**ADDENDUM NO.-1 dated 11.09.2026**

**Gem Bid No: GEM/2026/B/8010934 Dated 10.09.2026**

This Addendum No. 1 dated 11.09.2026 to Gem Bid No: GEM/2026/B/8010934 Dated 10.09.2026 for - "**Procurement for replacement of CCTV, ACS, VMS for OILHOUSE Noida & E&D Directorate**" is issued to incorporate Technical Specification Document as attached as Annexure B.

Bidders are requested to submit the same along with the technical Bid.

All others terms and conditions of the GeM Bid Document shall remain unchanged. Details can be viewed at www.gem.gov.in & www.oil-india.com.

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**CHIEF MANAGER – C&P**

| Video Management & Access Control Server (FOR NOIDA)-Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1 | Form Factor | Minimum 2U Rack Mountable with Sliding Rails | |
| 2 | Processor | Intel Xeon with 8-core processor, 2.2 GHz+ or above. | |
| 3 | Memory | 32 GB DDR4-3200 ECC Registered, minimum 4 DIMM slots | |
| 5 | Expansion Slots | 6 × PCIe Gen4 x 16 Expansion Slots<br>2 × M.2 Slots with PCIe Gen 4x4 Interface<br>2 × SATA 6Gb/s ports<br>3 × SlimSAS connectors for 12 x SATA 6Gb/s | |
| 6 | Graphics Card | NVIDIA RTX TOTAL 16 GB | |
| 7 | Storage | 480 GB SSD X2, Enterprise Grade, SED, Write Intensive, 2+ DWPD, RAID 1 | |
| 8 | RAID | Hardware RAID controller (RAID 0, 1, 5, 6), 4GB+ cache, battery/flash backed | |
| 9 | Power Supply | Redundant Hot-Swappable Power Supplies | |
| 10 | Networking | 2 × 1 GbE Network Port | |
| 11 | Remote Management | Dedicated management port with support for IPMI-based management with remote KVM, media redirection, monitoring, etc. | |
| 12 | Operating System | Windows Server 2022 64-bit or latest | |
| 13 | Database | Microsoft SQL Server 2019 Standard Edition or latest | |
| 14 | Interface Device | 102-key keyboard and a mouse pointing device | |
| 15 | Monitor Output | Connectivity: VGA/HDMI/DP input; USB ports if required. | |
| 16 | Monitor Specification | 1. Size: Min 18.5" widescreen LCD/LED Monitor (Rack mounted Type)<br>2. Contrast Ratio: 1000:1<br>3. Color Support: 16.7 million colors<br>4. Brightness: 250 cd/ m2 (typical)<br>5. Adjustability: Tilt, Swivel and height adjustment | |
| 17 | Security | UEFI Secure Boot, Root of Trust, TPM 2.0, Secure Erase, Intrusion Detection | |
| 18 | Hardware Operations | BMC Logs | |
| 19 | Hardware/Firmware Health | Active agent-less hardware health monitoring | |
| 20 | Certifications & Compliance | a) ISO 9001:2015, ISO 14001:2015, ISO 27001:2022, ISO 45001:2018 Certification (Documentary proof to be attached) | |
| | | b) BIS (Bureau of Indian Standards) Certification for the product | |
| | | c) EPR Compliance for e-waste | |
| 21 | Operating Properties | Operating temperature: 10°C to 40°C<br>Operating humidity: 8%-80% (non-condensing) | |

| Access Control Server (FOR DELHI)-Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1 | Form Factor | Minimum 2U Rack Mountable with Sliding Rails | |
| 2 | Processor | Intel Xeon with 8-core processor, 2.2 GHz+ or above. | |
| 3 | Memory | 16 GB DDR4-3200 ECC Registered, minimum 4 DIMM slots | |
| 4 | Expansion Slots | 2 × M.2 Slots with PCIe Gen 4x4 Interface<br>2 × SATA 6Gb/s ports<br>3 × SAS connectors for 12 x SATA 6Gb/s | |
| 5 | Storage | 2 X 1 TB SSD, RAID 1 | |
| 6 | RAID | Hardware RAID controller (RAID 0, 1, 5, 6), 4GB+ cache, battery/flash backed | |
| 7 | Power Supply | Redundant Hot-Swappable Power Supplies | |
| 8 | Networking | 2 × 1 GbE Network Port | |
| 9 | Remote Management | Dedicated management port with support for IPMI-based management with remote KVM, media redirection, monitoring, etc. | |
| 10 | Operating System | Windows Server 2022 64-bit or latest | |
| 11 | Database | Microsoft SQL Server 2019 Standard Edition or latest | |
| 12 | Interface Device | 102-key keyboard and a mouse pointing device | |
| 13 | Monitor Output | VGA or DVI-D or Display Port (1 monitor support) | |
| 14 | Monitor Specification | 1. Size: Min 18.5" widescreen LCD/LED Monitor (Rack mounted Type)<br>2. Adjustability: Tilt, Swivel and height adjustment | |
| 15 | Security | UEFI Secure Boot, Root of Trust, TPM 2.0, Secure Erase, Intrusion Detection | |
| 16 | Hardware Operations | BMC Logs | |
| 17 | Hardware/Firmware Health | Active agent-less hardware health monitoring | |
| 18 | Certifications & Compliance | The OEM server must provide valid documentary proof for the following:<br>a) ISO 9001:2015, ISO 14001:2015, ISO 27001:2022, ISO 45001:2018 Certification (Documentary proof to be attached)<br>b) BIS (Bureau of Indian Standards) Certification for the product<br>c) EPR Compliance for e-waste | |

| Client Workstation- Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| 1 | **Processor** | Intel Core i7 14th generation or latest | |
| 2 | **RAM** | 16 GB DDR5 @5600 SDRAM (upgradable to 32 GB without discarding existing memory) or better | |
| 3 | **Storage** | 1 TB SSD | |
| 4 | **Keyboard and Mouse** | Multimedia / Internet Keyboard and Optical Scroll Mouse - from the same OEM of that of the workstation | |
| 5 | **Network Interface** | 1 × 1GbE Ethernet Network Card, Auto sensing | |
| 7 | **Rear I/O Ports** | - 1× DisplayPort 1.4, 1× HDMI 2.1, 1× VGA | |
| | | - 2× USB 3.2 Gen 2 (Type-A & Type-C) | |
| **8** | **Power Supply** | 220–240 VAC, 50 Hz with Indian Power cables | |
| **9** | **Drivers / Accessories** | Required drivers and cables to be provided | |
| **10** | **Operating System** | (a) Licensed Windows 11® Professional or better | |
| **11** | **Certifications** | BIS, ROHS, EPR | |
| **12** | **Cables, Drivers, Connectors and Accessories** | All the necessary cables, drivers, connectors and accessories if any should be provided | |

| NVR-32CH WITH 16 TB HDDTechnical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| | OEM MAF IS MANDATORY | | |
| 1 | IP video ch. | Up to 32 ch. IP Video Input | |
| 2 | IP video input resolution | Up to 12 MP resolution support | |
| 3 | Incoming bandwidth | 256 Mbps | |
| 4 | Outgoing bandwidth | 160 Mbps | |
| 5 | HDMI output | HDMI: upto 4K | |
| 6 | VGA output | VGA: upto 1920 × 1080p | |
| 7 | Video output mode | HDMI/VGA independent | |
| 8 | CVBS output (optional) | NA | |
| 9 | human/Vehicle Analysis | 32 ch. | |
| 10 | Face Detection | 1-ch Human Face Capture | |
| 11 | Face Pcture Comparison | 4-ch Face Pcture Comparison Alarm | |
| 12 | Face Pcture Library | up to 16 face picture libraries, with upto 20,000 face pictures in total (each picture upto 4MB, total capacity upto 1GB) | |
| 13 | Audio input | 1-ch, RCA | |
| 14 | Two-way audio input | 1-ch, RCA | |
| 15 | Decoding format | H.265/H.264 | |
| 16 | Recording resolution | 12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF /2CIF/CIF/QCIF | |
| 17 | Synchronous playback | 16-ch | |
| 18 | Capability | 2-ch @ 12 MP (30fps) / 3-ch @ 8 MP (30fps) / 6-ch @ 4MP (30fps) / 12-ch @ 1080p (30fps) | |
| 19 | Stream type | Video, Video & Audio | |
| 20 | Audio compression | G.711ulaw/G.711alaw/G.722/G.726 | |
| 21 | Network protocol | TCP/IP, DHCP, DNS, DDNS, NTP, SADP, SMTP,SNMP, NFS, iSCSI, UPnP™, HTTPS | |
| 22 | Remote connection | 128 | |
| 23 | Network interface | 2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface | |
| 24 | SATA | 4 SATA interfaces | |
| 25 | Serial Interface | 2 RS-485, 1 RS-232 | |
| 26 | Capacity | Up to 10 TB capacity for each disk. Total 16TB Capacity | |
| 27 | Alarm in/out | 16/4 | |
| 28 | USB interface | 2 × USB 2.0; 1 × USB 3.0 | |
| 29 | Power supply | 100-240 VAC , 50 to 60 Hz | |
| 30 | Consumption (without HDD) | ≤ 20 W | |
| 31 | Working temperature | -10 °C to 55 °C (14 °F to 131 °F) | |
| 32 | Working humidity | 10% to 90% | |
| 33 | Certification | CE, FCC & BIS | |
| 34 | Weight (without HDD) | ≤ 5 kg (11 lb.) | |
| 35 | Chassis | 2 U | |

