



**FOREST HEADQUARTERS, ODISHA**

**ARANYA BHAWAN,**

**OFFICE OF THE PRINCIPAL CHIEF CONSERVATOR OF FORESTS, ODISHA**

**CHANDRASEKHARPUR, BHUBANESWAR, ODISHA, PIN-751023**

**REQUEST FOR PROPOSAL**

**FOR**

**Appointment of an Agency for Supply, Installation, Commission, Configuration, Operation and Maintenance of CCTV Surveillance System in O/o PCCF, Aranya Bhawan, Forest Headquarters, Odisha, Bhubaneswar for a period of five years.**

**RFP No. 1396/GIS-37/2015 dated 21<sup>st</sup> December 2015**

## Table of Contents

Terms of Reference.....	3
Section – I: Invitation for Bids.....	5
Section – II: Eligibility Criteria .....	7
Section – III: Scope of Work .....	9
Section – IV: Instruction to Bidders .....	10
Section – V: General Terms & Conditions .....	15
Section – VI: Technical Specifications.....	20
Section – VII: Annexures.....	38

### Terms of Reference

SL NO.	PARTICULARS	DATE & TIME / DETAILS	LOCATION / DETAILS
1	RFP No. & Date	<b>1396/GIS-37/2015 dated 21<sup>st</sup> December 2015</b>	
2	Commencement of Download of RFP Document	22.12.2015 (3.30PM onwards)	
3	Due date for submission of pre-bid queries through email and in standard format on Ms Word	02.01.2016 upto 4.00PM	
4	Date of Pre-bid conference	04.01.2016 at 11.00AM	
5	Release of Corrigendum at website	05.01.2016 by 4.30PM	
6	Date of Bid Submission (By Messenger / Courier / Post)	18.01.2016 upto 4.00PM	
7	Date of General Bid opening	20.01.2016 at 11.00AM	
8	Date of Technical Bid opening and presentation of proposed solutions	20.01.2016 at 3.30PM (may continue upto next day)	
9	Date of Financial Bid opening	To be notified on 20.01.2016	
10	Contact Person for Queries	Shri Amlan Nayak , DCF, IT & GIS Tel: +91-674-2300583 e-Mail: <a href="mailto:gis.pccfodisha@gmail.com">gis.pccfodisha@gmail.com</a>	
11	Address of Bid Submission.	Conservator of Forests(GIS) O/o PCCF, Odisha, Aranya Bhawan, Plot No. GD-2/12, Chandrasekharpur, Bhubaneswar-751023	
12	RFP Document Cost (Non-refundable)	Rs.5000/- (Rupees Five thousand only)	By Demand Draft in favour of “Principal Chief Conservator of Forests, Odisha” issued by a Nationalized Bank’s Bhubaneswar branch, valid for minimum 1 year payable at Bhubaneswar.

13	EMD (Refundable, but non-interest bearing)	Rs. 50,000/- (Rupees Fifty Thousand only)	By Bank Guarantee/ Demand Draft in favour of “Principal Chief Conservator of Forests, Odisha” issued by a Nationalized Bank’s Bhubaneswar branch, valid for minimum 1 year payable at Bhubaneswar.
14	Bid validity period	1 years from the last date (deadline) from the last date of submission of bids.	
15	Latest Tender document and addendum/corrigendum, if any, will be published at the websites: <a href="http://www.odisha.gov.in">www.odisha.gov.in</a> and <a href="http://www.odishaforest.org">www.odishaforest.org</a>		
16	Disclaimer: Notwithstanding anything else contained to the contrary in this tender document, PCCF-Odisha reserves the right to cancel / withdraw / modify fully or partially the “Invitation of Bids” or to reject one or more of the bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.		

## **Section – I: Invitation for Bids**

### **1.1 Objective**

Conservator of Forests, GIS, (The Authorized Officer) invites Request for Proposals (RFP) on behalf of the Principal Chief Conservator of Forests (PCCF), Odisha, (The Purchaser) in the form of sealed quotations/bids from experienced and competent system integrators (Bidders) for Supply and Services in respect of the works namely:

*Appointment of an Agency for Supply, Installation, Commissioning, Configuration, Operation and Maintenance of CCTV Surveillance System in Aranya Bhawan, Forest Headquarters, Odisha, Bhubaneswar.*

### **1.2 About the bid documents**

The tender document comprises of the following:

<b>Sections</b>	<b>Chapters</b>
Section – I	Invitation for Bids
Section – II	Eligibility & Evaluation Criteria
Section – III	Scope of Work
Section – IV	Instruction to Bidders
Section – V	General Terms & Conditions of the Contract
Section – VI	Technical Specifications of Items
Section – VII	Annexure(s) of Formats

### **1.3 About the Tender process:**

- A. The tender will have 3 (Three) parts – General Bid, Technical Bid and Financial Bid.
- B. The tender document including addendum/corrigendum, if any, will be available only at websites – [www.odisha.gov.in](http://www.odisha.gov.in), [www.odishaforest.in](http://www.odishaforest.in)
- C. Bidders may download the tender document from website and the tender document cost may be submitted along with the general bid documents.
- D. The tender document, after duly filled in, should be submitted to the Conservator of Forests, GIS at O/o The PCCF – Odisha, Bhubaneswar on or before the due date and time.
- E. Cost of the Tender Document and EMD must be submitted along with the General Bid Documents Only.
- F. Bids received without or with inadequate Tender Document Cost and EMD shall be rejected.

G. Normally inclusion of missing documents will not be entertained after submission of the bid.

H. General Bids, Technical Bids and Financial Bids shall be opened by the tender committee in the presence of bidders who may choose to attend the Bid Opening Event.

## Section – II: Eligibility Criteria

The Bidder should have the following eligibility Criteria to participate in this Tender.

### 1. General Eligibility Criteria (Necessary support documents are to be enclosed):

A. The Bidder should not bid under any Consortium. No Consortium bid shall be allowed for this Tender.

B. In conformity to the ICT Policy -2014, Odisha; the bidder should be a registered company having its Registered Office in Odisha under Indian Companies act 1956 or a Registered Proprietorship firm in Odisha operating for last 5-years in the business of Supplying, Integrating and Servicing IT HW & SW. Necessary Certificates are to be enclosed.

C. The bidder must have been registered with Odisha Sales Tax Authority and must furnish the VAT registration certificate, PAN and up to date VAT clearance certificate and copy of up to date IT return along with the general bid.

D. Average annual turnover of the bidder in IT HW/SW Supply and Service Segment for last 3 (Three) financial years ending on 31 March, 2015, should not be less than Rs. 50.00 Lakh (Fifty Lakh of Indian Rupees). Copies of Filed Audited Balance sheets, IT Returns, Sales Tax Returns, VAT Returns and ST Returns etc. are to be submitted to corroborate this.

F. The bidder should not be under a declaration of ineligibility for corrupt and fraudulent practices issued by Government of India or any State Governments in the country of India. (To be furnished under Notarized Affidavit made at Bhubaneswar)

G. The bidder must not have any history of defaulting in execution of work orders issued by Government of India or any State Government in the country of India. A self-declaration certificate to this effect should be enclosed. (To be furnished under Notarized Affidavit made at Bhubaneswar)

H. The bidder hasn't been blacklisted by any Central/State Government institution and there has been no pending litigation with any government department on account of similar services. (To be furnished under Notarized Affidavit made at Bhubaneswar)

I. No Criminal Proceedings in any Court of Law should pending against the bidding Firm Or its Promoters Or its Directors (To be Furnished under Notarized Affidavit made at Bhubaneswar)

*Note: Affidavits from F- I can be submitted under one Notarized Affidavit*

## **2. Technical Eligibility Criteria: (Necessary support documents are to be enclosed)**

A. The bidder should be a reputed System Integrator (SI) and Supplier of an internationally / nationally reputed CCTV Camera OEM. The SI Should be under a valid authorization of the OEM as a System Integrator cum Supplier. Latest and freshly issued Original Authorization Certificates in favour of this tender are to be enclosed.

B. OEM of the Products offered should be ISO 9001: 2008 Compliant.

C. OEM for the CCTV Camera offered should submit in writing that OEM would facilitate the bidder on a regular basis with Full Comprehensive Warranty Supports, Updates of Technology/product updates during the entire 5 Years warranty period.

D. SI or OEM should have its own service centre/personnel in Odisha for providing minimum 5 (Five) years Full Comprehensive Warranty Services and Support including after-sales service and support.

E. The bidder shall submit an undertaking from the respective OEM that the CCTV Camera will be installed, commissioned, tested and Fault Corrected by OEM's Support Professionals and ensure direct and uninterrupted support of the OEM during the Warranty / Contract Period.

F. The Bidder Shall Submit an undertaking that: Maximum 24 hours resolution time for all support-request/problem / issues.

G. The Bidder Shall Submit an undertaking that: periodic check & maintenance, Patches, updates, and upgrades of the equipment's firmware (IOS) to be provided within the warranty and AMC period.

