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**TENDER FOR SUPPLY, INSTALLATION & COMMISSIONING OF IP BASED  
CLOSED VIDEO TRANSMISSION, MONITORING & REMOTE CONTROLLED  
OPERATIONAL SYSTEM (CCTV SURVEILLANCE SYSTEM) IN KOLKATA  
DOCK SYSTEM OF KOLKATA PORT TRUST**

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**TENDER NO. : Plg/cs/CCTV/286**

**Date: 09.12.2015**

**Kolkata Port Trust**  
**Finance Department / P&R Division**

**NOTICE INVITING TENDER**

Plg/cs/CCTV/ 286

Date: 09.12.2015

Sealed tenders are invited from reputed firms in India having previous experience for supply, installation and commissioning of IP Based Closed Video Transmission, Monitoring & Remote Controlled Operational System (**CCTV Surveillance System**) in Kolkata Dock System of Kolkata Port Trust. The detail tender document will be available in the website <http://www.kolkataporttrust.gov.in> (under **Tender→KOLKATA→Planning**) and cpp portal. The firm should download the tender document and submit their offer in sealed envelope along with the Treasury Receipt ( TR ) for tender fee of Rs. 5000/- . Alternatively they may procure the tender document from the Office of Jt. Director(P&R) , P&R Division, Finance Department , 15, Strand Road, Kolkata – 700 001 by depositing Rs. 5,000/- in cash to Treasurer , KoPT.

❖ **Earnest Money Deposit (EMD) : Rs. 2 lakhs**

**Important Date:**

- 1) Last date of purchase of tender document. : 05/01/2016 upto 12:00 hrs.
- 2) Date of Pre-bid meeting: : 18/12/2015 at 11:30 hrs.
- 3) Last date of submission of offer : 05/01/2016 upto 14:00 hrs.
- 4) Opening of bid : 05/01/2016 at 15:00 hrs.

Jt. Director (P&R)

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## **2.0 The scope of work will be as follows :**

The scope of work will include supply, installation and commissioning of all components of the IP based Video surveillance and monitoring system including software product etc. and also integrating the system with the existing KDS fibre optic cable network ( KDS-Net ).

All Cameras to be supplied should be UL, EN ,IK10 & FCC Certified; and the Bidder should have ISO 9001:2008 certification.

Keeping in view of the security aspect KoPT has earmarked certain strategic locations as hereunder for 24 x7 surveillance. Details of the locations and distributions of the cameras are given in Schedule O.

SL#	Location of CCTV Camera
1.	NSD GATE 3
2.	NSD GATE 8
3.	NSD GATE 7
4.	NSD GATE 4
5.	NSD GATE 5
6.	NSD GATE 6
7.	CFS
8.	NSD LOCK
9.	KPD LOCK
10.	KPD PASSENGER TERMINAL
11.	KPD GATE 1
12.	KPD GATE 2
13.	KPD GATE 3
14.	KPD GATE 4
15.	KPD GATE 5
16.	KPD GATE 13
17.	SUBHAS BHAVAN GATES
18.	HEAD OFFICE
19.	CME OFFICE AT 8 GR ROAD
20.	CE OFFICE AT 51 CGR ROAD
21.	CMM OFFICE AT 6 G R ROAD
22.	H O SERVER ROOM
23.	SUBHAS BHAVAN SERVER ROOM
24.	3 GRJ GATE ( NEAR 1 NS DOCK )
25.	8 NSD RLY. GATE

The basic solution has been conceived on IP based platform. KoPT already has its own OFC/ wireless network strategically distributed over its domain. The same network would be used as backbone for the CCTV surveillance system. **The cameras should be connected from the switches using STP cable with both side STP I/O and factory made patch cord.**

All the IP cameras proposed at the gates and other operational locations will be monitored by the CISF personnel centrally in the integrated monitoring centre under CISF at Lybian Warehouse. In addition, Senior KoPT officials would also view the CCTV surveillance system from their office. All the video recording will be done centrally.

KoPT will provide the central monitoring station room ( i.e. integrated monitoring centre ) with required infrastructure such as power supply and furniture as and where required.

All the cameras will be locally terminated on the edge switch which will in turn get connected to the central switch for video transmission and monitoring via OFC / wireless uplink. This central switch will get connected to the KDS-Net Core switch stationed at Subhas Bhawan. A separate channel for video transmission will be provided for video streaming.

