

**NIT 3053/17 DATED 3.5.2017**

**Request for Proposal**

**SELECTION OF SYSTEM INTEGRATOR  
FOR  
*Supply, Installation, Commissioning & Maintenance of  
“ CCTV based Surveillance System ”  
At Sub & District Courts in Bihar***



**Bihar State Electronics Development Corporation Limited**

(A Government of Bihar Undertaking)

BELTRON Bhawan, Shastri Nagar,

Patna – 800 023, Bihar

**Phone:** 0612- 2281242, **FAX:** 0612-228 1857

# *Section 1*

### Glossary

A&M	Approach and Methodology
BSEDC	Bihar State electronics development Corporation Limited
CCN	Change control notice
CV	Curriculum vitae
CMC	Central Monitoring center
EMD	Earnest money deposit
FAT	Final acceptance Test
HMS	Health management System
IP	Internet protocol
RPF	Request for proposal
SI	System integrator
ToR	Terms of reference
Purchaser	BSEDC ,Patna

### Definition of terms

SI no	Term	Definition
1	Agreement /contract	The Agreement entered between the BSEDC and the Agency including all attachments, schedules, annexure thereto and all documents incorporated by reference therein and all amendments, corrigendum /corrigenda, changes thereto
2	Bidder	The use of the term “Bidder” in the Tender means the Single Agency offering the proposal.
3	Bid /proposal	Offer by the Bidder to fulfil the requirement of the Client under the RFP/Contract for an agreed price. It shall be a comprehensive technical and commercial response to the Tender
4	Confidential information	All information (whether in written, oral, electronic or other format) which relates to the technical, financial and business affairs, dealers, suppliers, products, developments, operations, processes, data, trade secrets, design rights, know-how, plans, budgets and personnel of each stakeholder and its affiliates which is disclosed to or otherwise learned by the other Party in the course of or in connection with this Agreement (including without limitation such information received

		during negotiations, location visits and meetings in connection with this Agreement);
5	Deliverables	Products, infrastructure and services agreed to be delivered by the Bidder in pursuance of the agreement as defined more elaborately in the RFP Implementation and the Maintenance phases and includes all documents related to the user manual, technical manual, design, process and operating manuals, service mechanisms, policies and guidelines (such as security related, etc.), inter alia payment and/or process related etc., source code and all its modifications;
	Go-live	The date of commencement of Operations and Maintenance phase after the successful completion of each Phase (FAT and acceptance of the overall solution by the BSEDC)
	IPR	All rights in written designs and copyrights, moral rights, rights in databases and Bespoke Software / Pre-existing work including its up-gradation systems and compilation rights (whether or not any of these are registered and including application for registration);
	Performance security	Unconditional guarantee provided by the Bidder from a Nationalized/ Scheduled Commercial Bank in favor of the BSEDC for 510% of the Contract value
	Project implementation	Project Implementation as per the testing standards and acceptance criteria prescribed by BSEDC or its nominated agencies;
	Request for Proposal/ Tender Document	Written solicitation that conveys to the Bidder, requirements for products/ services that the BSEDC intends to buy and implement
	SLA	The level of service and other performance criteria which will apply to the Services delivered by the Bidder; Performance and Maintenance SLA executed as part of this Master Service Agreement
	SI	The bidder who is qualified & successful in the bidding process and is given the award of Contract and will be referred to as System Integrator(SI)/Implementation Agency

## Important Dates

SI no	Particular	Details
1.	Start date of issuance / sale of RFP document	5-May-2017 ;03 PM
2.	Last date for Submission of Queries	18-May-2017 ;03 PM
3.	Pre-Bid Conference	19-May-2017 ;11 AM
4.	Issue of Corrigendum	25-May-2017 ;03 PM
5.	Last date for issuance / sale of RFP Document	10-June-2017 ;05 PM
6.	Last date and time for Bid Submission	11-June-2017 ;03 PM
7.	Date and time of opening of Pre-Qualification bids	15-June-2017 ;04 PM
8.	Date and time for opening of Technical bids	To be notified
9.	Date and time for opening of Commercial bids	To be notified

## Fact Sheet

Clause reference	Topic
<b>Section 6</b>	<b>The method of selection is: Least Cost Bid</b> Bidders, whose bids are responsive, based on minimum qualification criteria / documents as in Pre-Qualification Criteria and score at least 70% in technical scoring will be considered technically qualified. The financial proposal of all technically qualified bidders will be opened.
<b>Section 5.5.2</b>	<b>RFP can be downloaded</b> from <a href="https://www.eproc.bihar.gov.in">https://www.eproc.bihar.gov.in</a> The Bidding process shall be conducted in an online (e-tendering) manner.
<b>Section 5.5.2</b>	<b>Tender fee:</b> INR. 25,000 only (Rupees Twenty Five thousand only) payable online through e- Procurement
<b>Section 5.5.3</b>	<b>EMD</b> -INR 35,00,000 only (Rupees Thirty five lakhs only) from a nationalized scheduled commercial bank in India and payable at Patna in favour of BSEDC in form of DD/ bank guarantee
<b>Section 4</b>	Procurement is linked to supply, implementation and maintenance of CCTV cameras in 61 courts of Bihar.

<b>Section 7</b>	The assignment is divided into two phases .1. Supply and Implementation of the CCTV cameras in 61 courts of Bihar to be completed in 24 weeks 2. Maintenance of the same for 5 years
<b>Section 5.3</b>	<b>A pre bid meeting</b> will be held on 19-May-2017 Interested eligible Bidders may obtain further information from the following address:  Shri Vinay Kumar, Manger PMU BSEDC Ltd Beltron Bhawan Bailey Road Patna-800023 Ph. 8409900836 Fax No. 0612-2281857 E – Mail: kumar.vinay@bihar.gov.in All the queries should be received on or before 18-May-2017 either through post or email.
	Addressee and address to which proposal or any supporting/original bank guarantee etc. in response to RFP notice is to be submitted:  Managing Director BSEDC BELTRON Bhawan, Shashtri Nagar, Patna, Bihar Tel No:- 0612-2281242, 0612-2281857
<b>Section 5.6.1</b>	Proposals to be submitted only in English language
<b>Appendix 2</b>	Taxes – Bidders to include taxes as applicable. Please refer pricing sheet (e-forms)
<b>Section 5.6.5.2</b>	Proposals must remain valid for 24 weeks after the submission date
<b>Section 5.6</b>	Proposals are to be submitted via <a href="https://www.eproc.bihar.gov.in">https://www.eproc.bihar.gov.in</a>
<b>Section 5.5.5</b>	Proposals must be submitted no later than the following date and time: 11-June-2017

# *Section 2*

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## 1. Request for proposal

- a) Sealed tenders are invited from eligible, reputed, qualified IT Firms with sound technical and financial capabilities for Supply implementation commissioning and maintenance of CCTV based surveillance System in Courts of Bihar as detailed out in the Scope of Work under Section 5 of this RFP Document. This invitation to bid is open to all Bidders meeting the minimum eligibility criteria as mentioned in Section 6.1 of this RFP Document. Any contract that may result from this Government procurement competition will be issued for a term of 5 years from the date of successful Go-Live.
- b) BSEDC reserves the right to extend the term for a period or periods of up to 1 more year with a maximum of 2 such extension or extensions on the same terms and conditions, subject to the BSEDC's obligations at law.
- c) Proposals must be received not later than time, date and venue mentioned in the Fact Sheet. Proposals that are received late WILL NOT be considered in this procurement process.

## 2. Structure of the RFP

This Request for Proposal (RFP) document for the project of Supply, Installation Commissioning and maintenance of CCTV based surveillance system at sub and district courts in Bihar for BSEDC comprise of the following.

- i. **Instructions on the Bid process** for the purpose of responding to this RFP. This broadly covers:
  - a) General instructions for bidding process
  - b) Bid evaluation process including the parameters for Pre-qualification, Technical evaluation and commercial evaluation to facilitate <Nodal Agency> in determining bidder's suitability as the implementation partner
  - c) Payment schedule
  - d) Commercial bid and other formats
- ii. **Functional and Technical Requirements** of the project. The contents of the document broadly cover the following areas:
  - a) About the project and its objectives
  - b) Scope of work for the Implementation Partner
  - c) Functional and Technical requirements
  - d) Project Schedule

e) Service levels for the implementation partner

The bidder is expected to respond to the requirements as completely and in as much relevant detail as possible, and focus on demonstrating bidder's suitability to become the implementation partner of BSEDC.

**iii. Master Service Agreement (MSA), Service Level Agreement (SLA) and Non-Disclosure Agreement (NDA).** (Provided separately in Annexure I)

The bidders are expected to examine all instructions, forms, terms, Project requirements and other information in the RFP documents. Failure to furnish all information required as mentioned in the RFP documents or submission of a proposal not substantially responsive to the RFP documents in every respect will be at the Bidder's risk and may result in rejection of the proposal.

### **3. Project Background**

Government of Bihar via department of home has taken the initiative to implement CCTV surveillance in all district and sub divisional courts of Bihar. The project is to be implemented in response to the recent increase in the unlawful and socially disturbing activities in and around the court premises. The unlawful activities mainly affect the day-to-day proceedings of the court, security of the court officials and other citizens present in the court premises, security of the prisoners brought to court for proceedings, police personnel present and security of the judges.

- a) The CCTV installation would play a great role in reducing the number of unlawful activities in and around the court premises. It would be helpful to monitor the complete court premises from a single control room to be set-up inside the court premises. CCTV would enable to track and arrest miscreants and anti-law entities accessing the court premises.
- b) The stakeholders in the project are Department of Home, Department of Law, Department of Police and Bihar State Electronics Development Corporation (BSEDC), Consulting Agency (KPMG) and Implementation Agency (System Integrator / Vendor).
- c) Bihar is divided into 38 districts for administrative purposes – Araria, Arwal, Aurangabad, Begusarai, Bhagalpur, Banka, Bhojpur, Buxar, Bhabhua (Kaimur), Darbhanga, East Champaran, Gaya, Goplaganj, Jahanabad, Jamui, Katihar, Khagaria, Kishanganj, Lakshisarai, Madhepura, Madhubani, Munger, Muzaffarpur, Nalanda, Nawada, Patna, Purnea, Rohtas, Saharsa, Samastipur, Saran, Shekhpura, Sheohar, Sitamari, Siwan, Supaul, Vaishali & West Champaran. District and Sub divisional Courts (total 61 nos) in all 38 districts are covered under the project.

The IP based CCTV surveillance system is being set up to monitor the premises as well as to maintain the security of the 61 District and Sub Courts across the state. It will help to ensure highly effective security surveillance operations with accurate flow of information and

communication. A mix of high definition (HD) IP Based fixed and flame proof PTZ cameras shall be used for this purpose. Both IP based surveillance camera should work with OFC/UTP based network. This solution is required for a high security environment. Hence, high availability of the system is extremely important. The solution provided should ensure that video storage could be viewed at the respective court(s). List of courts which will be covered under the project are:

SI No.	Court Type		Name of Court
1	District Court		Banka
2	District Court		Bhagalpur
3		Sub Court	Nabgachia
4	District Court		Chhapra
5	District Court		Gopalgunj
6	District Court		Jamui
7	District Court		Lakhisarai
8	District Court		Madhepura
9		Sub Court	Udakishangunj
10	District Court		Munger
11	District Court		Saharsa
12	District Court		Seikhpura
13	District Court		Siwan
14	District Court		Patna
15		Sub Court	Danapur
16		Sub Court	Masaudhi
17		Sub Court	Paliganj Court
18		Sub Court	Barh Court
19		Sub Court	Patna City Court
20	District Court		Kishanganj Court
21	District Court		Purnea Court
22	District Court		Katihar Court
23	District Court		Araria Court
24	District Court		Bhabua Court
25	District Court		Sasaram Court
26		Sub Court	Bikramganj Court
27	District Court		Vaishali Court
28	District Court		Darbhanga Court
29		Sub Court	Benipur Court
30	District Court		Madhubani Court
31		Sub Court	Benipatti Court
32		Sub Court	Jhanjharpur Court
33	District Court		Bettiah Court

34		Sub Court	Bagaha Court
35		Sub Court	Narkatiaganj Court
36	District Court		Motihari Court
37		Sub Court	Dhaka (Sikrahna) Court
38		Sub Court	Areraj Court
39	District Court		Sheohar Court
40	District Court		Sitamarhi Court
41	District Court		Muzaffarpur Court
42	District Court		Samastipur Court
43		Sub Court	Rosra Court
44		Sub Court	Dalsingsarai Court
45		Sub Court	Shahpur Patori Court
46	District Court		Biharsarif Court
47		Sub Court	Hilsa Court
48	District Court		Nawada Court
49	District Court		Ara Court
50	District Court		Buxar Court
51	District Court		Jehanabad Court
52	District Court		Arwal Court
53	District Court		Gaya Court
54		Sub Court	Sherghati Court
55	District Court		Aurangabad Court
56		Sub Court	Daud nagar Court
57	District Court		Begusarai Court
58	District Court		Khagaria Court
59		Sub Court	Gogri Court
60	District Court		Supaul Court
61		Sub Court	Birpur Court

#### **4. Key information**

- a) The IP based CCTV surveillance system is being set up to monitor the premises as well as to maintain the security of the 61 District and Sub Courts across the state. It will help to ensure highly effective security surveillance operations with accurate flow of information and communication. A mix of high definition (HD) IP Based fixed and flame proof PTZ cameras shall be used for this purpose. Both IP based surveillance camera should work with OFC/UTP based network. This solution is required for a high security environment. Hence, high availability of the system is extremely important. The solution

provided should ensure that video storage could be viewed at the court as well as from the office of the respective Superintendent of Police of that district.

b) Solution components with functional overview of each component are as presented below:

- i) Surveillance devices: PTZ flameproof, PTZ Normal, Fixed Normal, Fixed Flameproof
- ii) Feed viewing Devices: LED Display
- iii) Storage: surveillance HDD, NVR
- iv) Networking: LAN for CCTV and Leased line for NMS
- v) Monitoring: Network Monitoring System

c) Expected outcome of the implemented solution:

Outcome of the implementation of CCTV Surveillance	Activities (Improved service levels/ Additional services)
<b>Outcome 1</b>	Close surveillance of the court premises.
<b>Outcome 2</b>	Comprehensive monitoring of the movement of public accessing the court premises at the ground level.
<b>Outcome 3</b>	Monitoring of the sensitive areas like Hazat.
<b>Outcome 4</b>	Monitoring the entry and exit points to the court premises.
<b>Outcome 5</b>	Monitoring of the vehicles accessing the court premises.

d) Site Survey and Signoff:

- i. The SI will be required to take the sign off on site survey diagram from court officials. The site survey diagram will indicate the camera position(s) along with other hardware installation positioning. The actual requirement of Bill of material will be accessed from such survey.
- ii. Sign offs required at relevant stages from stakeholders are as below:

Sl no	Document/ deliverable	Signoff authority
<b>1</b>	Project Plan	BSEDC
<b>2</b>	Site Survey report	Respective Court officials
<b>3</b>	Approved Bill of Material	BSEDC
<b>4</b>	Proof of Delivery	BSEDC
<b>5</b>	Installation certificates	BSEDC

<b>6</b>	Technical Architecture	BSEDC
<b>7</b>	SLA reporting	BSEDC
<b>8</b>	Project MIS	BSEDC
<b>9</b>	SOPs for site preparation, electrical and civil works, permission for digging, store room provisioning and safety of equipment.	BSEDC
<b>10</b>	L-1 Resource attendance	Court officials and or BSEDC

- iii. The successful bidder will have access to the court premises (in relation to the scope of work only). BSEDC will facilitate in site survey, end user communication and related deliberations. BSEDC and user department will not provide space to the SI team and which has to be arranged by the SI only. A preliminary Site Survey has been carried out and will be shared with successful vendor. However, this is only for representation and facilitation purposes and the same needs to be confirmed/ augmented in discussion with the Court officials.

e) Stakeholder Details:

The stakeholders in the project are Department of Home, Department of Law, Department of Police and Bihar State Electronics Development Corporation (BSEDC), Consulting Agency of BSEDC and Implementation Agency (System Integrator / Vendor).

