



**SHRI MATA VAISHNO DEVI SHRINE
BOARD, KATRA**

**TENDER DOCUMENT
FOR**

“Installation of Robust CCTV Surveillance System”

e-NIT No.: CO/SYS/2024/154

Date: 15-06-2024

Due On: 06-07-2024

**Address: Office of the Chief Executive Officer, Shri Mata
Vaishno Devi Shrine Board, Katra (J&K) -182301**


Website: www.maavaishnodevi.org

Email: admin@maavaishnodevi.net

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Section –1 Notice Inviting Tender

	<p>OFFICE OF THE CHIEF EXECUTIVE OFFICER SHRI MATA VAISHNO DEVI SHRINE BOARD Central Office, Jammu Road, Katra (J&K) – 182301</p> <p>NOTICE INVITING TENDER (For publishing in the Website)</p>	
Tender NO.	e-NIT No. CO/SYS/2024/154, Dated: 15.06.2024	
Tender Forms Available at Website	www.jktenders.gov.in.	
Date and Time of Issue/Publishing	15-06-2024	15:00 Hours
Document Download/Sale Start Date & Time	15-06-2024	15:00 Hours
Pre-Bid Meeting	22-06-2024	11:30 Hours Conference Hall Spiritual Growth Centre Katra, Reasi, J&K
Bid Submission Start Date & Time	15-06-2024	15:00 Hours
Bids Submission Last Date & Time	06-07-2024	15:00 Hours
Date and Time of opening of Technical bid	08-07-2024	11:30 Hours
Place of opening of Technical bid	Central Office, Shri Mata Vaishno Devi Shrine Board, Katra (J&K)-182301	
Date of opening of Financial bid	Shall be intimated later	

- 1.1. On behalf of the Chairman, Shri Mata Vaishno Devi Shrine Board, Katra, e tenders through the e-procurement portal (www.jktenders.gov.in) in setting up a CCTV surveillance system at a broader level along with the establishment of **Seven Sub Control Centres and One Integrated Command & Control Center (ICCC)**.
- 1.2. **Name of the Work: Design, Installation, Testing, Commissioning and Operationalizing (24x7x365 days) for Setting up of CCTV Surveillance Project at the identified locations on the Track / Establishments of SMVDSB from Katra to Bhawan and its Integration with already existing CCTV infrastructure.**
- 1.3. Establishment of **Main Integrated Command & Control Center (ICCC) with LED walls at Spiritual Growth Centre (SGC) Katra and LED Screens at 07 Sub-Control Centres at Bhawan, Bhairon, Sanjichhat, Himkoti, Adhkuwari, Banganga and Tarakote.**
- 1.4. Utilization of existing **OFC (Optical Fibre Cable)** laid on the track to connect the CCTV infrastructure with Sub-Control Centres at Bhawan, Bhairon, Sanjichhat, Himkoti, Adhkuwari, Banganga and Tarakote & with the Integrated Command & Control Center at SGC, Katra to carry out real-time operations.
- 1.5. **TurnKey Project:** Since this is a **turnkey project** hence L-1 will be decided based on the overall lowest rates received by any Firm in Financial Bid.
- 1.6. **Defect Liability Period: 01 year** from the date of Complete installation and commissioning of the System. The Defect liability period shall begin after a period of **One month** from the successful installation commission and operation of complete CCTV surveillance system.
- 1.7. The **Comprehensive Operation and Maintenance** is also required for the **05 years** which shall begin **after the end of Defect Liability period.**
- 1.8. The **e-NIT** consisting of Qualifying Information, Eligibility Criteria, Specifications, Bill of Quantities, (B.O.Q), set of Terms & Conditions of Contract and other details can be viewed/downloaded from the official website of Shri Mata Vaishno Devi Shrine Board www.maavaishnodevi.org and the bidders shall submit their bids only through e-procurement platform at www.jktenders.gov.in.
- 1.9. **Tender Fee of Rs.500/-** (Rupees Five Hundred Only) shall be deposited in the official account of Shri Mata Vaishno Devi Shrine Board, Branch J&K Bank Katra, Account No. 0235040500001804, IFSC – JAKA0KATTRA. Bid received without Tender fee will not be accepted. Details to be mentioned in Annexure-B.
- 1.10. The e-tender document should be accompanied by an **Earnest Money Deposit (EMD)** in the form of **CDR/FDR** amounting to Rs. **12,00,000/- (Rupees Twelve Lakhs Only)** with a **validity period of 06 months** from any Nationalized / Scheduled Bank, duly pledged in favour of **FA/Chief Accounts Officer, Shri Mata Vaishno Devi Shrine Board, Katra.** The Earnest Money of the unsuccessful bidder will be returned within 30

days after the award of contract to the successful bidder. Details to be mentioned in Annexure-B.

- 1.11. **Performance bank Guarantee (PBG):** The Successful Bidder shall have to deposit an amount of **30,00,000/- (Rupees Thirty Lakhs Only)** as Performance Bank Guarantee in the form of Bank Guarantee pledged to **FA/Chief Accounts Officer, Shri Mata Vaishno Devi Shrine Board, Katra** for providing the above-mentioned services which shall be **released after 06 months** following the completion of contract period (**including Defect Liability Period and Operation and Maintenance Period**) subject to the successful accomplishment of the contract. In case the contract is further extended, the performance security deposit shall have to be accordingly renewed by the Contractor for the bid extended period which shall be released after 06 months following the completion of extension period. The performance guarantee shall be forfeited if the contractor prematurely withdraws or if the services are terminated for being unsatisfactory.
- 1.12. The bidder shall mention UTR No. and CDR/FDR detail in the prescribed Technical Bid Form given in *Annexure-B* of this e-NIT. The CDR/FDR in original shall be submitted before the closing time of submission of e-NIT. The complete bidding process will be done online on the e-Tender portal www.jktenders.gov.in only. The tenders should be submitted strictly in accordance with the provisions of the detailed e-NIT. **No Tender will be accepted in physical form.** Bids received without EMD & Tender fee of the requisite amount shall be out-rightly rejected.
- 1.13. **Contract Agreement:** Within **30 days** after the issuance of Letter of Intent / Award, the Contractor shall have to enter into a formal Contract Agreement incorporating all the terms and conditions as embodied in the Bid Documents or modified subsequently in writing and those contained in the Letter of Intent / Award, with the Owner. The following documents shall be deemed to form and be read and construed as part of the Contract Agreement:
 - i) The e-NIT and the Addendums / Amendments / Clarifications issued thereof.
 - ii) Financial Bid Document.
 - iii) Letter of Award (LOA).
 - iv) Conditions of Contract.
 - v) Contract price.
 - vi) Priced Bill of Quantities as accepted.
 - vii) Specifications.
 - viii) Drawings.
 - ix) Other additional documents as exchanged in correspondence on the subject

Section- 2: Instruction to Bidders regarding the e-Tendering process:

- 2.1 To participate in the bidding process, bidders must get (DSC) a “**Digital Signature Certificate**” as per Information Technology Act-2000. This certificate will be required for digitally signing the bid. Bidders can get above mentioned digital certificate from any of the approved vendors. The Bidders, who already possess valid (DSC) Digital Signature Certificates, need not procure new Digital Signature Certificate.
- 2.2 Before submission of online bids, bidders must ensure that scanned copies of all the necessary documents have been attached to the bid.
- 2.3 The Shrine Board will not be responsible for delay in the online submission of bids for whatever reasons from the bidder side.
- 2.4 The amount of the tender fee and EMD specified in the tender documents should be the same, as submitted online (scanned copies) otherwise bid will not be accepted.
- 2.5 Bidders are advised to use the “**My Documents**” area in their user on <http://jktenders.gov.in>, an e-tendering portal to store important documents like Balance sheets, GST Registration Certificate, Tax Clearance Certificate, IT certificates, manufacturers authorization and other related documents etc., and attach these certificates as non-Statutory documents while submitting their bids.
- 2.6 **Bidders are advised not to make any change in BOQ (Bill of Quantities) contents or its name. In no case, they should attempt to create a similar BOQ manually. The BOQ downloaded should be used for filling the item rate as prescribed and it should be saved as it is in the tender document.**
- 2.7 Bidders are advised to scan their documents at 100 DPI (Dots per Inch) resolutions with Black and White in PDF format.
- 2.8 The guidelines for submission of bids online can be downloaded from the website <http://www.jktenders.gov.in>.
- 2.9 The bidder should fully **acquaint himself with site conditions** and other factors that may influence their tender preparation.
- 2.10 **Language of Bids:** The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and the Department, shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long the same is accompanied by

a duly certified English translation in which case, for purpose of interpretation of the bid, the English translation shall govern.

Sd/-
Joint Chief Executive Officer
SMVD Shrine Board, Katra

No.: CO/SYS/2024/154

Date: 15.06.2024

Copy to the:

- 1) Chief Executive Officer, SMVDSB, Katra for kind information.
- 2) FA/Chief Accounts Officer, SMVDSB, Katra for kind information.
- 3) Dy. Manager, IT Division, SMVDSB, for its uploading on the official website of SMVDSB and follow-up.
- 4) Jr. Asstt. (Purchase), SMVDSB, Katra for its uploading on the JK tendering portal and follow-up.
- 5) Concerned file / Master file.

Section-3: General Definitions & Interpretation

- 3.1. In the contract (as herein under defined) unless it is otherwise repugnant to the text, the definition of the following words and expressions shall have the meaning hereunder assigned except otherwise specified:
- 3.2. **“Site”** means the lands and other places on, under, in, or through which the works are to be executed or carried out and any other lands or places provided by the Board for the purpose of the works together with such other places as may be specifically defined in the contract as forming part of the site.
- 3.3. The expression **“Work” or “Works”** mean the works to be executed in accordance with the contract or parts thereof as the case may be and **shall include all additional, altered or substituted works** as required for the completion of the contract.
- 3.4. **“Design”** means the designs referred to in the document and any modification of such designs approved in writing by the Board and such other designs as may from time to time be furnished or approved in writing by the Board.
- 3.5. **“Drawing”** means the working drawings referred to in the document and any modification of such drawings approved in writing by the board and such other drawings as may from time to time be furnished or approved in writing by the Board
- 3.6. **“Bill of Quantities”** means the schedule of quantities or items, materials & rates, summaries etc. as finally accepted.
- 3.7. **“Specification”** means the specifications of the product/item as per the approved standard specification where so required or as mentioned in the contract.
- 3.8. **“Contract”** means this Agreement and all documents which form a part thereof and/or annexed thereto and all amendments thereto made in accordance with the provisions hereof based on Expression of Interest (EOI), e-NIT, addendum, clarification products/item documents including the Financial Bid Document, General conditions of the contract, specifications, designs & drawings, priced schedule & priced Bill of quantities and schedule of rates and acceptance thereof, read in conjunction and complementary to one and other.
- 3.9. **“Contract Price”** or **“Contract Value”** or **“Contract Sum”** means the sum set out hereto as the total value of the contract and shall be subject to additions and/or deductions and rebated in accordance with the provision herein contained.
- 3.10. **“Owner”** means Shri Mata Vaishno Devi Shrine Board, Katra Jammu (J&K) through the Chief Executive Officer, Shri Mata Vaishno Devi Shrine Board, Katra (J&K).
- 3.11. **“Engineer”** means Engineer-In charge or his authorized Representative or such other team as nominated by the competent authority.

- 3.12. **“Contractor”** means who is awarded a contract to perform the work in accordance with the contract and includes the Contractor’s personnel, representatives, successors and permitted assigns. The expression of words in the Bid Document i.e., **“Successful Bidder”**, **“System Integrator”**, and **“Executing Agency”** shall have the same meaning as the “Contractor”.
- 3.13. **“Materials”** means the materials, apparatus, equipment, fittings, fixtures, and other things for incorporation in the works.
- 3.14. **“Approved”** means approved in writing; “approval” means approval in writing.
- 3.15. **“Month”** means a calendar month.
- 3.16. **“Week”** means seven consecutive calendar days.
- 3.17. **“Day”** means a calendar day beginning and ending at midnight.
- 3.18. **"Equipment"** Hardware items provided by the Bidder as described in the Financial Bid Document.
- 3.19. **"Licensed Software"** All Software described in the e-NIT, including all related updates, changes or revisions provided under the Financial Bid Document.
- 3.20. **"Letter of Intent / Letter of Award"** A work order or other written agreement or contract, entered between the successful Bidder and the Client (hereinafter called “LOI” / “LOA”).
- 3.21. **"Software"** means Machine-readable data and/or source code, including executable programs and firmware (permanent software programmed into a read-only memory) and user documentation in written or electronic object code form. "Software" may include Licensed and Unlicensed Software.
- 3.22. **“MEAB”** means Most Economical Advantageous Bid.
- 3.23. An **Original Equipment Manufacturer (OEM)** means a company that designs or formulates a product and contracts a manufacturer (typically, a contract manufacturer or CM) to manufacture the product (typically called an OEM product), which the OEM then either brands as its own or incorporates into its own branded product.

Section 4: Checklist

4.1 Technical Bid: Following documents are required to be submitted mandatorily in the Technical Bid. In case of failure to submit the documents as mentioned here, the bid would be summarily rejected. Bidders are advised to read the instructions carefully in the relevant section before submitting the documents. If the submitted documents are found to be at deviation from the documents asked for in the Tender Document than the bid will be summarily rejected without any correspondence with the bidder.

4.2 Bidders are advised to prepare the bid and mark the page numbers in the bid and mentioned the same in the checklist below.

S.N	Technical Bid Documents	Submitted (Yes/ No)	Page Numbers	Remarks
1	Cost of Tender Document (As per Clause 1.9 of Section 1).			
2	Earnest Money Deposit (As per Clause 1.10).			
3	Technical Bid Performa (Annexure B).			
4	Tender Document signed and stamped on each page as a mark of acceptance.			
5	Bidder details for attending Bid opening (Annexure E).			
6	Experience Certificate as per section 6.2 (p)			
7	Undertaking from Bidder as per Section 6.2 (n)			
8	Undertaking from Bidder that there is no deviation from the specification mentioned in Annexure D (Deviation(s) if any may be clearly mentioned in the Undertaking).			
9	Data Sheets for offered Solution.			
10	Manufacturer Authorization Certificate (MAF) from OEM's for: -			
i)	CCTV Camera			
ii)	Network Video Management Software (NVMS)			
iii)	Network Switch			
iv)	Server			

v)	Workstation/ Desktop Computers			
vi)	UPS			
vii)	Undertaking from Offered OEM's having its service and support centre in India for:			
i)	CCTV Camera			
ii)	Network Video Management Software (NVMS)			
iii)	Network Switch			
iv)	Server			
v)	Workstation/ Desktop Computers			
vi)	UPS			
11	CCTV Cameras, Server, Workstation shall have quality system compliance and shall be STQC/ TEC/ BIS etc certified as applicable to the equipment. All supportive documents should be attached with the technical bid for the following:			
i)	CCTV Camera			
ii)	Server			
iii)	Workstation/ Desktop Computers			
12	"No Malicious Code Certificate" from offered OEM for CCTV Camera and Network Video Management Software (NVMS).			
i)	CCTV Camera			
ii)	Network Video Management Software (NVMS)			
13	Undertaking from Offered OEM of CCTV Cameras and Network Video Management Software (NVMS) that these products are ONVIF compatible. ONVIF is an open industry forum that provides and promotes standardized interfaces for effective Interoperability of IP-based physical security products.			
i)	CCTV Camera			

	ii)	Network Video Management Software (NVMS)			
14		Declaration from CCTV OEM that MAC address of proposed CCTV Cameras are registered in the name of OEM supplying the cameras.			
15		Signed declaration on letterhead from offered OEM for CCTV Camera and NVMS that offered camera models & NVMS software are integral and support the configurations of the system.			
	i)	CCTV Camera			
	ii)	Network Video Management Software (NVMS)			
16		Items of which specifications are not mentioned in tender document should be of ISI/Industrial standards marked or according to applicable Governments Norms.			
17		Any other document (s) as required in the bid elsewhere. (Please mention details)			

Section 5: About e-NIT

5.1. Purpose of e-NIT:

The intent of this e-NIT is to invite proposals/bids from the prospective Bidders to design, install, implement, and maintain the CCTV project infrastructure and solutions as per the requirements of the Shrine Board. Bidders are requested to read all the clauses of this e-NIT carefully and **visit the sites/locations** where the CCTV network is proposed to be established/integrated with existing CCTV infrastructure, before submission of the bid/tender. The project is focused on building CCTV infrastructure with proposed solutions of General Surveillance, Facial Recognition System (FRS), Intrusion Detection System (IDS), Gesture Recognition, Automatic Number Plate Recognition System (ANPR) (for vehicles), the headcount of the pilgrims/persons on track, and Integrated Command & Control Center.