H. All the OEM / OEMs Authorizations and Certificates must be Specific to this **RFP No. 1396/GIS-37/2015 dated 21<sup>st</sup> December 2015**

I. Bidder must have satisfactorily completed/ under execution / work-in-progress of at least two such projects of supplying, installation , commissioning and servicing of CCTV Surveillance System; each of the project having a contract value at least Rs. 15.00 Lakh (Fifteen Lakh) in favour of Government Organisations / PSU in Odisha during the last three years as ending on 31/03/2015. Copies of the supply / work orders / completion certificates / work in progress / payments details indicating the value of supply should be submitted by the bidder.

**Necessary supporting documents on fulfilment of eligibility criteria should be attached for authentication along with a signed copy of the tender document including addendum/ corrigendum, if any, to indicate acceptance of all terms and conditions set forth in the tender. Organizations failing to provide complete information on any of the requirements are liable to be rejected.**



### **Section – III: Scope of Work**

**The broad scope of work is defined as under:**

- A. The bidder/supplier shall provide solution for the requirement and include any missing item(s) notwithstanding the detailed Bill of Material (BOM) given in the tender document for the successful end to end implementation.
- B. The broad system architecture includes wired network connectivity, IP CCTV cameras (Fixed and PTZ) for surveillance control equipment and back end equipment.
- C. Supply, installation and commissioning of requisite hardware and software for the CCTV surveillance system.
- D. Recording shall be tamper proof and access to the recording shall be restricted by implementing user based security.
- E. Live View & Video Management and Recording Software should be inbuilt with NVR.
- F. The successful bidder/supplier shall not cause any damage to Government buildings/other premises/property. If any damage occurs, the successful bidder/supplier will perform restoration. Trenches, path/road cutting, etc. will be back-filled and restored to the original condition immediately after laying of the conduit/cable/erection of mast etc. The successful bidder/supplier if required shall also plug conduits and entrance holes with suitable sealing material, where the cables or other such material if necessary has been laid.
- G. The successful bidder/supplier shall provide warranty for all the components including hardware, network, software, etc. as per tender for a period of 5 Years from the date of the issuance of Final Acceptance Certificate.
- H. The requisite connectivity shall be arranged by successful bidder/supplier. The successful bidder/supplier shall be responsible for the commissioning and maintenance of the entire network connectivity.
- I. Detailed training for operation and management of equipment/infrastructure will be provided to the selected representative of Staff. No separate cost will be added for this purpose.

#### Section – IV: Instruction to Bidders

1. The bidder will be responsible for supply, installation, and commissioning of items as per specification mentioned in the technical bid. The items will be supplied and installed in the PPCF office (HQ) as per instruction of purchaser.
  2. All the items for the above supply, installation, and commissioning shall be completed within 1 (one) months from the date of issue of Supply/ purchase /work order positively without fail. Time overrun for installation and commissioning may lead to imposition of fine by the Purchaser @ 0.5 % of Bid Value per Week of Time Overrun.
  3. There are 3 (Three) parts of tender papers namely General Bid, Technical Bid, and Financial Bid. The bidder is required to fill out all the three parts of tender documents and place them in 3 (Three) separate sealed envelopes which should be super scribed as: (a) **General Bid – RFP No. 1396/GIS-37/2015 dated 21st December 2015** (b) **Technical Bid – RFP No. 1396/GIS-37/2015 dated 21st December 2015**, and (c) **Financial Bid – RFP No. 1396/GIS-37/2015 dated 21st December 2015**. These envelopes should be placed in another sealed envelope and addressed to “The Conservator of Forests, GIS, Forest Hqrs, Aranya Bhawan, Chandrasekharpur, Bhubaneswar, Odisha”.
  4. The envelope containing General Bid, Technical Bid and financial Bid envelopes must show the name of the tenderer, address and should be superscripted as "Appointment of an Agency for Supply, Installation, Commission, Configuration, Operation and Maintenance of CCTV Surveillance System in Aranya Bhawan, Forest Headquarters, Odisha, Bhubaneswar. “RFP No. 1396/GIS-37/2015 dated 21st December 2015” on the top of the envelope.
  5. A non-refundable demand draft of Rs. 5, 000/- (Rupees One Thousand Only as Tender Document Cost and an EMD of Rs. 50,000/- (Rupees Fifty Thousand only) in the form of Demand Draft in favour of “Principal Chief Conservator of Forests, Odisha” payable at Bhubaneswar. issued a Nationalized Bank, must be enclosed along with the General Bid documents.
  6. General bid document not accompanying the requisite Tender document fee and EMD shall be considered as non-compliant, summarily rejected and will not be considered for further evaluation.
7. Pre Bid Queries:
- a. Bidders are not bound to attend Pre Bid Query Meeting in order to participate in the bidding, it is purely optional.
  - b. Purchaser of is not bound to answer or respond or incorporate the requests made under all Pre Bid Queries by the Bidders.
  - c. Pre Bid Queries are to be submitted by the bidders before designated date by e-Mail only and these queries should be specific with respect to the RFP and under the following tabular format only in an MS Word File Attachment.

#	RFP Document Reference by Sections & Page Numbers	Exact and Contents of RFP that requires Clarifications in a Pointed Manner.

--	--	--

- d. Pre-Bid queries in the form of advisory notes shall not be entertained.
- e. The Bidder or Bidder's designated representative (with authorization and credentials from the vendor citing his position and domain expertise) are invited to attend the Pre Bid Meeting at their own cost, which will take place on the date and time stipulated in the Schedule of Events.
- f. Keeping with the space constraint of the meeting space, maximum one person per bidder are allowed in the Pre Bid Meeting Sessions.
- g. The Bidders / their representatives are requested to carry a hard copy of the RFP with them for their ready and handy reference.
- h. The purpose of the meeting will be to clarify pertinent issues with respect to the relevant and pertinent Pre Bid queries mailed by the bidders and other pertinent queries by the bidders with respect to the clause and section of RFP in a Serial and Sequential Order Only, i.e. from start to the end clause of the RFP with economics of time in the deliberations.
- j. Any modification / corrigenda / addenda of the RFP if at all necessary as a result of the Pre Bid Meeting and necessity of the purchaser only shall be published in the website of PCCF Odisha and Govt. of Odisha i.e. [www.odishaforest.in](http://www.odishaforest.in) and [www.odisha.gov.in](http://www.odisha.gov.in) Bidders are requested to frequently refer the websites for updated information as updates will not be communicated to bidders individually by the purchaser.
- k. Any such corrigendum/addendum shall be deemed to be incorporated into this RFP and shall be binding on all bidders.
8. The sealed tenders will be opened as per the indicated schedule in presence of the tenderers or their authorized representatives as may desire to be present. Authorized representatives will be required to produce their authorization letter before opening of the tender, failing which they will not be allowed to be present.
9. Technically qualified bidders will only be informed for their financial bid within stipulated time and this will be communicated to the firm through e-mail and fax. Any clarification/alteration in specification found suitable by the technical committee will be informed to the successful bidders for commercial inclusion.
10. Tenders shall be fully in accordance with the requirements of the general terms and conditions and the technical specifications attached hereto. Appropriate formats furnished with this specification shall be used in quoting tender prices. Incomplete, illegible, unsealed and without signature tenders will be rejected. Telegraphic tenders will not be accepted.
11. All offers should be made in English and clearly type written. Offers if submitted in any other language must be accompanied by its English Translation in which case, for purpose of interpretation of the tender etc, the English translations shall prevail.
12. The bidders should furnish the following information and documents with the General, Technical and Financial Bids.
13. Tender should be submitted in the Tender Box kept at FITGC in the O/o The PCCF, Odisha. No tender is to be handed over to office staffs unless otherwise specified officially.
14. In case due date happens to be holiday the tender will be accepted and opened on the next working day. No separate intimation will be sent to bidders in this regard.

15. Bidders shall bear all costs associated with the preparation and submission of its bid, and the purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

16. Alternative bids / Bids on Alternate Format than Prescribed in this Tender Document shall not be considered and Conditional Tenders will be summarily rejected with forfeiture of the EMD. Bids are to be submitted in the Prescribed Formats Only. Submission of alternative bids or conditional bids shall be treated as attempt to vitiate the bidding process by the bidder.

17. The supplier shall pay and bear all other liabilities, taxes and duties not specifically agreed by the Purchaser in the contract.

18. The leaflets/catalogue and standard technical literature etc. of the technical features of the offered equipment's must be submitted for proper evaluation.

19. Warranty/Guarantee: Minimum five (05) years of On-Site Comprehensive Warranty to be provided on the product so quoted from date of satisfactory installation and commissioning.

20. Tenders shall be fully in accordance with the requirements of the general terms and conditions and the technical specifications attached hereto. Appropriate formats furnished with this specification shall be used in quoting tender prices. Incomplete, illegible, unsealed and without signature tenders will be rejected. Telegraphic tenders will not be accepted.

**21. PRICE BID MUST BE SUBMITTED IN ENCLOSED PRICE BID FORMAT ONLY.**

22. Quantity: The quantity shown in the tender can be increased or decreased by the purchaser to any extent depending upon the actual requirement.