<b>Stakeholder Group</b>	<b>Roles and Responsibilities</b>
Nodal Departments (Department of Home and Law)	Policy Directions and Guidance for successful execution of the Project. Overseeing utilization of funds. Creating a supporting environment for the success of the project. Operational responsibility for the Project. Approval of BPR proposals. Sanction for various project components, as may be specified, including the Hardware/Software procurement. Approval of various Project Components and Functionalities to be covered in the Project. Review the progress of the Project.
BSEDC	Engaging the SI through contract Overall responsibility of implementation via partnering with SI Payment to SI and fund utilization

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Consulting Agency	<p>Preparation of Detailed Project Report (DPR). Submitting Draft RFP and assisting the state in managing the bid process. Assisting BSEDC with the assessment of techno-commercial appraisal of bids in identifying the state level Systems Integrator (SI). Developing the functional specifications for the extensions/enhancements of Surveillance in future. Overall project planning and management in collaboration with District Mission teams: including planning, supervising the overall progress of the project, monitor conformance with the timelines and service levels.</p>
Implementation Agency / System Integrator / Vendor	<p>Procurement, installation and commissioning of hardware. System Administration and Support Training. Utilization Statements/ Progress Reports Surveillance System Maintenance. Awareness and Sensitization</p>



## **5. Instruction to bidders**

### **5.1 General**

- 1) While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, Bidders must form their own conclusions about the solution needed to meet the requirements. Bidders and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.
- 2) All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by the BSEDC on the basis of this RFP
- 3) No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of the BSEDC. Any notification of preferred bidder status by the BSEDC shall not give rise to any enforceable rights by the Bidder. The BSEDC may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of the BSEDC.
- 4) This RFP supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.

### **5.2 Compliant proposals /completeness of response**

- 1) Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
- 2) Failure to comply with the requirements of this paragraph may render the Proposal non-compliant and the Proposal may be rejected. Bidders must:
  - i. Include all documentation specified in this RFP;
  - ii. Follow the format of this RFP and respond to each element in the order as set out in this RFP
  - iii. Comply with all requirements as set out within this RFP.

### **5.3 Pre-bid Meeting and clarifications**

- a) BSEDC shall hold a pre-bid meeting with the prospective bidders on the dates mentioned in Section 1 of the RFP at Beltron Bhawan, Shastri Nagar, Patna -23.
- b) The Bidders will have to ensure that their queries for Pre-Bid meeting should reach to

Shri Vinay Kumar, Manager PMU, BSEDC Ltd, Beltron bhawan shastri Nagar, Patna-23  
by post, facsimile or email on or before the due date mentioned in Section 1 of the RFP.

- c) The queries should necessarily be submitted in the following format:

Sl. No	RFP Document Reference(s) (Section & Page Number(s))	Content of RFP requiring Clarification(s)	Points of clarification

## 5.4 Response to Pre-bid queries and issue of corrigendum

The Nodal Officer notified by the BSEDC will endeavor to provide timely response to all queries. However, BSEDC makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does BSEDC undertake to answer all the queries that have been posed by the bidders.

- a) At any time prior to the last date for receipt of bids, BSEDC may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by a corrigendum.
- b) The Corrigendum (if any) & clarifications to the queries from all bidders will be posted on the <https://www.eproc.bihar.gov.in>
- c) Any such corrigendum shall be deemed to be incorporated into this RFP.
- d) In order to provide prospective Bidders reasonable time for taking the corrigendum into account, BSEDC may, at its discretion, extend the last date for the receipt of Proposals.

## 5.5 Key requirements of the Bid

### 5.5.1 Right to terminate the process

- 1) BSEDC may terminate the RFP process at any time and without assigning any reason. BSEDC makes no commitments, express or implied, that this process will result in a business transaction with anyone.
- 2) BSEDC This RFP does not constitute an offer by BSEDC. The bidder's participation in this process may result BSEDC selecting the bidder to engage towards execution of the contract.

### 5.5.2 RFP Document fees

The bidder may also download the RFP documents from the website <https://www.eproc.bihar.gov.in> Tender fee of Rs 25,000.00 as RFP document fees should be submitted online. The fee transfer receipt should be submitted Proposals received without or with inadequate RFP Document fees shall be rejected.

### **5.5.3 Earnest Money Deposit**

- 1) Bidders shall submit, along with their Bids, EMD of 35,00,000.00 only, in the form of a Demand Draft/ Bank Guarantee issued by any nationalized/ Scheduled commercial bank in favor of BSEDC, Patna, payable at Patna. and should be valid for 6 months from the date of issuance of the RFP.
- 2) EMD of all unsuccessful bidders would be refunded by BSEDC within 2 weeks of the bidder being notified as being unsuccessful. The EMD, for the amount mentioned above, of successful bidder would be returned upon submission of Performance Bank Guarantee as per the format provided in Form -3.
- 3) The EMD amount is interest free and will be refundable to the unsuccessful bidders without any accrued interest on it.
- 4) The bid / proposal submitted without EMD, mentioned above, will be summarily rejected.
- 5) The EMD may be forfeited in the event of:
  - A Bidder withdrawing its bid during the period of bid validity
  - A successful Bidder fails to sign the subsequent contract in accordance with this RFP
  - The Bidder being found to have indulged in any any suppression of facts, furnishing of fraudulent statement, misconduct, or other dishonest or other ethically improper activity, in relation to this RFP
  - A Proposal contains deviations (except when provided in conformity with the RFP) conditional offers and partial offers.

### **5.5.4 Means of Submission of proposals**

The proposals will be uploaded on e-procurement website <https://www.eproc.bihar.gov.in> via related instructions contained therein in e-forms.

### **5.5.5 Authentication of bids**

A Proposal should be accompanied by a power-of-attorney in the name of the signatory of the Proposal.

### **5.6 Preparation and Submission of Proposal**

The bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in

providing any additional information required by BSEDC to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process. BSEDC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

### **5.6.1 Language**

The Proposal should be filled by the Bidder in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidders. For purposes of interpretation of the Proposal, the English translation shall govern.

### **5.6.2 Venue and deadline for submission of proposal**

Proposals, in its complete form in all respects as specified in the RFP, must be submitted to BSEDC via e-procurement website.

The last date for submission of proposals is on or before the due date mentioned in Section 1 of the RFP.

### **5.6.3 Late Bids**

- a) Bids received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained and shall be returned unopened.
- b) The bids submitted by telex/telegram/fax/e-mail etc. shall not be considered. No correspondence will be entertained on this matter.
- c) BSEDC shall not be responsible for any delay or non-receipt/ non-delivery of the documents. No further correspondence on the subject will be entertained.
- d) BSEDC reserves the right to modify and amend any of the above-stipulated condition/criterion depending upon project priorities vis-à-vis urgent commitments.

### **5.6.4 Deviations**

The bidder may provide deviation to the contents of the RFP document. The deviations needs to be given in Form 11 only. Any deviation given at any other place in the proposal will not be considered. BSEDC may at its discretion ask the bidder to withdraw the deviation. However, bidder may or may not agree to withdraw the deviations.

The Proposal evaluation committee would evaluate and classify the deviations as “material deviation” or “non-material deviation“. In case of material deviation, the committee may decide to “monetize” the value of the deviations, which will be added to the price bid submitted by the bidder OR declare the bid as non-responsive.

The bidders would be informed in writing on the committee’s decision on the deviation, prior to the announcement of technical scores. The bidders would not be allowed to withdraw the deviations at this stage. No correspondence in this matter will be entertained.

In case of non-material deviations, the deviations would form a part of the proposal & contract.

The bidders may use the following deviation chart:

No	Deviation	Material	Non-Material	Impacted Deliverable(s)	Impacted Timeline(s)	Financial Impact
1		<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>
2						

### 5.6.5 Evaluation process

1. BSEDC will constitute a Proposal Evaluation Committee to evaluate the responses of the bidders
2. The Proposal Evaluation Committee constituted by the BSEDC shall evaluate the responses to the RFP and all supporting documents / documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection.
3. The decision of the Proposal Evaluation Committee in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Committee.
4. The Proposal Evaluation Committee may ask for meetings with the Bidders to seek clarifications on their proposals
5. The Proposal Evaluation Committee reserves the right to reject any or all proposals on the basis of any deviations or clarifications provided.
6. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.

#### 5.6.5.1 Tender Opening

The Proposals submitted by the due date will be opened on the date prescribed in Section 1 by Tender cum purchase committee, in the presence of such of those Bidders or their representatives who may be present at the time of opening. The representatives of the bidders are advised to carry the identity card or a letter of authority from the tendering firms to identify their bona-fides for attending the opening of the proposal.

### 5.6.5.2 Tender Validity

The offer submitted by the Bidders should be valid for minimum period of 180 days from the date of submission of Tender.

### 5.6.5.2 Tender Evaluation

A. Initial Proposal scrutiny will be held and to confirm Proposals do not suffer from the infirmities detailed below will be treated as non-responsive, if a Proposal is found to have been:

- submitted in manner not conforming with the manner specified in the RFP document
- Submitted without appropriate EMD as prescribed herein
- received without the appropriate or power of attorney
- containing subjective/incomplete information
- submitted without the documents requested in the checklist
- non-compliant with any of the clauses stipulated in the RFP
- having lesser than the prescribed validity period.

The EMD of all non-responsive bids shall be returned to the bidders.

B. All responsive Bids will be considered for further processing as below:

BSEDC will prepare a list of responsive bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by a Committee according to the Evaluation process define in this RFP document. The decision of the Committee will be final in this regard.

## 6. Criteria for evaluation

### 6.1 Prequalification criteria

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SI no	Qualification Criteria	Documents information to be provided in the submitted proposal
<b>1</b>	a. The responding firm should have made a payment of INR 25,000.00 as tender fee b. Should have submitted EMD of INR 35,00,000.00 as bid security	a) Cost of tender document through e-payment only b) Submission of EMD before due date
<b>2</b>	Legal Entity The Company should be in the IT/ITES business for at least 5 (five) years as of 31 <sup>st</sup> March 2016 and should be registered under Companies Act, 1956	a) Copy of Certificate of Incorporation b) Form 2 :- “Particulars of the Bidder”- c) Copy of all documents listed above should be attested by authorized signatory and must be submitted along with the response
<b>4</b>	Bidder’s annual Sales Turnover during each of the last 3 audited financial years must be INR 100 Crores or above from System integration business	Audited accounts of the company as filed before the Registrar of Companies. Or In case the breakup of revenues is not available in the manner required in the audited Balance Sheet, the Bidder shall submit a certificate to this effect from the statutory auditor of the company
<b>5</b>	The Net Worth of the bidder must be positive for each of the last 3 audited financial years.	Certificate from Statutory Auditor
<b>6</b>	The bidder must have successfully implemented any one surveillance related I.T project of the following criteria: 1 project of min no of camera >500, or 2 project no of camera > 350 ,or 3 project no of camera > 250	Completion certificates from the client; OR  Work order + Self certificate of completion (Certified by the statutory auditor); OR  Work order + phase completion certificate from the client
<b>7</b>	The bidder must have successfully implemented any one similar project (projects under operations would be considered) of the following criteria: 1 project of value> 50 Cr or 2 project of value> 30 Cr or 3 project of value> 20 Cr	Project citation format

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	Similar projects means surveillance/ network projects spread across multiple locations	
<b>8</b>	Bidder should be have ISO 9001 & ISO 27001	Copy of certification which is valid on date of Submission.

*Note: Last 3 consecutive audited financial years before 2012-13 will not be considered for evaluation.*

- Any organization (SI/OEM) debarred / black-listed by Central / State Government/PSU in India, at the time of submission of the RFP, shall not be allowed to participate in this tender. Bidder need to submit a self-certification in this regard.
- Sub-contracting / out sourcing would be allowed only for work like Passive Networking & Civil Work during implementation FMS staff for non-IT support during post-implementation Services of a professional architect for design of Command/viewing centers

Bidders who meet the pre-qualifications/eligibility requirements would be considered as qualified to move to the next stage of Technical evaluation.



## 6.2 Technical evaluation criteria

S.N.	Criteria	Basis of Valuation	Maximum Marks	Supporting documents
<b>A</b>	<b>Relevant Experience</b>		<b>100</b>	
<b>A1.</b>	Turnover from System integration /ICT systems Development and Implementation work in last three years (Turnover in Rs crores)	When revenue turnover is:  More than 300 Cr :15 marks  Between 200- 300 Cr :12 marks  Between 100-200 Cr: 10 marks  (Subject to the weightages given below)	<b>15</b>	Extracts from the audited Balance sheet and Profit & Loss; OR Certificate from the statutory auditor
<b>A2.</b>	CCTV/Networking Hardware Supply to be demonstrated in a maximum of 3 engagements of 15 Cr or more. The work order should have been issued within the last 5 years, from the last day of bid submission  The projects should have been either completed or an ongoing project where deliverable or milestone has been successfully met.  <b>Weightages (W)</b> In case project is completed and letter of satisfaction available : 100% weightage	When No. is :  equal to 3 projects : 15 marks  equal to 2 projects : 10 marks  equal to 1 project : 5 marks  No project: 0 marks	<b>15</b>	Completion Certificates for implementation from the client; OR  Work Order/Proof of award of work + Certificate of Completion by authorized signatory of the Bidder counter signed by Statutory Auditor/ Company Secretary;  OR  Work Order + Percentage Completion of implementation Certificate (for ongoing projects) from the client.