| NVR 16CH (FOR Okhla Delhi) with 8TB- Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| | OEM MAF IS MANDATORY | | |
| 1 | IP Video Channels | Up to 16 IP Camera Inputs | |
| 2 | IP Video Input Resolution | Up to 12 MP | |
| 3 | Compression | H.265+, H.265, H.264+, H.264 | |
| 4 | Maximum Recording Resolution | 12 MP | |
| 5 | Incoming Bandwidth | 160 Mbps | |
| 6 | Outgoing Bandwidth | 160 Mbps | |
| 7 | HDMI Output | 1 HDMI Output supporting up to 4K (3840 × 2160) @ 30 Hz | |
| 8 | VGA Output | 1 VGA Output supporting up to 1920 × 1080 @ 60 Hz | |
| 9 | Video Output Mode | HDMI / VGA Independent Output | |
| 10 | Human / Vehicle Analysis | 16 Channel Human / Vehicle Analysis | |
| 11 | Face Detection | Face Picture Comparison, Human Face Capture and Face Search | |
| 12 | Face Picture Comparison | 4 Channel Face Picture Comparison Alarm | |
| 13 | Face Picture Library | Up to 16 Face Libraries with support for up to 20,000 Face Pictures | |
| 14 | Audio Output | 1 Channel Audio Output (RCA) | |
| 15 | Two-Way Audio | 1 Channel Two-Way Audio | |
| 16 | Decoding Format | H.265, H.265+, H.264+, H.264 | |
| 17 | Recording Resolution | 12 MP, 8 MP, 6 MP, 5 MP, 4 MP, 3 MP, 1080P, UXGA, 720P, VGA, 4CIF, DCIF, 2CIF, CIF, QCIF | |
| 18 | Synchronous Playback | 16 Channel Synchronous Playback | |
| 19 | Decoding Capability | AI ON: 1 Channel @12 MP / 2 Channel @8 MP / 4 Channel @4 MP / 8 Channel @1080P; AI OFF: 2 Channel @12 MP / 3 Channel @8 MP / 6 Channel @4 MP / 12 Channel @1080P | |
| 20 | Stream Type | Video, Video & Audio | |
| 21 | Audio Compression | G.711u-law, G.711a-law, G.722, G.726, AAC | |
| 22 | Network Protocol | TCP/IP, DHCP, IPv4, IPv6, DNS, DDNS, NTP, RTSP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP, HTTP, HTTPS | |
| 23 | Remote Connection | 128 Remote Connections | |
| 24 | Network Interface | 1 × RJ45 10/100/1000 Mbps Self-Adaptive Ethernet Interface | |
| 25 | SATA Interface | 2 SATA Interfaces | |
| 26 | Storage Capacity | Up to 10 TB Capacity per HDD. Total 8TB capcaity to be supplied. | |
| 27 | USB Interface | Front: 1 × USB 2.0; Rear: 1 × USB 2.0 | |
| 28 | Alarm Input / Output | 4 Alarm Inputs / 1 Alarm Output | |
| 29 | Power Supply | 12 VDC, 3.3 A | |
| 30 | Power Consumption | ≤ 15 W (Without HDD) | |
| 31 | Working Temperature | -10°C to +55°C | |
| 32 | Working Humidity | 10% to 90% | |

| Visitor Management Tablet- Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| 1 | **Specification** | 27.82 cm (11 inch) Display, 8 GB RAM, 512 GB Storage, 90Hz Refresh Rate, Dolby Atmos, Quad Speakers, Wi-Fi + 5G Tablet, upto 2TB expandable storage with microSD, with Table Stand (ANDROID OS) | |

| 6 MP Full HD WDR IR Fixed Bullet Camera- Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter / Component** | **Minimum Specification** | **Compliance on Bidder's Letterhead (Annexure Ref.)** |
| | **MAKE & MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1 | Camera Type | Fixed Bullet IP Network Camera | |
| 2 | Image Sensor | Progressive Scan CMOS | |
| 3 | Maximum Resolution | Minimum 6 MP (3200 × 1800) | |
| 4 | Minimum Illumination | Low-light colour imaging with IR support for night surveillance | |
| 5 | Day/Night Function | Automatic IR Cut Filter | |
| 6 | Lens | Fixed lens (4 mm or 6 mm) | |
| 7 | IR Illumination | Built-in IR illumination with minimum 90 m viewing distance | |
| 8 | Video Compression | H.265 and H.264 compression with MJPEG support | |
| 9 | Frame Rate | Up to 30 fps at maximum resolution | |
| 10 | Video Streaming | Support for multiple video streams | |
| 11 | Bit Rate Control | CBR and VBR | |
| 12 | Region of Interest (ROI) | Minimum 5 configurable regions | |
| 13 | Audio | Built-in microphone with standard audio compression formats | |
| 14 | Network Protocols | Support for standard IPv4/IPv6 networking, streaming and management protocols including ONVIF | |
| 15 | ONVIF Compliance | Profile S, Profile G and Profile T | |
| 16 | User Management | Multi-level user authentication supporting minimum 32 concurrent users | |
| 17 | Storage | Support for NAS and microSD card storage up to 512 GB with Automatic Network Replenishment (ANR) | |
| 18 | Wide Dynamic Range | True WDR of minimum 120 dB | |
| 19 | Image Enhancement | BLC, HLC and 3D DNR | |
| 20 | Privacy Masking | Minimum 8 configurable privacy masking areas | |
| 21 | Ethernet Interface | 1 × 10/100 Mbps RJ45 Ethernet port | |
| 22 | Audio Interface | Minimum one audio input and one audio output | |
| 23 | Alarm Interface | Minimum one alarm input and one alarm output | |
| 24 | Intelligent Analytics | Human and vehicle classification-based analytics | |
| 25 | Face Capture | Supported | |
| 26 | Perimeter Protection | Line crossing, intrusion, region entry and region exit detection with human and vehicle classification | |
| 27 | Intelligent Events | Support for unattended baggage, object removal, loitering, people gathering, running, parking, scene change, video quality and audio exception detection | |
| 28 | Event Actions | Support for recording, snapshot, email notification, alarm triggering and upload to storage/server | |
| 29 | Power Supply | 12 VDC and IEEE 802.3af PoE | |
| 30 | Maximum Power Consumption | Maximum 12 W | |
| 31 | Housing | Metal housing suitable for outdoor installation | |
| 32 | Environmental Protection | Minimum IP67 weatherproof and IK10 vandal-resistant | |
| 33 | Operating Temperature | Minimum -30°C to +60°C | |
| 34 | Operating Humidity | Up to 95% RH (non-condensing) | |
| 35 | General Functions | Heartbeat, mirror, anti-banding, password reset via email and pixel counter | |
| 36 | STQC Certification | Yes | |