5.2. Project overview:

- i) The Shrine area falls under the Union Territory (UT) of Jammu & Kashmir which is in constant threat of militancy and insurgency activities for a very long time. The Shrine Board is primarily responsible to manage/regulating the yatra on the track and to maintain law and order situations, for which the platoons of JKAP & CRPF are engaged/deployed at all important locations on the track. The safety & security of the pilgrims is the prime concern of the Shrine Board and accordingly, undertaken several initiatives to enhance the surveillance systems.
- ii) Over a different period, **Bullet, Dome and, PTZ cameras** have also been installed at strategic locations for tracking and movement of pilgrims on the track for managing the flow of yatra, effectively (List of already installed CCTV cameras is enclosed as *Annexure G*).
- iii) The proposed list of new cameras along with the location is enclosed as Annexure F. A total of **177 new cameras** along with mentioned type are proposed to be installed at the said locations. However, the successful Bidder must work out the exact location as per the site requirement (considering maximum coverage of that area) and submit the final plan to the Board for review before installation of CCTV Cameras on the track/locations specified.
- iv) Connectivity and installation of screens at existing Sub Control Centres for CCTV monitoring at the offices of unit heads. The units include Bhawan, Bhairon Ji, Adhkuwari, Sanjichhat, Banganga, Himkoti and Tarakote
- v) The comprehensive CCTV Surveillance Project envisages the creation of an integrated network of CCTV cameras with **07 Sub control centres** and One Integrated Control Centre as follows:
One Integrated Command and Control Centre at Spiritual Growth Centre Katra and Seven Sub-Control Centres at:
 - 1) **Bhawan**
 - 2) **Bhairon**
 - 3) **Sanjichhat**
 - 4) **Himkoti**
 - 5) **Adhkuwari**
 - 6) **Banganga**
 - 7) **Tarakote**

5.3. Data Sheet

S.No.	Particulars	Detail
1.	Method of selection	The Bidder shall be selected based on: a) Qualifying the technical eligibility. b) Lowest rate offered in Financial Bid.
2.	Tender Fee	Rs. 500 (non-refundable)
3.	Earnest Money Deposit (EMD)	Refundable amount of INR 12,00,000/- (Twelve Lakhs Only) (through FDR/CDR only) valid for a period of 06 months pledged to FA/Chief Accounts officer, SMVDSB, Katra.
4.	Performance Bank Guarantee	Refundable amount of INR 30,00,000/- (Thirty Lakhs Only) to be submitted by the successful bidder with a validity period including Defect Liability Period and Operation and Maintenance period.
5.	Tender Validity Period	120 days from the Proposal due date
6.	Tender Currency	INR
7.	Consortium to be allowed	No
8.	Project Completion	90 days for complete setup and roll out of the system from the date of issuance of LoA.
9.	Monitoring	A team comprising AEE (Electrical), Dy. Manager IT, Assistant Manager IT and Unit Heads of the SMVDSB with executing agency will monitor and audit the project and its functioning during the entire contract period.
10.	Presentation	As enclosed in clause 5.10
11.	Contact person	Joint. CEO (S) -9419903050 AEE (Elect.) -9419195706 Dy. Manager IT -9906019486 Asstt. Manager IT - 9086055620
12.	Email id for correspondence	jtceos@maavaishnodevi.org admin@maavaishnodevi.net
13.	Sustainability	The project should be sustainable in nature and shall provide the services for the next 10 years .

5.4. Penalty: In case of failure of the successful Tenderer to complete the work within **90 days** or **non-execution of agreement** with Shrine Board within 30 days after the issuance of Letter of Intent / Award as stipulated period as per Clause No. 1.13 of this e-NIT, the penalty shall be imposed upon delay as per the following order

- i) For 1 to 10 days of delay LD should be @ 1% of value of the contract
- ii) For 11 to 20 days of delay LD should be @ 2% of value of the contract
- iii) For 21 to 30 days of delay LD should be @ 3% of value of the contract
- iv) For 31 to 45 days of delay LD should be @ 5% of value of the contract.
- v) Beyond 45 days of delay Security deposit will be forfeited and department would be free to award remaining work to other agency at the cost of vendor.

5.5. Expected Outcomes of Project:

- a) Effective surveillance of the entire Track (Yatra Route) including its establishments and perimeter areas at key locations around the clock.
- b) **All Weather** CCTV integrated video surveillance system and **IP-based** high-end resolution cameras having **clear day & night vision**.

- c) Software solutions based on AI/ML algorithms to be integrated into the system. Provision of integration of SMVDSB CCTV system with JKP UT wide CCTV surveillance system.
- d) An online display of video images on **LED Walls** at the Integrated Command & Control Centre as well as LED Screens in Sub Control Centres.
- e) Installation of AI/ML based High-End Resolution Cameras at selective locations for **Automatic Number Plate Recognition (ANPR), Gesture Recognition (GR), Intrusion Detection System, Facial Recognition System & Headcount Facility** as specified in Annexure-F
- f) Deployment of adequate manpower as specified in Clause 7.27 for round-the-clock monitoring and onsite maintenance.

5.6. Technical Clarifications:

Bidders desiring any technical clarification may contact IT Section, Office of the Chief Executive Officer, Shri Mata Vaishno Devi Shrine Board Katra Jammu and Kashmir 182301 between 10:00 Hours to 17:00 Hours on any working day up to five days before the bid closing date. Clarifications can also be sought through e-mail id admin@maavaishnodevi.net . However, the tender submission and tender closing dates will remain the same.

5.7. Responses to pre-bid queries and issue of corrigendum:

- a) At any time prior to the last date for receipt of bids, SMVDSB may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the e-NIT Document by a Corrigendum/Addendum.
- b) The Shrine Board will try to provide timely responses to all queries. However, SMVDSB makes no warranty as to the completeness or accuracy of any response, nor does SMVDSB undertake to answer all the queries that have been submitted by the Bidders.
- c) **Shrine Board reserves the right to modify the terms & conditions of e-NIT** in view of any practical modalities which may emerge during or after the pre-bid meeting and the same shall be notified through a Corrigendum or Addendum and the said documents shall automatically become the part of the e-NIT.
- d) Information regarding the changes in the terms & conditions in the e-NIT shall be uploaded in the form of Corrigendum/Addendum on the Shrine Board's official website i.e. www.maavaishnodevi.org and J&K Tendering Portal i.e. www.jktenders.gov.in. The Board shall not be responsible for any claims by the Tenderer with regard to ignorance of any notifications published by the SMVDSB in the e-procurement platform.
- e) The Board shall not be responsible for ensuring that the Bidders' queries have been received by them. Any requests for clarifications post the indicated date and time may not be entertained.
- f) In order to provide prospective Bidders reasonable time for taking the corrigendum/addendum into account, the SMVDSB may, at its discretion, extend the last date for the receipt of Proposals.

5.8. Format and Signing of Bid:

- a) The Bidder shall prepare one electronic copy of each of the technical e-Bid and Financial e-Bid separately.
- b) The e-Bid document shall be digitally signed, at the time of uploading, by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The letter of authorization shall be indicated by a scanned copy of the written power-of-attorney

accompanying the e-Bid. All the pages/ documents of the e-Bid that are to be uploaded shall be digitally signed by the person authorized to sign the e-Bid.

5.9. Deviations and Exclusions:

1. Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the e-NIT. The Bidder shall submit a **No Deviation Certificate** as per the **Annexure- D** mentioned in this e-NIT.
2. The bids with deviation(s) are liable for rejection.

5.10. Schedule of the Presentation:

The bidders selected after the Technical Evaluation will be invited for presentation. The Date, Time and location of the presentation will be shared with the selected bidders 48 Hours prior the scheduled Date of presentation.

5.11. Right to Accept Any Proposal and To Reject Any or All Proposal(s):

The SMVDSB reserves the right to accept or reject any proposal, to annul the tendering process / Public procurement process and reject all proposals at any time prior to the award of the contract, without stating any reason thereof without owning any liability.

5.12. Study of Local Conditions:

- a) The intending tenderers are advised to study the tender documents, concerned specifications and other instructions carefully. The tenderer shall inspect the proposed site of work and acquaint himself themselves with the site conditions, working hours and all relevant items connected with execution of work. The submission of tender shall be deemed to have been done after careful study and examination of the tender papers with full understanding of the implications thereof.
- b) It is the Bidder's responsibility that factors including temperature, snowfall, humidity, lightning, wind speed and seismic impact etc be properly investigated and considered while submitting the bid proposals and no claim whatsoever including those for financial adjustment to the contract awarded under the bidding documents will be entertained by the Board. Neither any change in the time schedule of the contract nor any financial adjustments arising thereof shall be permitted by the SMVDSB on account of the failure of the Bidder to know the local laws /conditions.
- c) For the convenience of the prospective bidders a site visit/tour shall be arranged by the Shrine Board on 19.06.2024. The site visit shall be accompanied by the Technical Team of the Shrine Board to address the queries of the bidders. Only one representative of the bidder's firm shall be allowed for the site visit with the Shrine Board's team. All boarding & lodging for the representatives during the site visit shall be arranged by the bidder. The representatives of interested Bidders shall gather at Spiritual Growth Centre, Katra at 10:30 AM (sharp) on the above-specified date.

5.13. Contacting the Tenderer:

Any effort by a Bidder influencing the Tenderer, bid evaluation, bid comparison, or contract award through any means or decisions may result in the rejection of the bid outrightly.

Section 6: General Terms & Conditions of Contract

6.1. Bid Submission Documents:

Technical bid contains the documents, which would enable the bidder to qualify for the technical stage of the bid such as Pre-Qualification documents, Technical Compliance, Data Sheets, Un Priced BOQ etc. **No Financial/ prices are to be quoted in technical bid. If the financial price is quoted in Technical then the bid would be summarily rejected as non-responsive.**

Bidders are advised to read the instructions carefully in the relevant section before submitting the documents. If the submitted documents are found to be a deviation from the documents asked for in the Tender Document, then the bid will be summarily rejected without any correspondence with the bidder.

- a. Cost of Tender Document (As per Clause 1.9).
- b. Technical Bid Performa (Annexure B).
- c. Tender Document signed and stamped on each page as a mark of acceptance
- d. Letter for Authorization for attending Bid opening.
- e. Experience Certificate as per Clause 6.2(p).
- f. Undertaking from Bidder as per Clause 6.2(n).
- g. Undertaking from Bidder that there is no deviation from the specification mentioned (Annexure D)
- h. Data Sheets for offered Solution
- i. Manufacturer Authorization Certificate (MAF) from OEM's for: -
 - i. CCTV Camera
 - ii. Network Video Management Software (NVMS)
 - iii. Network Switch
 - iv. Server
 - v. Workstation
 - vi. UPS
- j. Undertaking from Offered OEM's having its service and support centre in India for: -
 - i. CCTV Camera
 - ii. Network Video Management Software (NVMS)
 - iii. Network Switch
 - iv. Server
 - v. Workstation
 - vi. UPS
- k. CCTV Cameras, Servers, and workstations shall have quality system compliance and shall be Standardisation Testing and Quality Certification (STQC)/ Certification of Telecommunication equipment (TEC)/ Bureau of Indian Standards (BIS) etc certified as applicable to the equipment. All supportive documents should be attached to the technical bid.
- l. Undertaking from Offered OEM of CCTV Cameras and Network Video Management Software (NVMS) that these products are ONVIF compatible. ONVIF is an open industry forum that provides and promotes standardized interfaces for the effective Interoperability of IP-based physical security products.

- m. Undertaking from Network Video Management Software (NVMS) that NVMS is FIPS 140-2 compliant & same shall be demonstrated if required.
- n. Declaration from CCTV OEM that the MAC address of proposed CCTV Cameras is registered in the name of OEM supplying the cameras.
- o. Bidders shall ensure that the NVMS, cameras, and VA are not from the same OEM and are seamlessly integrated.
- p. Signed declaration on letterhead from offered OEM for CCTV Camera and NVMS that offered camera models & NVMS software are integrable and support the configurations of the system.
- q. Items for which specifications are not mentioned in the tender document should be of ISI/Industrial standards marked or according to applicable Governments norms.
- r. The Bidder should submit a certificate of registration under the Companies Act 1956/2013 as amended.

6.2 Prequalification Documents: -

- a. Signed and Stamped on each page of the Tender Document as an acceptance.
- b. The Bidder should submit a certificate of registration under the Companies Act 1956/2013 as amended.
- c. The tender is in two parts (TECHNICAL AND FINANCIAL), only those who have adequate experience for installation and day-to-day maintenance of CCTV Cameras shall apply.
- d. Manufacture Authorization Letter is required to be submitted confirming that the bidder is authorized to quote the products of OEM & product should comply with the requirement of this Board as per specifications given in the tender document.
- e. An Undertaking from the camera and Network Video Management Software (NVMS) OEM's having its **service and support centre in India**.
- f. Offered cameras and NVMS software repair/troubleshooting shall be supported by OEM's India, the letter stating the same from OEMs with service centre address shall be submitted.
- g. Signed declaration on letterhead from the bidder of the offered surveillance camera & NVMS shall be submitted confirming that offered camera models & NVMS software are integrable and support the configurations of the system.
- h. Cameras shall have quality system compliance and shall be STQC/TEC/BIS etc. certified as applicable to the equipment. All supportive documents should be attached to the technical bid.
- i. **NVMS (Centralized Software) should have the capability of being scalable and can add up to 1000 Cameras (For Viewing and recording). An undertaking by Bidder in this regard is to be submitted.**
- j. Data Sheets of each item in respect of which rates are quoted should also be attached.
- k. Technical Compliance sheet should also be attached from the bidders' end giving an undertaking that the items to be provided by them comply with the specifications provided in the tender.

- l. The Bidder should clearly mention if there is any deviation from the specification or else no deviation certificate may be enclosed.
- m. The Bidder should **not have been debarred/black-listed by any Central/State Government Agency**. An **undertaking** by the bidder in this regard is to be submitted.
- n. Bidder has to submit the “No Malicious Code Undertaking Letter” for the CCTV cameras and VMS.
- o. Since this is a turnkey project hence L-1 will be decided on the basis of the overall lowest rates received by any Bidder in the Financial Bid.
- p. The Bidding Firms should have completed CCTV projects having a cumulative value of **Rs. 4.00 Crore during the last three financial years**.

Or

Should have completed at least one CCTV project having a minimum value of **Rs. 2.00 Crore during the last three financial years**.

Or

The Bidder should have done similar nature of work including a **single order** consisting of **a minimum of 200 IP cameras** for a surveillance project with any State/Central Govt./PSUs/Corporate sector in India during the **last three years**.

Copies of experience certificates of the equivalent document in support of satisfactory completion of CCTV installation from clients shall be provided. The experience certificate should be signed by an authorized signatory.

- q. The Bidder should have a **cumulative turnover of at least INR 10.00 Crore** for the **last three financial years** in the field of IT/ITES/Telecom and Surveillance. The Bidder should have a **positive net worth** in each of the **last two financial years**. Statutory certificates from the Auditor/CA are to be enclosed.
- r. **EMD** as desired in the tender.
- s. Details of Quoted OEMs in the Financial Bid products have to be furnished by the bidder.

6.3 Technical Evaluation Criteria: -

- a) Only those Bidders who qualify for the eligibility criteria will be evaluated for the technical evaluation. Bidders who do not qualify for the Pre-qualification criteria, their technical bids and financial bids will not be evaluated.
- b) Similar work for the purpose of Pre-qualification and Technical Evaluation in this Document is defined as a Surveillance project consisting of IP cameras, Smart city projects having surveillance solutions as a component shall be considered as an experience.
- c) The Service Provider should submit the following documents as documentary proof:
 - **In case of Completed Projects:** Copy of work order/contract and completion certificate.
 - **In case of Ongoing Projects:** Copy of work order/contract.
 - **In case of Partial completion:** Certificate work from client / CA of the Bidder.

d) Technical Evaluation shall be based on the following parameters and associated Weightage:

S.No	Description	Criteria	Max Points
1.	Cumulative Turnover in the last three Financial Years	>30 Crore	10
		20 - 30 Crore	7
		10 - 20 Crore	4
2.	Contract Value: Experience of Service Provider in executing similar Projects (Completed) with State / Central Government / PSU departments / Corporate Sector during last three financial years.	> 10 Crore	10
		05-10 Crore	7
		02-05 Crore	4
3.	Experience of Service Provider in IT / ITES / Telecom / Security / Safety / Surveillance in number of years with/for State / Central Government / PSU departments / Corporate Sector.	> 10 years	10
		05 - 10 years	7
		02 - 05 years	4
4	Profile Presentation (Methodology, plan & understanding, Timeline, Prestigious Awards etc.). Proof of Concept: Ability to demonstrate the key features and functionality.		20
Maximum Total Score			50

For qualifying in the technical bid, the bidder must score a **minimum of 35 points out of 50** as mentioned in the above point matrix table failing which the financial bid shall not be opened and the submitted bid shall be rejected.

However, it shall be at the sole discretion of the Chief Executive Officer, SMVDSB to lower the cut-off limit suitably in-order to have healthy & sufficient competition in the financial bid.

Financial bids of the technically qualified bidders shall be opened and the L-1 bidder shall be considered for the allotment of the contract. In case of a **tie in the financial bid**, the bidder scoring more in the technical bid evaluation shall be considered for the allotment of the contract.