	<p>In case project is in progress and the Work Order is more than 18 months old and letter of satisfaction available: 80% weightage</p> <p>In case project in progress and the Work Order is between 12- 18 months old and letter of satisfaction available: 50% weightage</p> <p>In case project in progress and the Work Order is less than 12 months old and letter of satisfaction available: 25% weightage</p>			
<p><b>A3.</b></p>	<p>The Bidder should furnish experience of implementation and maintenance of multi-location Surveillance/Network projects each of value of Rs 25 Crore or more. The implementation portion of the project could either be completed or ongoing.</p> <p>Completion / Percentage completion of the relevant work order should have been achieved within 5 years before the last date of bid submission.</p> <p><b>Weightages (W)</b></p>	<p>When No. is :</p> <p>equal to 3 projects : 15 marks</p> <p>equal to 2 projects : 10 marks</p> <p>equal to 1 project : 5 marks</p> <p>These marks would be multiplied by the weightage as defined in the previous column to arrive at a cumulative score.</p>	<p>15</p>	<p>Completion Certificates for implementation from the client; OR</p> <p>Work Order/Proof of award of work + Certificate of Completion by authorized signatory of the Bidder counter signed by Statutory Auditor/ Company Secretary;</p> <p>OR</p> <p>Work Order + Percentage Completion of implementation Certificate (for ongoing projects)</p>

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	<p>In case project completed and letter of satisfaction available: 100%</p> <p>In case project in progress and the Work Order is more than 18 months old and letter of satisfaction available: 80%</p> <p>In case project in progress and the Work Order is between 12-18 months old and letter of satisfaction available: 50%</p> <p>In case project in progress and the Work Order is less than 12 months old and letter of satisfaction available: 25%</p>			from the client.
<b>A4</b>	<p>The Bidder should furnish experience of Network/CCTV/Surveillance project implementation where O&amp;M support has been given for at least 1 year for projects implemented across 15 locations or more.</p> <p>Completion / Percentage completion of the relevant work order should have been achieved within 5 years before the last date of bid submission.</p>	<p>When No. is :</p> <p>equal to 3 projects : 15 marks</p> <p>equal to 2 projects : 10 marks</p> <p>equal to 1 project : 5 marks</p>	15	<p>Completion Certificates for implementation from the client; OR</p> <p>Work Order/Proof of award of work + Certificate of Completion by authorized signatory of the Bidder counter signed by Statutory Auditor/ Company Secretary;</p> <p>OR</p> <p>Work Order + Percentage Completion of implementation</p>

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				Certificate (for ongoing projects) from the client.
<b>B</b>	<b>Approach &amp; Methodology</b>		<b>20</b>	
<b>B1.</b>	Solution Proposed	<p>Qualitative assessment based on Demonstration of understanding of the Projects objectives and requirements through providing:</p> <ul style="list-style-type: none"> <li>–Solution proposed and its components,</li> <li>– Technologies proposed,</li> <li>– Scale of similar implementation,</li> <li>– Understanding of Issues faced in similar projects</li> <li>–Challenges likely to be encountered</li> <li>– Mitigation proposed</li> <li>–Support methodology</li> <li>–Completeness and responsiveness: The extent to which the proposal responds exhaustively to all the requirements of all the Terms of Reference</li> </ul>	15	Form 7, Form 8, Form 9
<b>B2.</b>	Approach and Methodology to perform the work in this assignment	<p>Qualitative assessment based on</p> <ul style="list-style-type: none"> <li>– The extent to which the Systems Implementer’s approach and work plan respond to the objectives indicated in the Statement/Scope of Work</li> </ul>	2.5	<b>Form 7</b>

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<b>B3.</b>	Project work break down structure	Qualitative assessment based on timelines and resource assignment, dependencies and milestones	2.5	Form 8
<b>C</b>	<b>Key Resource Profile</b>		<b>20</b>	
<b>C1</b>	Project Manager	<ol style="list-style-type: none"> <li>1 Experience of Managing CCTV/NW implementation projects as Project Manager: &gt;= 5 Projects : 3 Marks, 4 projects 2 marks</li> <li>2 CCNA/CCNP or equivalent : 1 mark</li> <li>3 MBA or equivalent: 1 mark</li> <li>4 PMP/ Prince 2: 1 mark</li> </ol>	6	Form 10
<b>C2</b>	Technical Module Lead	<ol style="list-style-type: none"> <li>1. Experience of end-to-end proposed CCTV implementations as Tech lead: &gt; =5 Projects : 3 Marks, 4 projects 2 marks</li> <li>2. CCNA/CCNP or equivalent : 1 marks</li> <li>3. More than 10 years of experience: 1 marks</li> <li>TOGAF or equivalent :1 mark</li> </ol>	6	

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<b>C3</b>	Service lead	<ol style="list-style-type: none"><li>1. Experience of end-to-end service implementations as Service Lead: &gt; =5 Projects : 3 Marks ; 4 Projects: 2 marks;</li><li>2. ITIL certified: 1 mark</li></ol>	4	
<b>C4</b>	Network Architect	<ol style="list-style-type: none"><li>1. Experience in Solution Design of Network Enterprise. &gt; =5 Projects : 3 Marks ; 4 Projects: 2 marks</li><li>2. CCNA/CCNP or equivalent 1 mark</li></ol>	4	

### **6.3 Commercial bid evaluation**

- a) The Financial Bids of technically qualified bidders will be opened.
- b) Financial Bids that are less than 50% of the average bid price will be disqualified (the average bid price is computed by adding all Financial Bid values of ALL the qualified bidders and dividing the same by the number of bidders).
- c) The bid with the lowest evaluated total price will be declared as L1 bidder
- d) Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.
- e) The bid price will include all taxes except service tax which should be mentioned separately in the recurrent cost.
- f) Any conditional bid would be rejected
- g) Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".
- h) In the event the bid composite bid scores are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the Project.

### **6.4 Appointment of System implementation agency**

#### **6.4.1 Award criteria**

BSEDC will award the Contract to the successful bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bids as per the process outlined above.

#### **6.4.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s)**

BSEDC reserves the right to accept or reject any proposal, and to annul the tendering process / Public procurement process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for BSEDC action.

#### **6.4.3 Notification of award**

Prior to the expiration of the validity period, BSEDC will notify the successful bidder in writing or by fax or email, that its proposal has been accepted. In case the tendering

process / public procurement process has not been completed within the stipulated period, BSEDC, may like to request the bidders to extend the validity period of the bid. The notification of award will constitute the formation of the contract. Upon the successful bidder's furnishing of Performance Bank Guarantee, BSEDC will notify each unsuccessful bidder and return their EMD.

#### **6.4.4 Performance Guarantee**

BSEDC will require the selected bidder to provide a Performance Bank Guarantee, within 15 days from the Notification of award, for a value equivalent to 10% of the total cost of ownership. The Performance Guarantee should be valid for a period of 66 months. The Performance Guarantee shall be kept valid till completion of the project and Warranty period. The Performance Guarantee shall contain a claim period of three months from the last date of validity. The selected bidder shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non-completion of the project and Warranty period. In case the selected bidder fails to submit performance guarantee within the time stipulated, the BSEDC at its discretion may cancel the order placed on the selected bidder without giving any notice. BSEDC shall invoke the performance guarantee in case the selected Vendor fails to discharge their contractual obligations during the period or BSEDC incurs any loss due to Vendor's negligence in carrying out the project implementation as per the agreed terms & conditions.

#### **6.4.5 Signing of Contract**

After the BSEDC notifies the successful bidder that its proposal has been accepted, BSEDC shall enter into a contract, incorporating all clauses, pre-bid clarifications and the proposal of the bidder between BSEDC and the successful bidder.

#### **6.4.6 Failure to agree with terms and condition of RFP**

Failure of the successful bidder to agree with the Draft Legal Agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event BSEDC may award the contract to the next best value bidder or call for new proposals from the interested bidders.



## **7. Scope of work**

The selected Systems Integrator (SI) shall have the overall responsibility to supply, install, commission, and maintain the Court Surveillance System for state of Bihar. SI will have to maintain the implemented system for a period of five (5) years from the date of successful Go-Live of the project.

The proposed surveillance system will involve setting up of IP based cameras across all 61 Courts in Bihar. The broad components of the overall scope of work for the project is as follows:

1. Supplying installation and commissioning of surveillance systems for courts
2. Setting up of central monitoring center at Patna.
3. Facility Management Services.
4. The proposed List of Hardware in section (Appendix 3) is tentative and may change as per actual quantity proposed after site survey by SI. This should be done by SI without any extra cost, in consultation with Court officials/ BSEDC
5. Bidders are required to ensure that cameras and other hardware proposed are capable of meeting the benchmark specifications as per RFP and are also able to adhere to the functional requirements specified. Bidder to evaluate all specifications, suitability of UPS, power requirement and voltage at the sites and then propose a suitable solution to sustain the installation for five years from Go-Live.
6. SI should follow the best practices of the industry while carrying out the installation of the equipment.
7. The SI will be responsible for the solution deployment / customization for implementing end-to-end surveillance management system as mentioned in the RFP.
8. All data/recording should be available for 30 days
9. The Network for NMS ( provided via BSWAN) so envisioned will provide real time network/health status to the central monitoring center

SI is required to do the following work before starting of implementation:

### **Phase I: Design Supply and Installation Phase**

- A. Prepare Detailed Technical Architecture
- B. Prepare the detailed network connectivity roll-out plan
- C. Supplying installation and commissioning of surveillance systems for courts
- D. Electrical and Networking implementation
- E. Implementation of Central monitoring Center
- F. Configuration of devices from their end to BSWAN network for NMS

### **Phase II**

## A. Operation and Maintenance Phase

### **Phase I: Design Supply and Installation Phase**

#### **7.1 Prepare Detailed Technical Architecture**

The following activities will be undertaken:

1. The SI will do a site survey of all 61 Courts.
2. The SI will submit a site survey diagram and actual Bill of Material as per the result of Site Survey.
3. SI will be required to prepare a detailed Technical architecture of the overall system, incorporating findings of the site survey exercise.
4. All components of the technical network architecture should follow the industry standard.

#### **7.2 Supplying installation and commissioning of surveillance systems for courts**

Supplying Installation and commissioning of surveillance system will be subdivided into following points

##### **7.2.1 Installation of Camera**

SI are required to note that while executing the project, SI shall finalize the actual location for placement of cameras at each Court and fixation of height & angle for the cameras after deliberations with BSEDC and Court officials

- i. Ensure surveillance objective is met while positioning the camera, create the required field of view
- ii. Carry out proper adjustments to have the best possible image
- iii. SI should use the industry best practice while positioning and mounting the cameras.

##### **7.2.2 Install & configure Switches, Storage, NVR and other equipment at Courts**

The SI shall install, configure the switches, storage, NVR, rack, etc. at the identified locations and then undertake necessary work towards their commissioning.

Bidder will have to supply, install & configure all active devices like routers, Layer 2 / Layer 3 switches, storage, NVR, display etc for making the LAN operational at the site, IOS / software update for 5 years during the warranty period. The equipment needs to be updated with latest version of IOS.

All documentation related to the installation and maintenance for the active components (likes router, switches, NVR, storage etc.) & IP addressing scheme at clients' site need to be documented and the copy of the same should be submitted to the BSEDC

### **7.3 Deleted**

## **7.4 Electrical and Network Implementation**

### **7.4.1 Electrical works**

For the successful commissioning & operationalization of the cameras and to provide the video feeds at Courts, the successful bidder will be required to provide electricity to the cameras through POE switches. Bidder will have to install Centralized UPS and provide power to 8 Port Switches. In addition to this, the bidder will have to install UPS, Isolation Transformers and voltage controllers at the NOC as per the requirement of the court. SI shall undertake necessary civil and electrical works which include but are not limited to:

- i. The SI will responsible for making necessary arrangements for drawing electricity from transformer to IT of Voltage regulator and procuring necessary wire for the same. Proper earthing of the Neutral wherever required.
- ii. Installation of UPS and voltage regulator
- iii. Wiring to all switches from centralized UPS .All electrical wires to run through PVC pipe
- iv. Providing sockets/ MCB
- v. Proper earthing for all equipment.

It is to be explicitly mentioned here that many of the courts may have voltage issues (weak neutral, voltage fluctuations and power disruption etc.).It is the responsibility of the SI to have a pre-survey of sites mentioned in RFP and incorporate a suitable solution for voltage management for each of the sites separately. BSEDC will not accept any drop in the uptime of the cameras due to voltage issues.

### **7.4.2 Network Cabling**

Work to be done by SI includes but is not limited to:

- i. LAN design
- ii. Engineering
- iii. Structured cabling

- iv. Integration
  - i. **LAN design** - address total LAN node requirement (e.g. survey & preparing list of nodes locations) , modular design with provision for easy additions , meet all the application requirements , capable of data & video , use Fiber / CAT 6A technology for backbone & edge.
  - ii. **Engineering** - should prepare LAN IP addressing scheme, address all the LAN issues switching configuration. The SI needs to ensure that NMS and other tools required for LAN monitoring function smoothly.
  - iii. **Structured cabling installation** - cable routing on building blueprint / plan with scales & distances , integration of infrastructure if required , identification of existing cable risers and equipment closets to be used, labeling plan for cabling infrastructure , marking & identification of entire LAN infrastructure , creation of separate cable trays / pathways / raceways if required. Details are provided in Appendix-4
  - iv. **Integration**- of router, switches, NVR/servers, display screen, storage and camera through Fiber / CAT 6 cable will be done. Any additional equipment used to carry out such activity will be provided by the bidder without any additional cost.
  - v. The specifications for LAN and fiber work are mentioned in appendix-4 for reference

In addition to the above work bidder will have to provide the furniture as per the terms and conditions of this RFP. SI will have to supply install and maintain 2 air conditioners at each court NOC. These ACs should be running automatic switch over mode.

## **7.5 Implementation of Central Monitoring Center**

The work at the central monitoring center is divided into two categories

1. Supply installation, configuration and maintenance of NMS-HMS Software

At the central monitoring location software for NMS-HMS will be installed on the server and the licenses will be replicated through network provided by the BSWAN.

2. Supply Installation and Maintenance of IT equipment

At central monitoring center, the bidder will have to ensure that various equipment like router switches, servers, display units and UPS are supplied and installed as per the

timelines of the RFP. All the work related to Site preparation i.e. earthing, cabling etc. needs to be done as per the industry standards.

## 7.6 Connectivity between courts and central monitoring center at Patna

Connectivity is supposed to be provided by BSWAN for all locations for monitoring via NMS. SI will ensure the required configuration of network connectivity at all courts which will include designing IP pool and configuration of devices (router etc) and NMS ping from all courts to central monitoring center in Patna. SI will be responsible for configuration of the network at its end and other network if so implemented without any additional cost.

### Phase I: Operations and Maintenance Phase

#### 7.7 FMS services

*Operations and Maintenance phase of the project will be started after Final Acceptance Test* SI will also be required to provide full time O&M support at the courts for five years. In addition to this one Project Manager+ helpdesk support resource will be deployed at the central monitoring center.

1. SI will be required to provide onsite L-1 support (61 nos at each district) as per court working hours in order to meet the Service Level Agreements as mentioned in 8.1 of the RFP.  
At all 61 courts, technical support will be provided by SI to resolve technical issues and help in day to day activities related to the network / equipment supplied under this RFP.
2. SI will be responsible for preventive maintenance of all components supplied and installed. SI will have to carry out the preventive maintenance exercise at least once in 6 months for active components.
3. SI will be responsible for facilitating the warranty services provided by the OEMs.
4. The bidder will be responsible for providing troubleshooting support for all networking and Hardware related issues.
5. SI will provide a Helpdesk Software and Host the same for on internet for issue tracking. The specifications of the helpdesk software may be referred in Appendix-4
6. SI will provide Status reports as per frequency desired by BSEDC.

## 7.8 Positions identified for key personnel

The following are full time positions in the project

S No	Description	Deployment
1	Project Manager	At least 10 Years' experience post BE /B. Tech. Should have experience in CCTV Implementation /IT Networking. Should have worked in the capacity of project manager for a minimum period of 3 years.  Should have experience of implementing at least 3 similar Netwoetrking/ Surveillance project.
2	Technical Module Lead	At least experience of 3 projects of CCTV/ Network implementation across multiple location with at least one project for CCTV implementation.
3	Network Architect	Minimum 5 years of Experience as Network Architect. Minimum 3 projects involving network implementation
4	Service lead	Should have worked in service management profile. Should have experience of SLA maintenance, service design and related themes for at least 3 projects

### **1.9 Initial composition, Full time obligation, continuity of personnel**

- a) SI shall ensure that each member of the Key Personnel devotes substantial working time to perform the services to which that person has been assigned as per the proposal.
- b) SI shall use commercially reasonable efforts to ensure it retains the services of its Key Personnel, including provisioning of competitive compensation, benefits and other conditions to its Key Personnel so as to incentivize them to remain in SI's employment.
- c) SI shall not make any changes to the composition of the Key Personnel and not require or request any member of the Key Personnel to cease or reduce his or her involvement in the provision of the Services during the Term (or agree to any request other than from BSEDC that would have the same effect):
  - I. Unless that person resigns, is terminated for cause, dies, is long-term disabled, is on permitted mandatory leave under Applicable Law or retires; or
  - II. Without BSEDC's prior written consent.

### **7.10 Evaluations**

- a) SI shall carry out an evaluation of the performance of each member of the Key

Personnel in connection with the Services at least once in each Contract Year. SI shall provide reasonable written notice to BSEDC of the date of each evaluation of each member of the Key Personnel and BSEDC shall be entitled to provide SI with input for each such evaluation.

- b) SI shall promptly provide the results of each evaluation to BSEDC, subject to Applicable Law.