| Box Camera (for ANPR)- Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter / Component | Minimum Specification | Compliance on Bidder's Letterhead (Annexure Ref.) |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1. | Image Sensor | 1/3 inch Progressive Scan CMOS | |
| 2. | Max. Resolution | 4MP, 2688 × 1520 | |
| 3. | Min. Illumination | Color: 0.005 Lux @ (F1.6, AGC ON) | |
| 4. | Shutter Time | 1/3 s to 1/100,000 s | |
| 5. | Day & Night | IR cut filter | |
| 6. | Lens Mount | C/CS mount | |
| 7. | Iris Type | Auto-iris | |
| 8. | Lens | 5-50mm | |
| 9. | IR Range | upto 120 mtr | |
| 10. | Main Stream | Quad Stream Supported | |
| 11. | Video Compression | H.265/H.264 | |
| 14. | Bit Rate Control | CBR,VBR | |
| 15. | Region of Interest (ROI) | 5 fixed regions for main stream and sub-stream | |
| 16. | Target Cropping | Yes | |
| 17. | Audio Compression | G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC | |
| 18. | Audio Bit Rate | 64 Kbps (G.711ulaw/G.711alaw)/16 Kbps (G.722.1)/16 Kbps (G.726)/32 to 192 Kbps (MP2L2)/8 to 320 Kbps (MP3)/16 to 64 Kbps (AAC-LC) | |
| 19. | Environment Noise Filtering | Yes | |
| 20. | Protocols | TCP/IP, UDP, ICMP, IGMP, Multicast, DDNS, SNMP, QoS, IPv4, IPv6, HTTP, HTTPS, RTSP,SRTP/RTSPS, Bonjour, NAT, RTCP, RTMP, ONVIF, SSH, DHCP, UPnP, NTP, DNS, SMTP,ARP | |
| 21. | Simultaneous Live View | Up to 5 channels | |
| 22. | API | ONVIF (Profile S, Profile G, Profile T, Profile M) | |
| 23. | Security | Password protection, complicated password, HTTPS encryption, IP address filtering, digest authentication for HTTP/HTTPS, TLS 1.3, WSSE and digest authentication for ONVIF | |
| 24. | User/Host | Up to 32 users<br>3 user levels: administrator, operator, and user | |
| 25. | Network Storage | NAS (NFS, SMB/CIFS), Auto Network Replenishment (ANR) | |
| 26. | Web Browser | Plug-in required live view: IE 11,Plug-in free live view: Chrome 80+, Firefox 80+, Edge 89+, Safari 13+,<br>Local service: Chrome 80+, Firefox 80+, Edge 89+, Safari 13+ | |
| 27. | Image Parameters Switch | Yes | |
| 28. | Image Settings | Rotate mode | |
| 29. | Day/Night Switch | Day, Night, Auto, Schedule | |
| 30. | Wide Dynamic Range (WDR) | 120 dB | |
| 31. | SNR | ≥ 52 dB | |
| 32. | Image Enhancement | BLC,HLC,3D DNR, Defog | |
| 33. | Privacy Mask | 8 programmable polygon privacy masks | |
| 34. | Ethernet Interface | 1 RJ45 10 M/100 M self-adaptive Ethernet port | |

| | | | |
|---|---|---|---|
| 35. | Video Output | 1 Vp-p Composite Output (75 Ω/CVBS) (Only for debugging) | |
| 36. | On-Board Storage | Built-in memory card slot, support microSD/microSDHC/microSDXC card, up to 512 GB | |
| 37. | Alarm | 1 input, 1 output (max. 24 VDC/24 VAC, 1 A) | |
| 38. | Built-in Microphone | Yes,1 built-in microphone | |
| 39. | Reset Key | Yes | |
| 40. | Audio | 1 input (line in), 3.5 mm connector,<br>1 output (line out), 3.5 mm connector | |
| 41. | RS-485 | 1 RS-485 | |
| 42. | Power Output | 12 VDC, max. 100 mA | |
| 43. | Basic Event | Motion detection (support alarm triggering by specified target types (human and vehicle)),video tampering alarm, exception | |
| 44. | Smart Feature | Unattended baggage detection, object removal detection, loitering detection, people gathering detection, fast moving detection, parking detection, video quality diagnosis | |
| 45. | Linkage | Upload to FTP/SFTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording, trigger capture | |
| 46. | Face Capture | Yes | |
| 47. | Perimeter Protection | Tripwire detection, intrusion, region entrance, region exiting<br>Support alarm triggering by specified target types (human and vehicle) | |
| 48. | Power | 12 VDC ± 25%, 0.55 A, max. 6.6 W, two-core terminal block, reverse polarity protection,<br>24 VAC ± 20%, 0.46 A, max. 7.5 W, PoE: IEEE 802.3af, Class 3, max. 7.5 W | |
| 49. | Material | Upper Cover: Metal<br>Lower Casing: Plastic | |
| 50. | Startup and Operating Conditions | -30 °C to 60 °C (-22 °F to 140 °F). Humidity 95% or less (non-condensing) | |
| 51. | General Function | Heartbeat, mirror, pixel counter | |

| Video Management Software & ANPR Software | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| ANPR Software | | | |
| 2. | Software application | The ANPR Application shall be an enterprise class IP-enabled security and safety software solution and capable to run fully over the Video Intelligence Suite. It shall have a feature of maintaining full History of each vehicle with Image & Time in same Report | |
| 3. | Accuracy | The automatic number plate recognition Software will be part of the supplied system. ANPR shall have minimum accuracy of 90%-95% (for both day and night time) | |
| 4. | Multiple Lanes Coverage | The ANPR Application shall have capability to capture Number Plates with desired accuracy across 2 lanes by using a single camera which will save infra cost for over project TCO | |
| 5. | Data Protection | The ANPR Application shall allow the user to Protect a Read or Hit from deletion for a configurable period of time. Its shall have Capability to Detect & Convert Number plates using OCR Indian Number plates. | |
| 6. | Hotlist Creation | The ANPR Application shall present the user with a Simple Wizard for Hotlist creation. | |
| 7. | Multiple Categories | The ANPR Application shall have capability to create multiple categories like VIP , Blacklisted , Whitelisted , Guest , Stolen etc | |
| 8. | Number Plates | The ANPR Application shall provide data of Private , Commercial & Electric Vehicles in real time on Dashboard as well as Event Grid | |
| 9. | ANPR Images | The ANPR Application shall provide 2 images of each Detected Vehicle – Vehicle Image & Number Plate Image | |
| 10. | Partial search | The ANPR Application shall allow the user to search for full or partial license plate numbers. | |
| 11. | Wildcard Search | The ANPR Application shall allow the user to search for a license plate by using wildcards. | |
| 12. | Hotlist download | The ANPR Application shall allow the user to automate downloading Hotlists from a FTP/SFTP or HTTP/HTTPS server using username/password/certificate authentication. | |
| 13. | Report Management | The ANPR Application shall allow the user to customize the format of the Reports displayed on-screen. This feature should be made available with integration with the Video Intelligence Suite. | |
| | | Reporting, including creating custom report templates and incident reports. | |
| 14. | Communication | The ANPR Application shall be an IP enabled solution. All communication between the SSM and ANPR Application shall be based on standard TCP/IP protocol | |
| 15. | Central database | The ANPR Application shall manage the central database that contains all the system information and component configuration of the ANPR Application. | |
| 16. | Certification | The ANPR Application shall be STQC certified by reputed agency approved by Govt of India | |
| 17. | Vehicle Search | Shall have an option to search vehicles by | |
| | | a) Vehicle colour | |
| | | b) Vehicle colour +license plate | |
| | | c) Vehicle make and type | |
| | | d) Date & time | |
| | | e) Location | |
| | | f) Type of Vehicle | |
| | | g) Number Plate Category | |
| VMS Software for CCTV Cameras | | | |
| | **MAKE AND MODEL** | | |
| 1. | Software Type | Centralized AI-enabled Video Management System (VMS) | |
| 2. | Camera Scalability | Support unlimited / n-number of IP cameras | |
| 3. | Supported Protocols | ONVIF and RTSP compliant | |
| 4. | Multi-site Management | Support centralized multi-location monitoring | |
| 5. | Live View | Multiple camera live view with customizable grid | |
| 6. | Playback | 0.5x, 1x, 2x, 4x, 8x and frame-by-frame playback | |
| 7. | Video Export | Video trimming and export facility | |
| 8. | Recording Retention | Configurable retention (7/15/30/90+ days) | |
| 9. | Historical Search | Search by date, time, camera and event | |
| 10. | Device Health | Online/offline status, health monitoring | |
| 11. | Remote Management | Remote configuration and firmware upgrade | |
| 12. | User Management | Role-based access control | |
| 13. | Audit Logs | User activity and video access logs | |
| 14. | AI Analytics | Support motion/event search and AI integration (Face, ANPR, Intrusion etc.) | |
| 15. | Dashboard | Recent events, statistics, map view and health dashboard | |
| 16. | Camera Grouping | Create/manage camera groups | |
| 17. | Device Addition | Single and batch device addition | |
| 18. | Recording Control | Start/Stop recording per device | |
| 19. | Device Information | Display group, IP, protocol, status, health | |
| 20. | Platform | Web-based centralized management interface | |
| 21 | Confirmation on SAME PLATFORM | Video Management Software and ANPR solution shall be fully integrated and interoperable. The bidder shall be responsible for providing a seamless integrated solution with single centralized interface for both CCTV & ANPR cameras. | |
| 22. | Licenses | All necessary licenses to be provided for the all the cameras supplied with the PO on perpetual basis | |