6.4. Procedure of submission of e Tender

Bidders are invited to submit their Bids in two parts viz. Technical Bid as per **Annexure-B** and Financial Bid as per **Section 9** along with supporting documents, application fee, EMD etc. The bidders are required to submit their tenders under two bids system with Cover-I (Technical Bid) and Cover-II (Price Bid).

A. Cover-I (Technical Bid):

(This cover shall contain):-

- i) Annexure-B form duly filled in along with relevant documentary proofs.
- ii) Scanned copies of EMD in shape of CDR / FDR pledged to Chief Accounts Officer, SMVDSB for Rs 12,00,000/- (Twelve Lakhs Only)
- iii) Tender Fee of Rs.500/-in the official account of Shri Mata Vaishno Devi Shrine Board Branch J&K Bank Katra, Account No. 0235040500001804, IFSC – JAKA0KATTRA (in IFSC Code JAK0KATTRA – 0 stands Zero). The bidder shall mention UTR No. in the prescribed Technical Bid Form at Annexure-B.
- iv) Declaration Certificate as enclosed at Annexure – C
- v) No Deviation certificate as enclosed at Annexure-D
- vi) Bidder's details as per Annexure – E.

Scanned Copies of all the Technical Bid documents have to be uploaded online.

B. Cover-II (Financial Bids):

- i. The Tenderer shall submit the Price bid strictly as per BOQ through an online e-procurement/tender platform only i.e. www.jktenders.gov.in. The price bid table is available at Section 9 of this e-tender which is indicative and just for the understanding of the bidder.
- ii. The bidder shall not submit the BOQ as mentioned in Section-9 of this e-tender with the Technical Bid.
- iii. Financial / Price bid shall be opened for only those Tenderer who have qualified the Technical Bid.
- iv. The price bid should be absolute and unconditional.
- v. Conditional bids shall be out rightly rejected.
- vi. Price bids not conforming to BOQ or having any flaws shall be rejected.
- vii. The price should be inclusive of any duties, freight, levies charges (inclusive of GST) or any other charges likely to be imposed by the Centre/ State Government or any other statutory authority etc. Any variation in the tax component by the Government will be borne by the Shrine Board.
- viii. The price bid shall remain valid for a period of **03 months** from the last date of receipt of bids.

No Bid shall be accepted in physical form. The bidders shall submit original instruments in the office of the Chief Executive Officer, SMVDSB, Katra by or before 05.07.2024 i.e. cost of tender document deposited in Shrine Board Account, Earnest Money Deposit and other relevant documents, before the closing time of submission of this e-NIT.

6.5. Award of Contract:

- i) Letter of Award (LoA) shall be issued to the (L-1) selected Bidder.
- ii) The selected bidder will sign the contract after fulfilling all the formalities/pre-conditions mentioned in the Letter of Award, within **30 days** of issuance of the Letter of Award.
- iii) The selected bidder shall commence the assignment on receipt of the LoA and as per the schedule given to him.

6.6. Forfeiture of EMD/Performance Bank Guarantee:

Earnest Money Deposit / Performance Bank Guarantee amount in full or part may be forfeited, including interest, if any, on grounds of the following:

- i) Any terms and condition of the contract is breached.
- ii) The Bidder fails to make complete supply & installation satisfactorily.
- iii) If the Bidder breaches any provision of code of integrity, prescribed for Bidders, specified in the Bidding document.
- iv) If the Successful Tender does not execute the agreement with the Shrine Board within the stipulated time period.

6.7 Failure to Agree with the Terms and Conditions of the e-NIT:

Failure of the successful Bidder to agree with the and Terms & Conditions of the e-NIT and Draft Legal Agreement shall constitute sufficient grounds for the annulment of the award, in which event the Purchaser may award the contract to the next best value Bidder or call for new proposals from the interested Bidders.

6.8 **Sub-contracting:**

Sub-contracting shall be allowed for fitting of equipment including civil works only with prior written approval of Chief Executive Officer, SMVDSB, Katra. However, even if the work is sub-contracted, the sole responsibility of the work shall lie with the bidder. The bidder shall be held responsible for any delay/error/non-compliance etc. of its sub-contracted vendor. The details of the sub-contracting agreements (if any) between both the parties would be required to be submitted to the Shrine Board.

Section 7: Requirement of the Tender (Scope of the Successful Tenderer)

- 7.1 Installation of CCTV infrastructure at all required locations, as per Annexure-F to this e-NIT. The number of cameras & location are tentative in nature and there can be an increase of 20% of the total quantity of cameras in each category depending upon the requirement in the near future. Bidder must consider the same while quoting the final.
- 7.2 **Establishment of Sub-Control Centers** at all strategic locations *viz.* **Bhawan, Bhairon, Sanjichhat, Himkoti, Adhkuwari, Banganga, Tarakote.** Regular data to be stored up to **07 days for each unit respectively** of all the installed cameras. The sub-control centres will have LED screens of 50” each.
- 7.3 **Establishment of the main Integrated Command & Control Center at SGC, Katra** with installation and commissioning of various hardware components (storage, security, network, and computers) along with required software applications. Regular data to be stored up to **30 days of all the installed cameras.** Video wall for integrates command and control centre with a display size of 144” diagonal.
- 7.4 **Integration of existing cameras:**
Integration with existing surveillance systems and surveillance feeds. Service Provider shall provide VMS licenses needed for viewing the feeds. The VMS shall have the provision to support & run analytics on supported camera on live as well as recorded data (forensic search).
- 7.5 **Network and Bandwidth:**
- i) Between field camera locations and Sub Control Center
 - ii) Between Integrated Command and Control Center and Sub Control Center
 - iii) Required network bandwidth at various levels (Sub-Control Stations and ICCC) to be provisioned as per the proposed solution.
 - iv) Ensuring Zero Redundancy.
 - v) The proposed CCTV Surveillance System including Sub-Control Centres and an Integrated Command & Control Centre (ICCC) at SGC Katra shall cover all security aspects across the track/major establishment areas of Shri Mata Vaishno Devi Shrine Board (24x7).
- 7.6 **Training:**
- i) The scope of work envisages that the Bidder shall undertake to train the staff nominated by the Department in different aspects of equipment, functioning, testing, operation & administration free of any.
 - ii) The Bidder shall at every stage of installation; testing and commissioning provide all facilities for adequate training to the staff nominated by the Board, who may be deputed to work on the project.
 - iii) The system Administration and Maintenance Training program, at the location specified by the board, will be structured to train officers/officials nominated by the Board.
 - iv) The training programs should be for at least two days and at least 6 hours per day.
 - v) Bidder will provide complete details on the training programs to be offered including:
 - a) Material to be covered.
 - b) Number of hours of training per operator of technician for each specific course
 - c) Supporting documentation to be provided.
 - vi) Commissioning of the project would not be linked with the Training
 - vii) The boarding and lodging facilities shall be arranged by the Shrine Board on a payment basis.

7.7 All the **allied works (Civil/Electrical/Mechanical)** related to the CCTV Surveillance project shall be in the scope of prospective bidders and shall be undertaken by the service provider including safety Awareness Stickers, Signage with Surveillance Camera demarcation. Camera Housing for camera protection from shooting stone and monkey menace. Dedicated network terminal at every outdoor location to connect with Data Centre. Service Provider shall undertake the required cabling according to J&K Standards. The service Provider shall install the required number of lightning arrestors/Surge Protection Devices and ensure that all the proposed hardware to be installed and existing CCTV infrastructure under the CCTV project shall be covered under SPDs. In case, any equipment/device/hardware is damaged due to thunder/lightning, the Service Provider shall repair/replace the same at his own cost.

7.8 **Network Backbone - Existing:**

The Shrine Board has already established **the 10G optical fibre network backbone** across the track up to Spiritual Growth Centre, Katra which is a common backbone for various applications and services like IP-CCTV, PA System, Audio-Visual (Video walls), VoIP (EPBAX) and others. The 24 Core Single Mode Fibre is deployed across the old track while the new track (Tarakote Marg) is with 48 Core Fibre

- i) The selected Bidder has to ensure that the entire solution is operational with the IT and Non-IT equipment mentioned in the Bid.
- ii) The selected Bidder has to supply, install, commission and integrate all the CCTV Cameras with the existing network.
- iii) The cameras within the 80-meter range from the edge switch in the booth at every 500 meters are to be connected on edge switches. The selected Bidder has to feed power to the camera viz PoE+ injector or external power to the cameras. The power line/PoE+ injector to power the camera lies in selected Bidder's scope.
- iv) The selected Bidder has to supply the Industrial – Grade Switches and Enterprise-Grade Switches (to be installed at a distance more than 80 meters from the booth edge switches). These switches are meant for outdoor locations.
- v) The industrial-grade switches shall be installed in an appropriate size IP67 enclosure of a reputed brand. All the accessories for the installation of switches and cameras shall lie in the scope of the selected Bidder.
- vi) The selected Bidder shall do proper earthing and grounding of the entire CCTV Surveillance System. The earthing resistance value shall not be more than 2 ohms.
- vii) The ground screw on the switches must be connected to a properly earthed bonding point.
- viii) The supply of switches, associated fibre, patch cords, patch panels, lockable LIU, and Rack with accessories will be in the scope of the selected Bidder. For the termination of fibre link on the booth access switch, selected Bidder has to supply a Gigabit media convertor of Switch OEM. Bidder shall include all related accessories in their commercial and technical offer.
- ix) For IP CCTV cameras in indoor locations, enterprise-grade switches shall be used whose Supply lies in the scope of Bidder.
- x) Bidder shall be responsible for the integration of a complete IP-CCTV surveillance system with the existing network backbone and Command & Control Center, Katra.
- xi) Selected Bidder shall terminate all application servers on Switches at Command & Control Centre, Katra.

7.9 Video Analytics:

- i) Implementation of **Video Analytics** as specified against each location under Annexure-F
- ii) Safety Awareness Stickers, Signage with Surveillance Camera demarcation.

7.10 Terms of payments: -

- i) Payment of 40% of the tender price will be released on delivery of material, on pro-rata basis after receipt acknowledgement/ note of goods received at Engineering store Banganga. The payment will be released after the inspection of the received material by the technical team of the Shrine Board and after the production of a certificate by the technical team.
- ii) Payment of 20% of the tender price to be released on Installation and Commissioning of the entire system.
- iii) Payment of the balance 20% of the tender price will be subjected to adjustment of any overpayment and completion of work in all respect i.e., Commissioning, testing, handing over and successful operation for a period of one month by staff of the Shrine Board trained by the vendor. Any shortcomings found during this period will be removed by the vendor at his own expense.
- iv) Payment of 10% after the completion of Defect Liability Period of 01 Year.
- v) The payment will be made on a quarterly basis every year after satisfactory completion of the jobs for subsequent years for Comprehensive Operation and Maintenance for 05 years. For any deficiency found in the service, up to 05% penalty on the cost of yearly maintenance charges should be imposed on the successful bidder/contractor.
- vi) After commissioning of the system, bidder would inform the Board in writing for taking over the project by the trained staff for the project. It shall be the responsibility of the Board to take over the system and depute officers for training within one month

7.11 Force Majeure:

In no event shall either Party have any liability for failure to comply with this Agreement, if such failure results directly from the occurrence of any contingency beyond the reasonable control of the Party, including, without limitation, strike or other labour disturbance, riot, major power failure, war, natural calamities including but not limited to floods, earthquakes, fire, volcanic eruptions, epidemics, National Emergency, interference by any government or governmental agency, embargo, seizure, or enactment or abolition of any law, statute, ordinance, rule, or regulation (each a " Force Majeure Event"). In the event either Party is unable to perform any of its obligations under this Agreement because of a Force Majeure Event, the Party who has been so affected shall as soon as may be, after coming to know of the Force Majeure Event, inform the other Party and shall take reasonable steps to resume performance as soon as may be after the cessation of the Force Majeure Event. If the period of non-performance due to a Force Majeure Event exceeds thirty (30) days, the Party whose ability to perform has been so affected may, by giving written notice, terminate this Agreement.

7.12 Extension:

The Comprehensive Operation and Maintenance may be extended in favour of the firm by the Board on request of the firm, on the same rates, terms & conditions as in the present contract on the basis of satisfactory service for further one year.

- 7.13** Items mentioned in the tender document are approximate quantities. CCTV Systems and other items mentioned in the tender may be increased or decreased up to **20%**. The payment will be made on pro-rata basis.

7.14 Spares:

- i) Bidder shall have to set up a store with original stock/spares & accessories (tested / OK) for the installed CCTV Surveillance System separately equivalent to 5% of each equipment & accessories of the same as mentioned in Bill of Quantities as contingency reserve for immediate repair and maintenance/replacement of faulty parts of the system to ensure the seamless functioning of the CCTV Surveillance System (24x7). The Bidder shall maintain stock of 5% reserve/standby throughout the Contract without any extra cost with the proper stock entry of every item/accessory.
- ii) The cost of these 5% spares shall be within the cost of the CCTV project.

7.15 The successful Bidder shall ensure the guarantee of supply of original Spares from OEMs (either the same model or successor model) for at least 10 years after the commissioning of Project.

7.16 The bidder has to ensure that the products and services being offered meet the latest guidelines issued by the Government of India.

7.17 Key Aspects:

- i) System shall facilitate the viewing of live & recorded video/audio / images and control of all cameras only by authorized representatives.
- ii) The CCTV Camera OEM shall be a member of ONVIF Steering Committee.
- iii) The CCTV Camera shall have minimum 10 years MTBF (Mean Time between failure) certified by OEM.
- iv) The CCTV Cameras and NVMS Software should be compatible to ensure seamless integration of the system.
- v) The system should have real time automated health status for all the components of the CCTV Cameras and Storage devices.
- vi) Provision for integrating the Command & Control Center with the existing Multipurpose Audio System network on the track of SMVDSB.
- vii) The Contractor shall develop the entire Integrated Command & Control Centre with Work Stations, Server Room etc. as per the requirement.
- viii) The CCTV Surveillance system should not be accessible by any external Public IP. The software should be equipped with all protection in such a way that the live and recorded data shall not be accessible at any cost by any external agency / hacker. If such incidents happen at any stage, the system shall highlight the same. No tampering / editing of video shall be possible.

7.18 Arbitration:

Any dispute or difference whatsoever arising between the parties out of or relating to the execution, interpretation, application, meaning, scope, operation or effect of the contract or the validity or the breach thereof, shall be first tried for amicable settlement through consultation/discussion between the parties. Any unsettled disputes whatsoever arising between the parties thereof relating to the work shall be resolved as per the provisions of Arbitration and Conciliation Act 1996.

7.19 Jurisdiction:

All legal disputes arise in connection with the Contract shall be subject to the jurisdiction of Courts at Jammu / Katra / Reasi (J&K, India).

7.20 Scope of Comprehensive Maintenance:

- a. The contractor shall be responsible for maintenance of all equipment mentioned in the Schedule with a view to provide uninterrupted service of the CCTV System including necessary preventive maintenance, attending to major and minor

breakdowns post failure repairs and modifications if any, required for the CCTV system of the Board.

- b. The CCTV system installed in the Board will be monitored round the clock by technical staff of the Board.
- c. The Comprehensive operation and Maintenance Contract (CAMC) shall also include the trouble shooting of any network issues arising in the CCTV network.
- d. The service personnel deputed by the contractor shall be well qualified and having enough knowledge in the field of Wireless networking and CCTV System.
- e. Contractor shall provide ID Cards to their engineers and staff authorized to attend the maintenance work so as to facilitate verification staff of the Board. Communication handed over to the contractor's personnel at site/ office by CCTV control room in-charge shall deem to have reached their office.
- f. The representative of the contractor shall report (as and when required/ call basis) to in-charge of CCTV control room to carry out all necessary inspections/ tests of the system. Rectification of any defects during inspection shall be endorsed in the maintenance register available with In-Charge of CCTV Control Room.
- g. At the end of each major break down repair, contractor's Engineer should prepare a service report and submit the same to the In-Charge Control Room.
- h. All the tools and testing instruments required for checking testing and attending to routine maintenance and breakdowns shall be arranged by the contractor.
- i. The preventive Maintenance shall be carried out once in a month. The contractor shall undertake preventive maintenance of CCTV System in the last week of every month. In addition to the preventive maintenance the contractor shall attend break down calls whenever emergency arises and there will be no limit for such calls.
- j. The components of the equipment will be the whole responsibility of contractor for procurement and replacement as and when required during the period of Operation and Maintenance.
- k. The contractor's staff will carry the routine spares required for preventive maintenance to ensure minimum down time without any additional cost. In addition to those spares contractor will also arrange other spares if required without any additional charges.
- l. Breakdown call shall be attended with a time frame after getting the message by phone or fax /email. If the repair is major contractor shall provide standby equipment at contractor cost.
- m. In case of major repairs necessitating removal of the equipment to the contractor's service center, the system or its parts shall be reinstalled at the owner premises after repairing the set-in working condition. Provision of standby camera comes under the scope of contract.
- n. All remedial maintenance of the equipment and its preventive maintenance required periodically shall be provided by the contractor. Such maintenance comes under the scope of contractor. Supply of and fitment of all parts including consumable will need replacement from time to time with understanding that replaced part immediately will become the board's property and the part removed will become contractor's property with condition that the contractor shall use new and unused except those parts which can be reused after required servicing.
- o. The contractors shall ensure that the full configuration of the equipment is in proper working condition, after repair and maintenance.