### **7.11 Replacement**

- a) In case the resource has resigned then the bidder has to inform within one week of such resignation.
- b) SI shall promptly initiate a search for a replacement and use commercially reasonable efforts (including the expenditure of reasonable sums, such as to engage the services of a recruiting firm) to ensure that the role of any member of the Key Personnel is not vacant for any longer than 30 days, subject to reasonable extensions requested by SI of BSEDC
- c) Before assigning any replacement member of the Key Personnel to the provision of the Services, SI shall provide BSEDC with:
  - I. A resume, curriculum vitae and any other information about the candidate that is reasonably requested by BSEDC; and
  - II. An opportunity to interview the candidate.
- d) The bidder has to provide replacement resource who score at least the same marks as the resource proposed originally on the same evaluation parameters defined in this RFP document. Once this is confirmation, the BSEDC shall conduct an interview of the candidate and notify SI within ten days after its interview (or if BSEDC does not request an interview within ten working days after SI has provided the information, then it would be deemed as accepted).
- e) If BSEDC does object to the appointment, SI shall not assign the individual to that position and shall seek an alternative candidate in accordance with this Section.
- f) The bidder has to ensure at least 4 weeks of overlap period in such replacements

### **7.12 High Attrition**

If in the first 6 month period from the Contract Effective Date or in any rolling 12 months period during the Term, 15 percent or more of the members of the Key Personnel cease or reduce their involvement in the Services for any reason other than with BSEDC's prior written consent, SI shall:

- I. provide BSEDC with a reasonably detailed explanation as to the reasons for such change, including, where applicable and permitted, notes from any exit interviews conducted by SI with any departing member of the Key Personnel; and
- II. if such change to Key Personnel has or is likely to have any material adverse impact on the provision of the Services or any substantial part thereof, undertake, at its own costs, such remediation acts as are reasonably necessary in order to improve the retention of the Key Personnel including making reasonable changes to the human resources policies and procedures applicable to the Key Personnel (including those related to compensation, benefits and other conditions so that they are competitive with the market) as may be necessary to ensure that such policies and procedures comply with Good Industry Practice.

### **7.13 Solicitation of employees**

During the Termination Period and thereafter BSEDC and its Affiliates shall have the right to solicit and hire:

- I. In case of a termination for convenience, 4 members of the Key Personnel; and
- II. In case of a termination other than for convenience, all members of the Key Personnel; plus, in each case, any two members of the SI Team (other than Key Personnel) of BSEDC’s choice and at its sole discretion.

### **8 Deliverables and Timelines**

Sl. No	Activity/Task	Deliverables/ Milestone	Timelines (In weeks)
1.	<ul style="list-style-type: none"> <li>• Project Award to successful System Integrator</li> </ul>		Project Start Date = T0
2.	<ul style="list-style-type: none"> <li>• Project Planning</li> <li>• Resourcing schedule</li> <li>• Development Implementation and Maintenance approach</li> <li>• Comments on FRS</li> </ul>	a) Finalized Project plan b) Finalized Inception Report	T0 + 1
3.	<ul style="list-style-type: none"> <li>• Site Survey</li> </ul>	a) Site Survey report and final BOM	T0 + 8
4.	Complete Hardware Delivery	Hardware delivery at local warehouse and submission receipt of Dispatch challan/Courier Copy	T0 + 12
5.	Implementation on 3 sites notified by BSEDC	Acceptance by BSEDC	T0+16



6.	Complete Implementation (Final Go-live)	Final Acceptance Test report by BSEDC and its nominated agencies. FAT will include the acceptance of CVs by BSEDC of the 61 L-1 support to be deployed in the project in the O&M phase	T0 + 24
7.	Post Go-live Support	SLA adherence report on a monthly basis	60 months after acceptance of Final Go Live

All deliverables will be deemed to have been completed only after approval of authorized personnel of BSEDC. The tasks that are provided in this document and under “Deliverables” are to be performed by the System Integrator in such a manner that it will not affect the Project Schedule. The System Integrator shall adhere to the above time schedule for timely and successful completion of the Project and submit the acceptance to this time schedule.

\*Validation of IT infrastructure: System Integrator has to carry out a detailed assessment of all types of IT infrastructure existing and desired at all the defined BSEDC locations for the successful CCTV implementation and its usage by appropriate user personnel. This will cover the study of

1. All IT infrastructure components at court locations
2. Network connectivity enabling components across all defined BSEDC locations
3. End user Hardware/peripheral configuration at all defined BSEDC location

## **8.1 Service Level Agreement**

For purposes of this Service Level Agreement, the definitions and terms as specified in the contract along with the following terms shall have the meanings set forth below:

“Scheduled Maintenance Time” shall mean the time that the system is not in service due to a scheduled activity as defined in this SLA. Scheduled maintenance time is planned downtime with the prior permission of the BSEDC (Bihar State Electronics Development Corporation Limited).

“Scheduled Operation Time” means the scheduled operating hours of the System for the month. All scheduled maintenance time on the system would be deducted from the total operation time for the month to give the scheduled operation time. The total operation time for the systems and applications within the central monitoring center and courts will be 24x7x365. The total operation time means when the manpower is required at the court premises.

S.No.	Type of Office	Business Hours (Monday – Saturday)
1.	Central Monitoring Center	9:00 AM to 5:30 PM
2.	Court	9:00 AM to 5:30 PM or as notified

“Availability” shall mean the time for which the services and facilities offered by the SI are available for conducting operations from the equipment installed at the court and central monitoring center.

Availability is defined as:

$\{( \text{Scheduled Operation Time} - \text{System Downtime} ) / ( \text{Scheduled Operation Time} )\} \times 100\%$

“Downtime” means accumulated time during which the system is inoperable within the Scheduled Operation Time but outside the scheduled maintenance time and measured from the time the BSEDC and/or Court log a call for the failure or the failure is known to the SI from the availability measurement tools to the time when the system is returned to proper operation.

The SLA metrics provided specifies performance parameters as baseline performance, lower performance and breach. All SLA calculations will be done on quarterly basis. The SLA also specifies the penalties for lower performance and breach conditions.

The quarterly payment shall be made after deducting the penalty as mentioned above.

The SLA parameters shall be measured on the basis of individual SLA parameter requirements and measurement methods, through appropriate SLA Measurement tools to be provided by the SI and audited by BSEDC or its appointed Consultant for accuracy and reliability.

Total penalty to be levied on the SI shall be capped at 10% of the total CAPEX during the Pre – Implementation Stage and 10% during the Post-Implementation stage (Maintenance period). BSEDC would have right to invoke termination of the contract in case “ The overall penalty applicable in any 3 consecutive quarters during the contract period is equal to more than 10% in each quarter.”

Any planned software / hardware downtime would not be included in the calculation of software / hardware availability, in that case;

1. SI will have to take written approval from the BSEDC at-least 5 days in advance.
2. Any planned outage should not be more than 30 minutes and that too the planned outage should be done during the non- business hours.

### **Service Level Requirement and Targets**

The SLAs have been logically segregated in the following categories:

- I. Pre Implementation
- II. Post Implementation (Maintenance period)

The following measurements and targets shall be used to track and report performance on a regular basis. The targets shown in the following table are applicable for the duration of the contract.

### 8.1.1 Pre Implementation SLA and associated Penalties

Project Activities	Baseline Timeline ( in Week) T= project award date	Penalty
Site Survey	T1=T0+8	
Site Survey report to be submitted	T2=T1+2	1,00,000.00 per week of delay
Delivery of Hardware and Software on all sites and Central Monitoring Center	T3=T0+12	5,00,000.00 per week of delay
Installation and commissioning of the required Hardware and Software on all sites and Central Monitoring Center	T4=T3+24	1,00,0000.00 per week of delay
Non implementation of 3 sites notified by BSEDC within 120 days of award of contract		5,00,000.00 per week of delay

### 8.1.2 Post Implementation SLA

The penalties which are to be applied post commissioning of the sites are described below. The time of issue resolution would be considered from the time of incident logging at the helpdesk (**Helpdesk shall be facilitated by SI**). All incidents will be treated as high priority and the below matrix will be used to deduct penalties in the operations phase.

Sl no	Fault Resolution – SLA	Time (Issue Resolution) post Incident Logged (in hours)	Penalty (in % percentage)
1	Hardware components (Switch & associated cameras as single unit, UPS etc)	= 48 hours	0%
		> 48 hours, <72 hours	2% Of the unit hardware cost
		>= 72 hours	5% of hardware cost (H/W which is non-functional) for each subsequent day of delay in issue rectification
	<b>Availability</b>	<b>Availability/ Uptime</b>	<b>Penalty</b>

<b>SLA</b>			
<b>2</b>	Availability of NMS (application and server)	99.9% Uptime	No Penalty
		Between 99.98% to 99.00%	10.0% of QGR
		Less than 99.00%	30% of QGR
<b>3</b>	Manpower Availability	Above 99.90%	No Penalty
		Between 99.90% to 99.01%	1.0% of QGR-CAPEX Part
		Between 99.00% to 98.01%	2.0% of QGR- CAPEX Part
		Between 98.00% to 97.01%	5.0% of QGR- CAPEX Part
		Between 97.00% to 96.01%	10.0% of QGR- CAPEX Part
		Less than 96.0%	30% of QGR- CAPEX Part

### 8.1.2 Minimum qualifications for manpower

<b>S No</b>	<b>Description</b>	<b>Professional Qualification</b>	<b>Work Experience of the Expert</b>
<b>1</b>	Project Manager	BE /B. Tech.	At least 10 Years' experience post BE /B. Tech. or Master of Computer Applications. Should have experience in CCTV Implementation /IT Networking. Should have worked in the capacity of project manager for a minimum period of 3 years.
<b>2</b>	Technical Module Lead	BE /B. Tech.	At least experience of 5 projects of CCTV/NW Implementation.
<b>3</b>	Network Architect	BE /B. Tech.	Minimum 5 years of Experience as Network Architect
<b>4</b>	Service lead	Any Graduate	Should have worked in service management profile. SLA maintenance, service design and related themes.
<b>5</b>	L-1 Support	BE/BTech	Min 3 years of work experience in related field.

### 8.2 Acceptance Testing and Certification

The primary goal of Acceptance Testing and Certification is to ensure that the Project (including all the project components as discussed in the scope of work) meets requirements, standards, specifications & performance, by ensuring that the following are associated with clear, quantifiable metrics for accountability:

- Functional requirements

- Infrastructure (Hardware and Network) Compliance Review
- Availability of the project Services in the defined locations
- Performance
- Security
- Manageability
- SLA Reporting System
- Project Documentation (Design, development, configuration, training and administration manuals etc)

As part of Acceptance testing, performed through a third party agency, BSEDC shall review all aspects of project development and implementation covering software, hardware and networking including the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process description, documentation, version control, change management, security, service oriented architecture, performance in relation to defined requirements, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.

The procedures and parameters for testing will be laid down by the Third Party Agency after approval from BSEDC; the solution deployed by the vendor has to satisfy third party acceptance testing upon which the system shall go-live, subject to BSEDC approval.

BSEDC will establish appropriate processes for notifying the selected vendor of any shortcomings from defined requirements at the earliest instance after noticing the same to enable the selected vendor to take corrective action. All gaps identified shall be addressed by the vendor immediately prior to Go-live of the solution. It is the responsibility of the selected Bidder to take any corrective action required to remove all shortcomings, before the roll out of the project.

It is to be noted that the involvement of the third party for acceptance testing and certification, does not absolve the vendor of his responsibilities to meet all SLAs as laid out in this RFP document.

It is to be noted that:

- I. BSEDC may get the solution audited through a Third Party before Go-Live and periodically after Go-Live in order to ensure the success of the project. Such third-party agency for carrying out the acceptance testing and certification of the entire solution will be nominated by BSEDC.

Following discusses the acceptance criteria to be adopted for the project as mentioned above. The list below is indicative and the activities will include but not be limited to the following:

### **Functional requirement review**

The solution developed/customized by selected Bidder shall be reviewed and verified by the agency against the Functional Requirements signed-off between the BSEDC and the selected Bidder. All gaps, identified shall be addressed by the vendor immediately prior to Go-live of the solution. One of the key inputs for this testing shall be the traceability matrix to be developed by the vendor for the solution. Apart from Traceability Matrix, agency may develop its own testing plans for validation of compliance of system against the defined requirements. The acceptance testing w.r.t. the functional requirements shall be performed by independent third party agency (external audit) as well as the select internal department users (User Acceptance Testing) and system has to satisfy both third party acceptance testing and internal user acceptance testing, upon which the system shall go-live.

For conducting the User Acceptance Testing, BSEDC shall identify the employees from respective divisions, who shall be responsible for day-to-day operations of the functions automated through the project. The system, during the functional requirements review, shall necessarily satisfy the user acceptance testing process.

### **Infrastructure compliance review**

Third party agency shall perform the Infrastructure Compliance Review to verify the conformity of the Infrastructure (both IT, non IT as well as Network infrastructure) supplied by the selected Bidder against the requirements and specifications provided in the RFP and/or as proposed in the proposal submitted by the selected Bidder. Compliance review shall not absolve the vendor from ensuring that proposed infrastructure meets the SLA requirements.

### **Security Review**

The CCTV Solution Deployed shall be audited by the agency from a security and controls perspective. Such audit shall also include the IT infrastructure and network deployed for the project. Following are the broad activities to be performed by the Agency as part of Security Review.

The security review shall subject the solution to the following activities.

- Audit of Network, Server and Application security mechanisms
- Assessment of authentication mechanism provided in the components/modules
- Assessment of data access privileges, retention periods and archival mechanisms
- Server and Application security features incorporated etc
- Application Security mechanisms should be accessed in compliance with the IT Act 2000,2008 Amendment and IT rules 2011, such that it maintains data/information Integrity, Confidentiality, Non-repudiation
- Audit of Security mechanisms so that they are in compliance with the latest Guidelines by Controller of Certifying authority (CCA),IT Act, ISO27001.

- Gap assessment of certain controls like say ISO 27001 and section 43, 47, 66, 69, 79, 84 and 87 of IT ACT amendment 2008 and decide how the sensitive data from a data centric stand point is to be protected.

### **Performance**

Performance is another key requirement for the project and the agency shall review the performance of the deployed solution against certain key parameters defined in SLA. Such parameters include request-response time, work-flow processing time, concurrent sessions supported by the system etc, Disaster Recovery drill etc. The performance review also includes verification of scalability provisioned in the solution for catering to the project requirements.

### **Availability**

The solution should be designed to remove all single point failures. Appropriate redundancy shall be built into all the critical components to provide the ability to recover from failures. The agency shall perform various tests including network, server, security, fail-over tests to verify the availability of the services in case of component failures. The agency shall also verify the availability of the project services to all the users in the defined locations.

### **Manageability Review**

The agency shall verify the manageability of the solution and its supporting infrastructure deployed using the Enterprise Management System (EMS) proposed by the selected Bidder. The manageability requirements include requirements such as remote monitoring, administration, configuration, inventory management, fault identification etc.

### **SLA Reporting System**

The selected Bidder shall design, implement/customize the Enterprise Management System (EMS) for the project and shall develop any additional tools required to monitor the performance indicators listed as per the SLAs mentioned the RFP. The Acceptance Testing and Certification agency shall verify the accuracy and completeness of the information captured by the SLA monitoring system implemented by the vendor and shall certify the same. The EMS deployed for the project, based on SLAs, shall be configured by the selected Bidder to calculate the payment to be paid by the department after deducting the necessary penalties.

### **Project Documentation**

The Agency shall review the project documents developed by the selected Bidder including requirements, design, source code, installation, training and administration

manuals, version control etc. Any issues/gaps identified by the Agency, in any of the above areas, shall be addressed to the complete satisfaction of the Department.