23. The rates quoted by the bidder against items contained in bill of quantity of the Tender document, shall be inclusive of all Taxes. The various items of testing, commissioning and maintenance shall be inclusive of all costs such as VAT/ service tax as applicable in Odisha.

24. The price and conditions of the offer should be valid for at least a period of 1 year from the date of tender opening. Tender with validity of less than 180 days may be rejected.

**25. Bid Security:**

a. The Tender must be accompanied by a sum of Rs.50, 000/- (Rupees Fifty Thousand Only) as EMD in the form of Demand Draft in favour of "Principal Chief Conservator of Forests, Odisha" payable at Bhubaneswar., failing which the Tender shall be considered as noncompliant and summarily rejected. The EMD should at least be valid for a period of one year. If the validity of the offer is extended, the EMD duly extended shall also be furnished, failing which the offer of the aforesaid shall not be considered. The EMD is liable to be forfeited, if the bidder withdraws or amends impairs or derogates from the tender in any respect within the period of validity of his offer. In case of a successful bidder the bid security (EMD) shall be forfeited if the bidder fails to accept the Work/Purchase Order or fails to furnish performance security after accepting the Work/Purchase Order within seven (7) working days of issue of Work/Purchase Order.

b. The EMD of all unsuccessful bidders will be returned by PCCF Odisha without any interest whatsoever within thirty (30) days of finalization of the tender and the EMD for

successful bidder/bidders would be returned without any interest whatsoever, only after receipt of performance security / bank guarantee ; as called for in the contract.

c. The bidder will sign a contract with the purchaser within a week of issue of supply / work order and the Bidder shall submit an irrevocable Performance Bank Guarantee before signing the contract. The Performance Bank Guarantee is to be issued by a Bhubaneswar Branch of a Nationalized Bank and it will be 10 % of the Bid Value or Rs. 3,00,000/- whichever is higher valid for the Contract Period. This will be invoked by the purchaser in case of default of T & C of contract by the bidder.

26. Bidders shall carefully examine the tender documents and the technical specification and fully inform themselves as to all the conditions and matters, which may in any way, affect the work or the cost thereof. Should a bidder find discrepancies in or omissions from the specification or other documents, or should there be any doubt as to their meaning, they should at once notify the purchaser and obtain clarification in writing. This however does not entitle the bidder to ask for *time beyond the due date fixed for receipt of tenders*.

27. Verbal clarification and/or information given by the purchaser or its employees or representatives shall not be binding on the purchaser.

28. Submitted tender forms with *overwritten or erased or illegible rate or rates* not shown in *figures and words in English* will be liable for rejection. In case of discrepancy between words and figures noted against the item of the tender and between unit rates and the total amount, the decision of the competent authority accepting the tender will be final and binding on the bidders. Corrections in the tender, if unavoidable, should be made by rewriting with date and initial of the tenderer after scoring out of the wrong entries. *Clerical and arithmetical* mistakes may result in *rejection* of the tender.

29. While tenders are under consideration, bidders and their representatives or other interested parties, are advised to *refrain from contacting by any means, and Purchaser's personnel or representatives* on matters relating to the tenders under study. The purchaser if necessary will obtain clarification on tenders by requesting such information from any or all the bidders either in writing or through personal contact as may be necessary. The bidder will not be permitted to change the substance of his offer after the tenders have been opened. This includes any post tender price revision/major modifications. In the event of non-compliance with this provision, the tender is liable to be disqualified.

30. The rate should be quoted in figures as well as in words, if there is variation between the rates quoted in figures and in words, the rates quoted in 'Words' shall be taken as correct.

### **31. Evaluation criteria:**

a. Only the bidder who qualifies in general bid criteria will qualify for technical bid Opening.

b. The bidders who are shortlisted based upon general eligibility criteria, to make a live Demonstration on their solution at PPCF, Bhubaneswar, at their own cost. The bidders are required to demonstrate their item samples of the quoted BoM along with the demonstration falling which tender shall be rejected.

c. The evaluation committee may invite the eligible bidders to make a Demonstration to the PCCF Bhubaneswar at a date, time and location notified by the PCCF Bhubaneswar. The purpose of such Demonstration would be to allow the bidders to present their real time

demonstration, Quality of CCTV Camera with other items proposed and quoted items to the committee for technical qualification.

d. Only the bidder who qualifies in technical criteria and demonstration will qualify for financial bid Opening.

e. Award of the contract shall be made to the bidder with the lowest **(L1)** commercial value by taking in to account all the items. The Base Price of the Items including Import and Excise Duty will be considered in Evaluation of Financial Bid that excludes the Tax Components like VAT, Sales Tax and Service Taxes.

f. Tax Amount of VAT, ST etc. will be borne by the Purchaser at the prevailing Tax Rate as it is a transfer payment between Govt-Govt. However Tax is to be indicated in the Financial Bid for the Purpose of Information Only.

g. Purchaser reserves the right to negotiate specifications, prices during evaluation if found necessary.

**32. Bidders must sign and stamp each page of their tender without which the tender will be considered incomplete.**

## Section – V: General Terms & Conditions

### 1. PURCHASER

Principal Conservator of Forests – Odisha, Forest Head Quarters, Aranya Bhawan, Chandrasekharpur, Bhubaneswar.

### 2. RELEASE OF EQUIPMENT

The bidders shall be responsible for releasing the equipment's/items from the carriers/transporters. The equipment's shall be delivered and installed in the various field offices of Forest Department Odisha.

### 3. PERFORMANCE BANK GUARANTEE

For items mentioned in the BOM/BOQ, after successful installation at site, the bidder shall furnish an irrevocable **Performance Bank Guarantee (PBG) for 10% (ten percent)** of the contract price or Rs. 3,00,000/- whichever is higher prior to the release of any payment. The BG should cover due fulfillment by the bidder of all the terms and conditions of the contract inclusive of guarantee to the purchaser the delivery, installation / commissioning of equipment, the restitution of advances to the supplier in advance of delivery in case of non-delivery and the contractor's full compliance with the warranty and guarantee provisions here in the form to be prescribed. **This bank guarantee shall remain valid till the end of support period plus 3 months i.e 5 Years and 3 months.**

### 4. PRICE

The prices quoted should be in Rupees for delivery F.O.R. destination and inclusive of Excise Duty and other taxes but excluding local Sales Tax (OST/VAT). **Any price other than F.O.R. destination price will not be considered.** The F.O.R. destination price should be inclusive of **Entry Tax**. OST/VAT amount should be mentioned clearly and separately. If OST is paid in advance the necessary document need to be enclosed.

### 5. TERMS OF PAYMENTS

A. **75%** of the contract price (i.e cost of the Items actually supplied) shall be paid within 90 days of successful delivery, Installation, Commission and Testing of all the HW, SW, Equipments at site with certification thereof by designated departmental authority and OEMs of supplied hardware and SW on the letter head of OEM and on submission of PBG and bill by the Bidder / SI.

B. **25 %** of the Contract Price will be released on quarterly basis over five years with the satisfactory performance of the supplied items under full warranty support and services as defined in the technical bid criteria.

### 6. BILLING

The supplier shall specify the **Branch / Location** from which they will raise the bill and in whose favour payment will be released.

## **7. DELIVERY AND INSTALLATION**

Delivery period of goods/items, their installation and commissioning will be the important consideration for award of the contract, the bidders should therefore clearly indicate the period of delivery, installation and commissioning. Bidders should give consent/preparedness for delivery of the equipments/goods/items within 3 months after receipt of the work/purchase order. The final installation certificate has to be provided by OEM on the letter head of the OEM.

## **8. PENALTY FOR DELAY IN COMPLETION OF CONTRACT**

The delivery/ installation/commissioning period quoted in the tenders should be guaranteed under a *penalty @ 0.5%* on total value of the equipment per week or amount thereof of delay subject to maximum 5% of the contract/purchase order value. The purchaser reserves the right to cancel the order if it is not executed within the prescribed completion time and forfeit the entire EMD amount. Delay in supply / installation /commissioning in the part of the supplier for equipment shall be treated as delay in the delivery/ installation of the goods. The purchaser reserves the right to cancel the order in full or in part. In the event of such cancellation, the purchaser shall have the right to *collect penalty from the performance guarantee*. However, for valid reasons (like any unavoidable situation at the client site) duly notified in advance and considered by the purchaser, revised delivery schedule may be accepted at the sole discretion of the purchaser.

## **9. FORCE MAJEURE CONDITION**

If the execution of the contract/supply order is delayed beyond the period stipulated in the supply order as result of outbreak of hostilities, declaration of an embargo or blockade of fire, flood, acts of God, then purchaser may allow such additional time by extending the time frame as considered to be justified by the circumstances of the case and its decision will be final. If additional time is granted by the purchaser, the supply order shall be read and understood as if it had contained from its inception the execution date as extended.

## **10. STANDARDS**

The equipment shall confirm to the National / Internationally Accepted standards as applicable. Necessary Documentation on compliance to standard are to be provided against each item.