- p. All minor repairs/services should be made only at Board's premises. As far as possible no equipment will be sent to the contractor's premises for any repair. If at all, it is found necessary to take the equipment to the contractor's premises, the configuration of the equipment in details must be got noted before it is sent out. The items will be taken out only with proper documentation with proper acknowledgements. All endeavours will be made by the contractor to return such items taken out for servicing within a reasonable period of one week Stand by equipment similar to the equipment under service to be provided before taking it out on material gate pass, till the original component is replaced AT NO EXTRA COST. The contractor is required to record all such issues, returns / replacements of equipment promptly.
- q. In any case where the equipment could not be rectified/ replaced by the firm within the reasonable time, the Board reserves the right to get the equipment repaired / replaced through another agency at the risk and cost of the contractor. The contractor will have to bear expenses incurred by the Board on this account. This action will be taken if the equipment is neither rectified/ replaced nor any stand-by is provided even after a reasonable time.
- r. Taking shelter under flimsy reasons such as damage could have been caused by rat bite, power outage, Monkey Menace, rough handling on the part of the user and similar such reasons, and failing to provide maintenance / replacement support will not be acceptable.
- s. Complete hardware and software support to be extended by the contractor.
- t. Carrying any software changes if required without additional charges with the consent of In-Charge Control Room.
- u. The Contractor shall have the registration with EPFO and ESIC and shall produce Proof of having paid the employer's contribution to EPFO/ESIC/Minimum wage proof as per norms of the government.
- v. Shifting and relocation of any of the installed cameras within the Shrine Area as may be required during the entire Comprehensive Maintenance Period will be the sole responsibility of the Contractor. The cost involved in the shifting/relocation will be borne by the Contractor with NO EXTRA COST to Shri Mata Vaishno Devi Shrine Board.
- x. The Contractor shall ensure that the equipment is in good working condition and is with full configuration while handing over at the end of the contract period. In case of odd hour's failures and emergencies even on holidays and Sunday normal service is to be rendered by the contractor. In case the firm fails to rectify the fault in allowable time (i.e. within **24 Hours**) the penalty would be imposed as per the following manner: -
 - (i) For 1 to 3 days, system down time, penalty should be @ Rs.2000 per day
 - (ii) For 4 to 7 days, system down time, penalty should be @ Rs.5000 per day
 - (iii) Beyond 7 days, system down time, penalty should be @ Rs.15000 per day
 - (iv) However, it may be noted that over and above the penalty, during the downtime all the responsibilities will lie on the contractor for any security issues happened due to system down.

7.21 Preventive Maintenance: -

- a) Regular preventive maintenance visits shall be made by the firm **ONCE IN A MONTH** to ensure up keep of the system. Any fault brought to the firm's notice

either during such routine calls or otherwise informed by Control Room officials, shall be arranged to be responded within two hours.

- b) The preventive maintenance of the system should be carried out in the presence of the Control room technical staff. The preventive maintenance of the CCTV System includes cleaning all the equipment, and complete performance of the equipment of the CCTV System.
- c) The contractor shall ensure the proper working of recording of the video obtained from the CCTV cameras and necessary backup has to be taken in the form of a hard drive/pen drive at the regular interval as instructed by Control Room In charge. The provision of Hard Drives/pen drives shall be in the scope of work of the tender.
- d) The service engineer of the contractor attending to the maintenance shall monitor the environment in which the hardware is working and forewarn the control room in charge of any factor detrimental to the satisfactory performance of the hardware.
- e) A schedule for preventive maintenance shall be drawn by the contractor and submitted to the control room in charge well in advance. It will be in such a manner that all the equipment falling within the preview of the contract is covered in a systematic manner.

7.22 Maintenance of Service Register:

The contractor shall upkeep the service/ maintenance record for all the units and Peripherals with the following details.

- a) Location of the Unit.
- b) Name of Equipment.
- c) Date of Periodical Maintenance attended.
- d) Due date for next Periodical Maintenance.
- e) Nature of Defective Noticed.
- f) Details of Defect Attended with date.
- g) Name of Service Engineer.
- h) Name of the In-Charge of the control room.

7.23 Inspections:

The contractor shall offer the units for inspection after periodical Maintenance / Service Repair to an authorized representative of and also get a report signed by the concerned Control Room in before submission of bill for quarterly payment from the Board.

7.24 Spare Parts:

The Successful Bidder has to ensure that the spare parts are made available to the buyer on demand on a payment basis up to a period of at least **05 years** from the date of completion of operation and maintenance period. Payment to the firm for replacing the spare part will be made as per the actual basis at the time of requirement.

7.25 Site Preparations:

- a) The site for installation of the system shall be provided by the Board as per the requirement for installation of the system.
- b) The tentative site plan for installation of Cameras may differ as per actual requirement at the time of installation of the CCTV system.
- c) The complete installation of the System at the Purchaser's site shall be the responsibility of the Contractor.
- d) Earthing arrangements for all the equipment shall be the responsibility of the Bidder and to be carried out as per standard procedures.

- e) **Responsibility of Completion & Software Optimization:** Any fitting or items which may not be specially mentioned in the specifications but which are necessary are to be provided by the contractor without any extra charge for completeness of the work under this Tender.

7.26 Access to Site:

The Board shall not be responsible for facilitation of transportation etc. for the completion of system. The Contractor shall use the existing track as per the Law, Rules, and Regulations in force, seeking required permissions as necessary. The Board will not divert / stop the yatra during the execution of the work, however, the safety & security of the pilgrims shall not be compromised during execution of the project by the Executing Agency. The site is at a religious place. All the staff, workers, labour shall abide the Laws of the land. Consumption of liquor, smoking and non-vegetarian foods are strictly banned at site and the violation found if any shall attract the punishment as per Laws of Land.

7.27 Man Power:

The minimum manpower at managerial / supervisory level to be deployed for the monitoring and on-site maintenance of the system 24x7 during the Operation and Maintenance Period.

i. Project Manager (Maintenance)	:	01
ii. Site Engineer / Technician	:	03

The minimum manpower deployed during the O&M period should have adequate qualification and technical expertise in operationalization of CCTV Project.

Acceptance of maintenance manpower shall be as per the approval of the Board.

All the manpower should have proper dress code, identity card of the firm and must wear all safety equipment required during the execution of work at site. However, minimum manpower shall have to be maintaining at site during the execution / Comprehensive Warranty Period.

7.28 Safety of Manpower and Insurance:

- i. The Contractor shall arrange, secure and maintain insurance as may be necessary and for all such amounts to protect his risks as detailed herein. The Contractor shall insure all his staff and workers / labour working at site against injury, loss of life etc. and no claims of compensation whatsoever shall be entertained by the Board in this regard. The Contractor shall indemnify the Owner against all such claims.
- ii. The workers employed on electrical installations to be provided with insulating mats, protective apparels (such as Gloves, Sleeves, Boots etc.) by the Executing Agency, as may be necessary as per the standards laid down by the Government of India from time to time.

7.29 Confidentiality:

Notwithstanding anything contained in this Bidding document but subject to the provisions of any other law for the time being in force providing for disclosure of information. The Bidder shall not disclose any information if such disclosure which is likely to: -

- i. impede enforcement of any law;
- ii. affect the security or strategic interests of SMVDSB;
- iii. affect the intellectual property rights or legitimate commercial interests of Bidders;
- iv. affect the legitimate public interests.
- v. Data in the form of text, picture, audio and video footage shall not to be shared with anyone or with any agency or use for any other purposes without prior permission of the Chief Executive Officer, SMVDSB, Katra. In case transparency of the data is

compromised or data is manipulated, leaked, theft or found shared, the contract shall be liable to be terminated immediately without any notice.

- vi. Considering the sensitivity & security aspect of the Shrine area, the Contractor shall submit an **Undertaking** to the Shrine Board that he shall not reveal any design, drawing, layout plan, site photographs etc. and other related information of the Shrine and the project with any of the third party without the prior approval of the CEO Shrine Board.

7.30 Removal of Contractor's employees:

The Board shall be at liberty to object to and require the Contractor to remove forthwith from the work any person employed by the Contractor in or about the execution or maintenance of the work who in the opinion of the Engineer /unit head has misconducted himself or is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by the Engineer/unit head to be undesirable and such person shall not be again employed upon the work without the written permission of the Board. Any person so removed from the works shall be replaced immediately by a competent substitute approved by the Board.

- 7.31 The damage caused, if any, to Government property through the acts of the firm and/or by its workers shall be made good by the agency and decision of the Department in this regard shall be final/binding.

7.32 Compliance with statutes, regulations etc.:

The Contractor shall conform to, in all respects, with the provisions of any such statute, ordinance or law as aforesaid and the regulation or Bye-Laws of any local or other duly constituted authority prevailing, which may be applicable to the works or to any temporary works and with such rules and regulations of public bodies and companies as aforesaid and shall keep the **Owner indemnified** against all penalties and liability of every kind for breach of any such statute, ordinance or law, regulation or bye-law.

7.33 Opportunities for other Contractor/Agencies:

The Contractor shall, in accordance with the requirements of the Board, afford all reasonable opportunities for carrying out their work to any other Contractor or agencies employed by the Board and their workmen and to the workmen of the Board and of any other duly constituted authority who may be employed in the execution on or near the site of any work not included in the contract or of any contract which the Board may enter into in connection with or ancillary to the works.

7.34 Supply of Materials & Labour at site of work:

The Contractor shall at his own expense supply and provide all the machinery, tools, tackles and equipment, materials etc. both for temporary as well as for permanent works, labour (skilled & unskilled and including the supervision thereof), transport to or from the site and in and about the works and other things of every kind required for the construction, completion, and maintenance of works

7.35 Supply of Materials & Labour at the site of work:

On the completion of the project, the Contractor shall clear away and remove from the site all machinery, equipment, waste items constructional plant, surplus materials, rubbish and temporary works of every kind and ensure restoration of the site to its original level/position to the full satisfaction of the Board before handing over of the system.

7.36 Variations:

If the Owner may make any variation in quality or quantity of the works or any part thereof that may in their opinion be necessary, then the Engineer shall have power to order the Contractor to carry out the same and in any of the following:

- (a) Increase or decrease the quantity of any work included in the contract
- (b) Omit any such work
- (c) Change the character or quality or kind of any such work
- (d) Execute additional work of any kind necessary for the completion of the works and no such variation shall in any way vitiate or invalidate the contract but the value (if any) of all such approved variations shall be considered in ascertaining the total amount of the contract value.

7.39 Progress Report:

The Contractor shall submit **Monthly Progress Report** indicating actual ground status of each activity planned for the period under consideration and summary of each completed and planned activity and the anticipated starting date for the activities planned but not in progress, schedule of materials including the details of materials received and expected time of arrival of other materials as ordered and such other details affecting the program and progress of the work to Board which shall also include reasonable number of progress photographs of the works.

7.40 Termination Of Contract:

- i) Foreclosure in full or in part due to abandonment or reduction in scope of work.
- ii) The Contractor shall be paid at contract rates full amounts for works executed at site and in addition a reasonable amount as certified by the technical team constituted for the purpose for the items hereunder mentioned which could not be utilized on the work to the full extent because of the foreclosure:
 - (a) Any expenditure incurred on preliminary site work e.g. temporary works, temporary labour huts, staff quarter and site office, storage, accommodation and water storage tanks etc.
 - (b) The Owner shall have the option to take over Contractor's materials or any part thereof either brought to site provided the material conforms to specified standards or meant to be used for the work allotted.
 - (i) For materials taken over or to be taken over by the Owner, the cost to be paid shall consider purchase price, cost of transportation.
 - (ii) For materials not retained by the Owner, no compensation on this account will be paid. Any such material will be lifted by the Contractor at his risk & cost with full clearance at site.

7.41 Settlement of Disputes at site:

The instructions, decision, opinion, certificate or evaluation of the Engineer with regard to any work at site shall be binding on the contractor.

7.42 Arbitration:

Any dispute or difference whatsoever arising between the parties out of or relating to the execution, interpretation, application, meaning, scope, operation or effect of the contract or the validity or the breach thereof, shall be first tried for amicable settlement through consultation / discussion between the parties. Any unsettled disputes whatsoever arising between the parties thereof relating to the work shall be resolved as per the provisions of J&K Arbitration and Conciliation Act 1997.

7.43 Jurisdiction:

All legal disputes arise in connection with the Contract shall be subject to the jurisdiction of Courts at Jammu / Katra / Reasi (J&K, India).

Section 8: Indicative Bill Of Quantities

S.No.	Description	UNIT	Qty
Main Equipments / Services			
1	Supply, Installation, Testing & Commissioning of Outdoor IR PTZ Camera (along with complete mounting accessories as per site requirement from the same OEM) and Surge Protector Device (SPD) both at Camera as well as Switch ends. Detailed Technical Specifications enclosed as Annexure-A (1). Make:- Bosch/Avigilon/Axis/Pelco/Mobotix	Nos.	10
2	Supply, Installation, Testing & Commissioning of HD Outdoor IR IP Bullet Camera (along with complete mounting accessories as per site requirement from the same OEM) and Surge Protector Device (SPD) both at Cameras as well as Switch ends. Detailed Technical Specifications enclosed as Annexure-A (2). Make:- Bosch/Avigilon/Axis/Pelco/Mobotix	Nos.	128
3	Supply, Installation, Testing & Commissioning of HD IP IR Dome camera (along with complete mounting accessories as per site requirement from the same OEM) and Surge Protector Device (SPD) both at Cameras as well as Switch ends. Detailed Technical Specifications enclosed as Annexure- A (3). Make:- Bosch/Avigilon/Axis/Pelco/Mobotix	Nos.	39
4	Supply, Installation, Testing & Commissioning of Servers (VMS) shall support minimum 1000 cameras (Bidder to submit the detailed architecture of Servers) Detailed Technical Specifications enclosed as Annexure-A (4) Make:- Dell/HP/LENOVO	Set	1
5	Supply, Installation, Testing & Commissioning of (200 TB SAN each) Storage for 30 days at Integrated Command & Control Centre, Katra and for 7 days Sub Control Centres at (Bhawan, Sanjhichhat, Adhkuwari, Himkoti, Tarakote, Banganga & Bhairo). Detailed Technical Specifications enclosed as Annexure-A (5). Make:- Dell/ HP/ Lenovo	Nos.	13
6	Supply, Installation, Testing & Commissioning of VMS Software (including the Licenses for 725 Cameras, Failover Recording, VRM along with Workstations and Minimum 100 operator Workstation Licence). Detailed Technical Specifications enclosed as Annexure-A (6). Make:- ONVIF and Compatible with camera	Set	1
7	Supply, Installation, Testing & Commissioning of Workstations with Monitor size 32". Detailed Technical Specifications enclosed as Annexure-A (7). Make:- Dell/ HP/ Lenovo	Nos.	3
8	Supply, Installation, Testing & Commissioning of Video Wall , Automatic Data Processing Controller, Decoder with Video Wall Management Software, Mounting, Cabling and other accessories required as per site requirement at Integrated Command & Control Center.	Lot	1

	Detailed Technical Specifications enclosed as Annexure-A (8). Make:- LG/SAMSUNG/PANASONIC		
9	Supply, Installation, Testing & Commissioning of LED Video Screens of size 50". Make:- LG/SAMSUNG/PANASONIC	Nos.	7
10	Supply, Installation, Testing and Commissioning of Industrial Grade Edge Switch with Port Density 8 x 1G Base-T PoE+ and 4 x 1G Base-X Ports. Detailed Technical Specifications enclosed as Annexure-A (9). Make:- Allied Telesis	Nos.	40
11	Supply, Installation, Testing and Commissioning of Industrial Grade Edge Switch with Port Density 16 x 1G Base-T PoE+ and 2 x 1G Base-X Ports. Detailed Technical Specifications enclosed as Annexure-A (10). Make:- Allied Telesis	Nos.	20
12	Supply, Installation, Testing and Commissioning of Network Management Software (NMS) for the entire network (existing as well as proposed) (Switches and NMS should be from the same OEM and should be integrated with the existing infrastructure). Detailed Technical Specifications enclosed as Annexure- A (11) Make:- Allied Telesis	No.	1