### 8.3 Payment schedules

**CAPEX-** CAPEX of the project will be capped at maximum of 60% of the contract value

Sl. No	Activity/Task	Deliverables (supporting for the Milestone completion)	Timelines (In weeks). T0=Date of signing Lol	Payment Milestone
1.	Complete Hardware Delivery  Inspection of material (including 15% of spares for item no 1-10 as per actual BoQ) at central warehouse of the successful bidder at Patna, verifications by Nominated agency of BSEDC and dispatch of the material to locations.	1.Inspection certificate with details of the items like serial no./part code no etc. mapped with individual Courts  2. Dispatch challan / Courier Copy. 3. EMD of equivalent amount valid for a period of 1 year	T0 + 12	60% of the CAPEX value.
2.	Complete Implementation (Final Go-live)	Final Acceptance Test report by BSEDC or its nominated agencies	T0 + 24	20% of the CAPEX value
3.	Post Go-live Support	SLA adherence report on a monthly basis	60 months after acceptance of FAT	20% of the CAPEX value (20 QGR Payments after deduction of Penalties due to breach of SLA, if any)

### **OPEX**

Sl. No	Activity/Task	Deliverables (supporting for the Milestone completion)	Payment Milestone
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1.	Deployment of 61 nos L-1 support, 1 project manager, 1 helpdesk support	Attendance records	In 20 equal QGRs, based on actual deployment
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#### 8.4 Acceptance criteria

The Final Acceptance of the System will be carried out by BSEDC or its nominated agencies. After successful Installation, Commissioning & Implementation of all hardware and their services as defined in the RFP & its corrigendum, SI will conduct test run for complete solutions and services as defined in scope of work & BOM, mentioned in the RFP for a minimum period of 7 (seven) days continuously at the site, in an integrated manner.

The SI will submit a detailed documentation for acceptance test plan to BSEDC in line with scope of work as per RFP & its corrigendum and solution proposed. Test Plan would include above acceptance criteria but not limiting to the same. The AT certificate would be released by BSEDC to the Service provider of this Project, after successful completion of AT and acceptable to BSEDC, Patna.

### 9. Fraud and corrupt practices

- A. The Bidders/Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, BSEDC shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “Prohibited Practices”) in the Selection Process. In such an event, the BSEDC shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Bidder’s Proposal.
- B. Without prejudice to the rights of the BSEDC under Clause above and the rights and remedies which the BSEDC may have under the LOI or the Agreement, if an Bidder or Systems Implementation Agency, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or

restrictive practice during the Selection Process, or after the issue of the LOI or the execution of the Agreement, such Bidder or Systems Implementation Agency shall not be eligible to participate in any tender or RFP issued by the BSEDC during a period of 2 (two) years from the date such Bidder or Systems Implementation Agency, as the case may be, is found by the BSEDC

C. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:

- i. “corrupt practice” means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the BSEDC who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the BSEDC, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the <Nodal Agency> in relation to any matter concerning the Project;
- ii. “Fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
- iii. “Coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
- iv. “undesirable practice” means (i) establishing contact with any person connected with or employed or engaged by BSEDC with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
- v. “Restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

## 10. Conflict of Interest

- A. A bidder shall not have a conflict of interest that may affect the Selection Process or the Solution delivery (the “**Conflict of Interest**”). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the BSEDC shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the BSEDC for, *inter alia*, the time, cost and effort of the BSEDC including consideration of such Bidder’s Proposal, without prejudice to any other right or remedy that may be available to the BSEDC hereunder or otherwise.
- B. BSEDC requires that the Implementation Agency provides solutions which at all times hold BSEDC’s interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Systems Implementation Agency shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the BSEDC.
- C. An Bidder eventually appointed to implement software solutions for this Project, its Associates, affiliates and the Financial Expert, shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of 12 months from the completion of this assignment; provided further that this restriction shall not apply to software solutions delivered to the BSEDC in continuation of this systems implementation or to any subsequent systems implementation executed for the BSEDC in accordance with the rules of the BSEDC.

## APPENDIX -1 Prequalification and Technical Bid templates

### Form -1 Compliance sheet for prequalification proposal

Sl no	Basic requirement	Required	Provided	Reference and page number
1	Document Fee	Demand Draft	Yes / No	
2	Power of Attorney Copy of Power of Attorney in the name of the Authorized signatory Yes / No	Power of Attorney Copy of Power of Attorney in the name of the Authorized signatory Yes / No	Yes / No	
3	Particulars of the Bidders	As per Form 2	Yes / No	
4	Earnest Money Deposit	Demand Draft / Bank Guarantee (Form 3)	Yes / No	
5	Sales Turnover in System Integration	Extracts from the audited Balance sheet and Profit & Loss; OR Certificate from the statutory auditor	Yes / No	
6	Net Worth	Certificate from the statutory auditor	Yes / No	
7	Technical Capability	Completion Certificates from the client; OR Work Order + Self Certificate of Completion (Certified by the Statutory Auditor); OR Work Order + Phase Completion Certificate from the client	Yes /No	
8	Certifications	ISO 9001, 270001	Yes /No	
9	Legal Entity	Certificate of incorporation	Yes/no	
10	Blacklisting	Self-certificate letter	Yes/ no	

Form -2 Particulars of the bidder

Sl no	Information Sought	Details to be furnished
A	Name and address of the bidding Company	
B	Incorporation status of the firm (public limited / private limited, etc.)	
C	Year of Establishment	
D	Date of Incorporation	
E	ROC Reference No.	
F	Details of company registration	
G	Details of registration with appropriate authorities for service tax	
H	Name, Address, email, Phone nos. and Mobile Number of Contact Person	

### Form -3 Performance Bank Guarantee

(BANK GUARANTEE)

(On non-judicial stamp paper of the appropriate value in accordance with stamp Act. The stamp paper to be in the name of Executing Bank).

From:

Name and Address of the Bank.....

.....

To:

The Managing Director,  
BSEDC Limited,  
Beltron Bhawan,  
Shastri Nagar,  
Patna-23

#### EMD/BANK GUARANTEE NO.

BENEFICIARY:

**Bihar State Electronics Development Corporation Ltd**  
**Beltron Bhawan,**  
**Shastri Nagar, Patna-800023**

At the request of M/s <SI name > a company incorporated in India under the Companies Act, 1956 and having its registered office <SI office ADDRESS > (India), we hereby guarantee to pay you a sum of Rs <amount>/- (<amount in words>) in connection with the RFP for Bid Evaluation of the project for setting up security and surveillance system in the courts of Bihar for **Earnest Money Deposit** as prescribed under the RFP <RFP no> dated <date> and its subsequent corrigendum.

This guarantee is valid for a period of 6 months with effect from <> and after which no claim will be entertained by us and this guarantee will automatically become null and void.

Any claim under the guarantee must be made in writing duly signed by BSEDC and must be received and acknowledged by us on or before the guarantee expiry date.

This bank guarantee may be renewed from time to time upon a written request by both the parties before the expiry of the validity.

Notwithstanding anything contained herein

- a) Our liability under this guarantee shall not exceed the amount mentioned above i.e. Rs <>/- (Rupees <> Only)
- b) This Bank Guarantee shall be valid up to <DATE >
- c) We are liable to pay the guarantee amount or any part thereof under this Bank

Guarantee and only if served upon us a written claim on or before

Dated the-----day of----- (Month) ----- (Year) for-----

**(Name of the Bank with fully address)**

Details of Bank Guarantee i.e. no. date etc

**Authorized signatory/ Branch Manager**

FORM-4 Compliance sheet for technical proposal

SI no	Basic requirement	Required	Provided	Reference and page number
1	Covering letter of technical proposal as per form 5	As per form 5		
2	Turnover from System integration /ICT systems Development and Implementation work in last three years (Turnover in Rs Cr)	Extracts from the audited Balance sheet and Profit & Loss; OR Certificate from the statutory auditor		
3	CCTV/ Networking Hardware Supply & maintenance services to be demonstrated in a maximum of 3 Nos. engagements of 15 Cr or more.	Completion Certificates for implementation from the client; OR Work Order/Proof of award of work + Certificate of Completion by authorized signatory of the Bidder counter signed by Statutory Auditor/ Company Secretary;  OR Work Order + Percentage Completion of implementation Certificate (for ongoing projects) from the client.	Yes / No	
4	Experience of implementation and maintenance of multi-location Network projects in for projects each of value of	Completion Certificates for implementation from the client;	Yes / No	



*Supply, Installation, Commissioning & Maintenance of “ CCTV based Surveillance System”  
At Sub & District Courts in Bihar*

	Rs 30 Crore or more.	<p>OR</p> <p>Work Order/Proof of award of work + Certificate of Completion by authorized signatory of the Bidder counter signed by Statutory Auditor/ Company Secretary;</p> <p>OR</p> <p>Work Order + Percentage Completion of implementation Certificate (for ongoing projects) from the client.</p>		
5	Experience of Network/CCTV/Surveillance project implementation where O&M support has been given for at least 1 year for projects implemented across 15 locations or more.	<p>Completion Certificates for implementation from the client;</p> <p>OR</p> <p>Work Order/Proof of award of work + Certificate of Completion by authorized signatory of the Bidder counter signed by Statutory Auditor/ Company Secretary;</p> <p>OR</p> <p>Work Order + Percentage Completion of implementation Certificate (for ongoing projects)</p>	Yes / No	

*Supply, Installation, Commissioning & Maintenance of “ CCTV based Surveillance System”  
At Sub & District Courts in Bihar*

		from the client.		
6	Solution Proposed, Approach & Methodology, Understanding and work Plan (As per the requirements specified in Technical evaluation)	A note (Form 7) and Forms 7A, 7B & 7C The note should highlight understanding of the <Nodal Agency's> requirements through providing justifications for: 1) Solution proposed and its components, 2) Technologies used, 3) Challenges likely to be encountered 4) Learning on how to deal with the challenges 5) Client references  Form 8 Form 9	Yes / No	
7	Resume of all key technical resources proposed for the assignment	CV & a Note (Form 10)	Yes / No	
8	Deviation if any	Form 11	Yes /No	

## Form 5 Letter of Technical proposal

To,  
Managing Director  
BSEDC, Beltron Bhawan  
Bailey Road, Patna -23

**Subject:** Submission of the Technical bid for <Name of the Systems Implementation assignment>

Dear Sir/Madam,

We, the undersigned, offer to provide Systems Implementation solutions to the BSEDC on <Name of the Systems Implementation engagement> with your Request for Proposal dated <insert date> and our Proposal. We are hereby submitting our Proposal, which includes this Technical bid and the Financial Bid sealed in a separate envelope.

We hereby declare that all the information and statements made in this Technical bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We undertake, if our Proposal is accepted, to initiate the Implementation services related to the assignment not later than the date indicated in Fact Sheet.

We agree to abide by all the terms and conditions of the RFP document. We would hold the terms of our bid valid for 180 days as stipulated in the RFP document.

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

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Form 6 – Project citation format

Relevant IT project experience	
Name of the project	
Client for which the project was executed	
Name and contact details of the client	
<b>Project Details</b>	
Description of the project	
Scope of services	
Service levels being offered/ Quality of service (QOS)	
Outcomes of the project	
<b>Other details</b>	
Total cost of the project	
Total cost of the services provided by the respondent	
Duration of the project (no. of months, start date, completion date, current status)	
<b>Other relevant information</b>	
Letter from the client to indicate the successful completion of the projects	
Copy of Work Order	

### Form 7 Proposed Solution

Bidder to present Approach and Methodology divided into the following sections:

- a) Solution Proposed
- b) Understanding of the project (how the solution proposed is relevant to the understanding)
- c) Technical Approach and Methodology

### Form 7A Solution proposed

S.No	Proposed Solution (Provide the Product Name)	Version & Year of Release	OEM	Features & Functionalities	O&M Support (Warranty/ATS/: as required as per RFP)	Reference in the Submitted Proposal (Please provide page number/section number/ volume)

### Form 7B Bill of Material (software)

S.No	Item	Proposed Solution (Provide the Product Name or fill Custom Built, in case of a new development)	Unit of Measurement	Number of Licenses (Development Environment)	Number of Licenses (UAT)	Number of Licenses (Training)	Number of Licenses (Production)

### Form 7C Bill of Material (Infrastructure)

For each hardware, provide the following information in a table

- (i) Reference of the server/storage information in the Submitted Proposal (Please provide page number/section number/ volume)
- (ii) Services proposed to be hosted on the Server
- (iii) Quantity
- (iv) Make and Model
- (v) Year of Introduction
- (vi) Operating System along with version (if applicable)
- (vii) Additional Information as required to indicate the compliance to the requirements in the RFP (ex, Capacity, Disk Space) (if applicable)

**Form 8 Proposed work Plan**

No	Activity	Calendar Months			
1		1	2	3...	12
2					
3					
4					

1 Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as Purchaser approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.

2 Duration of activities shall be indicated in the form of a bar chart.

3 All activities should meet the 8/80 criteria i.e should at least take 8 hours and a maximum of 80 hours.

**Form 9 Team composition**

Name of Staff with qualification and experience	Area of Expertise	Position Assigned	Task Assigned	Time committed for the engagement

Form 10 CV of Key Personnel

Name of the person	
Current Designation / Job Title	
Current job responsibilities	
Proposed Role in the Project	
Proposed Responsibilities in the Project	
Academic Qualifications: <ul style="list-style-type: none"> <li>• Degree</li> <li>• Academic institution graduated from</li> <li>• Year of graduation</li> <li>• Key achievements and other relevant information (if any)</li> </ul>	
Professional Certifications (if any)	
Total number of years of experience	
Number of years with the current company	
Summary of the Professional / Domain Experience	
The names of customers (Please provide the relevant names)	
Past assignment details (For each assignment provide details regarding name of organizations worked for, designation, responsibilities, tenure) Prior Professional Experience covering: <ul style="list-style-type: none"> <li>• Organizations worked for in the past</li> <li>• Organization name</li> <li>• Duration and dates of entry and exit</li> <li>• Designation Location(s)</li> <li>• Key responsibilities</li> <li>• Prior project experience</li> <li>• Project name</li> <li>• Client</li> <li>• Key project features in brief</li> <li>• Location of the project</li> <li>• Designation</li> <li>• Responsibilities and activities</li> <li>• Duration of the project</li> </ul> Please provide only relevant projects.	
Proficient in languages (Against each language listed indicate if speak/read/write)	



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Form 11 Deviations

A-on terms of reference

B-Any other areas

No	Deviation	Material	Non-Material	Impacted Deliverable(s)	Impacted Timeline(s)	Financial Impact
1		<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>
2						

## Form 12- Manufacturers'/Producers' Authorization Form

(This form has to be provided by the OEMs of the products proposed)

No. Date:

To:

OEM Authorization Letter

Dear Sir:

**Ref: Your RFP Ref: [\*] dated [\*]**

We who are established and reputable manufacturers / producers of \_\_\_\_\_ having factories / development facilities at (*address of factory / facility*) do hereby authorize M/s \_\_\_\_\_ (*Name and address of Agent*) to submit a Bid, and sign the contract with you against the above Bid Invitation. We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation.

We also undertake to provide any or all of the following materials, notifications, and information pertaining to the Products manufactured or distributed by the Supplier:

- a) Such Products as the Bank may opt to purchase from the Supplier, provided, that this option shall not relieve the Supplier of any warranty obligations under the Contract; and
- b) In the event of termination of production of such Products:
  1. Advance notification to the Bank of the pending termination, in sufficient time to permit the Bank to procure needed requirements; and
  2. Following such termination, furnishing at no cost to the Bank, the blueprints, design documents, operations manuals, standards, source codes and specifications of the Products, if requested.

We duly authorize the said firm to act on our behalf in fulfilling all installations, Technical support and maintenance obligations required by the contract.

Yours faithfully,

Form 13 Change Control Notice

Change Control Note	CCN Number:
Part A: Initiation	
Title:	
Originator:	
Sponsor:	
Date of Initiation:	
Details of Proposed Change	
(To include reason for change and appropriate details/specifications. Identify any attachments as A1, A2, and A3 etc.)	
Authorized by :	Date:
Name:	
Signature:	Date:
Received by the SI	
Name:	
Signature:	
Change Control Note	CCN Number:
Part B : Evaluation	
(Identify any attachments as B1, B2, and B3 etc.) Changes to Services, charging structure, payment profile, documentation, training, service levels and component working arrangements and any other contractual issue.	
Brief Description of Solution:	
Impact:	
Deliverables:	
Timetable:	

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Charges for Implementation: (including a schedule of payments)	
Other Relevant Information: (including value-added and acceptance criteria)	
Authorized by the System Integrator	Date:
Name:	
Signature:	

## APPENDIX-2 Financial Proposal Template

All Financial proposals will be submitted via e-forms on <https://eproc.bihar.gov.in>  
Any figures (price) if left black by the bidder in e-form will be taken '0' (zero) by BSEDC.