| 6 MP Full HD WDR IR Fixed Dome Camera- Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter / Component** | **Minimum Specification** | **Compliance on Bidder's Letterhead (Annexure Ref.)** |
| | **MAKE & MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1 | Camera Type | Fixed Indoor Camera | |
| 2 | Image Sensor | Progressive Scan CMOS | |
| 3 | Maximum Resolution | Minimum 6 MP (3200 × 1800) | |
| 4 | Minimum Illumination | Low-light colour imaging with IR support for night surveillance | |
| 5 | Day / Night Function | Automatic IR Cut Filter | |
| 6 | Lens | Fixed focal lens with 2.8 mm or 4 mm option | |
| 7 | Illumination | Integrated Dual Light (IR and White Light) with minimum 30 m illumination range | |
| 8 | Smart Illumination | Smart Dual Light / Smart Supplement Light | |
| 9 | Video Compression | Support for H.265, H.264 and MJPEG | |
| 10 | Frame Rate | Up to 20 fps at maximum resolution | |
| 11 | Video Streams | Support for multiple video streams | |
| 12 | Bit Rate Control | Constant Bit Rate (CBR) and Variable Bit Rate (VBR) | |
| 13 | Region of Interest | ROI support | |
| 14 | Audio | Built-in microphone with support for standard audio compression formats | |
| 15 | Audio Enhancement | Environmental noise filtering | |
| 16 | Network Protocols | Support for standard IP networking and streaming protocols including IPv4/IPv6 and RTSP | |
| 17 | ONVIF Compliance | ONVIF Profile S, Profile G and Profile T | |
| 18 | User Management | Multi-level user access supporting minimum 32 concurrent users | |
| 19 | Simultaneous Live View | Support minimum 6 concurrent live views | |
| 20 | Storage | On-board microSD card support up to 256 GB | |
| 21 | Wide Dynamic Range | True WDR of minimum 120 dB | |
| 22 | Image Enhancement | BLC, HLC and 3D DNR | |
| 23 | Privacy Masking | Configurable privacy masking | |
| 24 | Ethernet Interface | One 10/100 Mbps RJ45 Ethernet port | |
| 25 | Intelligent Motion Detection | Motion detection with human and vehicle classification | |
| 26 | Video Tampering Detection | Supported | |
| 27 | Event Notification | Support recording, image capture, email notification and upload to storage/surveillance centre | |
| 28 | Power Supply | 12 VDC and IEEE 802.3af PoE | |
| 29 | Maximum Power Consumption | Maximum 6.5 W (PoE) | |
| 30 | Housing | Metal and plastic enclosure | |
| 31 | Environmental Protection | Minimum IP67 weather-resistant | |
| 32 | Operating Temperature | Minimum -30°C to +60°C | |
| 33 | Operating Humidity | Up to 95% RH (non-condensing) | |
| 34 | General Functions | Heartbeat, anti-banding, mirror and password reset via email | |
| 35. | STQC Certification | Yes | |

| 8 Port Managed POE Switch (L2) | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1. | Type | Layer-2 POE Ethernet switch | |
| 2. | Ports | 8*10/100/1000 Base-Tx RJ45 PoE ports and (2*1G SFP PORT) | |
| 3. | POE Budget | 30W PoE power per port and up to 240W power budget | |
| 4. | Switching Capacity | Should have 20 Gbps of Switching capacity or more | |
| 5. | Transmission Method | Store & forward | |
| 6. | Duplex Mode | Full or half duplex operation with flow control supported on all ports | |
| 7. | MAC Address table | 8k entries | |
| 8. | Layer 2 & Authentication Requirements | Switch should prevent direct client-to-client traffic visibility at the layer-2 VLAN. | |
| 9. | Layer 2 & Authentication Requirements | Should support 802.1x port-based authentication | |
| 10. | Layer 2 & Authentication Requirements | Should support 802.1x MAC-based authentication, IEEE 802.1x MAC Access Bypass (MAB) | |
| 11. | Layer 2 & Authentication Requirements | Should support IEEE 802.1x Guest and Fallback VLAN | |
| 12. | Layer 2 & Authentication Requirements | Should support IEEE 802.1x Dynamic VLAN Assignment | |
| 13. | Management | Should support, SSHv2, HTTP, HTTPS with IPv4 and IPv6 Management | |
| 14. | Management | Switch should support SNMP v1, v2c and v3 | |
| 15. | Management | Proposed switch should be managed via GUI / CLI | |
| 16. | Operating Humidity | upto 95% | |
| 17. | Operating Temperature | upto 65 degree celcius | |
| 18. | Standard Compliance | IEEE802.3,IEEE 802.3u,IEEE 802.3x,IEEE 802.1p | |
| 19. | Surge & spike protection | Should support EN 61000-4-5 std for surge | |
| 20. | Regulatory approvals | RoHS | |
| 21. | Electrical Safety | UL/IEC/ AS/NZS CISPR 32: 2015+A1, AS/NZS 62368.1:2022 | |
| 22. | Ingress protection | IP 30 | |

| 24 Port Managed POE Switch (L3) | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1. | Type | L2+ Managed Gigabit Ethernet Switch | |
| 2. | Ports | 24 x 10/100/1000 Mbps RJ45 with Auto MDI/MDIX | |
| 3. | Uplink | 4 x 1G SFP Ports | |
| 4. | PoE Standard | IEEE 802.3af/at, 30 W per port | |
| 5. | Total PoE Budget | Minimum 300 W | |
| 6. | Switching Capacity | Minimum 56 Gbps | |
| 7. | Forwarding Rate | Minimum 83.33 Mpps | |
| 8. | MAC Address Table | Minimum 8K entries | |
| 9. | Jumbo Frame | 10000 Bytes | |
| 10. | VLAN | 802.1Q VLAN, Port VLAN | |
| 11. | QoS | 802.1p, DSCP, ToS, SP/WFQ/WRR | |
| 12. | Layer 2 | STP/RSTP, Loop Protection, LLDP | |
| 13. | Layer 3 | Static IPv4/IPv6 Routing, DHCPv6 | |
| 14. | Routing | BGP, OSPF v2, RIP v1/v2, EIGRP | |
| 15. | Security | 802.1X, MAC Filtering, Radius, TACACS+, TPM 2.0 | |
| 16. | Management | SNMP v2/v3, Web UI, API | |
| 17. | Diagnostics | Cable Diagnostic, Ping, Traceroute, Nslookup | |
| 18. | Power Input | 100–240 VAC, 50/60 Hz | |
| 19. | Mounting | 19-inch Rack Mount | |
| 20. | Operating Temperature | 0°C to 50°C | |
| 21. | Ingress Protection | IP30 | |
| 22. | Compliance | CE, UKCA, FCC, IC, CB, RCM | |