## **11. COMPLETENESS OF EQUIPMENT**

The equipment shall be complete in all respects. Any components fitting, etc. which may for the equipment shall be deemed to have been included in the contract and shall be supplied by the supplier/bidder at no extra cost.

## **12. INTERCHANGEABILITY**

All similar materials shall be identical and interchangeable with one another in order to minimize the number of spare parts.



### **13. SALES TAX AND INCOME TAX CLEARANCE**

The attested copies of Odisha Sales Tax Clearance Certificate and Income Tax Clearance Certificate should be enclosed with the tender. Certificate validity must be available on the date of opening of General Bid.

### **14. INSURANCE OF EQUIPMENTS**

The materials to be supplied should be *insured* by the vendor on behalf of the purchaser from his warehouse to the purchaser's site. The insurance coverage should cover the transport of materials by Rail/Road to the destination. The insurance policy shall remain valid for minimum period of 60 days after installation and commissioning of equipment at site. The materials/equipment found lost or damaged in transit or during installation and commissioning should be immediately replaced.

### **15. REPLACEMENT**

If the material/ equipment or any portion thereof gets damaged or lost during the transit and installation, the vendor shall effect the replacement of such materials/ equipment within a reasonable time to avoid delay in commissioning the equipment.

### **16. RIGHT TO REJECT/ACCEPT THE TENDER**

The purchaser reserves the right either to reject or accept any or all tenders. **The purchaser has exclusive right to alter the quantities of materials at the time of placing the final purchase order. The type and quantity of items indicated in the tender are provisional and may change as per the actual requirement.** After placing the purchase order, the purchaser may order to defer the delivery of the material. It may be clearly understood by the bidders that the purchaser need not assign any reason for the above action.

### **17. INSPECTION**

The purchaser or his authorized representatives may inspect during the delivery, installation and commissioning of the equipments/items at the client site and the vendor shall afford all facilities for such inspection at the site. The bills shall be submitted by the bidder after such inspection.

### **18. WARRANTY**

The equipment / stores covered by this specification should be guaranteed for satisfactory operation for a period **of 5 years** from the date of successful installation and commissioning.

### **19. PENALTY FOR DOWN TIME AND RESPONSE TIME DURING THE WARRANTY PERIOD**

The bidder must have to be given written assurance of more than 95% uptime of all the equipments to be supplied and installed by them and defaulting which would invite the penalty 0.5 % per week on cost of the equipment.

## **20. REJECTION**

Before acceptance of the system if the equipment supplied by the vendor is found defective in materials or workmanship or otherwise not in conformity with the requirements of the contract, the purchaser shall have the right to either reject or to request in writing for rectification of the defects. Then the bidder shall with utmost diligence, at his own expense, make good the defects so specified or replace the defective equipment if the bidder fails to do so, the purchaser either.

A. May at its option replace or rectify such defective equipment and charge to the bidder the excess cost incurred by the purchaser plus 15% (Fifteen percent) extra.

**OR**

B. Terminate the contract for default. Further, in the event, the vendor is not able to rectify or replace the faulty equipment within reasonable time, the purchaser reserves the right to acquire the said equipment at a reduced price considered equitable under the circumstances, and under such conditions the decision of the purchaser shall be final.

## **21. PATENT RIGHTS ETC.**

The bidder shall indemnify the purchaser against all claims, actions, suits and proceedings for the infringement or alleged infringement of any patent, design or copy write protected either in the country of origin or in India by use of any equipment supplied by the vendor claims if made on the purchaser, shall be notified to the vendor of the same and the vendor shall at his own expense either settled such dispute or conduct any litigation that may arise there from.

## **22. JURISDICTION OF HIGH COURT OF ODISHA**

Suites, if any arising out of the contract shall be filed by either party in a court of Law to which the jurisdiction of the High Court of Odisha extends.

## **23. EXTRAS**

The bidder shall when asked in writing by the purchaser, perform extra work and furnish extra materials, not covered by the specifications or included in the schedule, but forming and inseparable part of the work contracted for the terms of payment for such extra work or materials shall be mutually agreed upon in advance.

## **24. INSTALLATION SUPERVISION AND SERVICES**

The bidder shall depute experienced Engineer/Technicians for installation, commissioning and testing of equipments supplied.

## **25. EXTENSION OF DELIVERY PERIOD AND TERMINATION OF CONTRACT**

**26.** If for any reason, the bidder finds it impracticable to supply the equipment within stipulated delivery period, he will give notice in writing of such reasons and his failure to supply the materials. He may ask for extension of time, which may or may not be granted by

purchaser. Should the contractor's preparation for the commencement of delivery in conformity with the contract or should he neglect to comply with any directions given to him or in any respect fail to perform the contract, the purchaser will have power to cancel the contract in which case the vendor shall be liable for any expense, loss or damage which the purchaser or indenter may incur or sustain by reason of or in connection with the Contractor's fault in addition to the forfeiture of the performance guarantee to the purchaser.

## **27. OBLIGATION TO CARRY OUT PURCHASER'S INSTRUCTION**

The Vendor/Supplier shall also satisfy the purchaser or this inspector that adequate provision has been made to carry out his instructions fully and with prompt attitude.

## **28. TIME AND DATE OF COMPLETION OF CONTRACT**

The time and date stipulated in the tender for the completion of the work shall be deemed to be of the essence of the contract. In case of delay the vendor shall in addition to other liabilities under the contract be liable for all cost of damage and/or hold up in the work due to his failure to complete the contract or portion thereof. The purchaser shall be entitled to withhold any payment until the whole work is completed and recover from the vendor cost damages and/or held up in the work as stated above. But if the delay is due to any cause such as strike, lockout fire, accident, riot that the purchaser may admit as reasonable ground for further time, the purchaser shall allow such additional time as he may consider to have been required by the circumstances of the case.

## **29. FINAL AUTHORITY**

The final authority for payments will be the purchaser except otherwise specifically stated and if the bidder desires to appeal against any matter he shall appeal to "The Principal Conservator of Forests – Odisha" whose decision on such matters shall be final and conclusive.

## Section – VI: Technical Specifications

### A. High Definition IP Mini dome Type True D/N Camera:

<b>Specifications</b>	
High resolution IP color camera shall be of True day / night fixed dome type suitable for Indoor surveillance with minimum following features.	
1/3"progressive scan CMOS sensor with great low lux performance: 0.05lux @ F1.2	
Support High Definition mode (1280 x 720) real-time	
Minimum 1.3 Mega pixels Imager (1280 x 1024)	
Camera shall support triple streaming. Two H.264 and One Jpeg or in any combination.	
Shall support high frame rate 30 FPS@H.264 to capture fast moving objects.	
Supports various protocols: IPv4, IPv6, TCP, UDP,ARP, ICMP, IGMP, HTTPs, FTP	
Dynamic Noise Reductions	
Day/night switch by IR Cut filter	
Power over Ethernet (PoE)	
Supports CS mount lens	
Video compression format : H.264, JPEG	
Support Wide dynamic Range (Min 130dB for 720p) – OEM to provide supporting document in this regard.	
Support Visibility enhancer	
Temper Proof – To generate alarm in case of tempering event i.e. spraying the camera, blocking the FoV, covering the lens, changing the mounting direction etc..	
Camera shall have image stabilizer function.	
Image Device	1/3 type progressive scan CMOS sensor.
Minimum Illumination	0.05lx (Color), 0.04 lux (BW) at 50 IRE and 1/30s shutter speed.
Number of effective pixels	Approx. 1.3 Megapixels (1280x1024)
Electronic shutter speed	1 s to 1/10000 s
Gain control	Low. Mid, high
Exposure control	Auto, EV Compensation, Auto Slow shutter
white balance mode	Auto(ATW, ATW-PRO), preset, one push WB, Manual
Lens Type	CS mount lens
Zoom Ratio	Optical 3X
Digital Zoom	2 x digital zoom
Horizontal viewing angle	93 degree to 31.6 degree
Focal length	f=3mm to 9.0mm
F-number	F1.2(Wide), f 2.1 (TELE)
Wide dynamic range	Required ( 130dB)
powered focus	yes(Easy focus)
Image enhancement	Visibility enhancer

Day/Night	Yes
Noise reduction	Yes
Codec image size(HxV)	1280 x 1024, 1280 x 960, 1024 x 768, 1280 x 720, 800 x 600, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 352 x 288,320 x 240 (H.264, JPEG)
Video compression format	H.264 (High/Main/Baseline Profile), JPEG
Codec streaming capability	Triple streaming, VBR/CBR(Selectable)
Maximum frame rate	H.264: 30fps (1280 x 1024)          JPEG: 30fps (1280 x 1024)
Built in analytics	Yes, Built in analytics such as Passing, Face detection, object left over, object removal. Motion detection.
Protocols	IPv4, IPv6, TCP, UDP,ARP, ICMP, IGMP, HTTPs, FTP, (Client Only), SMTP, DHCP, DNS, NTP, RTP/RTCP, RTSP, SNMP (MIB-2)
ONVIF Conformance	Yes
Authentication	IEEE802.1X
Signal system	NTSC/PAL
S/N ratio	More than 50Db
Ethernet	10Base-T/100 Base-TX (RJ-45)
No. of clients	20
Analogue monitor output	Required
Power requirements	POE
working temperature	minus 10 to plus 50 deg.
Storage temp.	minus 20 to plus 60 deg.
Safety regulation	UL, FCC,