The amount shown against the Grand total in the table hereunder will be the 'Price Proposal' for the bid inclusive of insurance (if any), all taxes, except the Service tax which will be paid extra as per the prevailing rates.

### Form F2A: Summary Price Proposal

Grand Summary Cost Table

S. No.	Particulars	Price in figures(The figures should be brought from the respective totals from the Form F2B)	Price in words
1	Hardware and associated standard software (A)		
2	License cost of Software (B)		
3	Configuration Customization and Implementation cost (C)		
4	Recurrent Costs (D)		
	Grand Total		

### Form F2B: Details of Commercial Bid

The total amount under the headings 'A', 'B', 'C' and 'D' will be carried over to Form F2B under the respective headings. Care should be taken to exactly match the two sets of figures.

#### A. Hardware and associated standard software (A)

S. No.	Component Description	Quantity (x)	Unit	Unit Rates (y)	Unit Rates in Words	Total (x*y)
1	PTZ Explosion Proof camera	60	No.			
2	PTZ Normal camera	42	No.			
3	Fixed Explosion Proof camera	59	No.			
4	Fixed Normal (Bullet) with IK10 Protection	1964	No			

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S. No.	Component Description	Quantity (x)	Unit	Unit Rates (y)	Unit Rates in Words	Total (x*y)
5	NVR- 16 channel	155	No.			
6	8 Port PoE+ ( Access Switch)	354	No.			
7	8 Port PoE+ ( Access Switch) Industrial Grade	61	No.			
8	L2 Distribution Switch (24 Port)	91	No.			
9	L3 Core Switch (8 Port)	61	No.			
10	Storage- 6 TB Surveillance grade HDD	200	No.			
11	Rack (9U) with Network Accessories (LIU+ Patch Panel+ Power strip etc)	342	No.			
12	Network Rack (42U)	61	No.			
13	Display (40-42" LFD)	145	No.			
14	Dual AC (1.5 Ton) with sequential controller	61	No.			
15	Light (100 watt)	61	No.			
16	OFC (6-Core)	86600	Mtr			
17	OFC Laying charges with HDPE and accessories	86600	Mtr			
18	UTP CAT 6A	187726	Mtr			
19	UTP laying charges with PVC and accessories	187726	Mtr			
20	Furniture (Combination of Chair/Table)	61	No.			
21	Earth-ing	122	No.			
22	Pole (7 Meter)	600	No.			
23	Centralized UPS (15 KVA)	18	No.			
24	Centralized UPS (20 KVA)	61	No.			
25	Electrical works including cost of wires and electrical Accessories ( wires to run through PVC of medium mechanical strength)	61	No.			
26	Armored cable ,6 core	2000	Mtrs			
27	15 KVA voltage regulator	18	No.			
28	20 KVA voltage regulator	61	No.			
29	Cost of Spare		No			

S. No.	Component Description	Quantity (x)	Unit	Unit Rates (y)	Unit Rates in Words	Total (x*y)
<b>Tentative Hardware requirement for Central Monitoring Center</b>						
31	8 Port switch	1	No.			
32	Rack (42 U) with Network Accessories (Power strip)	1	No.			
33	NMS with required Hardware	1	No.			
34	Dual AC (1.5 Ton) with sequential controller	1	No.			
35	Display (40-42" LFD)	1	No.			
36	Lighting (100 watt)	1	No.			
37	UTP CAT 6	300	Mtr			
38	Furniture (Combination of Chair/Table)	4	No.			
39	Earth-ing	1	No.			
40	Centralized UPS (15 KVA)	1	No.			
41	Electrical works	1	Lot			
42	Control Room Networking	1	Lot			
<b>Total (A)</b>						

**B. License cost of Software (B)**

S. No.	Component Description	Quantity (x)	Unit Rates (y)	Unit Rates in Words	Total (x*y)
1	Operating Systems required to meet the requirements				
2	NMS Software and License				
3	Helpdesk software and hosting charges				
4	Any other software module / License which is required to meet the requirements mentioned in the Functional requirement specifications and other clauses of Terms of reference.				
<b>Total (B)</b>					

Please provide per unit cost of each of the modules of packaged and other software for which the licenses will be procured from the OEM.

The unit cost quoted above (A and B) shall also be used for calculating the cost of change requests (for scope of work not already contained in the RFP documents) which may come during the duration of Contract. The price quoted by System Integrator for licenses shall remain valid for next one year from date of delivery of first license.

**C. Configuration Customization and Implementation cost (C)**

Component Description	Number of Courts (x)	Unit per (y)	Rate court	Unit Rate in Words	Total (x*y)	Service Tax	Grand Total
Implementation cost per court site	61						
<b>Total (C)</b>							

\*The unit cost of manpower quoted above shall also be used for calculating the cost of change requests (for scope of work not already contained in the RFP documents) which may come during the duration of Contract.

**D. Recurrent Charges (D)**

S. No.	Component	Warranty Period			Post Warranty Period			Service Tax	Grand Total
		Y1	Y2	Y3	Y4	Y5	Total		
<b>E1</b>	<b>Maintenance of IT infrastructure including Standard software support updates and upgrades</b>								
1.	PTZ Explosion Proof camera								
2.	PTZ Normal camera								
3.	Fixed Explosion Proof camera								
4.	Fixed Normal (Bullet)with IK10 Protection								
5.	NVR- 16 channel								
6.	8 Port PoE+ ( Access Switch)								
7.	8 Port PoE+ ( Access Switch) Industrial Grade								
8.	L2 Distribution Switch (24 Port)								
9.	L3 Core Switch (8 Port)								



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S. No.	Component	Warranty Period			Post Warranty Period			Service Tax	Grand Total
		Y1	Y2	Y3	Y4	Y5	Total		
10.	Storage- 6 TB Surveillance grade HDD								
11.	Rack (9U) with Network Accessories (LIU+ Patch Panel+ Power strip etc)								
12.	Network Rack (42U)								
13.	Display (40-42" LFD)								
14.	Dual AC (1.5 Ton) with sequential controller								
15.	Light (100 watt)								
16.	OFC (6-Core)								
17.	OFC Laying charges with HDPE and accessories								
18.	UTP CAT 6A								
19.	UTP laying charges with PVC and accessories								
20.	Furniture (Combination of Chair/Table)								
21.	Earth-ing								
22.	Pole (7 Meter)								
23.	Centralized UPS (15 KVA)								
24.	Centralized UPS (20 KVA)								
25.	Electrical works including cost of wires and electrical Accessories ( wires to run through PVC of medium mechanical strength)								
26.	Armored cable ,6 core								
27.	15 KVA voltage regulator								
28.	20 KVA voltage regulator								
29.	Cost of Spare								
<b>Tentative Hardware requirement for Central Monitoring Center</b>									
30.	8 Port switch								
31.	Rack (42 U) with Network Accessories (Power strip)								
32.	NMS with required Hardware								
33.	Dual AC (1.5 Ton) with sequential controller								
34.	Display (40-42" LFD)								

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S. No.	Component	Warranty Period			Post Warranty Period			Service Tax	Grand Total
		Y1	Y2	Y3	Y4	Y5	Total		
35.	Lighting (100 watt)								
36.	UTP CAT 6								
37.	Furniture (Combination of Chair/Table)								
38.	Earth-ing								
39.	Centralized UPS (15 KVA)								
40.	Electrical works								
41.	Control Room Networking								
	<b>Sub Total (E1)</b>								
<b>E2</b>	<b>Packaged Software Support updates and upgrades</b>								
1	Operating Systems required to meet the requirements								
2	NMS Software and License								
3	Helpdesk software and hosting charges								
4	Any other software module / License which is required to meet the requirements mentioned in the Functional requirement specifications and other clauses of Terms of reference.								
	<b>Sub Total (E2)</b>								
<b>E3</b>	<b>Cost of manpower</b>								
1	Project Manager								
2	Technical Module Lead								
3	Network Architect								
4	Service lead								
5	L1 Support at Court locations								
	<b>Sub Total E3</b>								
<b>E4</b>	<b>Any other recurrent charges (please specify) (E4)</b>								
<b>Total (E)=(E1+E2+E3+E4+E5)</b>									

The annual cost for different items under clause E above, may also be used as a basis for rates for different items which may be required to be operated beyond 5th year of operations and maintenance.

**APPENDIX -3 Bill of Material (Tentative)**

<b>Tentative Hardware requirement for 61 Nos of Courts</b>			
<b>Item no</b>	<b>Items</b>	<b>UoM</b>	<b>Total Units</b>
1	PTZ Explosion Proof camera	No.	60
2	PTZ Normal camera	No.	42
3	Fixed Explosion Proof camera	No.	59
4	Fixed Normal (Bullet)with IK10 Protection	No	1964
5	NVR- 16 channel	No.	155
6	8 Port PoE+ ( Access Switch)	No.	354
7	8 Port PoE+ ( Access Switch) Industrial Grade	No.	61
8	L2 Distribution Switch (24 Port)	No.	91
9	L3 Core Switch (8 Port)	No.	61
10	Storage- 6 TB Surveillance grade HDD	No.	200
11	Rack (9U) with Network Accessories (LIU+ Patch Panel+ Power strip etc)	No.	342
12	Network Rack (42U)	No.	61
13	Display (40-42" LFD)	No.	145
14	Dual AC (1.5 Ton) with sequential controller	No.	61
15	Light (100 watt)	No.	61
16	OFC (6-Core)	Mtr	86600
17	OFC Laying charges with HDPE and accessories	Mtr	86600
18	UTP CAT 6A	Mtr	187726
19	UTP laying charges with PVC and accessories	Mtr	187726
20	Furniture (Combination of Chair/Table)	No.	61
21	Earth-ing	No.	122
22	Pole (7 Meter)	No.	600
23	Centralized UPS (15 KVA)	No.	18
24	Centralized UPS (20 KVA)	No.	61
25	Electrical works including cost of wires and electrical Accessories ( wires to run through PVC of medium mechanical strength)	No.	61
26	Armored cable ,6 core	Mtrs	2000
27	15 KVA voltage regulator	No.	18
28	20 KVA voltage regulator	No.	61

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29	Helpdesk software and hosting charges	No	1
30	L-1 support	No	61
31	Project manager	No	1
32	Helpdesk support	No	1

**Note:**

1	SI will have to keep minimum 15% of spare for item no 1-10, from day 1. PI refer payment terms section for details
2	7 Mtr Pole -The pole should sustain weight of Flameproof camera and all accessories including illuminator mount
3	All camera, housing accessories and power adapter to be of same make

<b>Tentative Hardware requirement for Central Monitoring Center</b>			
<b>Item no</b>	<b>Line Items</b>	<b>Unit</b>	<b>Total Unit</b>
33	8 Port switch	No.	1
34	Rack (42 U) with Network Accessories (Power strip)	No.	1
35	NMS with required Hardware	No.	1
36	Dual AC (1.5 Ton) with sequential controller	No.	1
37	Display (40-42" LFD)	No.	1
38	Lighting (100 watt)	No.	1
39	UTP CAT 6	Mtr	300
40	Furniture (Combination of Chair/Table)	No.	4
41	Earthing	No.	1
42	Centralized UPS (15 KVA)	No.	1
43	Electrical works	Lot	1
44	Control Room Networking	Lot	1

#### APPENDIX -4 Hardware Specifications

<b>UTP- CAT6A</b>	
<b>S.No</b>	<b>Specification</b>
1	4 pair, should confirm or exceed the EIA/TIA 568 C.2-10 (CAT 6A) standards for physical & electrical specifications , UL/ETL listed & verified
2	Should be certified by independent test lab for 10G Gigabit Ethernet Performance up to 100 mtrs ,23 AWG solid bare copper
3	Jacket: LSZH
<b>Patch Panel</b>	
<b>S.No</b>	<b>Specification</b>
1	19 inch 1U Patch Panel for 24 x RJ45 45 connection module.
2	Should confirm or exceed the EIA/TIA 568 C.2 (CAT 6A) standards, Metallic / high strength or equivalent. 1U height
<b>I/O Devices</b>	
<b>S.No</b>	<b>Specification</b>
1	Cat 6 compliant Data-gate Jacks
2	Jacks should have Spring Loaded Shutter
3	IDC V Shaped contacts
4	Plastic Housing – Polycarbonate, UL 94V-0 rated
5	Insulation Resistance - more than 100 mega-ohm
<b>Installation &amp; Termination for UTP Cabling</b>	
<b>S.No</b>	<b>Specification</b>
1	Laying of UTP CAT 6A cable with cable route survey & detailed cable route diagram , termination of cable with labels & marking as per approved labeling plan & documentation
2	Supply & fixing of ISI marked PVC Conduit /Casing-Caping of required material thickness and Mechanical Strength (MMS)
3	Installation & termination of UTP cables on Patch Panel with wire Manager & on Information outlet
4	Removal of old UTP / Fiber / Coaxial /RS232 / telephone cables where ever required.

<b>OFC-6 core</b>	
<b>S.No</b>	<b>Specification</b>
1	Type: Single mode
2	Specification: Unitibue
3	Construction: Multi-fiber loose tube jelly filled
4	Number of fibers:6

5	Number of loose tubes: 1 or 2
6	Laying: Direct burial in trenches
7	Fiber Protection Tube: Polybutylene Terephthalate (PBT)
8	Sheath: LSZH (Low Smoke Zero Halogen)
9	Armoring: Corrugated Steel Tape Armor
10	Attenuation at 1310 nm:0.35 db/ km
11	Attenuation at 1550 nm:0.22 db/ km
12	Water Blocking: Thixotropic Gel Petroleum Jelly
13	Overall cable (Nominal):9.8 mm
14	Mass (Nominal):95 kg/km
15	Peripheral Strength Member: Two Steel wires of 1.2 mm

**LIU**

Sr.No.	Specification
1	Form Factor: Rack Mount & Wall mount Both Option
2	Number of ports: 24
3	Material: Powder coated Cold Rolled Steel CRS, Management Rings within system, Removable Lid

**Optical Fiber Patch Cord , SM , LC-LC**

Sr.No.	Specification
1	Patch cord with LSZH jacket , with factory mount ceramic connector at both end
2	Fiber: SM E9/125 G.652.D (OS2).
3	LC connector acc. to IEC 61754-20
4	Length – 10 m

**Installation & Termination for Indoor & Outdoor Fiber Cabling**

Sr.No.	Specification
1	Excavation and resurfacing of the soil / concrete (as per the requirement or at the depth 1 m)
2	Supply and installation of HDPE Duct for underground laying and above surface wherever required
3	Cable pulling pit made of reinforced concrete and brick walls with removable covers
4	Trenchless digging ( manual / with machine) for excavation under public road crossing or Wherever required as per site requirement