| Hard Disk for NVR - Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| 1 | Hard Disk Drive (SATA II or III) | Video Surveillance rated (Rated for 24/7 operation). **32~64 MB Cache, 3Mb ~ 6Mb per second data transfer rate, Spindle Speed 7200 RPM or more.** | |
| 2 | Capacity | 8TB (Tera Bytes) | |

| CAT6 Cable - Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| 1 | Cable Type | CAT6, 4-Pair, 23 AWG UTP Cable | |
| 2 | Standards Compliance | ISO/IEC 11801, ANSI/TIA-568.2-D (or latest), RoHS Compliant | |
| 3 | Conductor | Solid Bare Copper, 23 AWG | |
| 4 | Insulation | HDPE or equivalent suitable for CAT6 performance requirements | |
| 5 | Performance | Shall support Gigabit Ethernet and comply with CAT6 performance requirements up to 250 MHz | |
| 6 | Characteristic Impedance | 100 ± 15 Ohms | |
| 7 | Outer Sheath | PVC or LSZH (as per BOQ requirement) | |
| 8 | Operating Temperature | -20°C to +75°C | |
| 9 | Packing | 305 Meter Pull Box / Reel | |
| 10 | Certification | OEM shall provide manufacturer test certificate confirming compliance with CAT6 standards | |
| 11 | Application | Suitable for structured cabling of data, IP surveillance, access control and network infrastructure applications | |
| 12 | Warranty | Minimum OEM warranty as applicable for supplied cable | |

| Flap Barrier - Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| | OEM MAF IS MANDATORY | | |
| 1 | Application | Indoor/Outdoor | |
| 2 | Type of Flap | Retractable | |
| 3 | Mechanism | Motorised | |
| 4 | Motor /Drive Unit | 24VDC Brushless DC Motor / Servo Motor | |
| 5 | Power Supply | AC 230V (+/- 10%), 50Hz | |
| 6 | Power Consumption | 30 Watt | |
| 7 | Power Failure | Fail safe or Fail Secure | |
| 8 | Pass Speed or Throughput (Normally Closed) | 20~30 Person / Minute (Excluding Card Authentication) | |
| 9 | Opening/Closing Time | 0.3 Sec (configurable) | |
| 10 | Hold Time | 1-60 Sec (configurable) | |
| 11 | Movement | Bi-Directional (Programmable) | |
| 12 | MCBF (Mean Cycle Between Failure) | 12 Million | |
| 13 | MTTR (Mean time To Repair) | Less than 30min | |
| 14 | Usage | Intensive Use (100%) | |
| 15 | Communication Interface | RS-485, Dry Contact | |
| 16 | Input for Voltage Free Contact | FIRE, Emergency, Access Control | |
| 17 | LED / Visual Indicators | Available | |
| 18 | Housing Material (Standard Housing ) | AISI 304 B rushed | |
| 19 | Infrared Sensors for Monitoring Movement | 10 Sensors | |
| 20 | Finish | Brushed SS | |
| 21 | Housing Material (Standard Housing ) | AISI 304 B rushed or Satin | |
| 22 | Material of Flap | 10 MM Polycarbonate Glass / PU | |
| 23 | Thickness of Housing Material | 1.2 MM | |
| 24 | Ingress Protection | IP44 | |
| 25 | Working Temperature Range | .-25 to +70 Degree C | |
| 26 | Relative Humidity | <95% No Condensation | |
| 27 | Overall Dimensions of Cabinet | 1410*300*990 | |
| 28 | Noise During Operation | 40 db | |
| 29 | Certification | CE | |
| 30 | Passage Width | 550 MM (Standard) / 900 MM (Wide) | |

| Visitor Management - Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1 | QR Code Based Visitor Self Check-In | Enables visitors to scan a QR code at the entrance using their own smartphones to initiate the self-registration process without downloading any mobile application or requiring reception assistance. | |
| 2 | Tablet-Based Visitor Registration | The Visitor Management System shall support visitor registration through dedicated reception kiosks or tablets provided by the organization. Visitors shall be able to complete the entire registration process, including identity verification, photograph capture, purpose of visit, host selection, declaration forms, and digital pass generation using the tablet without requiring their personal mobile devices. The solution shall support both tablet-based registration and QR code/mobile-based self-registration. | |
| 3 | Visitor Registration Data Collection | The Visitor Management System shall collect visitor details including name, photograph, mobile number, email address, organization, designation, government-issued identity proof, visitor category, purpose of visit, date and time of visit, host employee details, vehicle details (if applicable), accompanying visitors, materials or devices carried, and any supporting documents. | |
| 4 | Contactless Visitor Registration | Allows visitors to complete the entire registration process digitally, eliminating paper registers, minimizing physical contact, and reducing waiting time at reception. | |
| 5 | OTP Based Mobile Verification | Authenticates visitors through One-Time Password (OTP) verification sent to their registered mobile number, ensuring secure and genuine visitor identification. | |
| 6 | Host Selection from Employee Database | The Visitor Management System shall maintain a centralized employee database synchronized manually or through integration with HRMS/Active Directory/LDAP. During visitor registration, the visitor shall be able to search and select the host employee by name, employee ID, department, designation, office location, or mobile number. | |
| 7 | Automated Host Notification | Immediately upon visitor registration, the system shall automatically notify the selected host through configurable communication channels including SMS, WhatsApp, Email, and Mobile Push Notifications (where applicable). The notification shall contain visitor details, photograph (if available), organization, purpose of visit, date and time, and a secure approval link. | |
| 8 | Visitor Approval | The selected host shall be able to approve or reject the visitor request directly from the notification by clicking a secure approval link after authentication as per organizational security policy. | |
| 9 | Digital Visitor Pass Generation | Automatically generates a secure digital visitor pass containing visitor details, photograph, QR code, pass ID, visit information, and validity period for seamless access. | |
| 10 | Color-Coded Visitor Passes | Generates different colored visitor passes based on visitor category, allowing security personnel to quickly identify the type of visitor during entry and movement within the premises. | |
| 11 | Multiple Visitor Categories | Supports different visitor types such as official visitors, meeting attendees, delivery personnel, service engineers, contractors, interview candidates, employees, and other customized visitor categories. | |
| 12 | Purpose-Based Visit Management | Allows visitors to specify the purpose of their visit, such as meetings, deliveries, service requests, interviews, or official work, enabling better visitor tracking and reporting. | |
| 13 | Visitor Photograph Capture | Captures or uploads visitor photographs during registration for enhanced identity verification and improved security. | |
| 14 | Pre-Invitation Management | Enables employees or administrators to invite visitors in advance, allowing visitors to receive their digital passes before arrival and reducing check-in time. | |
| 15 | Host Dashboard | The system shall provide each employee with a dashboard to view pending approvals, upcoming visitors, approved visitors, visitor history, and pre-invite visitors, along with options to approve, reject, reschedule, or cancel visits. | |
| 16 | Employee Directory Integration | Maintains a centralized employee database to facilitate host selection, predefined visitor approvers, and streamlined visitor routing. | |
| 17 | Automated Visitor Approval Workflow | Automatically routes visitor requests to designated hosts or department approvers based on predefined organizational rules and approval hierarchies. | |
| 18 | Commercial Tower & Multi-Tenant Support | Allows visitors to select the building, company, office, floor, or tenant they intend to visit, making the solution suitable for commercial complexes and business parks. | |
| 19 | Security Verification Module | Verification of visitor passes by scanning QR codes before granting access to the premises. | |
| 20 | QR Code Based Entry Validation | Uses unique QR codes on every visitor pass for secure verification at entry and exit points, preventing unauthorized access. | |
| 21 | Visitor Check-In & Check-Out Logging | Automatically records visitor entry and exit times, duration of visit, entry point, and exit point, maintaining complete audit trails. | |
| 22 | Real-Time Visitor Dashboard | Provides administrators with a centralized dashboard displaying live visitor statistics, occupancy status, visitor categories, and current visitor movement across locations. | |
| 23 | Analytics & Reporting | Generates graphical and analytical reports such as daily visitor count, visitor trends, office-wise statistics, host-wise visits, peak visiting hours, and historical records. | |
| 24 | Multi-Level Administrative Access | Supports role-based access control with separate permissions for super administrators, office administrators, security staff, reception personnel, and departmental users. | |
| 25 | White-Label Branding | Allows complete customization with the organization's logo, branding, theme colors, visitor pass design, welcome screens, and corporate identity. | |
| 26 | Digital Health & Compliance Declaration | Supports configurable declaration forms, including health declarations, safety acknowledgements, visitor consent, and compliance questionnaires before entry. | |
| 27 | Enterprise SaaS Platform | Delivered as a cloud-based Software-as-a-Service (SaaS) solution that supports centralized management, multi-location deployment, automatic updates, and scalability. | |
| 28 | Secure Digital Visitor Records | Stores all visitor information securely in digital format, enabling quick retrieval of historical records, audit logs, and compliance reports. | |
| 29 | Mobile-First Experience | Entire visitor journey is optimized for smartphones without requiring any application installation, ensuring ease of use for all visitors. | |
| 30 | Security & Compliance Enhancement | Improves workplace security by authenticating visitors, maintaining accurate visitor logs, enabling complete audit trails, and supporting organizational security and compliance requirements. | |
| 31 | Support | The bidder shall provide all software licenses, subscriptions, upgrades, and technical support for a minimum period of five (5) years from the date of commissioning for upto 10000 number of visitors per year. | |
| 32 | Compliances | ISO 27001:2022,GDPR and SOC 2 | |