Streaming videos from all the cameras will be centrally recorded @ 24hrs x 7 days storage. However if the defined storage for the BOM have any short fall in terms of sizing then the contractor/bidder must calculate the required capacity of the storage and supply the same and quote accordingly . However the higher storage will be considered only for supply. It will be the responsibility of the vendor to provide and fix the cameras with weather proof and vandal proof casing / housing with appropriate accessories like mounting brackets ( particularly for the ANPR cameras )

The Camera with all its accessories, Video Management Software and Video Analytic software should be of **same OEM make. Kolkata Dock System also intends to implement ANPR (Automatic Number Plate Recognition) software solution under this project in selected locations (gates). The SI will be responsible for supply and integration of the same (ANPR) with the CCTV Surveillance system to achieve the desired outputs as indicated below.** The video management software should allow storing of video footage in the servers in case the Storage is temporarily not available.

The back up for all recording would be kept in LTO for at least 90 days.

**The offered system should be capable of integrating camera of any make following International Standards and Protocols in all future expansion and augmentation.**

The viewing dashboard of cameras should be possible from any client or any web browser.

The surveillance system solution should support non-proprietary servers, PCs and network components / devices.

The surveillance system solution should allow independent hardware and software upgrades.

The surveillance system solution should support alarm, event, operator and video motion detection based recording. The system should be capable to generate SMS alert and mobile apps for easy viewing of cameras through smartphones or tablets.

The surveillance system solution should support flexible recording and view based on individual frame rates configured for individual cameras.

The surveillance system solution should support features for audit log of all operator actions and system events to keep track of any changes made in the configurations or recordings.

The surveillance system solution should be supplied with **Integrated Network VIDEO MANAGEMENT SOFTWARE ( INVMS ) AND VIDEO ANALYTIC SOFTWARE** from the OEM of the camera. The details of INVMS and VA are given below.

**Kolkata Dock System will implement ANPR under this surveillance solution project. The successful contractor/bidder would be responsible to supply and integrate the same.**

The successful contractor/bidder would be required to supply, install and commission IP based video surveillance solution system, on turn key basis, at different location of docks and other working points of Kolkata Dock System of Kolkata Port Trust (KoPT) subject to the following conditions:-

- i) The gates at the docks are meant for either entry or exit or both of Goods and other Vehicles. But entry and exit of the light vehicles (four wheelers) are allowed at all gates.
- ii) The bidders shall have to also visit the site and suggest the positioning of the Cameras in their drawings after the site inspection, if desired.
- iii) A schematic diagram of the dock area showing different Gates and other places with the OFC network is printed at Schedule 'M' for ready reference.
- iv) The IP based video surveillance system need to be designed and installed in such a way that 24 x 7 days live event based video recording is done automatically as per pre-defined presets and manually remote camera operations can be controlled to feasible extent .
- v) At different work places in dock area, the site is quite dusty and accordingly, the devices would be exposed to extreme conditions, humidity, temperature, dirt etc. This aspect has to be kept in mind while proposing the surveillance system.
- vi) The bidders will be required to hook up with the nearby existing LAN / OFC node by laying dedicated cables ( like STP / OFC ). For this, associated civil and electrical works would be the responsibility of the selected vendor. Necessary permission for the same would be provided by KoPT.
- vii) The bidders would be required to provide operation and maintenance manuals and original CDs / other media of all software involved, with adequate licences, wherever applicable.

viii) The bidder / contractor would be required to impart training to adequate number of KoPT personnel / CISF personnel on system operation, configuration of software and hardware.

ix) The contractor would be required to provide one Support/Technical Personnel in General shift (0800 hrs. To 1800 hrs. ) on all working days during the free warranty period of 3 years with effect from acceptance of the entire system by KoPT and also during the period under CAMC.

x) The contractor / OEM would be responsible for availability of spares/components along with documentation and know-how, for 4 years of CAMC period on expiry of the warranty period of 3 years. In this connection, tender specific authorisation letter from OEM of the equipments should be submitted along with the offer by the bidder (covering warranty and CAMC periods).

xi) The tenderer will have to undertake Comprehensive Annual Maintenance Contract (CAMC) (i.e. inclusive of the cost of all spares/components) of the entire system for 4 years of CAMC from the date of expiry of the warranty period of 3 years, at the rates quoted by the tenderer.

xii) All the Gates of the dock are manned by CISF. The Gates of different offices are either manned by personnel of Port Security Organisation/private security guards or remain unmanned at present. Any change in the aforesaid system of manual security is not contemplated.

xiii) Total no. of cameras to be supplied under the project :

a. PTZ	:	27
b. Fixed Focus	:	31
c. Indoor mini dome	:	09
Total	:	67

#### **Technical Requirements :**

1. The entire system should be based on IP protocol and all the components to be supplied under the tender should be IPv6 compliant.
2. The system should be designed as server independent and based on latest iSCSI NAS based Technology
3. The complete outdoor arrangements should comply to IP66 standards as per the industrial environment.
4. The CCTV camera and its associated hardware / software should be warranted for 3 years from OEM.