Sl no	Specification For 8 Port PoE+ Switch
1	Shall be 19" Rack Mountable. The switch shall be non-blocking in architecture and support stacking upto min 8 units. Stacking port should be ready from day 1

	so that only by connecting cable - stacking could be achieved.
2	8 RJ-45 autosensing 10/100/1000T ports with (2+2) SFP+ ports. Should support both SFP and SFP+ module as 1G or 10 G for flexibility of the deployment .Min PoE/PoE+ power budget should be 200 Watt .PoE management - Scheduling of Power Delivery, Power limit by device type and Power delivery prioritization
3	1 console port with console cable
4	Shall have switching capacity of 96 Gbps for providing non-blocking performance on all Gigabit ports
5	Shall have minimum 65 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
6	Shall support 802.3ad (LACP) with upto 4 ports supported in 6 groups
7	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol. Should support Rapid ring resiliency protection technology to support 50 millisecond convergence preventing drop of video packet should in case path disruption and to be integrated with other switches
8	Shall support minimum 2 K active VLAN or IEEE 802.1 Q-based VLAN tagging ,Port based VLAN , MAC Based VLAN , IP based VLAN, Protocol based VLAN, Private VLAN, Voice VLAN
9	Support for minimum 8 k MAC addresses
10	Should have minimum 8 hardware based queues per port
11	Should support IGMP v1, v2 and v3 for multicast( min 1K group) applications, Multicast Vlan Registration
12	Should support for IPv6 features like Neighbor discovery, Syslog, Telnet, SSH, Web GUI, SNMP, NTP, DNS, DHCP, RADIUS, TACACS, classification and marking, RFC 2544.
13	Should support IPv6 from day one.
14	Configuration through the CLI, console, Telnet, SSH and Web Management and also support to UDLD or equivalent, Ethernet Copper diagnostic feature /Cable fault management.
15	Switch should support on-line software reconfiguration to implement changes without rebooting/ modular Operating system
16	Switch should support MAC address based filter and port as well as VLAN based filter / ACLs
17	IEEE 802.1 X to allow port based security, MTBF 50000 Hrs
18	SNMPv1, v2, and v3 and 4 group of RMON support.
19	Power: Input 100-240VAC, 50/60Hz.Should have RPS. Operating temp: Min 0-50 Degree C.
20	Switch and fiber module should be UL, EN ,RoHS , WEEE complied
21	OEM should be in Gartner’s Magic Quadrant for wired and wireless LAN for min 5 years. OEM should not be blacklisted by Govt./ PSU
<b>Specification for L2 Industrial 8 Port Switch with POE+</b>	

1	Rugged outdoor Din Rail mountable switch with Min 8 10/100/1000 Base-T port of PoE+ and (2+2) SFP Port
2	POE + Standards should be in accordance with IEEE 802.3af /IEEE 802.3at standards. Min PoE/PoE+ power budget should be 200 Watt. PoE management - Scheduling of Power Delivery, Power limit by device type and Power delivery prioritization
3	1 console port with console cable, Min. packet buffer 3 MB
4	Shall have switching capacity of 24 Gbps for providing non-blocking performance on all Gigabit ports
5	Shall have minimum 17 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
6	Shall support 802.3ad (LACP) with upto 4 ports supported in 6 groups
7	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol .Should support Rapid ring resiliency protection technology to support 50 millisecond convergence thus video packet should not drop in case path disruption and to be integrated with other switches.
8	Shall support minimum 2 K active VLAN or IEEE 802.1 Q-based VLAN tagging ,Port based VLAN , MAC Based VLAN , IP based VLAN, Protocol based VLAN, Private VLAN, Voice VLAN
9	Support for minimum 8 k MAC addresses
10	Should have minimum 8 hardware based queues per port
11	Should support IGMP v1, v2 and v3 for multicast(min 1K group) applications, Multicast Vlan Registration
12	Should support for IPv6 features like Neighbor discovery, Syslog, Telnet, SSH, Web GUI, SNMP, NTP, DNS, DHCP, RADIUS, TACACS, classification and marking, RFC 2544.
13	Should support IPv6 from day one.
14	Configuration through the CLI, console, Telnet, SSH and Web Management and also support to UDLD or equivalent, Ethernet Copper diagnostic feature /Cable fault management
15	Should support min. IP 30/31 rating and should be housed in IP 66/67 enclosure provided by SI as per design .Reverse Power protection and Transient protection > 15 W peak
16	Switch should support MAC address based filter and port as well as VLAN based filter / ACLs
17	IEEE802.1 X to allow port based security, MTBF 50000 Hrs
18	SNMPv1, v2, and v3 and 4 group of RMON support.
19	Power: Input: 48 VDC dual input. Operating temp: Min minus 5 - plus 75 Degree C .Power supply should be industrial grade only.
20	Switch and fiber module should be UL, EN ,RoHS , WEEE complied
21	OEM should be in Gartner’s Magic Quadrant for wired and wireless LAN for min 5



	years. OEM should not be blacklisted by Govt./ PSU
<b>Specification for L2 24 Port Switch</b>	
1	Shall be 19" Rack Mountable. The switch shall be non-blocking in architecture and support stacking min 8 units. Stacking port should be ready from day 1 so that only by connecting cable - stacking could be achieved.
2	24 RJ-45 autosensing 10/100/1000 (simultaneous) ports with (2+2) SFP+ ports. Should support both SFP and SFP+ module as 1G or 10 G for flexibility of the deployment.
3	1 console port with console cable
4	Shall have switching capacity of 128 Gbps for providing non-blocking performance on all Gigabit ports
5	Shall have minimum 90 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
6	Shall support IEEE 802.3ad (LACP) with up to 4 ports supported in 6 groups
7	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol .Should support Rapid ring resiliency protection technology to support 50 millisecond convergence thus video packet should not drop in case path disruption and to be integrated with other switches.
8	Shall support minimum 2 K active VLAN or IEEE 802.1 Q-based VLAN tagging ,Port based VLAN , MAC Based VLAN , IP based VLAN, Protocol based VLAN, Private VLAN, Voice VLAN
9	Support for minimum 8 k MAC addresses
10	Should have minimum 8 hardware based queues per port
11	Should support IGMP v1, v2 and v3 for multicast( min 1K group) applications, MVR
12	Should support for IPv6 features like Neighbor discovery, Syslog, Telnet, SSH, Web GUI, SNMP, NTP, DNS, DHCP, RADIUS, TACACS, classification and marking, RFC 2544.
13	Should support IPv6 from day one.
14	Configuration through the CLI, console, Telnet, SSH and Web Management and also support UDLD or equivalent, Ethernet Copper diagnostic feature /Cable fault management.
15	Switch should support on-line software reconfiguration to implement changes without rebooting/ modular Operating system
16	Switch should support MAC address based filter and port as well as VLAN based filter / ACLs
17	IEEE802.1 X to allow port based security, MTBF 50000 Hrs,
18	SNMPv1, v2, and v3 and 4 group of RMON support.
19	Power: Input 100-240VAC, 50/60Hz.Should have RPS. Operating temp: Min 0-50 Degree C.
20	Switch and fiber module should be UL, EN ,RoHS , WEEE complied

21	OEM should be in Gartner’s Magic Quadrant for wired and wireless LAN for min 5 years. OEM should not be blacklisted by Govt./ PSU
<b>Specification for NMS</b>	
1	Must provide centralized management that should be upgradeable to manage wired, as well as wireless (if any) & security components (min 5000 nos)
2	Must be able to create correlated topology based on LLDP , SNMP , L2 and L3 protocol connectivity hierarchy
3	Must allow system-level operations such as device discovery, event management, logging and application maintenance to be performed centrally
4	Must provide the capabilities to modify, filter, and create own customized views of the network.
5	Must allow for graphing or viewing in table format and multiple OIDs that are user selectable.
6	Must allow scheduled events or tasks that the user can perform behind the scenes or schedule an event for another time in the future.
7	Must provide a utility to view and select MIB objects from a tree-based representation
8	Must provide a system wide deployment of VLAN configuration and monitoring capabilities.
9	Must provide comprehensive remote management support for all proposed network devices as well as any SNMP MIB-I or MIB-II 12. Manageable devices.
10	Must support RADIUS or LDAP Authentication for users of the application.
11	Must have SNMP MIB compile capability to integrate any 3rd party snmp compliant device
12	Must be able to define policies to rate-limit bandwidth, throttle the rate of new network connections, prioritize based on Layer 2 or Layer 3 QoS mechanisms, apply packet tags, isolate/quarantine a particular port or VLAN, and/or trigger pre-defined actions.
13	Must provide a tool to search and locate the physical location of connected devices and end users, quickly and easily.
14	Must provide an audit trail (event log).
15	Must provide the ability to track device attributes such as serial number, asset tag, firmware version
16	Must support the ability to present detailed configuration information including date and time of configuration saves, firmware version, and file size
17	Must record a history of device attributes, and reports any changes made to the device
18	Must be able to provide a centralized history of firmware and configuration changes and other inventory management operations made to a device.
19	Must be able to generate valuable, in-depth capacity reports of used and unused resources for network inventory planning purposes.
20	Must provide alarm management for performance and any potential trouble in the network.

21	Must have Alarm Dash board or at a glance quick look on alarm so that corrective action could be placed quickly.
22	Must have QOS , security , bandwidth rule must be maintained by the NMS centrally
23	Must have Complete application insight visibility up to layer 7 for quick user needs provisioning and reports even the location for the wireless users (if any )with complete report of the user roaming as signal strength .
24	Must support API programmability for SDN or 3rd party integration for openness of the platform.
25	Must support IPv6
<b>NMS server Min hardware Specification</b>	
1	Min 1 TB hard drive with RAID controller
2	Must support , Windows , Linux , Redhat, VMware , Hyper -V
3	Must have EN60950 ,CISPR 22,ICES-003 - Emissions, VCCI Emissions,IEC60950,UL60950
4	Should be Rack mountable in the datacenter

<b>Min Specification For 8 Port L3 Switch</b>	
1	Shall be 19" Rack Mountable. The switch shall be non-blocking in architecture and support stacking min 8 units. Stacking port should be ready from day 1 so that only by connecting cable - stacking could be achieved.
2	Min. 8 RJ-45 autosensing 10/100/1000T ports with (2+2) SFP+ ports. Should support both SFP and SFP+ module as 1G or 10 G for flexibility of the deployment.
3	1 console port with console cable.
4	Shall have switching capacity of 96 Gbps for providing non-blocking performance on all Gigabit ports
5	Shall have minimum 65 million pps switching throughput to achieve wire-speed forwarding on all Gigabit ports
6	Shall support 802.3ad (LACP) with upto 4 ports supported in 6 groups
7	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol .Should support Rapid ring resiliency protection technology to support 50 millisecond convergence thus video packet should not drop in case path disruption and to be integrated with other switches.
8	Shall support minimum 2 K active VLAN or IEEE 802.1 Q-based VLAN tagging ,Port based VLAN , MAC Based VLAN , IP based VLAN, Protocol based VLAN, Private VLAN, Voice VLAN
9	Support for minimum 8 k MAC addresses
10	Should have minimum 8 hardware based queues per port
11	Should support IGMP v1, v2 and v3 for multicast( min 1K group) applications, MVR

12	Should support for IPv6 features like Neighbor discovery, Syslog, Telnet, SSH, Web GUI, SNMP, NTP, DNS, DHCP, RADIUS, TACACS, classification and marking, RFC 2544.
13	Should support IPv6 from day one.
14	Configuration through the CLI, console, Telnet, SSH and Web Management and also support UDLD or equivalent, Ethernet Copper diagnostic feature /Cable fault management. Should have Static Route for IPv4 & IPv6 from day 1. RIP v4 and RIP v6, OSPF, PIM, VRRP from day 1.
15	Switch should support on-line software reconfiguration to implement changes without rebooting/ modular Operating system
16	Switch should support MAC address based filter and port as well as VLAN based filter / ACLs
17	IEEE802.1 X to allow port based security,MTBF-50000 Hrs
18	SNMPv1, v2, and v3 and 4 group of RMON support.
19	Power: Input 100-240VAC, 50/60Hz. Should have RPS. Operating temp: Min 0-50 Degree C.
20	Switch and fiber module should be - RoHS , UL, EN , WEEE complied ,
21	OEM should be in Gartner's Magic Quadrant for wired and wireless LAN for min 5 years. OEM should not be blacklisted by Govt. / PSU.

<b>Technical Specifications for 15/20 KVA Online UPS System</b>		
<b>Sl. No.</b>	<b>Parameter / Feature</b>	<b>Specification</b>
UPS In failover mode with manual switchover facility		
1	Technology	Rectifier & Inverter both with IGBT based DSP Processing Design, Double Conversion True On-line UPS.
4	Input Frequency Range	50 Hz $\pm$ 10%
6	Input Phase /output	Three Phase with ground / single phase
7	Input Power Factor	$\geq$ 0.95 at full load
9	Input Voltage /Out-put voltage and range	170-280/230 VAC
10	Output Frequency regulation	Free running Mode 50Hz $\pm$ 0.5Hz
11	Overall Efficiency (AC to AC) - Online (Double Conversion)	> 90% (On Full R Load)
12	O/p Voltage Distortion	< 6% (Non-linear load) < 3% (linear load)
13	Output Waveform	Pure Sine wave
14	Battery Backup	<b>8 Hrs</b>
15	Battery Type	Sealed lead maintenance free VRLA type

16	Battery brand	Exide / Rocket / Relicell / Quanta
17	VDC	24 VDC or more
18	Battery Ratings / VAH	Min. 1500 VAH
20	Noise level	<55 dB @ 1 Meter
21	Protection	IP 2 0
22	Bypass	Automatic Bypass Switch
23	DG Compatibility	UPS to be compatible with DG Set supply and mains supply
24	Standard	USB port & Mini Slot with software for monitoring with SNMP connectivity
25	Alarms & Indications	All necessary alarms & indications essential for performance monitoring of UPS to be incorporated.
26	LCD Display(inbuilt)	Back-up time, Load, battery, Mode of operation, Fault, KVA, KW, MIN, Battery Status in Bar on display, Temp Info, Load Info

<b>LFD</b>		
<b>Make : LG /SAMSUNG /PANASONIC/SONY</b>		
<b>Sl no</b>	<b>Panel</b>	
1	Screen Size	40-42 inch and above
2	Aspect Ratio	16:09
3	Native Resolution	1920 x 1080 (FHD)
4	Brightness	350 nit or Higher
5	Orientation	Portrait & Landscape
<b>Connectivity</b>		
6	Input	HDMI, USB port
7	Output	External Speaker Out
8	External Control	RJ45, IR Receiver
<b>Standard (certification)</b>		
9	Energy Star	Energy Star 6.0

<b>Furniture</b>		
<b>Furniture must have ISI mark for the overall product.</b>		
<b>Sl.No.</b>	<b>Items</b>	<b>Description</b>
1	Office Table	Wooden table of the size 4'x2.5'x2.5' having two lockable drawers on R.H.S. made of either durable wood or plywood, complete in all respect with polish.

2	Chair	(1) Should have an option of permanent contact mechanism, which allows the back to flex naturally as you recline for maximum comfort. (2) The seat and the backrest shall be made up of molded polyurethane foam of the right density and thickness to provide a firm support for hours of comfortable sitting.
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<b>Specification-Earth-ing</b>	
<b>Sl. No.</b>	<b>Description</b>
1	<b>17 mm copper rod at minimum 40 feet depth.</b> The electrode must be installed with highly conductive earth resistivity lowering compound Electro-grip BFC(25 kg) tested as per IEC62561-7 and ASTM G57-06 for resistivity of 0.2 ohms or less from national test house or NABL approved any other government lab.
2	Heavy duty poly plastic earth pit cover of 10" dia (EPC 10) should be used to cover the earth pit.
3	Heavy duty poly plastic earth pit cover of 10" dia (EPC 10) should be used to cover the earth pit.
4	The cover must be tested for load bearing capacity of more than 10 tones.