**B. High Definition IR Bullet Type True D/N Camera:**

<b>Specifications</b>
High Definition IP color camera shall be of True day / night fixed Vandal Resistant, IP66 rated dome type suitable for indoor/Outdoor surveillance with minimum following features.
1/3"progressive scan CMOS sensor with great low lux performance Minimum illumination of 0 lx in B/W mode (IR illuminator: ON) and : 0.1lux in Clour mode @ F1.2
The Camera shall provide smoother and less blurry moving pictures with the high frame rate of 30 FPS in PAL and 30 FPS in NTSC.
Camera shall provide triple streaming. Two H.264 and one JPEG.
Support Full High Definition mode (1280 x 720) real-time
Minimum 1.3 Mega pixels Imager.
Supports various protocols: IPv4, IPv6, TCP, UDP,ARP, ICMP, IGMP, HTTPs, FTP
Dynamic Noise Reductions
Day/night switch by IR Cut filter

Web server for remote setup of camera video and network parameters	
Power over Ethernet (PoE)	
Supports CS mount lens	
Video compression format : H.264, JPEG	
Support Wide dynamic Range (Min 130 dB. for 720p) – OEM to provide supporting document in this regard.	
Support Visibility enhancer	
Required edge analytics features	
Temper Proof – To generate alarm in case of tempering event i.e. spraying the camera, covering the lens, changing the mounting direction etc.	
E-PTZ Function – The camera should support e-PTZ function.	
Camera shall have image stabilizer function.	
The camera shall be compliant with the Open Network Video Interface Forum Profile S (ONVIF Profile S) conformance.	
Image Device	1/3” type progressive scan CMOS sensor.
Minimum Illumination	0.05lx (Color), 0.lux (BW, IR Illuminator ON) at 50 IRE and 1/30s shutter speed.
Number of effective pixels	Approx. 1.3 Megapixels
Electronic shutter speed	1 s to 1/10000 s
Gain control	Low. Mid, high
Exposure control	Auto, EV Compensation, Auto Slow shutter
white balance mode	Auto(ATW, ATW-PRO), preset, one push WB, Manual
Lens Type	CS mount lens
Zoom Ratio	Optical 3X
Digital Zoom	2 x digital zoom
Horizontal viewing angle	92 degree to 31 degree
Focal length	f=3mm to 9.0mm
F-number	F1.2(Wide), f 2.1 (TELE)
Wide dynamic range	Required ( 130dB)
IR Illuminator	Yes (Wave length: 850 nm [typical], IR LED 10 pieces)
IR Working distance	25 m (50 IRE)
Privacy Masking number	20
powered focus	yes(Easy focus)
Image enhancement	Visibility enhancer
Day/Night	Yes
Noise reduction	Yes
Codec image size(HxV)	1280 x 720, 1024 x 576, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 640 x 360, 352 x 288, 320 x 180(H.264, JPEG)

Video compression format	H.264 (High/Main/Baseline Profile), JPEG
Codec streaming capability	Triple streaming, VBR/CBR(Selectable)
Maximum frame rate	H.264/JPEG: 30fps (1280 x 720)
Built in analytics	Yes, Built in analytics such as Passing, Face detection, object left over, object removal. Motion detection.
Protocols	IPv4, IPv6, TCP, UDP, ARP, ICMP, IGMP, HTTPs, FTP, (Client Only), SMTP, DHCP, DNS, NTP, RTP/RTCP, RTSP, SNMP (MIB-2)
ONVIF Conformance	Yes
Authentication	IEEE802.1X
Signal system	NTSC/PAL
S/N ratio	More than 50Db
Ethernet	10Base-T/100 Base-TX (RJ-45)
No. of clients	20
Optical zoom	3 X
Digital zoom	4X
Power requirements	POE
working temperature	minus 10 to plus 50 deg.
Storage temp.	minus 20 to plus 60 deg.
IP Rating	IP66
Built in Heater	Required
Safety regulation	UL, FCC,

**C. High Speed HD IP Speed Dome Camera with 28X optical zoom (Day/Night):**

a. The Camera should have the following feature:

- o 28x optical zoom and 12x digital zoom total up to 336x zoom
- o HD (1280 x 720p), 25fps
- o Wide Dynamic Range Capability up to 86db.
- o Weatherproof with IP66 rated enclosure, heater and fan built in
- o High speed of pan up to 300°/sec and tilt up to 300°/sec
- o Minimum 256 Preset Positions & 5 Tours
- o High speed preset at 300 °/sec with high accuracy with +/-0.045°
- o Built-in web browser for easy configuration
- o Shall support dynamic noise reduction.
- o Shall Support MPEG-4, H.264, JPEG
- ONVIF Compliant
- The camera shall also have an 'Edge Storage' function that operates as follows:
  - i. Capable of storing up to pre-alarm and post-alarm images and audio on a SD/SDHC memory card.

- ii. Record in the codec format selected for monitoring.
- iii. Recording to this storage area can be done manually or when an alarm is triggered.
- iv. Capable of streaming the recorded data using the same protocols as live streaming such as RTP/HTTP/TCP/IP or RTP/RTSP (IPv4), so that the user can view recorded image while recording.
- v. Capable of simultaneously streaming live video with recorded video by using different sessions.
- vi. Capable of downloading the recorded video at a variety of speed rates such as 0.5x and 2x speed.

- The camera shall have an AGC capability up to 28 dB.
- White balance shall be selected among Auto, Indoor, and Outdoor, One push WB, Sodium Vapor lamp, or Manual.

Minimum Technical Requirements In Addition To Above:-

Image Device	1/3" or 1/4" -type Exmor CMOS
Minimum Illumination	Color: 0.7lx (F1.35, shutter 1/30sec, AGC ON, 30IRE[IP]) B/W: 0.07lx (F1.35, shutter 1/30sec, AGC ON, Night Mode, 30IRE[IP])
No. Of effective pixels	Approx. 1.3 mega pixels
Electronic Shutter	1~1/10,000 Sec
Auto Gain Control	Auto/Manual
Exposure control	Auto, Full auto, Shutter-priority, Iris-priority, Manual, EV compensation, Backlight compensation
White balance mode	Auto, Indoor, Outdoor, One-push WB, ATW, Manual
Lens Type	Auto focus zoom lens
Zoom Ratio	28X Optical, 12X digital
Horizontal Viewing angle	55.9to 2.1 degrees
Focal Length	f=3.5 to 98 mm
F Number	F1.35 to F3.7
Minimum object distance	10mm (wide) to 1500mm (tele)
Pan angle	340 degrees rotation.
Pan speed	300 degrees/s (max.)
Tilt angle	Minus 15 to plus 90 degrees
Tilt speed	300 degrees/s (max.)
Preset	256
Tour	5
Day/Night	Yes
Wide Dynamic	Yes (86 db)
Digital Noise Reduction	Yes
Codec Image Size	1280×720, 1024×768, 1024×576, 800×600,



	800×480, 768×576, 720×576, 704×576, 720×480, 640×480, 640×368, 384×288, 320×240, 320×192
Video Compression format	H.264, MPEG-4, JPEG
Maximum Frame Rate	30 fps (H.264) / 30 fps (MPEG-4) / 30 fps (JPEG)
Audio Compression	G.711/G.726
Intelligent Motion Detection	Yes, On board analytics.
Voice alert	Required. Shall support the Voice alert function, which can automatically play an audio file stored on the camera by an alarm trigger using motion detection
Camera tampering	Required
Protocols	IPv4, IPv6, TCP, UDP, ARP, ICMP, IGMP, HTTP, HTTPS, FTP (client/server), SMTP, DHCP, DNS, NTP, RTP/RTCP, RTSP, SNMP (MIB-2)
S/N ration	More than 50 dB.
Codec Streaming Capability	Dual
Ethernet	10BASE-T/100BASE-TX (RJ-45)
Local storage	SD/SDHC card
Sensor input	2
Alarm output	1
No. Of clients	5
External Micro phone Input	Mini-jack
Audio line put	Mini-jack
Operating temperature	-5 to 50 degree
Operating humidity	20 to 80%
Safety regulatory	UL, EN
Power Requirement	hPoE, 24V AC