- 5 The Video Management & recording Software should be ONVIF ( Profile – S) compliant and capable to view live and record any ONVIF compliant Camera.
6. The System should have the capability to store video with Video Analytics and ANPR for min 30 days and the required storage may be provided based on the no. of Cameras. Detailed Storage calculation sheet with respective bandwidth and resolution of Video Analytics and ANPR need to be submitted from the respective camera OEM for confirmation.
7. All respective active equipments should be UL , EN, FCC certified.
- 8 The Products should have already installed in large organisation with outdoor installation. Documentary evidence would require to be submitted in this respect.
- 9 Specification isn't limited to but is a minimum requirement which needs to be complied by the respective bidders which may require any additional hardware for functionality compliance.
10. Apart from the items mentioned in the BOQ, the bidder would supply and quote accordingly **for any other item required to complete the work.**

## **2.1. Documents for Pre-qualification**

The tenderer shall submit attested copies of the following documents along with the Pre-qualification part of the tender :

a) Letter of Application as per Schedule A

b) Documentary evidence indicating that the tenderer is either the manufacturer of the IP based video surveillance and monitoring system or authorized system integrator/ authorized service provider/business partner of the original manufacturer. In case the tenderer is not the manufacturer, a project specific authorisation from the original manufacturer need to be submitted indicating that the OEM would take responsibility to supply spares in case of failure of the contractor. The firm also should have back - to - back arrangement with the manufacturer for providing after installation service. It should also indicate that in case the firm fails to provide service, the original equipment manufacturer would provide service to KoPT.

c) Proof of experience in supply, installation & commissioning of IP based video surveillance & monitoring system in at least three organizations prior to 30.09.2015.

d) Documentary evidence to show experience of having successfully completed similar works during last 7 years ending 30.09.2015 should be either of the following :

i) Three similar completed works costing not less than Rs. 42lakhs each

OR



ii) Two similar completed works costing not less than Rs. 52 lakhs each.

OR

iii) One similar completed work costing not less than Rs 84 lakhs..

Here, similar works mean 'Supply, installation & commissioning of Video Surveillance & Monitoring System like CCTV including supply of Video Management Software. The firm must have office / service centre at Kolkata. Supporting documents in regard to the same need to be submitted along with the bid.

e) Earnest Money Deposit as specified above.

f) Documents showing that the Annual Turn Over of the company for the last three years is not less than 32 lakhs.

g) Audited Annual Accounts of the firm for the last three years ending on 31.03.2015.

Tenderers may please note that non-submission of any of the aforesaid documents/non-fulfilment of any of the aforesaid criteria would disqualify them.

### **3. Timing :**

The duty hours of the employees of KoPT vary widely. The ministerial staff working at different work places normally attend office from 09-30 hours to 17-30 hours. The shift timings of docks and other operational areas are as follows :-

a) 1st shift : From 06-30 hours to 15-30 hours

b) 2nd shift : From 15-30 hours to 22-30 hours

c) 3rd shift : From 22-30 hours to 06-30 hours

Apart from this, there are different duty timings .

### **4.0. INSTRUCTIONS TO THE TENDERER:**

4.1 General Conditions of Contract: The tenderer shall examine carefully the General Conditions of Contract which is available in the KoPT website for download and also supplied herewith.

#### **4.2 Format and Signing of the offer document :**

a) The original offer and accompanying documents must be written in indelible ink and shall be signed by the person(s) duly authorised to sign on behalf of the tenderer. Such authorisation shall be indicated by written power-of-attorney accompanying the offer. All pages of the offer except for unamended printed literature shall be initialled by the person(s) signing the offer. The name and position held by each signatory must be typed or printed or sealed below the signature.

- b) The offer document shall contain no interlineations, erasers or over-writing except as necessary to correct the errors made by the tenderer in which case such corrections shall be initialled by the person(s) signing the offer.
- c) Offer must be submitted for executing all works involved and any offer received for doing a portion of the work with responsibility for carrying out the remaining works by the Trustees' other contractors, will be liable for outright rejection.
- d) The tenderer should submit the following documents along with their offer :
  - i. General information as per schedule – A
  - ii. Acceptance of draft proforma of bank guarantee as per schedule - B
  - iii. Details of post sales support as per schedule – C
  - iv. Declaration of warranty period as per schedule – D
  - v. Time schedule / BAR Chart / PERT charts as per the deliverables as per schedule - E
  - vi. Work experience record as per schedule -- F
  - vii. Form of agreement as per schedule -- G

**4.3** The tender, complete in all respects, shall have to be submitted by the bidder in a sealed cover :

The Bid should include the following -

Cover 1 ( Techno-Comercial ) should contain :