| Access Control - Technical Specifications | | | |
|---|---|---|---|
| **S. No.** | **Parameter/ Component** | **Minimum Specification** | **Compliance on bidder's letterhead (Attach the Annexure Reference)** |
| | **MAKE AND MODEL** | | |
| | **OEM MAF IS MANDATORY** | | |
| 1 | ACCESS CONTROL SOFTARE | Supply, installation, testing and commissioning of Enterprise level Application including Time Attendance-Access Control, GUI, Antipass back, Reports in inbox, with Unlimited Users, Door Scheduling, Unlimited Client logins, Event Notification, POP ups, Mustur Points, Area Control, Time base access and alerts, AI Dashboard for People Counting,, Occupancy Manager, Software should be VAPT approved and should provide per reader license. Software should expandable and scalable and have capability in future integration of Elevator management, Template management and card priting. Integrated credential issuance application inclusive of card template designing, card printing, finger print enrollment, key management, contactless card reader/writer & contact card reader/writer. Software shall support Access IP and Interface Controllers & Card Readers, Biometric Readers & Enrolment Devices, Card Printers, Card Encoding Devices, Smart Cards, Mobile/Digital Credentials, BLE/NFC based access readers, Flap Barrier, Boom Barrier etc. Software Login shall be secured by providing a strong password implementation policy, enforcing strong passwords with minimum/maximum limits, use of upper-case & lower-case characters, and numeric and special characters. It shall also support policy for password expiry, portal lockout, audit trails, use of captcha etc. Server Browser communication shall be secured using Hypertext Transfer Protocol using Secured Sockets Layer [HTTPS (SSL)]. Server Application Security shall be ensured by developing the software according to ISO 27001 Standards or Information Security & Management Systems (ISMS). Further, it shall be certified for any Vulnerability Assessment & Penetration Testing (VAPT) by a recognized 3rd party testing authority. GDPR, SOC1, SOC2 compliant. Access Controllers to server communication channels shall be secured using TLS or AES 256 Bit Encryption. Access Controllers shall have IPV4/IPV6 (greater connection integrity and security), SNMPv3/ v2c, centralized biometric template management, Cryptographic module, like OpenSSL FIPS Object Module RE, Crypto memory chip for Biometric Templates, credential & user info, DIP Switch Toggle sets 5 minutes to disable web page access. Strong Password Enforcement (8- 64 characters). HTTPS secured web interface for configuration. Access Controllers to Subordinate devices like door modules, Input & output modules shall be secured by using AES256-bit Encrypted RS485 Channel. Reader to Controllers/Door Module communication channel shall be secured using OSDP Secured Channel (SC) Communication. Readers shall have Secured Elements & | 1 |
| 2 | Accss Controller (MASTER) | Access IP Controller with Enclosure and Power Supply Unit : 2 Door 4 Reader with RS485 OSDP. Security Features: Authorized IP address filtering, IP Client Proxy Host communications protected by TLS 1.2/1.1 or AES 128/256 bit data encryption for optimal data protection, Crypto memory chip, IO Expansion connection protected by AES Capacity: Cards/Users : 240000 Offline Event Log: 5,0000 & Communications Built in TCP/IP. IPV4. IPV6, RS-485. Inputs: Seven unsupervised/supervised, Two unsupervised dedicated for cabinet tamper and UPS fault monitoring, Outputs: Four relays. Power : 12 to 24 Vdc 10 %, 500 mA maximum . Supports up to 520 inputs and 516 outputs, 16 card formats per active reader, 8 per offline reader, Open Supervised Device Protocol (OSDP) and OSDP SC compliant, Anti-passback support, Area-based, reader-based, or time based, Nested area, hard, soft, or timed forgiveness, Encrypted database, Supports up to nineteen (19) digit card numbers, Intrusion Alarm Functions: Area monitoring, Standard alarm masking, Fire Integration; open all doors from hardware itself, Temperature: -55 to +85 °C, storage, 0 to +70 °C, operating, Humidity: 5 to 85 % RHNC, Micro USB Port, SD card upto 8 GB. Certifications and Compliances: UL294 Recognized, FCC Part 15 Subpart B, CE Compliant, RoHS, NIST Certified Encryption etc. as per specifications of this tender etc complete as required and directions of Engineer-in-Charge. | |
| 3 | Accss Controller (SLAVE) | Access IP Controller with Enclosure and Power Supply Unit : 2 Door 4 Reader with RS485 OSDP,OSDP Reader Support — Increases security and functionality with secure channel and bi-directional communications, IO Module Encryption — Enhances security between intelligent controller and IO modules with AES-256 encryption, Crypto Chips — Protects against malicious attacks to keep keys and passwords safe, Threat Levels — Define up to seven different threat levels that are used to instantaneously adjust user access during lockdowns and lockouts | |
| 4 | Access Control Reader (FACE & CARD) | **Functional Specification for Facial Recognition Reader** ,<br>Up to 200,000 registered users should be able to be stored by the facial recognition reader, Up to 10,000 faces should be able to be stored by the facial recognition reader with face-liveness detection, As per the schedules and departments' access regulations, the facial recognition reader needs to be able to grant access, The selections on N:N and N:1 ought to be readable by the facial recognition reader, Incorporating the REX button and door sensor inputs should allow the facial recognition reader to support a single door, One relay with a rating of up to 30 VAC/5 A should be supported by the facial recognition reader, There should be a single native Wiegand input and output port on the facial recognition reader, Proximity cards, multidass cards, and face recognition should all be supported by the facial recognition reader, Facial recognition, proximity cards, multidass cards, PINs, passwords, and QR codes should all be supported by the facial recognition reader, A 5" colour LCD panel with a capacitive touchscreen is what the facial recognition reader is required to have, It is necessary to supply 12V/2A power from an external source to operate the face recognition reader, An integrated SIP intercom feature with a built-in speaker and microphone should be included with the facial recognition reader, It is expected that the facial recognition reader will support RTSP., Any logo needed to be able to be inserted into the display by the facial recognition reader, Combined access control and standalone mode should be supported by the facial recognition reader. | |
| | | **Technical Specification for Facial Recognition Reader -**<br>There should be two 1080p Full HD cameras (visible light and infrared light) on the facial recognition reader, One USB 2.0 host port and one native Ethernet (10/100 Mbps) port are needed for the facial recognition reader, With OSDP capability, the facial recognition reader should have a single RS-485 port for communication between the external access control module and terminal, As an option, Wi-Fi connectivity ought to be built within the facial recognition reader, An IP65 rating for ingress protection is required for the facial recognition reader, Any language can be uploaded to the facial recognition reader for approval or denied, There is an option to use facial recognition for time and attendance, The facial recognition reader can authenticate people at a minimum of 0.3 meters and a maximum of 1.8 meters away, The facial recognition reader has a 0.2-second reading speed. | |
| 5 | Smart card | Supply, Installation, Testing & Commissioning of Smart card Frequency Excitation (13.56 MHz) Mifare smart Card, distance upto 2.5" Memory Type EEPROM, 2K bit memory Complies with ISO/IEC standards for thickness. Lifetime Warranty .etc. as per specifications of this tender etc complete as required and directions of Engineer-in- Charge. The card should work in the existing office of OIL India Noida also and should be compatible with the existing system | |
| 6 | Press to Exit Push Button | Press to Exit Push Button Stainless Steel Heavy duty Stainless Steel NO, NC based etc. as per specifications of this tender etc complete as required and directions of Engineer-in-Charge. | |
| 7 | EDR | Emergency Glass Break Unit Single Pole NO. NC Contact. Green/Red/White Color options shall be availble as per specifications of this tender etc complete as required and directions of Engineer-in-Charge. | |
| 8 | EM LOCK (600 LBS) | Supply, Installation, Testing & Commissioning of Single Leaf Electro Magnetic Lock as per door design. Fail safe type. Holding force: 272kg(600lbs). Inbuilt Door contact . Current Drain:320mA/12VDC. Built-in voltage spiker suppressor to protect the lock body | |