**D. Technical Specifications of Video Monitoring, Control & Recording and Video Analytics Software**

Sr. No.	Specification	Description
---------	---------------	-------------

1		The offered software should be completely compatible with the offered camera / cameras and should be of same make as that of camera. Letter from OEM authorizing Bidder to participate in the tender must be submitted. Further Bidder should submit Undertaking from the equipment manufacturer for maintenance support for minimum 5 years from the Successful Commissioning of the equipment. The VMS shall support 32 stream/channels per server.
2		Video Monitoring, Control & Recording Software for the CCTV Surveillance System shall provide full access to operations through user-friendly and highly intuitive Graphical User Interface. It should be capable to display and manage the complete surveillance system. It should manage multiple groups of users to access videos in a controlled manner. It should be a complete scalable CCTV system software with video analytics (in case Camera based analytics is not provided), motion detection, alerting, recording multiple cameras.
3		The video analytics (of camera / encoder / Server) must be seamlessly integrated with the monitoring / control / recording software. The analytics software must have basic features like motion detection, Virtual tripwire, Video loss alarm, and analytics with alarm facility.
4		The software should facilitate viewing & playback of video up to HD 720 resolution (H.264 and MPEG-4 up to 25 fps) on the monitors of Client PCs / Work Stations. It should also support controlling and recording up to 25 fps the video stream that is transmitted over LAN. The offered software shall have in-built capability/ provision and shall be licensed to support minimum 32 cameras at each Control Centre site. The recording Software shall support recording of H.264, MPEG-4 & M-JPEG video streams. It shall support recording of video and audio for all the channels. . It shall provide network time server function to ensure the synchronization of the video servers and the recordings. The software should be able to receive alarms of different types from equipment to start a recording. These alarms can be motion detection, video loss, and unified picture, trigger input. The software alarm recording shall support pre-and post-alarm periods. Both can be configured in duration. It should provide a status of the available recording capacity, as well as an indication of the remaining possible recording time.
5	Vendor to note that combined specifications of Video Monitoring, Control and Recording Software have been indicated	Management, monitoring, and control of the entire CCTV system <ul style="list-style-type: none"> <li>• Recording and playback management of video and data</li> <li>• User interface for CCTV system configuration and management</li> <li>• User interface for CCTV system monitoring and operation</li> <li>• Video Analytics (Either Edge based i.e. Camera based or Server based)</li> <li>• Remote viewing facility of cameras over Corporate LAN / WAN.</li> </ul>

	<p>below. However, it shall be vendor's responsibility is to offer suitable software for each of the Computer Systems i.e. Client PCs and Network Video Recorder so as to achieve the following minimum functionalities</p>	
6	Features & Functions of Software	<p>Plug-and-Play Installation and Detection of Cameras and Devices</p> <ul style="list-style-type: none"> <li>• Flexible, user friendly and easy to use</li> <li>• Digital Zoom in Live or Playback Video</li> <li>• Inbuilt Image enhancement feature</li> <li>• Control PTZ cameras</li> <li>• Able to lock the PTZ control for a camera based on user rights .</li> <li>• Shall allow users to view live video; control cameras; record video; and search, play back, and export recorded video.</li> <li>• Facilitate users with the proper authority to perform administrative functions, such as configuring devices, setting up users, adjusting network settings, and creating recording schedules. Access to these functions and all other system services shall be configurable.</li> <li>• Drag &amp; Drop Site Map support: The software shall display all cameras in form of icons on a single screen with the actual site layout in background. The camera status shall be dynamically displayed in real-time mode with alarm status of individual camera indicated by change in the colors of the respective camera icon. The software shall provide drag &amp; drop functions on the system and also for set up of connection between cameras and monitors.</li> <li>• Users shall be able to monitor &amp; control only those devices and features to which they have been granted user rights and permissions.</li> <li>• System-wide health monitoring, including cameras</li> <li>• Multiple Display Views for Live or Playback Cameras or Devices. Ability to perform search by last recorded file, date and time to enable Operators to target the relevant video clip.”</li> </ul> <p>Camera Call-up and PTZ Control from a Keyboard &amp; Joystick.</p> <ul style="list-style-type: none"> <li>• Advanced Search Capabilities Including Search for Motion, Alarm, or Event Video.</li> <li>• The software shall have remote interface features for configuration, display &amp; control of cameras remotely over the network. These features shall be password protected at many levels to provide a powerful security system.</li> <li>• The software must allow for IRIS control of PTZ cameras either</li> </ul>

		<p>through the GUI or a connected Joystick controller.</p> <ul style="list-style-type: none"> <li>• The application should allow for time-synchronized playback of different cameras together in the same video pane. This will enable the operator to watch playback of an event in an area covered by multiple cameras from different angles as the event happens.</li> <li>• The software shall provide automatic search and registration of components of video surveillance system on the network which can be cameras, monitors, alarm panels etc.</li> <li>• The software should be able to do video recording on any of the following options - inbuilt hard disks on the server, direct attached storage boxes attached to servers, network attached storage, storage area network.</li> </ul>
8	Detailed Features & Functions Live Video	<p>The live output from cameras shall be viewed through a series of displays. These shall support</p> <ul style="list-style-type: none"> <li>• Single camera view</li> <li>• Quad view of up to four cameras and 2x2, 3x3 4x4 window and customize layout.</li> <li>• Sequence view of camera preset positions</li> <li>• Modifying settings for a camera</li> <li>• Modify recording settings for a camera</li> <li>• Adding and deleting cameras</li> <li>• Creating schedules for recordings and video motion detection</li> <li>• Modifying Video Analytics settings and tuning for: Video Motion Detection</li> </ul>
9	Single Camera	<p>From this display, the user shall be able to:</p> <ul style="list-style-type: none"> <li>• View the live output from the selected camera</li> <li>• Pan, tilt, zoom and focus the camera using a joystick attached to the Client PC.</li> <li>• Pan, tilt, zoom and focus the camera using the mouse attached to the Client PC.</li> <li>• Manually record live video. Recording will continue for the configured period of time.</li> <li>• Manually store the current frame of video (snapshot) as a bitmap image file.</li> </ul>
10	Quad View	<p>The software shall support quad views. A quad view consists of up to four related cameras viewed simultaneously on a single display and 3x3 and 4x4 matrix.</p>
11	Sequence View	<p>The software shall support sequence views. A sequence view consists of a single camera view, which can be cycled on a time basis.</p>
13	Camera settings	<p>Only the authorized users are permitted to modify camera connection details, camera PTZ control or delete cameras. Each camera's bit rate, frame rate and resolution shall be independent from other cameras. Shall provide the ability to change video quality, bandwidth and frame rate parameter on a per camera basis for both live and recorded video.</p>

14	Security	<p>The following parameters shall be configurable for each camera:</p> <ul style="list-style-type: none"> <li>•Area: Allows the system to be configured to only allow users to view specified cameras.</li> <li>• Shall provide the capability to assign password to each users and set access rights to the various client application.</li> </ul>
15	Camera Deletion	<p>The “Delete” function shall allow a user with authorization to delete the camera from the system.</p>
16	Video Loss Alarm	<p>The software shall support the Video Loss Alarm feature. The Video Loss Alarm feature shall provide operators with a notification when the video signal from any camera is lost.</p> <p>A camera sabotage function must be available to allow an alarm event to occur when the camera field of view experiences significant pixel change (e.g. changing the view of the camera, obscuring the lenses, significant shaking or vibration, or blinding light). When a video loss event occurs, the operator shall have the option to enable an alarm beep or a custom WAV file audible alert utilizing the internal speaker of the digital recorder, and/or activate an alarm output.</p>
17	Recording	<p>The following methods of recording live video shall be supported:</p> <ul style="list-style-type: none"> <li>• User activated</li> <li>• Event activated</li> <li>• Continuous background recording</li> <li>• Scheduled - Creating schedules for recordings and video motion detection</li> <li>• Video motion detection</li> <li>• Take snapshot / still images from live video and recorded video</li> </ul> <p>User activated recording occurs when a user viewing live video chooses to record the currently viewed camera output by selecting the “Record” button. The user shall be able to configure the following parameters for each camera:</p> <p style="padding-left: 40px;">Frame Rate Record Duration Retention Period: to be specified by the bidder</p>
18	User Activated	<p>The user shall be able to configure the following parameters for each camera:</p> <ul style="list-style-type: none"> <li>• Pre-Record Duration: The amount of pre-recorded video that will be associated with a user request for recorded video.</li> </ul>

19	Event Activated	<p>There shall be priorities of alarms/events in the System like:</p> <ul style="list-style-type: none"> <li>• Event</li> </ul> <p>The Video management software shall include the ability for pre-alarm and post-alarm recording, which must record video for a specified time before and/or after a motion or sensor alarm has occurred. The time period must be selectable.</p> <p>The following settings shall be individually configurable for each alarm and each camera:</p> <ul style="list-style-type: none"> <li>• Pre-Record Duration: The duration of pre-recorded video that will be associated with an alarm/event.</li> <li>• Post Record Duration: Event activated recordings shall terminate after this period</li> </ul>
20	Scheduled	<p>The system shall support the ability to schedule recordings for each individual camera for times in the future. For each scheduled recording the user shall be able to configure the following:</p> <ul style="list-style-type: none"> <li>• Start time</li> <li>• Stop time</li> <li>• Frame rate for the recording</li> </ul>
21	Continuous background recording	<p>The system shall support the ability to provide continuous background recording from any camera(s) managed by the system.</p>
22	Video Motion Detection	<p>The system must be able to support video motion detection algorithms. It must be able to provide the following functionality:</p> <ul style="list-style-type: none"> <li>• Detect and track objects</li> <li>• Adapt to a changing outdoor environment</li> <li>• Ignore environmental changes including wind, swaying trees, ripples in water and gradual light changes</li> </ul> <p>The user shall be able to configure the following parameters for each camera:</p> <ul style="list-style-type: none"> <li>• Detection Type: Continuous or scheduled</li> <li>• Actions to Perform When Motion is Detected: When motion is detected, the following actions shall be performed automatically: Start a recording, with the pre-record duration &amp; post-record duration, frame rate etc. configurable settings. Generate an alarm in the System.</li> </ul>
23	Object Detection/ Track	<p>The software must provide the ability to acquire and track an object within a predefined field of view on selected cameras. It must be able to provide the following functionality:</p> <ul style="list-style-type: none"> <li>• Detect and track objects with making square with any color across the object.</li> <li>• Ignore environmental changes including rain, hail, wind, swaying trees and gradual light changes</li> </ul>
24	Snapshot	<p>The software system must provide every operator (client) with the ability to record the current frame of video. This snapshot of video shall be stored as a JPEG / bitmap file.</p>