<b>Technical specification –pole 7 meters</b>		
<b>Sl no</b>	<b>Functionality/ Description</b>	<b>Minimum Specifications</b>
1	Pole Type	Hot Dip Galvanized, Free Standing, Octagonal /Circular, Continuously Tapered.
2	Height of High Mast	7 Mtr.
3	Size	Diameter (Top) Top-70 mm
		Diameter (Bottom) -130 mm
		Thickness -3mm
4	Anchor Plate	(Min. thickness – 4mm)
5	Base plate	(Min. 220X220X12mm)
6	No. of longitudinal weld	1 (No circumferential weld is allowed)
7	Joint	Single section, no joint required
8	Material of construction (Shaft)	High Tensile Steel BSEN 10025 or Equivalent
9	Material of construction (Base Plate)	IS 2062 or Equivalent

10	Metal Protection Treatment for Monopole	Hot dip galvanized, single dip, inside & outside confirming BSEN ISO 1461
11	Galvanization Thickness	Min.65 Microns or as per BSEN ISO 1461

<b>Specification- Surveillance grade HDD</b>	
Sl. No.	Description
1	Formatted capacity -6 TB , Advance format feature- Yes ,RoHS compliant

<b>Specification- Helpdesk Software</b>	
Sl. No.	Description
1	The software should support min 500 users
2	The software should allow issue log, issue notification via email, assigning severity and priority, open and close dates, issue description and automatic issue escalation via mail
3	Escalation matrix should be customizable from admin end
4	The software should be able to generate periodic issue reports
5	The software should allow users to glance dashboard for overall status
6	The database should have memory to retain issue logs of last five years.

<b>Technical Specifications-Voltage Regulator-15/20 KVA</b>		
The voltage regulator will consist of an Isolation Transformer (to provide neutral) in line with an independent servo stabilizer. Both units will act as independent units and will serve as redundant units to handle power fluctuations		
Sl no	A	<i>Isolation transformer features</i>
1	capacity	30 KVA /40 KVA
2	Input Voltage Range	180Vac-465Vac, 3 phase ,3 wire 4 wire (Delta)
3	Output	3 phase 4 wire (Star)
4	Operating Load Power Factor	maximum 1.00
5	efficiency at 100% load	greater than 97%
6	Insulation	class A
7	Degree of Protection	IP-31
8	cooling	Oil cooled
9	Regulation	2-4% from 0.8 to unity power factor

10	Bypass	Change over switch at input, Outdoor enclosure with wheels
<i>In case of failure of Isolation transformer , the supply to the servo stabilizer may be made directly from the mains with the help of change over switch</i>		
	<b>B</b>	<b>Servo Stabilizer features</b>
11	capacity	15KVA /20 KVA , 3 phase
12	Input Voltage Range	180Vac-465Vac , 3 phase 4 wire
13	Output	400 V +/- 1% , 3 phase (equivalent to 230 volts phase-neutral) 4 wire
14	Type	Suitable for three phase unbalanced load and supply
15	Controller	Microprocessor based three phase control electronics, independent phase motor control output voltage settable through controller menu
16	correction speed	50V/second PH-PH
17	Reset	Over and under voltage cut out at output, Manual
18	servo motor drive	High torque low inertia AC synchronous motor
19	Alarm	Enabled on extra load
20	Display	2 line alpha numeric common LCD display for all three phases to view Input Voltage– R,Y &B (LL &L-N) Output voltage – R,Y &B (LL&L-N) Current –R,Y&B (output)
21	Protection	<ul style="list-style-type: none"> <li>▪ Adjustable under /over voltage cut out with adjustable time delay with alarm</li> <li>▪ Time delay trip through connector at output</li> <li>▪ Phase sequence error</li> <li>▪ Earth fault</li> <li>▪ Neutral fault</li> </ul>
22	Cooling	Oil cooled
23	Digital diagnostic indications on controller	<ul style="list-style-type: none"> <li>▪ Input: under-voltage / over voltage fault for each phase separately.</li> <li>▪ Output-as above</li> <li>▪ Overload in individual phase in Amps (RY&amp;B)</li> <li>▪ Phase sequence error</li> <li>▪ Earth fault</li> <li>▪ Neutral fault</li> </ul>
24	Bypass	Manual Bypass switch at input
25	Efficiency	>97%
26	Mechanical	Covered enclosure (indoor type) with louvers for cooling and wheel base
<i>In case of failure of Servo stabilizer, the supply to the load i.e UPS may be made directly from the output of the isolation Transformer with the help of manual bypass switch</i>		



<b>Fixed normal –Bullet IK10 with housing ,junction box, mounting accessories, and power adapters</b>		
<b>S.No</b>	<b>Specification</b>	<b>Description</b>
1	Camera Image Sensor	1/2.8" - 1/3 Progressive Scan CMOS Sensor
2	Max Video resolution	1920x1080
3	Scanning Mode	Progressive scan
5	Day/Night	IR Cut Filter
6	Minimum Illumination Color	0.4 Lux or better
7	Minimum Illumination B/W	0.1 Lux BW Mode; 0 Lux with IR On
8	Vari Focal Lens	Should cover 30 meters with IR on
11	IR Distance	30 meters or better
12	Video Motion Detection	Yes
13	No. of Streams	Minimum of 3 stream- 2 H.264 & 1 MJPEG
16	Supported Protocol	1080p/720p/D1/2CIF
17	SD Memory Card Feature	64 GB or better
18	Alarm I/O	Input: 2 ,Output: 1
19	Security	HTTPS / IP Filter / IEEE 802.1X
20	Image Compression.	MJPEG / H.264
21	Network Interface	RJ-45
22	Configurable Image Parameters	Backlight Compensation, White Balance, Noise Reduction, Brightness, Exposure, Sharpness, Contrast, Saturation Hue, Privacy Mask, Day/Night Threshold
24	Audio	Two-way audio
25	Audio Compression	Bidirectional G.711 or better
26	Noise Reduction	3D Motion Compensated Noise Reduction
27	Event Notifications	HTTP / FTP / SMTP
30	Max number of user accounts	5
31	Impact protection	Vandal proof IK10
32	Certifications	CE,FCC
33	Power Source and Consumption	Should support DC 12V/AC 24V, PoE
34	Ambient Operating	-5 °C ~ +55 °C
35	Temperature/Humidity	90 % or less (without condensation)

36	Dust and water protection	IP 66
37	Onvif	ONVIF Profile S
38	OEM	OEM should have registered office in India for last five years. Should not be blacklisted by Govt/PSU. In case of global manufacturer, OEM presence in India should be through a subsidiary, no JV/Distribution agreement/ Consortium is allowed.

<b>Fixed Explosion Proof Camera with camera housing, mounting accessories , power adapters and junction box</b>		
<b>S.No</b>	<b>Specification</b>	<b>Description</b>
1	Camera Image Sensor	1/2.8" - 1/3 Progressive Scan CMOS Sensor
2	Max Video resolution	1920x1080
3	Scanning Mode	Progressive scan
5	Day/Night	IR Cut Filter
6	Minimum Illumination Color	0.4 Lux or better
7	Minimum Illumination B/W	0.1 Lux or better
8	Vari Focal Lens	Minimum coverage of 80 m with zoom of 20X or better. Bidders to propose focal length accordingly
12	Video Motion Detection	Yes
13	No. of Streams	2 streams- H.264 & 1 MJPEG
14	Supported Resolutions	H.264 & 1 MJPEG
16	Supported Protocol	1080p/720p/D1/2CIF
17	SD Memory Card Feature	64 GB or better
18	Alarm I/O	Input: 2 Output: 1
19	Security	HTTPS / IP Filter / IEEE 802.1X
20	Image Compression.	H.264/ MJPEG
21	Network Interface	RJ-45
22	Configurable Image Parameters	Backlight Compensation, White Balance, Noise Reduction, Brightness, Exposure, Sharpness, Contrast, Saturation Hue, Privacy Mask, Day/Night Threshold
24	Audio	Two-way audio

25	Audio Compression	G.711
26	Noise Reduction	Noise Reduction should be available
27	Event Notifications	HTTP / FTP / SMTP
30	Max number of user accounts	20
32	Certifications	CE, FCC, PESO/CCOE
33	Power Source and Consumption	Should support DC 12V/AC 24V, PoE
34	Ambient Operating	-10 °C ~ +55 °C
35	Temperature/Humidity	0-90%
36	Dust and water protection	IP 66/67
37	Housing	Flame Retardant
38	Onvif	ONVIF Profile S
39	OEM	OEM should have registered office in India for last five years. Should not be blacklisted by Govt/PSU. In case of global manufacturer, OEM presence in India should be through a subsidiary, no JV/Distribution agreement/ Consortium is allowed.

<b>IP HD PTZ Camera with camera housing, mounting accessories , Power adapters and illuminator mount</b>		
<b>S.No</b>	<b>Specification</b>	<b>Description</b>
1	Camera Image Sensor	1/2.8" - 1/3 Progressive Scan CMOS Sensor
2	Max Video resolution	1920x1080
3	Scanning Mode	Progressive scan
4	Day/Night	IR Cut Filter
5	Minimum Illumination Color	0.4 Lux or better
6	Minimum Illumination B/W	0.1 Lux BW Mode; 0 Lux with IR On
7	Zoom	20X or better. Bidder to propose focal length to cover 100 m
8	Focal Length	20X or better. Bidder to propose focal length to cover 100 m
9	Presets	128 or more
10	Number of Sequences	minimum of 4
11	Privacy Mask	16
12	Speed by Zoom	On / Off (Pan and tilt speed proportional to zoom ratio)
13	Resume after Power loss Home	No downtime power switching support

14	Function	Preset / Sequence / Auto pan / Cruise
15	Auto Flip	Mechanical / Off
16	Motion Detection	Motion Detection Window x 4 sets or more
17	Day / Night: IR Cut Filter Image	On / Off
18	Rotation	Flip / Mirror / Inverse
19	Auto Calibration	On / Off, Servo Feedback Support required for increased accuracy
20	Noise Reduction	3D
21	IR Distance	100 m or better corresponding to 20X optical zoom
22	Network Interface	RJ-45
23	Video Motion Detection	Yes
24	No. of Streams	2 H.264 & 1 MJPEG
25	Supported Protocol	1080p/720p/D1/2CIF
26	SD Memory Card Feature	64 GB or better
27	Security	HTTPS / IP Filter / IEEE 802.1X
28	Image Compression.	MJPEG & H.264
29	Configurable Image Parameters	Backlight Compensation, White Balance, Noise Reduction, Brightness, Exposure, Sharpness, Contrast, Saturation Hue, Privacy Mask, Day/Night Threshold
30	Audio	Two-way audio
31	Audio Compression	G.711
32	Max number of user accounts	20
33	Certifications	CE,FCC
34	Power Source and Consumption	Should support 802.3at (PoE+) , AC 24V/12VDC
35	Ambient Operating	-10 °C ~ +55 °C
36	Temperature/Humidity	90 % or less (without condensation)
37	Dust and water protection	IP 66 and IK10
38	Onvif	ONVIF Profile S
39	OEM	OEM should have registered office in India for last five years. Should not be blacklisted by Govt/PSU. In case of global manufacturer, OEM presence in India should be through a subsidiary, no JV/Distribution agreement/ Consortium is allowed.
<b>Flame Proof PTZ with integrated housing and mounting accessories</b>		
<b>S.No</b>	<b>Specification</b>	<b>Description</b>
1	Camera Image Sensor	1/2.8" -1/3" Progressive Scan CMOS

*Supply, Installation, Commissioning & Maintenance of “ CCTV based Surveillance System”  
At Sub & District Courts in Bihar*

2	Max Video resolution	1920x1080
3	Scanning Mode	Progressive scan
4	Day/Night	IR Cut Filter
5	Minimum Illumination Color	0.4 Lux or better
6	Minimum Illumination B/W	0.1 Lux BW Mode; 0 Lux with IR On
7	Zoom	20X or better. Bidder to propose focal length to cover 100 m
8	Focal Length	20X or better. Bidder to propose focal length to cover 100 m
9	Presets	128 or more
10	Number of Sequences	Minimum of 4
11	Privacy Mask	16
12	Speed by Zoom	On / Off (Pan and tilt speed proportional to zoom ratio)
13	Resume after Power loss Home	No downtime power switching support
14	Function	Preset / Sequence / Auto pan / Cruise
15	Auto Flip	Mechanical / Off
16	Motion Detection	Motion Detection Window x 4 sets or more
17	Day / Night: IR Cut Filter Image	On / Off
18	Rotation	Flip / Mirror / Inverse
19	Auto Calibration	On / Off, Servo Feedback Support required for increased accuracy
20	Network Interface	RJ-45
21	Video Motion Detection	Yes
22	No. of Streams	2 H.264 & 1 MJPEG
23	Supported Resolutions	H.264 & MJPEG
24	Supported Protocol	1080p/720p/D1/2CIF
25	SD Memory Card Feature	64 GB or better
26	Alarm I/O	Input: 2 Output:1
27	Security	HTTPS / IP Filter / IEEE 802.1X
28	Image Compression.	H.264 & MJPEG
29	Configurable Image Parameters	Backlight Compensation, White Balance, Noise Reduction, Brightness, Exposure, Sharpness, Contrast, Saturation Hue, Privacy Mask, Day/Night Threshold
30	Input/ Monitor Output	Support (CVBS 1Vpp, 75 Ω)
31	Audio Compression	G.711
32	Certifications	CE, FCC, PESO/CCOE

33	Power Source and Consumption	Should support 802.3at (PoE+) 4-Pair 60W, AC 24V/DC 12V
34	Ambient Operating	-10 °C ~ +55 °C
35	Temperature/Humidity	90 % or less (without condensation)
36	Dust and water protection	IP 66 and IK10
37	Housing	Fire Retardant
38	Onvif	ONVIF Profile S
39	OEM	OEM should have registered office in India for last five years. Should not be blacklisted by Govt/PSU. In case of global manufacturer, OEM presence in India should be through a subsidiary, no JV/Distribution agreement/ Consortium is allowed.

## **APPENDIX-5**

### **e-Procurement Process Related Instructions**

- Submission of Proposals (Through electronic mode only)
- The bidder shall submit his bid/tender on e-Procurement platform at [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in).
- The bidder must have the Class II/III Digital Signature Certificate (DSC) and e-Tendering User-id of the e-Procurement website before participating in the e-tendering process. The bidder may use their DSC if they already have the DSC. They can also take DSC from any of the authorized agencies. For user-id they have to get registered themselves on e-procurement website [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in) and submit their bids online on the same. Offline bids shall not be entertained by the Tender Inviting Authority for the tenders published in e-procurement platform.
- The bidders shall submit their eligibility and qualification details, Technical bid, Financial bid etc., in the online standard formats given in e-Procurement web site at the respective stage only. The bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria / technical bids and other certificate /documents in the e-Procurement web site. The bidder shall digitally sign on the supporting statements, documents,

certificates, uploaded by him, owning responsibility for their correctness/authenticity. The bidder shall attach all the required documents for the specific tender after uploading the same during the bid submission as per the tender notice and bid document.

- All the required documents should be attached at the proper place as mentioned in the e-forms otherwise the tender of the bidder will be rejected.
- Tender Processing Fee (TPF) amount of Rs.1150/- to be paid through e-Payment mode (i.e. NEFT / RTGS, Net Banking, Credit / Debit Card) only.
- Cost of BOQ/ Form Fee to be paid through e-Payment mode (i.e. NEFT / RTGS, Net Banking, Credit / Debit Card) only.
- "Earnest Money Deposit (EMD) can be paid either through online mode or manual mode (BG, DD etc). In case of manual mode of payment of EMD, the original hardcopy of the EMD which may be a DD/NSC/KVP/BG or any other instrument that should be submitted in the tendering authority office within the next working day after tender closing date."
- ***Note: "Bids along with necessary online payments must be submitted through e-Procurement portal [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in) before the date and time specified in the NIT/RFP. The department/Tendering Authority doesn't take any responsibility for the delay / Non Submission of Tender / Non Reconciliation of online Payment caused due to Non-availability of Internet Connection, Network Traffic / Holidays or any other reason."***
- For support related to e-tendering process, bidders may contact at following address "e- Procurement HELP DESK First Floor, M/22, Bank of India Building, Road No-25, Sri Krishna Nagar, and Patna-800001 Ph. No: 0612-2523006, Mob-7542028164" or may visit the link "SI Info" at [www.eproc.bihar.gov.in](http://www.eproc.bihar.gov.in).