| | | | |
|---|---|---|---|
| 9 | EM LOCK (1200 LBS) | Supply, Installation, Testing & Commissioning of Double Leaf Electro Magnetic Lock as per door design. Fail safe type. Holding force: 545kg(1200lbs). Inbuilt Door contact . Current Drain:320mA/12VDC. Built-in voltage spiker suppressor to protect the lock body and equipments. lock body and armature with chemical plating anticorrosion finished. With LED light & brackets CE Certified, etc.as per specifications of this tender etc complete as required and directions of Engineer-in- Charge. | |
| 10 | Cable | 8 core .50 Sqmm Copper Flexible shielded RS485 OSDP communication multi- stand Data Cable etc. all complete as per tender specs. as per specifications of this tender etc complete as required and directions of Engineer-in- Charge. | |
| 11 | Cable | 4 core.50 Sqmm Copper Flexible shielded communication multi-stand Data Cable etc. as per specifications of this tender etc complete as required and directions of Engineer-in- Charge. | |
| 12 | Cable | 2 core 1 Sqmm Shielded communication multi-stand Data Cable etc. as per specifications of this tender etc complete as required and directions of Engineer-in- Charge. | |
| 13 | Compatibility with Existing ACS Platform | The proposed Access Control System (ACS) shall be fully compatible and interoperable with the **IDCube ACS platform** being deployed at OIL's Corporate Office at WTC, Nauroji Nagar to enable unified management of users, access privileges, events and reports. **Bidders shall submit OEM compatibility certification and supporting technical documentation from IDCube**. The successful bidder shall ensure seamless integration without requiring modification or replacement of the existing WTC ACS infrastructure. Successful interoperability shall form part of the acceptance criteria. | |

| ID CARD PRINTER- Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| 1 | Printer Type | Dual Sided ID Card Printer | |
| 2 | Print Technology | Dye-Sublimation | |
| 3 | Print Area | Edge to Edge | |
| 4 | Resolution | 300 dpi (Color & Mono), 600 & 1200 dpi (Mono only) | |
| 5 | Printing | Dual-sided | |
| 6 | Card Feeding | Automatic | |
| 7 | Card Size | ISO CR80 / ISO CR79 (optional factory installed) | |
| 8 | Card Thickness | 0.38 mm (15 mil) to 1.0 mm (40 mil) | |
| 9 | Card Type | PVC, PET, Composite PVC | |
| 10 | Memory | 64 MB RAM | |
| 11 | Display | 2 Line LCD / 2 LED Buttons | |
| 12 | Supported OS | Windows 7/8/10/11, Mac OS, Linux | |
| 13 | Interface | USB, Ethernet (Optional) | |
| 14 | Power | AC100-240V, 50/60Hz, 48W | |
| 15 | Operating Temp | 15–35°C | |
| 16 | Humidity | 35–70% | |
| 17 | Security | Physical Lock & Kensington Lock (Optional) | |
| 18 | Dimensions | 165 × 498 × 210 mm | |
| 19 | Weight | 5.2 kg | |
| 20 | Input Hopper | 100 cards / 200 cards with cover open | |
| 21 | Output Hopper | Front: 40 cards / Rear: 100 cards (Optional rear stacker) | |
| 22 | Print Speed Mono | 5 sec/card (720 cards/hour) | |
| 23 | Print Speed YMCKO | 17 sec/card (212 cards/hour) Front-in/Front-out; 16 sec/card (225 cards/hour) Front-in/Back-out | |
| 24 | Print Speed YMCKOK | 22 sec/card (164 cards/hour) | |
| 25 | Encoding Options | Magnetic (ISO7811), Contact (ISO7816), Contactless (MIFARE, ISO14443 A/B, ISO15693, DESFire, iCLASS) | |
| 26 | Features | Enhanced FINE imaging, improved print speed, state-of-the-art CPU, reduced noise, removable output hopper, transparent card support, CR79 support (optional), front-side mag encoding (optional), all-in-one lock (optional) | |
| 27 | Certifications | CB, CE, FCC | |

| Boom Barrier - Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| | OEM MAF IS MANDATORY | | |
| 1 | Barrier Type | High-speed electro-mechanical boom barrier with 100% duty cycle | |
| 2 | Motor Type | Heavy-duty 24V DC brushless (BLDC) motor | |
| 3 | Barrier Cabinet | 2 MM Thick Mild Steel. Powder Coated | |
| 4 | Barrier Color | RED RAL 3020 or GREY RAL 9006 | |
| 5 | Power Input | 220–240V AC, 50/60 Hz | |
| 6 | Rated Motor Power | Maximum 140 -200 W | |
| 7 | Torque | 300 to 600 NM | |
| 8 | Opening/Closing Time | Adjustable between 1 (2mtr) to 5 seconds (for 8 mtr) | |
| 9 | Boom Arm Type | Aerodynamic Elliptical Aluminum alloy with LED cover on TOP and Rubber gasket on Bottom. Color RAL_9001 or 9010 | |
| 10 | Boom Length | Up to 8 meters | |
| 11 | Boom Height from Mounting | Approximately 900 mm | |
| 12 | Obstacle Detection | Auto-reverse on contact or obstruction | |
| 13 | Control System | Integrated encoder for smooth and silent operation | |
| 14 | Programmability | Adjustable speed, deceleration, and motor force based on boom length | |
| 15 | Operation Frequency | Intensive Use | |
| 16 | Operating Temperature Range | -30°C to +60°C | |
| 17 | Humidity Tolerance | Up to 95% non-condensing | |
| 18 | Ingress Protection Rating | Minimum IP65. Tested by 3rd Party. | |
| 19 | Finish/Construction | Housing made of corrosion-resistant steel with weather-resistant powder coating | |
| 20 | Operational Life | Minimum 12 million cycles | |
| 21 | Remote Control Range | Minimum 30 meters | |
| 22 | Certification | CE or equivalent international certification | |
| 23 | Integrated and Access Control | Compatible with all kinds of access equipment | |

| 32" DISPLAY - Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| 1 | Display Type | Commercial-grade Smart LED TV | |
| 2 | Screen Size | Minimum 32 inch / 80 cm class | |
| 3 | Display Resolution | Minimum HD Ready, 1366 × 768 pixels | |
| 4 | Panel / Backlight | LED display panel | |
| 5 | Refresh Rate | Minimum 60 Hz | |
| 6 | Smart Operating System | Integrated Smart TV operating system | |
| 7 | Commercial Duty Cycle | Suitable for commercial usage, minimum 16 hours/day × 7 days/week | |
| 8 | Viewing Angle | Wide viewing angle suitable for public/commercial viewing | |
| 9 | Picture Processing | Digital picture enhancement / noise reduction features | |
| 10 | Audio | Built-in audio with voice enhancement / equivalent | |
| 11 | HDMI Connectivity | Minimum 1 × HDMI input | |
| 12 | USB Connectivity | Minimum 1 × USB port | |
| 13 | Network Connectivity | RJ45 / Ethernet LAN port | |
| 14 | Wireless Connectivity | Built-in Wi-Fi | |
| 15 | Smart Features | Support smart applications / content playback through integrated OS | |
| 16 | Energy Saving | Energy-saving / eco-friendly operating features | |
| 17 | Power Consumption | Maximum approx. 50 W | |
| 18 | Mounting | Suitable for table-top and wall-mount installation | |
| 19 | Remote Control | OEM remote control to be supplied | |
| 20 | Power Supply | Suitable for standard Indian AC mains | |
| 21 | Accessories | Power cord, remote, stand / installation accessories as applicable | |
| 22 | Certifications / Compliance | Applicable Indian statutory / safety / energy certifications | |