Accessories

13	Supply, Installation, Testing and Commissioning of Surge Protector Device (SPD) for Power. Make:- Obo Bettermann+B37	Nos.	60
14	Supply, Installation, Testing and Commissioning of Surge Protector Device (SPD) for Data. Make:- Obo Bettermann+B37	Nos.	725
15	Supply of Media Convertors. Make:- Allied Telesis or equivalent if approved by SMVDSB	Pair	60
16	PoE+ Injectors Make:- Allied Telesis or equivalent if approved by SMVDSB	Nos.	60
17	Supply, Installation, Testing & Commissioning of 6 core single mode fiber cable. Optical fibres in water blocked loose tube, taped, corrugated steel tape armoured (STA) polyethylene (HDPE) outer sheathed embedded with two steel wires on the periphery. The cables are with UV Stabilized PE Jacket and protected from Rodent attacks. RoHS Compliant Make: Molex/Comscope/R&M	Mtrs	5000
18	Supply, Installation, Testing & Commissioning of Cat-6 A UTP Cable (Box- 305 meters) Armoured. The cables are with UV Stabilized PE Jacket and protected from Rodent attacks. RoHS Compliant Make: Molex/Comscope/R&M	Mtrs	10000

19	Supply, Installation, Testing & Commissioning of Cat-6 A UTP Cable 3 mtrs Patch Cord. Make: Molex/Comscope/R&M	Nos.	725
20	OFC Patch Cord Make: Molex/Comscope/R&M	Lot	1
21	OFC Cable Termination accessories including lockable LIU, Patch Cord and complete accessories. Make: Molex/Comscope/R&M	Lot	1
23	Supply, Installation, Testing & Commissioning of Weather Proof Cabinet of size as per the requirement / technical specification for storage of media convertor, power and allied accessories. Make: Schneider/Rittal/APW-President	Nos.	40
24	Supply, Installation, Testing & Commissioning of 42U (600 x 1000 mm) floor mount rack with 4 fans, 12 sockets 5 /15 Amp PDU, Hardware Mounting 4 Cable Manager horizontal and 4 verticals. Make: Valrack/Rittal/APW-President	Nos.	4
25	Supply, Installation, Testing & Commissioning of 24 port CAT-6 A Patch Panel Make: Molex/Comscope/R&M	Nos.	50
26	Supply, Installation, Testing & Commissioning of 40/33 MM HDPE Pipe for lying of Fiber Optic Cable. Make: Pioneer/Finolex/Molex	Mtrs.	5000
27	Pole Structure of designed 3 Mtrs long 100 mm dia duly grouted in cement concrete mixture of 1:3:6 (1 Cement: 3 Coares sand: 6 Graded Trone) painted complete in with junction box complete in all respect. Make: Jindal	Nos.	30
28	Supply, Installation, Testing & Commissioning of 12U rack with 2 sockets 5 /15 Amp PDU, Hardware Mounting 4 Cable Manager for Indoor Nodes. Make: Valrack/Rittal/APW-President	Nos.	40
Technical Furniture for Command & Control Centre			
29	Design & development of Integrated Command & Control Centre and Server Room including provisioning of AC, Console, Chairs for Operator, Lightening and Storage for spares and other allied items.	Lot	01 as per site require- ment
Digging & Conduiting Works			
30	Digging and refilling of earth for Under Ground Cables (as per site requirement).	Mtrs. ³	5000
31	Supply and fixing of 25 mm PVC Pipe for lying of Cables (Reputed Make).	Mtrs.	2500
32	Supply and fixing of 32 mm PVC Pipe for lying of Cables (Reputed Make).	Mtrs.	2500
33	Supply, Installation, Testing and Commissioning of 2 KVA Online UPS, with 1-hour Backup with Battery Rack, Battery Interlinks, Battery to UPS DC Cable, SNMP or MODBUS Card as per requirement. Complete in all respect up to entire satisfaction Engineer in charge of works (for outdoor units) Make of UPS: Numeric/APC/Emerson/DELTA/Eaton Make of Battery: EXIDE/Amron/Rocket	Nos.	60
34	Supply, Installation, Testing and Commissioning of online 30 KVA UPS (N+N), Three Phase Input / Three Phase Output with 1-hour Backup using 100 Ah x 40 x 1 strings	No.	02

	<p>Battery at full load complete Battery MCCB, Battery Terminal Caps, Battery Rack, Battery Interlinks, battery to UPS DC Cable. UPS shall be equipped with Inbuilt Input isolation transformer, Dust Filters, SNMP, MODBUS CARD for Monitoring, LCD display, Paralleling capability, DC Flexible design of 32 to 40 Battery adjustable at site. Minimum AH of battery shall be 100 AH, multiple string of smaller AH battery is not desirable & with 1-hour Backup at full load complete in all respect up to entire satisfaction Engineer in charge of works. (For Integrated Command & Control Center)</p> <p>Make of UPS: Numeric/APC/Emerson/DELTA/Eaton</p> <p>Make of Battery: EXIDE/Amron/Rocket</p>		
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Section 9- Financial Bid

S.no	Description	Rate	GST (In Rs.)	Amount (In Rs.)
Procurement, supply, installation of CCTV surveillance system including all hardware & software components				
1	Design, Installation, Testing, Commissioning and Operationalizing (24x7x365 days) for Setting up of CCTV Surveillance Project at the identified locations on the Track / Establishments of SMVDSB from Katra to Bhawan and its Integration with already existing CCTV infrastructure with establishment of 01 Integrated Command and Control Centre and 07 Sub Control Centres.			
Comprehensive Maintenance for a period of 05 Years				
2	Cost of Comprehensive Maintenance for 1 st Year			
3	Cost of Comprehensive Maintenance for 2 nd Year			
4	Cost of Comprehensive Maintenance for 3 rd Year			
5	Cost of Comprehensive Maintenance for 4 th Year			
6	Cost of Comprehensive Maintenance for 5 th Year			
7	Total Cost of Comprehensive Maintenance for 05 Years			
Grand Total (1+7)				

1. PTZ Camera 2 MP (Out Door Application) - Technical Specifications

Sr.No.	Parameter	Minimum Specifications
1	Image Sensor	1/2.8 Inch Exmor CMOS Progressive Scan or better
2	Resolution Range	1920X1080 in 16:9 format or better
3	Frame Rate	50/60 FPS
4	Compression Standard	H.264 / H.265
5	Lens	7-280 mm or better
6	Optical Zoom	40x or better
7	Digital Zoom	12x or better
8	IRIS Control	Auto
9	Preset	256 or better
10	Tours	Minimum 32
11	Preset Accuracy	+/- 0.1°
12	Pan & Tilt Speed (Manual)	450° per second for Pan and 320° per second for Tilt
13	Protocol	TCP, HTTP, HTTPS, SNMP, STP, RSTP, SSL.TLS, 802.1x, DNS, ICMP, IP v4 & v6 Remote Administration: Remote configuration and status using web based tool, multicast /unicast.
14	Intelligent Tracking	Auto & Manual
15	Signal Noise Ratio	>=50 dB
16	Back light Compensation	Auto Control
17	Video Streaming	Stream1 & Stream2 Full HD Compression for Stream1 & Stream2 - H.265 / H.264
18	Pan Movement	360°continuous Pan Rotation
19	Tilt Angle	+30° to -90° or better
20	Security	IEEE 802.1x, IP Address Filter Network authentication EAP/TLS AES Encryption minimum 128 keys / Public Key Infrastructure Camera Mac Address should be of same Camera OEM, NDAA Complied
21	Sensitivity / Minimum Illumination	@F1.6 or better, 30 IRE or better Colour Mode - 0.1 lux; Night Mode (Black & White) - 0.06 lux
22	Wide Dynamic Range (WDR)	120 dB or better as per IEC 62676
23	Network Port	RJ45 10/100 Base T
24	Electronic Shutter Speed (AES)	1/1 to 1/8000 s or better
25	IP Protection	IP67, NEMA4 and IK10 or better
26	Image Settings	Color, Brightness, Sharpness, Contrast, White Balance, Backlight Compensation, Privacy Mask, Defog.

27	Video Analytics	Camera should have in-built Edge Based Analytics Video Motion Detection, Active Tampering Alarm, Trip Zone, Abandoned Object, Intrusion Detection, Object Removal, Region Entrance Detection, Region Exiting Detection, Object Counting, Auto tracking, analytics on move
28	Event Trigger	Motion Detection, Edge Storage Events, External Input, Time Scheduled, Camera Tampering, Software Alarms.
29	Power	POE+/High POE Compliant as per IEEE 802.3at Class 4 & 24 VAC to 240 VAC, Power redundancy between PoE and 48 VDC/24 VAC ensures 24-hour, 365-day continuous operation even under unstable power supply situations.
30	Other features	ONVIF Compatible, SFP Interface
31	Operating Temperature	- 20° to 60° C
32	Operating Humidity	Upto 90% RH (non-condensable)
33	Certification	UL (60950), EN & FCC, CUL, CE Shock & Vibration Resistance IEC60068:2-6 & 2-27) IEC/EN60825-1
34	IR Illumination	400 meter and better.Camera should have combination of 850nm IR and white LED IR.Camera shall have integrated wiper and Camera shall have vibration and shock proof as per IEC 60068 Camera shall have wind load 200km/h or better and corrosion proof. Robust Image Stabilisation with Gyro Sensor
35	Web Interface	Camera should have Web Interface to configure and control
36	Edge Storage	Pre-installed minimum storage capacity of256 GB or more& support upto minimum 2 TB SD Card. (The camera should have the facility to store the data on SD card and in case of network connection loss, the stored data on SD card should be automatically sent to the storage when network reconnects.)
37	Make	Bosch/Pelco/Axis/Mobotix/Avigilon.

2. Bullet Camera - Technical Specifications

Sr. No.	Parameter	Minimum Specifications
1	Image Sensor	1/2.8 Inch CMOS Progressive Scan or better
2	Resolution Range	2592x1944 (5MP) or better
3	Frame Rate	5MP@25/30 FPS
4	Compression Standard	H.265
5	Lens	3.4 to 10.5 mm or better
6	Focus	Auto Focus and Zoom
7	IRIS	Auto Control & PIRIS
8	Back light Compensation	Auto Control
9	Sensitivity	@F1.4 or better, 30 IRE or better with ; Colour Mode - 0.4 lux ; Night Mode (Black & White) - 0.15 lux
10	IR Illumination	Minimum 50 m or better; integrated adaptive IR Illumination
11	Signal Noise Ratio	>=50 dB
12	Wide Dynamic Range (WDR)	120 dB as per the IEC Standard 62676 or better
13	Video Streaming	Minimum 03 Video Streams
14	Network Port	RJ45 10/100 Base T
15	Electronic Shutter Speed (AES)	1/7.5s to 1/8000 s or better
16	Edge Storage	Pre-installed minimum storage capacity of 256 GB or more & support upto minimum 2 TB SD Card. (The camera should have the facility to store the data on SD card and in case of network connection loss, the stored data on SD card should be automatically sent to the storage when network reconnects.)
17	IP Protection	IP67 and IK10
18	Image Settings	Color, Brightness, Sharpness, Contrast, White Balance, Backlight Compensation, Privacy Mask, Defog.
19	Video Analytics	Camera should have in-built Edge Based Analytics i.e., Video Motion Detection, Camera Tampering Alarm, Trip Zone, Intrusion Detection, Region Entrance Detection, Region Exiting Detection.
20	Event Trigger	Motion Detection, Edge Storage Events, External Input, Time Scheduled, Camera Tampering, Software Alarms.
21	Power	PoE Compliant as per IEEE 802.3at Class 4 & 12 V DC
22	Protocol	TCP, HTTP, HTTPS, SNMP, STP, RSTP, SSL, TLS, 802.1x, DNS, ICMP, IP v4 & v6 Remote Administration: Remote configuration and status using web based tool, multicast / unicast.

23	Security	IEEE 802.1x, IP Address Filter Network authentication EAP/TLS AES Encryption minimum 128 keys Onboard Cyber Security Chip like Trusted Platform Module / Public Key Infrastructure Camera Mac Address should be of same Camera OEM NDAA Complied
24	Other features	ONVIF Compatible
25	Operating Temperature	- 20° to 60° C
26	Operating Humidity	Upto 90% RH (non-condensable)
27	Certification	UL (60950),CUL,CE, EN & FCC
28	Web Interface	Camera should have Web Interface to configure and control
29	Make	Bosch/Pelco/Axis/Mobotix/Avigilon.

3. Fixed Dome Camera (Indoor)- Technical Specifications

Sr. No.	Parameter	Minimum Specifications
1	Image Sensor	1/2.8 Inch CMOS Progressive Scan or better
2	Resolution Range	2592x1944 (5MP) or better
3	Frame Rate	30 FPS
4	Compression Standard	H.265
5	Lens	3.4 to 10.5 mm or better
6	Focus	Auto Focus and Zoom
7	IRIS	Auto Control & PIRIS
8	Back light Compensation	Auto Control
9	Sensitivity	@F1.3 or better, 30 IRE or better Colour Mode - 0.25 lux; Night Mode (Black & White) - 0.05 lux
10	IR Illumination	Minimum 30 m or better; integrated adaptive IR Illumination
11	Signal Noise Ratio	>=50 dB
12	Wide Dynamic Range (WDR)	120 dB or better (as per the IEC Standard 62676)
13	Video Streaming (Quad streaming fully configurable and Bidder to ensure minimum 2 streams shall be configure at camera high resolution and fps)	Minimum 03 Video Streams
14	Network Port	RJ45 10/100 Base T
15	Electronic Shutter Speed (AES)	1/7.5s to 1/8000 s or better
16	Edge Storage	Pre-installed minimum storage capacity of 256 GB or more & support upto minimum 2 TB SD Card. (The camera should have the facility to store the data on SD card and in case of network connection loss, the stored data on SD card should be automatically sent to the storage when network reconnects.)
17	IP Protection	IP66 and IK10
18	Image Settings	Color, Brightness, Sharpness, Contrast, White Balance, Backlight Compensation, Privacy Mask, Defog.
19	Video Analytics	Camera should have in-built Edge Based Analytics i.e., Video Motion Detection, Camera Tampering Alarm, Trip Zone, Intrusion Detection, Region Entrance Detection, Region Exiting Detection.
20	Event Trigger	Motion Detection, Edge Storage Events, External Input, Time Scheduled, Camera Tampering, Software Alarms.
21	Power	PoE Compliant as per IEEE 802.3at Class 4 & 12 V DC
22	Protocol	TCP, HTTP, HTTPS, SNMP, STP, RSTP, SSL, TLS, 802.1x, DNS, ICMP, IP v4 & v6 Remote Administration: Remote configuration and status using web based tool, multicast / unicast.

23	Security	IEEE 802.1x, IP Address Filter Network authentication EAP/TLS AES Encryption minimum 128 keys Onboard Cyber Security Chip like Trusted Platform Module / Public Key Infrastructure Camera Mac Address should be of same Camera OEM NDAA Complied
24	Other features	ONVIF Compatible
25	Operating Temperature	- 20° to 55° C
26	Operating Humidity	Upto 90% RH (non-condensable)
27	Certification	UL (60950),CUL,CE, EN & FCC
28	Web Interface	Camera should have Web Interface to configure and control
29	Make	Bosch/Pelco/Axis/Mobotix/Avigilon.

4. VMS Servers - Hardware Technical Specifications

S. No.	Component	Minimum Specifications
1	Make	Dell/HP/Lenovo
2	Market position	The OEM for the proposed server must be in Leaders quadrant in the last two Gartner's report of "Magic Quadrant for Modular Servers" & should have been one of the top three server vendors (by market share revenue in IDC or Gartner report) in any of the previous 2 quarters
3	Chipset	Lewisburg PCH Intel C621
4	Form Factor	Max. 2U rack mounted with sliding rails
5	Configured CPU	Two Intel® Xeon® Scalable processors, 20 cores per processor (CPU @2.5 Ghz or better))
6	Memory slots	24 DDR4 DIMM slots RDIMMS& LR DIMMS supporting speeds up to 2666MT/s. Optionally support up to 12 DIMM & 12 NVDIMM
7	Memory configured	Minimum 512 GB scalable to 1.5TB
8	Disks supported	Front drive bays: Up to 16 x 2.5" SAS/SATA/SSD, , Up to 8 x 3.5" SAS/SATA,
9	RAID Controller	12Gbps PCIe 3.0 with RAID 1, 5, 6 or better
10	Disks configured	4 x 1.2TB 10K SAS
11	DVD writer	DVD RW
12	I/O slots	Up to 8x PCIe Gen3 Slots
13	GPU Support	Upto 3 DW and 6 SW GPU cards
14	Ethernet ports	4 x 1G RJ45 LOM
15	Certification and compliances	Microsoft Windows Server, Hyper-V, VMWare, Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Server (SLES)
16	Power Supply	Platinum rated redundant Power Supply
17	SD Modules slots	Dual SD Module slots supporting redundant configuration
18	Management integration	Support for integration with Microsoft System Center, VMware vCenter, BMC Software
19	Power & temperature	Real-time power meter, graphing, thresholds, alerts & capping with historical power counters. Temperature monitoring & graphing
20	Pre-failure alert	Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD
21	Configuration management &	<ul style="list-style-type: none"> • Real-time out-of-band hardware performance monitoring & alerting • Agent-free monitoring, driver updates & configuration, power monitoring & capping, RAID management, external storage management, monitoring of FC, HBA & CNA & system health • Out-of-band hardware & firmware inventory • Zero-touch auto configuration to auto deploy a baseline server configuration profile

22	Management (continued)	<ul style="list-style-type: none"> • Automated hardware configuration and Operating System deployment to multiple servers • Zero-touch repository manager and self-updating firmware system • Virtual IO management / stateless computing • Support for Redfish API for simple and secure management of scalable platform hardware
23	LCD panel	Should display system ID, status information and system error code followed by descriptive text. LCD background should light up in different colours during normal system operation & error conditions.
24	HTML5 support	HTML5 support for virtual console & virtual media without using Java or ActiveX plugins
25	Server security	<p>Should have a cyber-resilient architecture for a hardened server design for protection, detection & recovery from cyber attacks</p> <p>Should protect against firmware which executes before the OS boots</p> <p>Should provide effective protection, reliable detection & rapid recovery using:</p> <ul style="list-style-type: none"> - Silicon-based Hardware Root of Trust - Signed firmware updates - Secure default passwords - Configuration and firmware drift detection - Persistent event logging including user activity - Secure alerting - Automatic BIOS recovery - Rapid OS recovery - System erase <p>Configuration upgrades should be only with cryptographically signed firmware and software</p> <p>Should provide system lockdown feature to prevent change (or “drift”) in system firmware image(s) & prevent malicious modification of server firmware</p>
26	Intrusion alert	Intrusion alert in case chassis cover being opened
27	OS	Windows server 2019 Standard Edition or higher
28	Warranty	05 years On-site comprehensive warranty with 24x7x365 remote hardware support. Post installation, 5-year product warranty should reflect in the support web site of the OEM.