25	Search	The software shall provide a simple search for all video recorded. The user selects the time indicator which shows a calendar and time line. The user selects the required search period.
26	Advanced Search	The software shall provide an advanced search of recorded video. The search shall be based on recording time, camera and recording details.
27	Viewing Recordings	<ul style="list-style-type: none"> <li>· The recorded video shall be available to all users, who have adequate authorization. Each user shall only be able to view recordings from cameras they have security access to view. Information and controls like frame rate, resolution of recording, recording start date &amp; time, recording end date &amp; time, play, pause, stop buttons, step forward and step backward buttons, fast forward and rewind buttons to play the recording at speeds of x2, x4, x8, x16, etc .</li> <li>• The software shall have the facility to export the desired portion of clipping of video from a desired date/time to another desired date/time on DVD/ on any client/ network storage device. Viewing of this recording shall be possible on authorized player which shall be provided by software manufacturer or in media player on computer utilizing a Window environment.</li> <li>• The software should allow minimum 5 levels of user and alarm prioritization. It should allow minimum 8 cameras to be replayed simultaneously</li> </ul>
28	System and User Audit Trail	The system shall ensure that video once recorded cannot be altered, thus ensuring that the audit trail is intact for evidence purpose.

**E. 24-port 1000base-T Gigabit PoE Smart Switch**

Sr. No.	Technical Specifications	
1	<b>Physical Specifications</b>	24 # 10/100/1000 Base-T auto-sensing PoE ports of which first 8 are PoE+ 4 dedicated 100/1000 Base-X Fiber SFP ports
2	<b>Performance Specification</b>	Bandwidth: 56 Gbps non-blocking Mean Time Between Failures (MTBF): 345,900 hours Heat Dissipation (at AC 97VAC/47Hz and full PoE load): 901.2 Btu/H Forwarding modes: Store-and-forward 4 Priority queues Priority queuing: Weighted Round Robin (WRR) MAC Address database size: 8,000 media access control (MAC) addresses VLAN: 256 1K Multicast groups 32 Static Routes 15 Routed VLANs 1024 ARP Cache entries

		8K DHCP snooping bindings
		1024 DHCP static entries
		480 rules shared for MAC, IP and IPv6 ACLs
		Packet buffer: 8 MB
		Jumbo frame: 9K
		Power Consumption: 264W Max
		PoE budget: 192W
3	<b>IEEE Network Protocols</b>	IEEE 802.3 Ethernet
		IEEE 802.3i 10BASE-T
		IEEE 802.3u 100BASE-T
		IEEE 802.3ab 1000BASE-T
		IEEE 802.1Q VLAN Tagging
		IEEE 802.3x full-duplex flow control
		IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX
		IEEE 802.3ad Trunking (LACP)
		IEEE 802.1ab LLDP with ANSI/TIA-1057 (LLDP-MED)
		IEEE 802.1p Class of Service
		IEEE 802.3 af. (PoE)
		IEEE 802.3 at (PoE Plus)
		IEEE 802.1D Spanning Tree (STP)
		IEEE 802.1s Multiple Spanning Tree (MSTP)
		IEEE 802.1w Rapid Spanning Tree (RSTP)
		IEEE 802.1X Radius network access control
4	<b>Network Security and Traffic</b>	IEEE 802.1x
		Guest VLAN
		RADIUS based VLAN assignment via .1x
		MAC-based .1x
		Network Storm Protection
		Broadcast, Unicast, Multicast Protection
		Access Control Lists (ACLs) L2 / L3 / L4
		IP-based ACLs (IPv4 and IPv6)
		MAC-based ACL
		TCP/UDP-based ACL
		MAC lockdown
		MAC lockdown by the number of MACs
		IEEE 802.1x Radius Port Access Authentication
		Port Security
		PoE Timer
5	<b>L2 Services</b>	IEEE 802.1Q VLAN Tagging
		Video VLAN
		Voice VLAN
		IEEE 802.3ad - LAGs - LACP ( (8 LAGS with max. of 8 members in each LAG))
		Broadcast Storm Control



		IGMP Snooping (v1, v2 and v3)
		MLD Snooping Support (v1 and v2)
		IGMP Snooping queries
		Block unknown Multicast
6	<b>L3 Services</b>	Static Routing
		VLAN Routing
		DHCP Client
		DHCP Snooping
7	<b>Network Monitoring and Discovery Services</b>	802.1ab LLDP
		SNMP V1, V2, V3
		RMON 1,2,3,9
8	<b>Quality of Service (QoS)</b>	Access Lists
		L2 MAC, L3 IP and L4 Port ACLs
		Ingress rate limiting
		Egress rate limiting
		Support for IPv6 fields
		Diff Serv QoS
		IEEE 802.1p COS
		Dst MAC and IP
		IPv4 and v6 DSCP
		IPv4 and v6 TOS
		WRR (Weighted Round Robin)
		Strict Priority queue technology
		Auto-VoIP
		Auto Video
		Port Mirroring
9	<b>Management</b>	Password management
		Configurable Management VLAN
		Admin access control via Radius and TACACS+
		Web-based graphical user interface (GUI)
		Smart Control Center (SCC) for multiswitch management
		IPv6 management
		Dual Software (firmware) image
		Dual Configuration file
		SNTP client over UDP port 123
		SNMP v1/v2
		SNMP v3 with multiple IP addresses
		RMON 1,2,3,9
		Port Mirroring
		Many to One Port Mirroring

		Cable Test utility
		SSL/HTTPS and TLS v1.0 for web-based access
		TFTP/HTTP File transfers (uploads, downloads)
		HTTP Download (firmware)
		Syslog (RFC 3164)
10	<b>LEDs</b>	Per port: Speed, Link, Activity
		Per device: Power, Fan and PoE Power Status
11	<b>Environmental Conditions</b>	Operating Temperature: 32° to 122°F (0° to 50°C)
		Operating Humidity: 90% maximum relative humidity, non-condensing
		Storage Temperature: – 4° to 158°F (–20° to 70°C)
		Storage Humidity: 95% maximum relative humidity, non-condensing
12	<b>Certifications</b>	CE mark, commercial
		FCC Part 15 Class A, VCCI Class A
		Class A EN 55022 (CISPR 22) Class A
		Class A C-Tick
		EN 50082-1
		EN 55024
		CCC
		CSA certified (CSA 22.2 #950)
		UL listed (UL 1950)/cUL IEC 950/EN 60950

### Client Workstation

Sr. No.	Parameters	Technical Specifications
1	Processors <sup>4</sup>	Intel Core i7 4th Generation processor
2	Chipset	Intel® Q87 Express Chipset
3	Operating System	Microsoft® Windows 8 Standard 64-bit, Microsoft ® Windows 8 Pro 64-bit
4	Graphics	2GB NVidia graphics card with HDMI port
5	Memory	Up to 4 DIMM slots (2 for USFF), loaded with 8GB DDR3 memory
6	Networking	Integrated Intel® I217LM Ethernet LAN 10/100/1000; supports optional PCIe 10/100/1000 network card
7	I/O Ports	4 External USB 3.0 ports (2 front, 2 rear) and 6 External USB 2.0 ports (2 front, 4 rear); 1 RJ-45; 1 Serial; 1 VGA; 2 DisplayPort; 2 Line-in (stereo/microphone), 2 Line-out (headphone/speaker)
8	Removable	DVD R/w Drive

	Media	
9	Hard Drives	Hard Disk Drives 500GB
10	Keyboard/Mouse	USB keyboard & mouse