| 75" DISPLAY - Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| 1 | Product | 75" 4K Presentation Display | |
| 2 | Display Size | 75 inch | |
| 3 | Panel Type | TFT LCD Module, DLED Backlight | |
| 4 | Resolution | 3840 x 2160 (4K UHD) OR Better | |
| 5 | Aspect Ratio | 16:9 OR Better | |
| 6 | Brightness | 520 nits (typ.) OR Better | |
| 7 | Contrast Ratio | 5000:1 | |
| 8 | Response Time | 6.5 ms OR Better | |
| 9 | Viewing Angle | 178° H / 178° V | |
| 10 | Colors | 1.07 Billion (8-bit + FRC) | |
| 11 | Backlight Life | 50,000 hours OR Better | |
| 12 | Surface Treatment | Anti-Glare, 3H Hardness, Haze 25% | |
| 13 | Orientation | Landscape & Portrait | |
| 14 | Processor | Quad-core | |
| 15 | RAM | 4 GB OR Better | |
| 16 | Storage | 32 GB OR Better | |
| 17 | Operating System | Android 14 OR Better | |
| 18 | HDMI | 2 x HDMI 2.1 (HDCP 2.2) | |
| 19 | USB | 2 x USB 2.0 Type-A, 1 x USB Type-C (DP1.2, PD65W, USB2.0) | |
| 20 | LAN | 1 x RJ45 | |
| 21 | RS-232 | 1 x In, 1 x Out | |
| 22 | IR Pass Through | 1 x In, 1 x Out | |
| 23 | Speakers | 2 x 10 W | |
| 24 | Power Supply | 100–240V AC ±10% | |
| 25 | Power Consumption | On: 218W, Off: <0.5W OR Better | |
| 26 | VESA Mount | 500 x 500 mm | |
| 27 | Operating Temperature | 0°C to 40°C | |
| 28 | Humidity | 20%–80% RH | |
| 29 | Operating Hours | 24 x 7 | |
| 30 | Certifications | BIS, WPC | |

| ical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| 1 | Product | 6U Wall Mount Network | |
| 2 | Rack Type | Wall Mount | |
| 3 | Rack Height | 6U | |
| 4 | Front Door | Lockable Glass Door with Key Lock | |
| 5 | Side Panels | Fixed Welded/Bolted with Top & Base Frame | |
| 6 | Cable Entry | Bottom | |
| 7 | Mounting Rails | 2 Pairs Heavy Duty 1.5/2.0 mm Vertical Mounting Rails | |
| 8 | Cooling | Provision for 2 Cooling Fans on Top Panel | |
| 9 | Load Capacity | 25–30 kg | |
| 10 | Construction | 1.0 mm Steel (20 Gauge), 1.6 mm Load Bearing Angles | |
| 11 | Power Distribution | 6 Socket Horizontal PDU (5A & 15A) | |
| 12 | Cable Management | Horizontal Metal & PVC | |
| 13 | Shelf Support | 255 mm to 600 mm | |
| 14 | Finish | Powder Coated RAL7035 Light Grey / RAL9005 Black | |
| 15 | Overall Width | 575 mm | |
| 16 | Usable Width | 482.6 mm (19 Inch) | |
| 17 | Overall Height | 330 mm | |
| 18 | Usable Height | 266 mm | |
| 19 | Available Depths | 400 / 500 / 600 / 650 mm | |
| 20 | Usable Depths | 320 / 420 / 520 / 570 mm | |

| UPS - Technical Specifications | | | |
|---|---|---|---|
| S. No. | Parameter/ Component | Minimum Specification | Compliance on bidder's letterhead (Attach the Annexure Reference) |
| | MAKE AND MODEL | | |
| | OEM MAF IS MANDATORY | | |
| 1 | Technology | Online Double Conversion UPS with PWM Based 3-Level IGBT Rectifier & Inverter Topology | |
| 2 | Capacity | 6 kVA | |
| 3 | Input Power Factor | ≥ 0.99 | |
| 4 | Rated Input Voltage | 230V AC, Single Phase | |
| 5 | Input Operating Voltage Range | 110–300 VAC (Load Dependent) | |
| 6 | Rated Input Frequency | 50/60 Hz | |
| 7 | Operating Frequency Range | 45–55 Hz or 54–66 Hz (Auto Sensing) | |
| 8 | Output Voltage | 230V AC ±1% | |
| 9 | Output Frequency | 50/60 Hz ±0.1% (Battery Mode) | |
| 10 | Output Waveform | Pure Sine Wave | |
| 11 | Output Power Factor | 0.8 or better | |
| 12 | Overload Capacity | ≤110% for 60 minutes, ≤125% for 10 minutes, ≤150% for 1 minute | |
| 13 | Crest Factor | 3:01 | |
| 14 | Noise Level | ≤60 dB at 1 meter | |
| 15 | Efficiency | ≥94% in Online Mode | |
| 16 | Harmonic Distortion | <2% THD (Linear Load), <5% THD (Non-linear Load) | |
| 17 | Operating Temperature | 0°C to 50°C | |
| 18 | Relative Humidity | Up to 95% RH, non-condensing | |
| 19 | Audible Alarms | Battery low, mains failure, UPS fault, overload, battery fault | |
| 20 | LCD Display | Input/Output Voltage, Input/Output Frequency, Load %, Load kVA/kW, Battery Voltage, Battery Capacity, Temperature, Power Flow Diagram | |
| 21 | LED Indication | Online, Battery, Bypass, Fault | |
| 22 | Static & Manual Bypass | Available | |
| 23 | DC Bus Voltage | OEM Standard Design | |
| 24 | Battery Backup | Minimum 30 minutes backup on connected load using VRLA/SMF batteries | |
| 25 | Common Battery Bank Support | Available (for parallel operation, if applicable) | |
| 26 | Battery Wire Configuration | OEM Standard | |
| 27 | Input & Output Protection | Input and Output MCB/MCCB Protection | |
| 28 | Construction | Tower Type | |
| 29 | Communication Interface | Standard: RS232, Dry Contacts; Optional: SNMP, Modbus/RS485 | |
| 30 | Parallel Operation | Support minimum 4 units in parallel | |
| 31 | Parallel Kit | Inbuilt or OEM supplied | |
| 32 | Warranty | Minimum 5 Years Comprehensive Warranty on UPS; Battery Warranty as per OEM Standard Policy | |
| 33 | Battery Type | OEM-approved VRLA/SMF batteries conforming to applicable IS/IEC standards | |

| | | | |
|---|---|---|---|
| 34 | Dimensions (W×D×H) | Vendor to specify | |
| 35 | Certifications | CE Marked, ISO 9001, ISO 14001, ISO 27001, ISO 45001, IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, RoHS Compliance | |
| 36 | Battery Management | Intelligent Battery Management, Deep Discharge Protection and Battery Health Monitoring | |
| 37 | Generator Compatibility | UPS shall be compatible with DG sets | |
| 38 | Cold Start Capability | Available | |
| 39 | EPO (Emergency Power Off) | Available | |
| 40 | Service Support | OEM shall provide centralized customer support/helpdesk and escalation matrix | |
| 41 | OEM Eligibility | Bidder/OEM shall not have been blacklisted/debarred by any Central/State Government/PSU as on bid submission date | |
| 42 | Documentation | Datasheets, Warranty Certificate, User Manual and OEM Support Details to be submitted | |
| 43 | Spare & Service Availability | OEM shall ensure availability of spare parts and service support for minimum 5 years after supply | |