
| 8 | Camera should have Motorized Zoom for easy installation. The camera shall incorporate a focus assist mechanism to provide optimal focus adjustment. The focus assist mechanism shall be operable through the integrated web browser pages. | |
| 9 | The camera shall incorporate an automatic iris, 3.6X variable focal lens with a focal length of 2.8 - 10mm (3.6X). The lens shall be suitable for use in areas where there is a varying light source. | |
| 10 | 10. Camera shall have following angular field-of-view: [16 : 9 mode] Horizontal : 28.8° (TELE) – 102.6° (WIDE) | |

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| | a. Vertical : 16.0° (TELE) – 56.0° (WIDE) [4 : 3 mode] Horizontal : 23.7° (TELE) – 84.3° (WIDE) b. Vertical : 17.8° (TELE) – 62.4° (WIDE) | |
| 11 | The camera shall have Cropping function that shall enable to provide whole image and the part image simultaneously. Up to 4 image capture areas shall be able to be specified, and it shall be able to control the sequence. | |
| 12 | The cameras shall use approximate 1/3 inches, high sensitivity MOS image sensor. | |
| 13 | The camera shall have Face Super Dynamic Range technology that shall ensure clear face image. | |
| 14 | The camera shall have Lens distortion compensation for the distorted images that shall be able to be adjusted 256 steps. | |
| 15 | The camera shall have Electronic sensitivity enhancement: Auto (Up to 16/30s) / OFF. | |
| 16 | Selectable light control modes: Outdoor scene, Indoor scene (50 Hz) / Indoor scene (60 Hz), Fix shutter. Indoor scene (50 Hz/60Hz): Flicker caused by fluorescent lightning shall be automatically compensated. | |
| 17 | Camera shall have a 3x extra optical zoom at 640 x 360 pix resolution. | |
| 18 | The camera shall have 2x to 4x digital zoom function controlled by browser. | |
| 19 | The camera shall have VMD (Video Motion Detection) function with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size. | |
| 20 | The camera shall have Privacy Zone that shall be able to mask up to 8 private areas, such as house windows and entrances/exits | |
| 21 | The camera shall have Full duplex bi-directional audio that shall allow interactive communication between camera site and monitoring site. | |
| 22 | Prioritized stream control: One of the video streams shall be prioritized when multiple recorders or client PCs shall access the camera so that the recorder or the client PC shall be able to maintain the frame rate. | |
| 23 | The camera have Double SDXC/SDHC/SD Memory card slots for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (H.264 / JPEG) and also shall have long-term recording and auto backup function. | |

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| 24 | The camera shall have Super Chroma Compensation function that shall realize a better color reproducibility even in low illumination. | |
| 25 | The camera shall have IP66 rated water resistant. Compatible with IEC60529 measurement standard, Type 4X (UL50), NEMA 4X compliant. | |
| 26 | The camera shall be Vandal resistant of IEC 60068-2-75 test Eh, 50 J / IEC 62262 IK10. | |
| 27 | The ambient operating temperature of the camera shall be -45 °C ~ +50 °C (- 49 °F ~ 122 °F). | |
| 28 | The camera shall be Onvif compliant. | |
| 29 | The camera shall support unicast and multicast transmissions. The camera also shall support transmission priority for H.264 images of Constant bit rate, Frame rate, Best effort and Advanced VBR. The total bit rate for data transmission shall be selected from the following: Unlimited/ 64kbps/ 128kbps/ 256kbps/ 384kbps/ 512kbps/ 768kbps/ 1024kbps/ 2048kbps/ 4096kbps/ 8192kbps. | |
| 30 | The camera shall support IPV4 and IPV6 network addressing and shall support the following protocols: IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, RTP, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP | |
| 31 | The camera shall be capable of being configured to automatically transmit alarm images transfer via FTP file transfer and/or e-mail. In addition the camera shall support the scheduled transfer of image data via FTP to an FTP server. | |
| 32 | The camera shall have full duplex two-way audio feature and be capable of transmitting and receiving the audio stream through the same Ethernet connection as the video. The audio shall be encoded using G.726 (ADPCM) 32 kbps/ 16 kbps, G.711 64 kbps or AAC-LC compression method. | |
| 33 | The power source for the camera shall be 12V DC or PoE (IEEE802.3af compliant: DC36-57 V)) power device. All units shall be UL listed and CE certified: Safety: UL (UL60950-1), C-UL (CAN/CSA C22.2 No.60950-1), CE, IEC60950-1 EMS: FCC (Part15 Class A), ICES003 Class A, EN55022 Class B, EN55024 | |

Technical Specifications of (B2) – Full HD Decoder built-in 16ch Network Disk Recorder

| Sl.No. | NVR Specifications | Complied / Not Complied / Deviation, if any |
|--------|--|---|
| 1 | The NVR shall be capable of connecting to up to 16 network cameras without extra license fees and their images can be recorded simultaneously. | |
| 2 | The NVR shall have built-in decoder and HDMI output. The NVR provides images to a monitor without PC via HDMI output. | |
| 3 | The NVR shall be equipped with up to 2 HDDs (06 TB memory Per Slot) | |
| 4 | The NVR shall have quick intuitive search by calendar and timeline without PC. | |
| 5 | The NVR shall have Real Time Face Matching function by matching registered face images with a face displayed on live images. | |
| 6 | The NVR shall have simple mouse operation by GUI without the use of PC. | |
| 7 | The NVR shall be the equipment with an embedded real-time operating system and shall not be based on a Microsoft Windows OS. The OS must reside completely in the hardware and not be installed on the hard disk drives. Installed disk drives must be dedicated to recording videos | |
| 8 | The NVR shall support H.264, MPEG-4 and JPEG multi format | |
| 9 | The NVR shall provide Various Recording Mode: Schedule, Event (Pre/Post). It shall have the capabilities to control: Pan/Tilt, Zoom, Focus, Brightness and Preset Positions. It shall be able to search using: Time & Date, Playback by designating a timeline, VMD. | |
| 10 | The NVR shall have various alarm sources such as 9x Terminal inputs, 16x Camera alarm,. The alarm actions shall include Alarm recording, e-mail notification, Alarm message, Camera positioning, Terminal output, Buzzer and Indicator. | |
| 11 | The NVR shall have a built-in network interface (10BASE-T / 100BASE-TX / 1000BASE-T) for camera recording and client access. | |
| 12 | The NVR shall have User authentication, 3 programmable user levels. It shall be capable of up to 16 user registrations. | |

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| 13 | The NVR shall be viewable from any properly connected PC using Microsoft Internet Explorer version 6.0 or later | |
| 14 | Supported protocols: TCP/IP, UDP/IP, HTTP, FTP, SMTP, DNS, NTP, SNMP, RTP | |
| 15 | The power source shall be 220 ~ 240 V AC, 50 Hz/60 Hz . with Indian Style Plug. | |