5. SAN Storage (200 TB SAN) - Technical Specifications

S. No	Component	Specifications
1	SAN Storage Model	Storage must feature Fibre Channel architecture. It should not be a SAN emulated on File System. The architecture should allow modular upgrades of hardware and software for investment protection.
2	Spindle Flexibility	The array should support the following spindles: 300GB, 600GB, 900, 1.2TB or above; 10K/ 15K RPM 1TB, 2TB, 3TB & 4TB 7K RPM NL SAS. It should support SLC and MLC / eMLC SSD drives. Mix and match of different type of spindles should be supported behind the same pair of controllers.
3	Array Architecture	The array should be equipped with N+N(with minimum of 2 array controllers each with quad core processor) Nos. of array controllers for better performance redundancy.
		The storage system should be provided with 32GB Cache Memory
		The storage system should be configured with 4 x 10Gb iSCSI Ports across controller & 2 * 16 Gbps FC ports per controller
		The storage system should support minimum 4 x 6Gbps back-end each of 6 Gbps or above without performing any controller upgrades
		The SAN must support synchronous, asynchronous replication. Further, the replication must be bi-directional to support multiple replication options.
4	Array Features (If any of the features mentioned requires license the same should be included as part of the BOM)	Intelligently restripe data as disks are added to optimize performance.
		The Storage to include licenses for Snapshots/ Virtual disk copy & Thin Provisioning
		The SAN must allow RAID levels to be changed on the fly without taking down the server to which the volume is attached.
		The SAN must allow any LUN provided to a system configured with both types of server connectivity (fiber channel or iSCSI) and must be capable of mapping volumes from one connectivity type to the other without changing or copying the data.
		The storage system must support intelligent reduplication and compression for better storage efficiency and lower TCO.
		The storage system must support snapshot for production copies with capability to migrate snap data to lower cost tier and thin capabilities to lower cost.

		<p>The storage system must support workload optimization by moving highly active data to performance tier like SSD and stale data to capacity tier like SAS/NL-SAS disks.</p> <p>Applications benefit from striping across multiple spindles. The array must support subsystem based striping across at least 30 spindles for enhanced performance. The striping should not be forced on all spindles and storage administrator should be given control and flexibility of data layout in the array. This should be inbuilt into the storage and should not require any host based volume manager.</p>
5	Storage capacity	10 TB usable capacity on 10K SAS, 5 TB usable capacity on SSD and 200 TB usable capacity using high capacity NL-SAS disks in RAID 6
6	Storage scalability	The array should be scalable to a minimum of 190 disks of the offered configuration of the disk count behind the same controller pair by adding the appropriate number of spindles and disk shelves
7	Cache Protection	Cache should be mirrored between the Active-Active controllers (load balancing). The paths should be redundant (at least 2 paths) to prevent disruption if one path fails. Must support either Cache battery backup or fully automatic de-stage of cache to disks or it should be non-volatile DIMM (NVDIMM) during power failure to prevent possible data loss.
8	No single point of failure Architecture	Storage Array should be configured in a No-Single-Point-of-Failure Architecture.
9	OS Support	Industry leading Operating System platforms including: Windows Server® 2016 or latest Sun Solaris®, HP-UX®, LENOVO-AIX®, Linux® 2.6 and above, RHEL-5®, VMware®, Hyper-V®.
10	Global Hot Sparing	System should have capability to designate multiple global hot spares that can automatically be used to replace a failed drive anywhere in the system.
11	RAID level support	Storage system to support HARDWARE based RAID only. Must support various Hardware RAID levels such as 0, 10, 5 and 6 (Dual Parity Protection). Must support inter-mixing different RAID groups within one storage system. Different type of RAID levels should co-exist within the same array simultaneously to match different protection requirements of data.
12	Online RAID Group expansion	Must support online expansion of RAID Group. Must be able to add additional disks on the fly to expand the RAID group capacity.
13	Online migration for flexibility of redeployment LUN for of	The array should support online LUN migration (transparent movement of volumes within the array). The functionality should allow cross RAID migration and cross spindle migration

14	Array Management	Entire system must be manageable from a web-based single, secure interface without requirements for a separate management device or server.
		Entry-level system must have same management platform as the manufacturer's largest system in order to allow system expansion without learning curves in the future.
		Management system must include comprehensive online and remote monitoring abilities without third party hardware or software.
		At-a-glance, comparable views of current aggregate capacity statistics and overall storage resource objects for all SANs of same series from the vendor
15	Controller software and Non-Disruptive Upgrade	Firmware should be upgradeable for functionality improvement and enhancements. Must support non-disruptive upgrade of core software, BIOS, snapshot, clone, remote mirroring and management software without shutting down the storage system. All host-attached servers must remain fully operational during system level or maintenance upgrade procedures.
16	Data-in-place upgrade	Must support data-in-place upgrade of existing storage controllers to a future generation controller.
17	Information Life Cycle Management	Data must be automatically moved in a Bi-Directional manner in all the tiers available and also should support Tiering among SLC and MLC SSD drives
		Software must be able to be managed within a single pane of glass
18	Industry Recognition	Should be part of Gartner Magic Quadrant in Leader Segment
19	OEM Turnover	Should be 10,000 crores minimum in India and should have minimum 50 support staff on their direct payroll.
20	Warranty	5 Years On-site 24X7 comprehensive warranty
21	Make	Dell/HP/Lenovo

6. Video Management Software (VMS) – Technical Specifications

S. No.	Minimum Specifications
1	The Video Management System (VMS) specified shall be an IP video security solution that provides seamless management of digital video, audio and data across an IP network for Viewing, Recording, control and Playback of IP CCTV system. It shall have all required Life Time Licenses for use of the entire system.
2	The VMS shall be highly scalable and support minimum 1000 cameras. This should include the cost of Servers/ Hardware. Bidder to consider cameras license as per BOQ.
3	The proposed solution shall not require proprietary computer, server, and Network or storage hardware and shall provide seamless integration with third party security Infrastructure, wherever possible. Software shall be Open platform network video compliant with SDKs available for integration with 3rd party systems.
4	The VMS system shall be based on the latest in software programming technology. The software should be compatible with Windows Operating Systems (Windows Server 2016 / Windows 10 or later versions) and should be user friendly. The system should allow operation with PC Keyboard, Mouse, CCTV Keyboard (Joystick).
5	The Video Management software should be provided with Failover feature. In case of central server failure. All Clients should work independently and Recording of CCS should not be impacted by the Central server failure. Server redundancy should be native / windows clustering & should not be achieved through third party Vm Ware/Hyper V software. N+N configuration for all video management, recording/media, and failover server suitable for proposed system complete
6	VMS shall be designed in such a way the Central Server downtimes do not affect the functionality of the recording services. Normal recording and Motion recording shall continue during the Central Server downtimes, only Alarm Recording cannot be activated as the Central Server is responsible for evaluating the alarm conditions.
7	The system shall allow the recording, live monitoring, playback of multiple archived video, audio, and data simultaneously
8	The VMS shall allow for 2-way audio communication between camera unit and client, without any need of additional software licenses.
9	The VMS Audio function shall be synchronized with video.
10	The VMS should support storage of RAID-5 or 6 configurations with hot swappable Hard disks. The VMS should support iSCSI protocol.
11	Centralized Monitoring of different sites: The VMS should be capable of providing Camera feeds of different locations for viewing at one centralized geographical location in future through WAN
12	The VMS should support MJPEG, MPEG-4, H.264, H.265 video compressions. It should be able to support minimum two individually configurable H.265 streams.
13	In case of Network Failover, the video should be stored in local storage.
14	Offered VMS should support 64 bits OS & GPU based encoding to improve video rendering performance.
15	Offered VMS shall have capability to multicast videos to clients. The VMS mobile application should support biometric support for secure access to application data. It should be supported on Android as well as on Apple users. Mobile Client shall support mobile device management (MDM) for management and secure devices, apps, and data from a unified console
16	The VMS shall support the Open Network Video Interface Forum (ONVIF) compliant Cameras and devices & shall support deep level integration of minimum 6000 camera models & same shall be available on VMS OEM global website
17	The offered video management system should have integration with Video Wall

	Management server software
18	Offered VMS data base shall have capacity to handle minimum 1000 cameras.
19	The Management software shall be a fully distributed solution for multi servers with centralized management
20	The management server shall be able to intelligently scan an IP network for new devices (cameras or servers etc.) simultaneously
21	The system administrator shall have rights to add/delete/configure users with rights.
22	It shall be possible to view the rights of each user or the cameras which can be viewed / controlled by each user
23	It shall also be possible to add/delete cameras, configure cameras, assign priorities to users, configure alarm monitors etc.
24	It shall also be possible to configure user groups with different rights and assign users to user groups.
25	N+N configuration for all video management, recording/media and failover server suitable for proposed system complete
26	It shall be capable of pre-setting the various positions for PTZ cameras
27	Built-in map function in the Client shall be provided for an overview of the system and for instant camera preview on mouse click on the MAP.
28	Alarm list with extensive filtering capabilities and an alarm preview in both Live and Playback mode
29	The VMS shall support Dual Authorization logon & shall support native/clustering failover
30	The VMS shall interface with the Video Analytics techniques of the cameras or the video analytic server to provide advanced motion detection that analyzes object size, direction, and speed as well as detecting objects entering or leaving designated areas.
31	VMS shall support Lightweight Directory Access Protocol (LDAP) that allows integration with enterprise user management systems such as Microsoft Active Directory
32	The video management system shall be configurable to force an alarm workflow. In this case, the alarm cannot be cleared until the workflow is processed.
33	The system shall protocol every event and alarm in an SQL database. The alarm entry shall contain the camera titles that have been recorded due to this alarm.
34	The video management system shall support switching of cameras to monitors connected to decoders Operator workstation. The cameras shall be selectable via drag and drop from the logical tree or from the sitemaps
	Features of Client Software
35	Client shall consist of Administrator Tool application and a Monitoring application. Client should also be able to play archived videos. All the relevant software licenses should be included. All the client licenses should work on any work station and should not be restricted to be used with specific workstation. Minimum 100 client license should be provided.
36	VMS Server software shall allow the client's seamless operation of all cameras regardless of the actual connection to different recording servers. VMS Software shall allow the client applications to interact with all the camera / database servers simultaneously and allow simultaneous display of live video/recorded video
37	It shall be possible to define priority based camera control rights for each camera or a group of cameras
38	Client application should provide different Video display layouts which should include Full screen Quad, etc. It shall be possible to view live video from cameras on the surveillance system from 1 to 25 (Minimum) per screen & use should be able to create & choose any layout like 1, 2x2, 3x3, 4x4, 5x5, 6x6 and many more layouts.

39	Client shall perform the following applications simultaneously without interfering with any of the Archive Server operations (Recording, Alarms, etc.). The VMS shall support multi-level archiving to reduces or increases the storage depth of all recording operations in a consistent manner in the different levels of archiving (number of days) as measured by the total capacity of the database.
40	Live display of camera sequences, panoramic camera views
41	Playback of stored video
42	Instant replays of Video and Audio
43	Client applications shall support any form of IP network connectivity including: LAN, WAN, VPN, Internet, and Wireless
44	Client applications shall support IP Multicast and Unicast video and audio streaming as required depending on the network capabilities
45	Client application shall enable playback of audio along with video.
46	Client application shall be able to control the playback with play, pause, forward, and speed buttons.
47	Client application shall allow operators to add identification with description to recorded clips of video or audio.
48	It shall be possible to playback of recorded video simultaneously 30 cameras on the surveillance system, with a selection of advanced navigation tools, including an intuitive timeline browser with forwarding & reverse control.
50	Make: Bosch/Milestone/Pelco/Axis/Mobotix/Avigilon.

7. Workstation for Viewing with Monitors – Technical Specifications

S.No.	Specs.	Description
1	Processor	Dual x Intel Xeon Gold 6242 2.8GHz, 16Cores, 22MB Cache or Higher
2	Chipset	Intel C621 or Higher
3	Memory	128GB 2666MHz DDR4 ECC RDIMM memory or higher
4	Memory DIMM	24 DIMM Slots, (12 DIMMs per CPU) or higher
5	Memory Expandability	The System should be scalable up to 3TB 2666MHz DDR4 ECC memory of higher
6	HDD	2 x 1TB M.2 NVMe Class 40 SSD Hard drive
7	Hard Disk Drive Bays	4 Internal
8	Slots	Minimum (4) Slots of PCIe x16 or more
9	GPU Card	Nvidia Quadro RTX4000, 8GB, 3DP with Virtual Link or higher
10	GPU Card Support	Support for 4 PCI Express x16 Gen 3 graphics cards - up to 750W
11	Keyboard and Mouse	Minimum 104 keys USB Keyboard and USB Optical Scroll mouse - Same make as that of the workstation
12	I/O Ports	<p>Front:</p> <ul style="list-style-type: none"> 2 – USB 3.1 Type A 2 – USB 3.1 Type C 1 – Universal Audio Jack <p>Rear:</p> <ul style="list-style-type: none"> 6 – USB 3.1 Type A 1 – Serial 2 – RJ45 Network 1 – Audio Line out 1 – Audio Line in/Microphone 1- Thunderbolt
13	OS Certification	Workstation should support following OS: Windows 10 Professional, Red Hat Enterprise Linux 7.5 or higher and Ubuntu Linux 18.04 or higher
14	Networking	Integrated Intel i219 Gigabit Ethernet controllers with Intel Remote Wake UP, PXE and Jumbo frames support or better
15	Audio	Integrated Realtek ALC3234 High Definition Audio Codec with internal speaker of better
16	Power Supply	Minimum 1400W, 90% efficient (80PLUS Gold Certified) Power Supply

17	Warranty	5 Years Onsite
18	OS	Win 10 Pro, 64 bit
19	DVD	16x Half Height DVD-/+RW
20	Security/ Chassis	Completely tool less chassis, Trusted Platform Module (TPM 2.0), Chassis Intrusion Switch, Setup/BIOS Password, I/O Interface Security, Kensington Lock slot, Padlock ring / Panel lock
21	Form Factor	Tower/ Mini Tower
22	Software	<p>1. The hardware vendor should supply an automatic system performance improvement and monitoring software on Windows to improve the application's performance Like (Media Composer by Avid & Premiere Pro CC by Adobe)</p> <p>2. The optimizer software should have modules for resource monitoring over a long period of time, and should be capable of showing CPU, GPU, Memory and HDD utilization.</p>
23	ISV Certification	Mandatory
24	Regulatory Compliance	Energy Star with 80 PLUS registered Gold power supplies, EPEAT registered
25	Monitor	32" LED 4K, Tilt and Height-adjustable stand and Horizontal & Vertical view, 1 x Display Port, 1 x HDMI port, 1 x mDP port, TCO Certified, Energy star - Same make as that of the workstation
26	Make	Dell/HP/Lenovo