**BILL OF MATERIALS / QUANTITIES**

<b>Sr. No.</b>	<b>BOQ</b>	<b>UOM</b>	<b>QTY</b>
1	<p>Supply, installation, testing &amp; commissioning of High Definition Dome camera 1.37 megapixel ,1/3" CMOS Sensor or better ,0.03 lux color mode and 0.02 lux B/W mode at 30 IRE or Better, 1280*720P @ 30 fps, True Day/Night ,Tri Streaming ,Bit rate Compression Mode CBR/VBR(Selectable option in camera),WDR-105DB or Better, Analytics like Line crossing ,Idle Object etc. , Varifocal Lens 3-9mm or better (OEM integrated), Easy Focus and Easy Zoom, Analog Monitor Output Port, ONVIF compliant, POE, UL Certified .</p> <p>(Make : BOSCH/SONY/VICON)</p>	Each	12
2	<p>Supply, installation, testing &amp; commissioning of High Definition Bullet IR camera 1.37 megapixel ,1/3" CMOS Sensor or better ,0.03 lux color mode and 0 lux B/W mode at 30 IRE, ,1280X720 @ 30 fps, True Day/Night ,Tri Streaming ,Bit rate Compression Mode CBR/VBR(Selectable option in camera), IR LED 10 Pieces or Better ,Image Stabilizer, IR distance 25 Mtr @50 IRE,WDR-105DB or Better, Analytics like Line crossing ,Idle Object ,Face Detection etc., Varifocal Lens 3-9mm or better (OEM integrated) or Better, Analog Monitor Output Port, ONVIF compliant, UL Certified ,IP 66,Buil in Heater.</p> <p>(Make : BOSCH/SONY/VICON)</p>	Each	4

3	Supply, installation, testing & commissioning of HD PTZ Dome network camera 1.43 MP,1/4 inch CMOS sensor or better , 28X optical zoom or more, 12x digital zoom, Compression H.264 and MPEG-4, Illumination 0.9 lux(color) & 0.07 Lux(b/W) at 30 IRE or better, Dynamic Range 86 dB or better ,256 preset positions or better, VMD, full duplex bi-directional, Pan Angle 340 degree or More , Tilt Angle 105 degree or More, Onvif compliant, UL Certification, Operating Temp -5 to +50 degree C, With outdoor IP66 vandal proof housing.  (Make : BOSCH/SONY/VICON)	Each	1
4	Supply, Installation, Testing and Commissioning of VMS Management Server with 32 Channel License.  (Make : BOSCH/SONY/VICON)	Each	17
5	Supply, Installation, Testing and Commissioning of 8 TB Network attached Storage for storage of recordings for 15 days (Make : Dell/Netgear/hp)	Each	1
6	Supply, Installation, Testing and Commissioning of 24 Port PoE 10/100/1000 Gigabit Managed Switch  (Make: Cisco/Netgear/Juniper)	Each	1
7	Supply, Installation, Testing and Commissioning of workstation for VMS  (Make: HP/Dell)	Each	1
8	Supply, Installation, Testing and Commissioning of 55" High definition 24x7 functionality professional LED Display  (Make: LG/Samsung/Panasonic)	Each	1
<b>The Bidder must provide below items. The quantity will be as per actual.</b>			
<ol style="list-style-type: none"> <li>1. Information outlet complete (CAT-6)</li> <li>2. 1 Meters CAT 6 patch cords</li> <li>3. 24 port CAT-6 patch panel</li> <li>4. Supply and Laying of CAT-6 cable in PVC pipe in meter (Approx. 1500 Meter)</li> <li>5. Power Cables (Approx. 500 Meter)</li> </ol>			

6. 6U Val Rack with cooling fan, power manager and all other accessories

7. 2 KVA online UPS with 2 Hours Battery backup

(All the cables should be weatherproof, outdoor grade & as per BIS standard)

**Section – VII: Annexures**

**Note:**

**1. All the Annexures pertaining to Bidder’s Firm are to be signed by Executives not below the Rank of a Director appointed by the Company’s Board or the Promoter himself if the Bidder’s Firm is proprietorship firm.**

**2. Bank Guarantees may be issued by the Nationalized Bank on their standard format for Govt. Tenders as in vogue , but it must fulfill all the requirements of the T & C of this Tender.**

**Annexure (General Bid): General Information**

**Ann-(G1)**

Company Name			
Registered Office Address			
City		Pin	
State		Website	
Telephone		Mobile	
Fax		E-mail	
Corporate Office Address			
City		Pin	
State		Website	
Telephone		Mobile	
Fax		E-mail	
Company Name			
Contact Person Name			
Address		Pin	
State		Designation	
Telephone		Cell	
Fax		E-mail	
EMD & Tender Document Fee Details			

Signature of the Bidder

Date:

Place:

Company Seal

Date : \_\_\_\_\_

Ref : \_\_\_\_\_

To

In response to the Tender No. - \_\_\_\_\_, Dt: \_\_\_\_\_ Ms. /Mr.

\_\_\_\_\_, as a \_\_\_\_\_, I / We hereby declare that our company \_\_\_\_\_ is having unblemished past record and was not declare ineligible for corrupt & fraudulent practices either indefinitely or for a particular period of time.

Signature of witness

Date:

Place:

Signature of the Bidder

Date:

Place:

Company Seal

**Annexure (General Bid): Acceptance of Terms & Conditions Contained In the Tender Documents**

To

Sir,

I have carefully gone through the Terms & Conditions contained in the Tender No. - , regarding Tender Name < \_\_\_\_\_>.

I declare that all the provisions of this Tender Document are acceptable to my company. I further certify that I am an authorised signatory of my company and am, therefore, competent to make this declaration.

Signature of witness

Date:

Place:

Signature of the Bidder

Date:

Place:

Company Seal



**Annexure (General Bid): Self Declaration(Ann-G4)**

Date : \_\_\_\_\_

Ref : \_\_\_\_\_

To

In response to the Tender No.. - \_\_\_\_\_, Ms./Mr. \_\_\_\_\_, as a \_\_\_\_\_, I / We hereby declare that our company \_\_\_\_\_ is having unblemished past record and have not been declared blacklisted by any Central/State Government/PSU institution and there has been no pending litigation with any government department on account of similar services. I/We further declare that our company has not defaulted in executing any Government order in the past.

Signature of witness

Date:

Place:

Signature of the Bidder

Date:

Place:

Company Seal

Date : \_\_\_\_\_

Ref : \_\_\_\_\_

To

Ms. /Mr. \_\_\_\_\_ is hereby authorised to sign relevant documents on behalf of the company in dealing with invitation reference No. NO. - \_\_\_\_\_, Dt: \_\_\_\_\_.

She /He is also authorised to attend meetings & submit technical & commercial information as may be required by you in the course of processing above said application.

Thanking you,

Authorised Signatory

\_\_\_\_\_  
Representative Signature

\_\_\_\_\_  
Signature attested

Company Seal

**Annexure (General Bid): Compliance Check List****(Ann- G6)**

Tender No: \_\_\_\_\_, Date: \_\_\_\_\_

Please check whether following have been enclosed.

Sl. No	Enclosure description	Enclosed (Yes/No)	Annexure/Attachment/ Page No./ Envelop No. of the enclosure
1.			
2.			
3.			
4.			
5.			
6.	Signature with Date & Seal		
7.	Name		
8.	EMD		
9.	Tender Document		

Signature of the Bidder

Date:

Place:

Company Seal

**Annexure (Technical Bid): OEM Authorization Letter for (Camera, NVR and other items)-**

Item					
Make					
Model					
#	Specification	Compliance (Y/N)	Deviations, if any	Performance Impact due to Deviation	Certified by

**Annexure (Technical Bid): Past Project Experience**

<b>SL. No</b>	<b>Name of Client, Contact Person, Telephone No, Mobile No, e-Mail, Physical Address</b>	<b>Name of Project</b>	<b>Project Start Date and End Date, Brief of Project</b>	<b>Project Cost</b>	<b>Status (Complete/ In Progress/ Delay)</b>

Note: The information provided in the above table must supported by copies of relevant work order and completion certificate.

Signature of witness

Signature of the Bidder

Date:

Date:

Place:

Place:

Company Seal

**Annexure (P1): Price Bid Submission Form**

(To be submitted on the Letterhead of the responding Company)

[Location, Date]

To

Ref: Tender no <> dated <dd/mm/yy>

Subject: Submission of proposal in response to the tender for “-----  
-----, Enquiry No <xxx>.

Dear Sir,

We, the undersigned, offer to provide the consulting services for <Insert title of assignment> in accordance with your Tender dated <Insert Date> and our Technical Proposal. Our attached Financial Proposal for the sum of <Insert amount(s) in words and figures>. This amount is inclusive of taxes as listed at Annexure P2 (Summary of Costs for each category) attached.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

**Annexure (P2): Price Bid**

*Amount in Rupees including the cost of Comprehensive Warranty, Support and Services for Five Years as defined in the Technical Eligibility.*

A)

<b>Sl No</b>	<b>Item Description only as per BOM /BOQ of this RFP</b>	<b>Qty</b>	<b>Unit Price in INR</b>	<b>Pre-Tax Total Cost (F.O.R) / the Base Price</b>	<b>Tax at current Rate (VAT + Service Tax Only)</b>	<b>Total Cost With Tax</b>
1.						
2.						
3.						
.						
.						
.						
<b>Total Cost (In Figures)</b>						
<b>Total Cost (In Words)</b>						

Signature & seal of the Bidder/supplier.