8. Video Wall for Main Command & Control Centre - Technical Specifications

S. No.	Nature of Requirements	Minimum Requirement Description
1	Approved Make of Display	Samsung/LG/Panasonic
2	Resolution	Full HD-1920*1080 (Each display) or higher
3	Configuration	8 x2 Matrix
DISPLAY specification		
4	Display Size	144" Diagonal
5	Technology	IPS Panel
6	Resolution	1920x1080 or higher
7	Brightness	Minimum 700 Cd / m ² or better
8	Response Time(G-to-G)	8ms
9	Contrast ratio	3000:1 or better
10	Operation Hours	24 X 7
11	Conditions for Operations	10°C- 40°C, Humidity: 10%-80%
12	Power Consumption	Less than 270 Watt (Normal Mode)
13	Heat Dissipation	Less than 950 BTU / h (Typical Mode)
14	Bezel Width (mm)	0.8mm (Even) (All Four Sides)
15	Bezel to Bezel Width (mm)	1.7mm (Even) (All Four Sides)
16	Ports	DVI-D, DP, HDMI as Inputs and DP 1.2 Output
17	Haze	25% or better. Display should have inbuilt Haze or details of Haze Coating to be given by OEM.
18	Cube Management	The VDW shall be the primary visual information point to see CCTV videos, incident alarms, network health conditions, GIS maps, and any application running on city systems.
19	Modular	Each VDW panel should be replaceable to allow sub-components to be replaced without disruption to other components.
20	Certifications for Display	UL, FCC, BIS (Proof of each certificate to be attached)
21	Mounting Bracket	Video Wall Mounting Bracket of VESA (600 * 400 (mm)) of B Tech, Chief, Pearless make. The bracket should support Push Pull mechanism.
22	Consumables	100% original spares parts (tested) to be accounted for Video walls.
23	Life Span	50,000 hours (5 to 6 years)
Video Wall Processor specification		
24	System	Modular 15 slot (minimum) frame design with 2 ports on each card
25	Architecture	Shall be a modular architecture which accommodates variety of input and output
		Shall have dedicated high bandwidth video bus that delivers unparalleled real-time performance; video bus should not be shared with any of the other internal processes

26	Configuration	Configurable video wall processor with scaling that must support the real-time windowed display of multiple video and graphic input sources on a single or tiled video display
27	Operating system	The Processor should use an embedded operating system (Secured) loaded on solid state drive.
28	Compliant	HDCP-compliant on all inputs and outputs.
29	Inputs	Shall support minimum 4 Number of HDMI Inputs and should feature scalability in future
30	Outputs	16 HDMI/DP Outputs with future modularity.
		Support digital output signals up to 1920x1200/60 Hz and 1080p/60 Hz at data rates up to 4.95 Gbps per HDMI Connection and 4K/UHD support with parallel connection
31	Data rate	Support minimum of 10.2 Gbps video data rate for data transmission at inputs & Outputs when configured for it
32	Scaling	Each output of the VW Processor should have scaling built-in to that
		Variably scale sources from 1 to 16 times native resolution horizontally and vertically
33	Regulatory Compliance	CE, UL, RoHs, WEEE
34	Power Supply	Should have Redundant & Hot swappable power supplies
35	24 x 7 operation	The Controller shall be designed for 24 x 7 operation
36	Switching	The switching between the layouts(presets) should be seamless to achieve fast and glitch free transitions, Perform downscaling for sources displayed at less than native resolution
37	Country of Origin	The Vendor has to provide the Country of Origin on OEM letter Head (Video Wall Display , Controller & Software)
38	OEM Certification	All features and functionality should be certified by the OEM.
39	Approved Make for Processor	Extron, RGB Spectrum, Spyder
Video wall software specification		
40	Operation	Operate on a PC or dedicated controller, independent of the video wall processor
41	Ease of Use	Provide a graphical representation of the video wall onto which sources can be dragged and dropped to create window presets
		Allow for the creation of custom rectangular screen layouts
		Allow configuration of source inputs, via auto-detection, manual selection, and custom creation of capture modes for input signals

42	Client & Server based Architecture	<p>Allow for the creation of source window layouts, with user control over:</p> <ol style="list-style-type: none"> 1. Source window size 2. Source window position 3. Source window layer 4. Source window contents 5. Source window border 6. Source window title 7. Source window overlay 8. Source zoom
43	Collaboration	Allow for multi-user and multi-zone control of the video wall via RS-232 control
44	Scaling	<p>Allow for the creation of a customizable button array for preset recall, with user control of</p> <ol style="list-style-type: none"> 1. Button size 2. Button position 3. Button appearance including color and overlay image 4. Button label, including font, font size, and font color
Controller for Video wall processor specification		
45	Controller	Rack Mountable Network-centric, dedicated appliance to allow a video wall processor to be controlled by a software application or a control system
46	Hardware Requirements	Shall provide a standard computing platform
		Shall provide a solid-state drive with 80 GB total storage capacity
47	Software Requirements	Shall provide an embedded, write-protected operating system
		Shall provide preinstalled video wall processor control and configuration software
		Shall be preconfigured to automatically launch the software when device is powered up
48	Video Interface Requirements	Shall provide simultaneous HDMI, Display Port, and VGA connections
49	USB Interface Requirements	<p>Shall provide one (1) USB Type A supporting USB 2.0 standards</p> <p>Shall provide one (1) USB Type A supporting USB 3.0 standards</p> <p>Shall support the use of USB peripherals including keyboards, mice, and flash storage</p>

<p>50</p>	<p>Control Requirements</p>	<p>Shall provide two (2) RJ-45 ports on rear panel for Ethernet communication with a video wall processor. Allow communication with up to eight processors through a network switch Shall provide one (1) three-pole captive screw connector on rear panel for bidirectional RS-232 control Shall support 10/100/1000Base-T Ethernet Shall accept serial commands sent over RS-232 connection Shall meet safety compliances under CE, c-UL, and UL Shall meet EMI/EMC compliances under CE, C-tick, FCC Class A, ICES, and VCCI Shall comply with appropriate requirements of RoHS and WEEE</p>
<p>51</p>	<p>Compatibility</p>	<p>The Video wall software should be compatible with ONVIF CCTV VMS Like BOSCH / MILESTONE/ AXIS / AVIGILON</p>

9. Industrial Grade Edge Switch port density 8x1G Base-T PoE+ and 4x1G Base-X Ports

S. No.	Specification	Description
1	Port Density and PoE Support	8x1G Base-T PoE+ and 4x1G Base-X Ports with PoE budget of 240w or more.
2	Switching Capacity & Forwarding rate	Should support switching fabric of 24Gbps or more, with min forwarding rate of 17 Mpps
3	Hardware redundancy & Resiliency	Switch should support ITU-T G.8032 for sub 50ms ring protection/Equivalent in integration with Core/Distributor switch, Should support Loop protection & loop detection; Unidirectional Link Detection (UDLD) or equivalent to detect unidirectional links caused by incorrect fibre optic wiring or port faults and disable on fibre optics interfaces. Switch should support 9KB jumbo packets.
4	Layer 2 Features	Support 802.1Q VLAN encapsulation, IGMP v1,v2 and v3 snooping, MLD snooping, Support 802.1D, 802.1S, 802.1w, Rate limiting, Support 802.1X Security standards, Support IGMP Snooping, Should support STP, RSTP, MSTP, PVST+ compatibility mode
5	Layer 3 Features	Switch Should support Static routing, and should be scalable to support following features: RIP for IPv4 and RIPng for IPv6, OSPFv2 for IPv4 & OSPFv3 for IPv6, PIM for IPv4 SM, DM and SSM, VRRP for IPv4 & VRRPv3 for IPv6, PIMv6-SM, IEEE 802.3az, BGP for IPv4 & IPv6
6	VLAN	Switch Should Support IEEE 802.1v VLAN classification by protocol and port, 802.1Q, Tagged VLAN, port based VLANs and Private VLAN,VLAN trunking or equivalent, IEEE802.1ac VLAN Tagging, IEEE 802.1ad Provider bridges (VLAN stacking, Q-in-Q-in-Q.
7	Management	Switch needs to have a console port for management, Must have support SNMP V1, V2 and V3. Switch Should have accessibility using Telnet, SSH, Console access, easier software upgrade through network using TFTP etc. Configuration management through CLI, GUI based software utility or using web interface, USB interface for configuration backup Support SNMPv6, Telnetv6 and SSHv6, DHCPv6 relay, DHCPv6 client, SDN Open Flow v1.3 from day 1 Should support 4 groups of RMON
8	Security	Should support ACLs, DHCP snooping, IP source guard and Dynamic ARP Inspection (DAI), Support Tri-authentication: MAC-based, web-based and IEEE 802.1x,Support DHCPv4 (server, relay and client),sflow, Port mirroring, RSPAN
9	Electrical/Mechanical Approvals	EN 50022, EN 60715, EN55024, EN61000-4-3, EN61000-4-5, EN55032 Class A, EN60068-2-27; EN60068-2-31, NEMA TS2, EN/IEC/UL 60950-1.
10	IP Rating	Switch should be minimum IP30 Rated
11	Environment	Operating Temperature: -10 to 70C with To be installed inside a sealed enclosure
12	Seamless Integration	For Seamless Integration and Interoperability all the switches and SFP Modules should be from the same make.
13	Make	Allied Telesis

10. Industrial Grade Edge Switch port density 16x1G Base-T PoE+ and 2x1G Base-X Ports

S. No.	Specification	Description
1	Port Density and PoE Support	16x1G Base-T PoE/PoE+ and 2x1G Base-X Ports with PoE budget of 240w or more.
2	Switching Capacity & Forwarding rate	Should support switching fabric of 30Gbps or more, with min forwarding rate of 25 Mpps
3	Hardware redundancy & Resiliency	Switch should support ITU-T G.8032 for sub 50ms ring protection/Equivalent in integration with Core/Distributor switch, Should support Loop protection & loop detection; Unidirectional Link Detection (UDLD) or equivalent to detect unidirectional links caused by incorrect fiber optic wiring or port faults and disable on fiber optics interfaces. Switch should support 9KB jumbo packets.
4	Layer 2 Features	Support 802.1Q VLAN encapsulation, IGMP v1,v2 and v3 snooping, MLD snooping, Support 802.1D, 802.1S, 802.1w, Rate limiting, Support 802.1X Security standards, Support IGMP Snooping, Should support STP, RSTP, MSTP, PVST+ compatibility mode
5	Layer 3 Features	Switch Should support Static routing, and should be scalable to support following features: RIP for IPv4 and RIPng for IPv6, OSPFv2 for IPv4 & OSPFv3 for IPv6, PIM for IPv4 SM, DM and SSM, VRRP for IPv4 & VRRPv3 for IPv6, PIMv6-SM, IEEE 802.3az, BGP for IPv4 & IPv6
6	VLAN	Switch Should Support IEEE 802.1v VLAN classification by protocol and port, 802.1Q, Tagged VLAN, port based VLANs and Private VLAN,VLAN trunking or equivalent, IEEE802.1ac VLAN Tagging, IEEE 802.1ad Provider bridges (VLAN stacking, Q-in-Q-in-Q).
7	Management	Switch needs to have a console port for management, Must have support SNMP V1, V2 and V3. Switch Should have accessibility using Telnet, SSH, Console access, easier software upgrade through network using TFTP etc. Configuration management through CLI, GUI based software utility or using web interface, USB interface for configuration backup Support SNMPv6, Telnetv6 and SSHv6, DHCPv6 relay, DHCPv6 client, SDN OpenFlow v1.3 from day 1 Should support 4 groups of RMON
8	Security	Should support ACLs, DHCP snooping, IP source guard and Dynamic ARP Inspection (DAI), Support Tri-authentication: MAC-based, web-based and IEEE 802.1x,Support DHCPv4 (server, relay and client),sflow, Port mirroring, RSPAN
9	Electrical/Mechanical Approvals	EN 50022, EN 60715, EN55024, EN61000-4-3, EN61000-4-5, EN55032 Class A, EN60068-2-27; EN60068-2-31, NEMA TS2, EN/IEC/UL 60950-1.
10	IP Rating	Switch should be minimum IP30 Rated
11	Environment	Operating Temperature: -10 to 65C with To be installed inside a sealed enclosure
12	Seamless Integration	For Seamless Integration and Interoperability all the switches and SFP Modules should be from the same make.
13	Make	Allied Telesis

11. Network Management Software (NMS) for 150 Nodes – Technical Specifications

Sr. No.	Description
1	The NMS shall ensure a single-pane-of-glass interface to the entire network for the management of Switches & Wi-Fi AP's
2	The NMS dashboard should show the network details and status, event information, and a topology map.
3	NMS shall be able to show critical issues like internal security threats, link tampering, network loops, environmental alarms, and failed nodes
4	NMS should be able to highlight the issues on the network map and in the event log
5	NMS shall provide simple navigation with the ability to manage and monitor network device easily.
6	The NMS should be able to show the colour-coded traffic map to provide visual network utilisation and bandwidth across all links, with constant updates,
7	NMS shall provide proactive network management using live and historical views to analyse traffic patterns and protocol used to improve network performance.
8	Simplify network management by creating and editing VLANs across multiple switches at once with a few mouse clicks. The colour-coded VLAN map highlights network connectivity, showing data paths of various business applications.
9	NMS shall provide capabilities of creating and editing VLANs across multiple switches at once with a little effort.
10	NMS shall be able to show the colour-coded VLAN map highlighting the network connectivity, showing the data paths for your important business applications.
11	NMS shall be able to provide the capabilities to configure various separate network management entities/ groups. Each group will be separate from others for secure deployment and management for large distributed companies, allowing for centralization or distribution of branch-office network management
12	The NMS shall provide network automation features like automatic backup, upgrade and configuration of any group of network devices, or even all devices.
13	NMS shall provide Automated device recovery with the zero-touch replacement of new switches
14	Make: Allied Telesis



**Office of the Chief Executive Officer,
Shri Mata Vaishno Devi Shrine Board, Katra**

Pre-qualification / Technical bid:

Annexure-B

Name of the Tenderer: _____

Detail of Tender Fee:

a) UTR No. _____ date _____ Amount _____

Detail of EMD:

a) CDR/FDR/TDR No. _____, Amount: _____

Date: _____, Bank _____, Branch _____

To,

Chief Executive Officer,
Shri Mata Vaishno Devi Shrine Board, Katra.

Sir,

I hereby submit tender for the work namely “Design, Supply, Installation, Testing, Commissioning and 05 years Comprehensive Maintenance Contract for CCTV Surveillance Project on Establishments of SMVDSB from Katra to Bhawan including Track & setting up of Integrated Command & Control Centers with LED walls at SGC Katra (on Turnkey Basis).” along with the particulars given below:-

S. No	Particulars	Documents enclosed at
1	Name of the Firm	
2	Registered Address	
3	Email id:	
4	Mobile Number of Contact person/ Authorized Representative of the Tenderer:	
5	Year of establishment and constitution of firm	
6	Please specify, whether you are submitting your tender as a as a Partner of the firm or as Director of the company.	
7	Name of the Proprietor/Partner/ Directors of the tendering company.	
8	Company Registration Document	
9	GST Registration	
10	PAN Registration	
11	Document/Work Order certifying that the Bidder is in operation in the Video Surveillance domain in last 5 years as on date of bid submission.	
12	ITR and Profit and Loss Statement for the last three Financial Years viz. 19-20, 20-21& 21-22.	
13	Turnover Certificate by the CA for the last three Financial Years viz. 19-20, 20-21& 21-22	
14	Nertworth certificate by the CA for the last three Financial Years viz. 19-20, 20-21& 21-22 certifying that Bidder is not suffered any financial loss for more than one year during the last three (03) years ending on the 31st March of the previous year and Nertworth is not negative on 31st March and also not eroded by more than 30% (thirty percent) in the last three years, ending on 31st March.	
15	Work order consisting of minimum of 250 IP cameras for a surveillance project with any State/Central Govt/PSUs/Corporate Sector in India during the last 03 years (FY 19-20, 20-21& 21-22)	
16	Attested Legal Affidavit for declaration of ineligibility for corrupt or fraudulent practices and should not be blacklisted / banned / debarred by any State Govt./Central Govt./PSU in India or abroad for any reason on the date of bid submission.	
17	Detail of manpower with the Company.	
18	CMMI Level 3 or above, ISO 9001, ISO 27001 and ISO 20000	
19	Document of OEM as asked in the Clause No. 21 (Pre-Qualification for OEM for Key components) of the e-NIT	

20	All documents as asked in the Clause No. 25 (d) of the e-NIT for calculation of points in the table matrix.	
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Copies of documentary proof may be furnished where ever required. Additional pages may be used, if needed.

Name of the Tenderer:_____

Seal & Signature:_____

Place:

Date:



OFFICE OF THE CHIEF EXECUTIVE OFFICER
SHRI MATA VAISHNO DEVI SHRINE BOARD
Central Office, Jammu Road, Katra (J&K) – 182301
E-mail: itprojects@maavaishnodevi.net

Annexure-C

(ON THE LETTER HEAD OF THE FIRM)

DECLARATION

I / We hereby declare that no case is pending with the police / court / government agency against the bidder / firm / company (Agency). Also, I / We have not been suspended / blacklisted by any PSU / Government Agency / Financial Institution / Court etc.

Seal and Signature of the bidder

Shrine Board's e-NIT No.

Date:

Place:

Date:



OFFICE OF THE CHIEF EXECUTIVE OFFICER
SHRI MATA VAISHNO DEVI SHRINE BOARD
Central Office, Jammu Road, Katra (J&K) – 182301
E-mail: itprojects@maavaishnodevi.net

Annexure-D

(ON THE LETTER HEAD OF THE FIRM)

NO DEVIATION CERTIFICATE

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions mentioned in the e-NIT. We hereby undertake and confirm that we have understood the work mentioned in the subject of this e-NIT and shall provide hardware, software, manpower and other allied resources for the execution of intended work to SMVDSB during the Contract Period.

Seal and Signature of the bidder

Shrine Board's e-NIT No.

Date:

Place:

Date:



OFFICE OF THE CHIEF EXECUTIVE OFFICER
SHRI MATA VAISHNO DEVI SHRINE BOARD
Central Office, Jammu Road, Katra (J&K) – 182301
E-mail: itprojects@maavaishnodevi.net

Annexure-E

(ON THE LETTER HEAD OF THE FIRM)

BIDDER'S DETAIL

1. Name of the Supplier / Party / Firm
2. Name of the Authorized Representative
3. Mailing Address:
4. Phone/Landline No
5. Mobile No.
6. Fax No.
7. E-mail Address
8. Website Address (if any)
9. Bank details for payment through NEFT / RTGS
10. Name of the Bank:
 - a. Branch Account No
 - b. IFSC Code MICR No

Note: Submit a cancelled cheque for verification of above bank details.

Seal and Signature of the bidder

Shrine Board's e-NIT No.

Date:

Place:

**List of the cameras proposed to be installed on the track and
in the establishments of the SMVDSB**

S.No	Sector	Location	Proposed New Cameras				Remarks
			Bullet	Dome	PTZ	Sub. Total	
1	Tarakote	Link Road between Tarakote and Banganga	0	1	0	1	
2		Yatra Registration Counter	0	1	0	1	
3		Waiting Hall	0	1	0	1	
4		PCP Frisking Point	2	0	0	2	ORS / IDS Analytics Required
5		Outer Office Area covering the Parking below Video Wall	1	0	0	1	
6		Material Check Post	1	0	0	1	ANPR Video Analytics required
7		Hutt Village (Open fencing Area near Pvt. Market by Electric Pole no. 66 RD 0/800)	1	0	1	2	
8		Open Fencing near Water ATM near Electric Pole no. 135	1	0	0	1	
9		Open Fencing Area near Electric Pole No. 173, road to village	1	0	0	1	
10		Open Fencing Area near Electric Pole No. 176, road to residential area	1	0	0	1	
11		Open Fencing Area near Electric Pole No. 182, Pvt. Market Entrance	1	0	0	1	

12		Langar/Pond Point Outer Area, Electric Pole no. 189 near ATM, Langar Backside for valley coverage, On Announcement Booth towards ATM	1	0	1	2	ORS / IDS Analytics Required
13		Medical Unit Tarakote	1	0	0	1	
14		Open Nallah near Electric Pole No. 326	1	0	0	1	
15		Open Nallah near Electric Pole No. 328	1	0	0	1	
16		Frisking Point/Security Check Post near Electric Pole No. 361	1	0	0	1	
17		Open Nallah covered with wired Mesh near Electric Pole no. 423 & 424	1	0	0	1	
18		Open Nallah near Electric Pole no. 443	1	0	0	1	
19		Trijunction Tarakote0Adhkuwari0Himkoti: VIP Lounge and 50 mtrs before trijunction facing downwards	3	0	0	3	ANPR Video Analytics required
Sub Total (A)			19	3	2	24	
20	Adhkuwari	Adhkuwari Link Road from Toilet Block to Platform	4	0	0	4	
21		Sharda Bhawan for platform coverage	0	0	2	2	
22		Bhagwati Bhawan and Cloak Room	0	0	1	1	
23		Queue Complex	3	1	0	4	
24		Blanket Cash Counter and Garbjoon Parchi Counter	1	0	0	1	

25		Waiting Hall	0	1	0	1	
26		Bye Pass Pony Track near Police Check Post/Frisking Point RD 5/425	1	0	0	1	
27		Battery Car Stand Area	1	0	0	1	
28		Battery Car Ticket counter	0	1	0	1	
29		Trijunction Old Banganga Road 0 Adhkuwari Road 0 Himkoti Track near Security Check Post	2	0	0	2	
30		Inderprastha Bhojanalaya cash counter and upper sitting area	0	1	0	1	
31		Ambalika View Point	0	1	0	1	
32		Sameer View Point Sitting Area	0	1	0	1	
		Sub Total (B)	12	6	3	21	
33	Banganga	Alok View Point		1	0	1	
34		Old Milk Bar Point RD 2/975	1	0	0	1	
35		PP Market	2	0	0	2	
36		SKC Colony Charanpaduka	0	1	0	1	
37		Charanpaduka Mandir	1	0	0	1	
38		Geeta Market & Bathing Ghat near Geeta mandir	2	0	0	2	
39		Old Bathing Ghat Area	1	0	0	1	
40		Droor Village	2	0	0	2	
41		Keri Droor Village	2	0	0	2	
42		Link road to Tarakote Marg, X-ray Baggage Pithu/Pony	2	0	0	2	
43		Stairs near Gulshan Langar	2	0	0	2	

44		X-ray Baggage	0	1	0	1	
45		PCP Darshani Gate Entrance	3	0	0	3	FRS, O/GR & ORS / IDS Analytics Required
46		Pony/Pithu Prepaid Counter	2	0	0	2	FRS Analytics is required
47		Darshani Deodi Banganga	2	0	0	2	
Sub Total (C)			22	3	0	25	
48	Himkoti	Landslide Area between RD 0/700 and RD 0/725	1	0	0	1	
49		Landslide Area near RD 1/25	1	0	0	1	
50		Satya View Point RD 1/425	1	1	0	2	
51		Open nallah near RD 1/850	1	0	0	1	
52		Himkoti Dosa Point	0	1	0	1	
53		Himkoti Bhojanalaya	2	2	1	5	
54		PCP & Frisking Point and Medical unit	2	0	0	2	FRS & ORS / IDS Analytics Required
55		Souvenir Shop	0	1	0	1	
56		Garbage collection point Thanda Nallah	1	0	0	1	
57		Slope Stabilization area between RD 4/100 and 4/175	1	0	0	1	
58		Panchi Staff Colony	1	0	0	1	
59		Saket View Point	1	1	0	2	
60		Trijunction Panchi Helipad Entrance	1	0	0	1	ANPR Video Analytics required
61		Slope Stabilization area RD 4/700	1	0	0	1	

62		Yatra Verification Counter RD 4/950	1	0	0	1	
63		Slope stabilization area between RD 5/225 and 5/250	1	0	0	1	
		Sub Total (D)	16	6	1	23	
64	Bhawan	Parvati Bhawan Out Road / Battery Car Area	1	0	0	1	Head Count / Crowd Management Analytics required
65		Manokamna Outer Area Battery Car Ticket Queue towards Ropeway	1	0	0	1	Head Count / Crowd Management Analytics required
66		Souvenir/Prasad Shop Near Dispensary	0	1	0	1	
67		Locker No. 2 & 3	3	0	0	3	
68		Bhaint Shop parvati Bhawan	0	1	0	1	
69		Bhaint Shop Extension counter	0	1	0	1	
70		Souvenir Shop/Sagarratna Trijunction	0	2	0	2	Head Count / Crowd Management Analytics required
71		Bhaint Shop on Manokammna Terrace	0	1	0	1	
72		Pithu Bhojanalaya	1	0	0	1	
73		Room no. 4 reception	0	1	0	1	
74		Durga Bhawan Terrace	0	1	0	1	
75		Durga Bhawan lift lobbies	10	0	0	10	

76		Durga Bhawan Dining Hall Tripti and entry	0	2	0	2	
77		Sky Walk Entry & waiting area	2	2	0	4	Head Count / Crowd Management Analytics required on skywalk entry
78		Exit Route	2	0	0	2	
79		Cave Outer Area and Entry of each tunnel	3	0	1	4	
80		Durga Bhawan Donation Box	1	0	0	1	
81		Donation Box at Attka Exit	1	0	0	1	
82		Donation Box below Ganeshji	1	0	0	1	
83		Donation Box at Shiv Cave	1	0	0	1	
84		Donation Box near Waiting Hall (R.no 4)	1	0	0	1	
85		Donation Box near Donation Counter No.1	1	0	0	1	
86		Donation Box near Donation Counter No.3	1	0	0	1	
87		Donation Box in Hanuman Temple	1	0	0	1	
88		Donation Box in Ramji Temple	1	0	0	1	
89		Donation Box near Shivling	1	0	0	1	
90		Donation Box near Adm Block Gate	1	0	0	1	
		Sub Total (E)	34	12	1	47	
91		Bhaint Shop	0	1	0	1	
92	Bhairo Ji	Om View Point Ridge	1	1	0	2	

93		Bhairo Ghati Route Nallah	2	0	0	2	
94		Bhairo Temple East Ridge	2	0	0	2	
95		Bhairo Temple East Nallah	2	0	0	2	
96		Slope Stabilization near Water Point No. 6	1	0	0	1	
		Sub Total (F)	8	2	0	10	
97	Sanjhichhat	Pvt. Market Near Toilet Block No. 9	0	1	0	1	
98		Mangla Bhawan entrance	1	0	0	1	
99		Reception/Cash counter	0	1	0	1	
100		Free Accommodation Halls	0	2	0	2	
101		Gauri Bhawan Reception Counter	1	0	0	1	
102		Vaishnavi Bhawan entrance	1	0	0	1	
103		Tea coffe point Gauri Bhawan	2	0	0	2	
104		Ticket Counter Area	0	1	0	1	
105		Helipad Platform Area	0	0	1	1	
106		Pvt. Market near RD 7/25	1	0	0	1	
		Sub Total (G)	6	5	1	12	
107	Katra	Engineering Stores, Banganga	4	0	0	4	
108		Niharika Complex, Katra	0	2	0	2	
109		NES, Banganga	5	0	0	5	
110		SGC, Katra	0	0	1	1	
111		YRC 1	0	0	1	1	
112		Scrapyard	2	0	0	2	
		Sub Total (H)	11	2	2	15	
		G. Total	128	39	10	177	

**List of the cameras already installed on the track and
in the establishments of the SMVDSB**

S.No.	Sector	Location	Already existing Camera			
			Bullet	Dome	PTZ	Sub.Total
1	Tarakote	Tarakote Bhojanalya	0	1	0	1
2		Material Check Post	2	0	0	2
3		Tarakote Near PA Booth	3	0	1	4
4		Tarakote Server Room	1	3	0	4
5		Langar	16	0	0	16
Sub Total (A)			22	4	1	27
6	Adhkuwari	Counting Room	3	0	0	3
7		Sharda Bhawan	3	4	0	7
8		Shailputri	4	2	0	6
9		Bhagwati Bhawan and Cloak Room	7	2	1	10
10		Bhojanalaya Adhkuwari and Extension Counter	0	3	0	3
11		Cave Complex Adhkuwari	0	2	0	2
12		Near Inderprastha Bhojanalya	0	0	1	1
13		Old track to bhawan from Adhkuwari	0	0	1	1
14		Adhkuwari Pony stand opposite to Inderprastha Bhojanalya	0	0	1	1
15		Adhkuwari to Bhawan / Reader / Towards Tarakote	2	1	0	3
16		Adhkuwari Inside	1	0	0	1
17		Inderprastha Bhojanalaya Upside/Downside	2	0	0	2
18		Frisking point near Sameer View Point	0	0	1	1

	Sub Total B		22	14	5	41
19	Banganga	Milk Bar Charanpaduka	0	0	1	1
20		Gurukul Building	1	12	0	13
21		Gurukul Hostel	4	4	0	8
22		Darshani Gate Entrance	0	1	0	1
23		Darshani Gate Exit	0	1	0	1
24		Katra Pony Stand Near Gulshan Langar	0	0	1	1
25		Gulshan Langar	0	0	1	1
26		Banganga Manager Officer	0	0	1	1
27		Banganga Entry/Exit	2	0	0	2
28		Banganga In / In Road	2	0	0	2
29		Banganga Reader Panel/ Safety	1	1	0	2
30		Banganga Exit View / Ladies In (Frisking and exit point)	2	0	0	2
31		Banganga Registration / Collection Box	1	1	0	2
32		Darshani Deodi Banganga	4	0	0	4
	Sub Total (C)		17	20	4	41
34	Himkoti	200 mtrs near Satya View Point	0	0	1	1
35		Himkoti Dosa Point	2	1	0	3
36		Thanda Nallaha	2	0	0	2
	Sub Total (D)		4	1	1	6
37	Bhawan	Bhawan Exit Gate	0	2	0	2
38		Parvati Bhawan Out Road / Battery Car Area	2	1	0	3
39		X0ray Baggage Bhawan / Police Check Post	2	1	1	4
40		Bhawan Gate No. 2 / VIP Gate No. 2	2	1	0	3
41		Bhawan Gate No. 5	1	0	0	1

42		Gauri Bhawan	2	0	0	2
43		Gate No. 5	2	0	0	2
44		Police Post	2	0	0	2
45		Lakshmi Bhawan	2	0	0	2
46		Gate No. 3	4	0	0	4
47		Gate No. 2	1	0	0	1
48		Battery Car Area	2	0	0	2
49		Manokamna Area	3	0	0	3
50		Manokamna Locker	1	0	0	1
51		Sagarratna Area	3	0	0	3
52		Inside Holy Cave	4	0	0	4
53		Outside Holy Cave	1	0	0	1
54		Atka	1	0	0	1
55		Gate No. 2	1	0	0	1
56		Old Bathing Ghat	1	0	0	1
57		Waiting Hall Near Gate No. 5	1	0	0	1
58		Donation Counter No.1	1	0	0	1
59		Souvenir Shop Near Dispensary	1	0	0	1
60		Room No. 8 Reception, Strong Room & Outside Strong Room	4	0	0	4
61		Counting Room	7	0	0	7
62		Hanuman Temple	1	0	0	1
63		Sarswati Bhawan	6	0	0	6
64		Shridhar Bhawan, Bathing Ghat	14	0	0	14
65		Shridhar Bhawan Track	0	0	2	2
66		Gate No. 3	1	0	0	1
67		Locker No. 2 & 3	8	0	0	8
68		Donation Counter No. 3	1	0	0	1
69		Donation Counter No. 4	0	1	0	1

70		LTP Passenger ropeway	16	0	0	16
71		Manokamna Bhawan Phase-I & Phase-II	22	0	0	22
72		Parvati Bhawan Building complex	0	0	1	1
73		Parvati Bhawan	15	0	0	15
74		Ropeway to Bhairo	0	1	0	1
75		Mterial Ropeway Upper Terminal	2	0	1	3
76		Ropeway LTP Machine Room	14	0	0	14
77		Opposite Nathu Restaurant Bhawan	0	1	0	1
78		Near Battery Car Stand Bhawan	0	1	0	1
79		Chunni Chola store	0	1	0	1
80		Panchi Helipad	7	0	0	7
81		Pony Stand Bhawan, Near Gouri Bhawan	0	0	1	1
		Sub Total (E)		158	10	6
82	Bhairo	UTP Passenger Ropeway	13	0	0	13
83		100 mtrs from Bhairo Mandir	0	0	1	1
84		Bhairo Ghati Road	1	0	0	1
85		Bhairo Ghati Mandir	0	1	0	1
86		Bhairo Mandir	0	1	0	1
87		Bhairoji Complex	9	0	1	10
88		Om View Point	3	0	0	3
	Sub Total (F)		26	2	2	30
88	Sanjichhat	Sanjichhat Police Post In and Out	1	1	0	2
89		Sanjichhat towards Bhairoji	1	0	0	1
90		Sagarsuri Hospital	2	1	0	3
91		Prasad Seva Sanjichhat	3	7	0	10

92		Near Sanjichhat Platform	0	0	1	1
93		Near Gauri Bhawan	0	0	1	1
94		Helipad	8	0	0	8
95		Near Helipad Entry/Exit	0	0	1	1
		Sub Total (G)	15	9	3	27
96	Katra	Trikuta Bhawan	6	20	0	26
97		Engineering Stores, Banganga	0	8	0	8
98		Niharika Inside and outside	0	2	0	2
99		Niharika Complex, Katra	32	0	0	32
100		Shakti Bhawan	12	0	0	12
101		E&R Niharika	5	0	0	5
102		Aaashirwad Complex, Niharika, Katra	22	0	0	22
103		NES, Bangnaga	13	0	0	13
104		HRD Section Central office Katra.	4	0	0	4
105		SGC, Katra	20	0	0	20
106		Central Office, Katra	7	0	0	7
107		Serli Helipad (Old cameras)	0	14	0	14
108		Serli Helipad (Mtech)	1	1	0	2
109		Siddhidatri	4	0	0	4
110		Stadium	12	3	0	15
111		Railway Station In and Out	0	2	0	2
112		Material Ropeway T1, T20 T3	0	0	2	2
113	Material Ropeway Lower Terminal	2	0	1	3	
114	YRC 1	0	9	0	9	
115	YRC 2	2	1	0	3	
		Sub Total (H)	142	60	3	205
		G. Total	406	120	25	551