- (a) One copy of the 'Tender Document' including 'Addenda', if any, along with the unfilled page(s) of the Bill of quantity (BOQ) (suitably scored out) with all the pages duly signed with official seal as a token of 'confirmation of having received, read and understood the content of all the pages and acceptance thereof',
- (b) Work experience / Credentials of the firm showing completion of similar type of work. Here, similar works mean 'Supply, installation & commissioning of Video Surveillance & Monitoring System like CCTV and as mentioned in clause 2.1 above.
- (c) Profile of Bidder,
- (d) Audited Annual Accounts for the last three completed financial years, supported by a Certificate from a Chartered Accountant, to show the Average Annual Financial Turnover considering the last three financial years ending on March 31, 2015
- (e) Self certified copy of PAN
- (f) Certified copy of up-to-date Profession Tax Payment Challan (PTPC), if applicable. If this is not applicable, the bidder should submit a declaration in this regard.

- (g) Certified copy of 'Employees State Insurance (ESI) Registration Certificate' OR an Affidavit affirmed before a First Class Judicial Magistrate in case the Bidder is not covered under ESI Act or exempted from it.
- (j) Certified copy of 'Provident Fund Registration Certificate' OR an Affidavit affirmed before a First Class Judicial Magistrate in case the Bidder is not covered under Provident Fund Act or exempted from it.
- (k) Certified copy of valid Service Tax Registration Number / Code Number.
- (l) Documentary evidence that the Bidder has an office in Kolkata for effective coordination with KDS, KoPT.
- (m) A self declaration that the Bidder has not been banned / de-listed / debarred by any Government or Quasi-Government Agency or PSU. If a bidder has been banned / de-listed / debarred by any Government or Quasi-Government Agency or a PSU, the details must be clearly stated along with the relevant documents, which the bidder is to enclose together with the Techno-Commercial Bid.
- (n) A declaration that no change (in words, specification etc.) have been made in the submitted tender document of KDS, KoPT
- (o) Description of methodology for execution of work as per Tender document covering all aspects like deliverables etc. as per schedule-E,
- (p) Other document(s), which is/are required as per this tender and/or the Bidder desires to submit (duly signed with seal).

Note: The Bidder shall be bound to produce the original of the documents for which photocopies have been submitted, if and as demanded by KDS, KoPT, at any point of time.

Cover 2 ( Price bid ) should contain :

Price Bid as per format given as 'Bill of Quantity' of the tender document with NO COUNTER CONDITIONS / DEVIATIONS WHATSOEVER.

- 4.4 **OUTER SEALED COVER:** All the above 2 ( two) sealed covers along with the EMD and Tender Document fee envelope together with a Covering Letter as per schedule A shall be again enclosed in an outer cover and sealed, which should be superscripted with the Name of Bidder, Tender Number and Subject.
- 4.5 **NO AUTOMATIC CONSIDERATION:** Mere submission of tender will not mean that the particular offer will be automatically considered qualified and the said tender will be entertained. Such qualification will be examined at the time of evaluation of offers.

- 4.6 **COVERING LETTER:** The intending Bidder shall submit the bid with a covering letter strictly as per schedule A. Any deviation in the content of the covering letter as compared to schedule A shall make the offer liable for rejection.
- 4.7 **CHANGE IN TENDER DOCUMENT SUBMITTED:** In case any change (in words, specification etc.) is detected in the submitted tender document vis-a-vis the tender document hosted at the abovementioned websites, the offer of the bidder shall be rejected outright.
- 4.8 **UNSCHEDULED HOLIDAY / BUNDH:** In case of unscheduled Holiday / Bundh on the date of opening of tenders, the same will be opened on the next working day. The Bidder will also be allowed to deposit their tenders till 1400 hours on such extended day of opening.
- 4.9 **POSTAL SUBMISSION:** In case submission of offer is made by post, KDS, KoPT will not be responsible for postal delays and offers received after the offer submission date and time will not be entertained and will be summarily rejected.

**4.10 RIGHTS OF KDS, KoPT:**

- (a) This exercise is for establishing the rates only. Order shall be placed as per requirement of KDS, KoPT.
  - (b) Notwithstanding anything contained in this Tender Document, KDS, KoPT reserves the right to accept or reject any offer and to annul the tendering process and reject all offers at any time without any liability or any obligation for such acceptance, rejection or annulment without assigning any reason thereof.
  - (c) KDS, KoPT reserves the right to reject / disqualify an offer, in case KDS, KoPT is satisfied that any bribe, commission, gift or advantage has been promised, offered or given by the Bidder itself or on behalf of the Bidder to any officer, employees or representative of KDS, KoPT or to any person on his or their behalf to secure the tender or to influence the process of examination, evaluation etc. of the tender.
  - (d) KDS, KoPT also reserves the right to reject / disqualify an offer if it is satisfied that the Bidder or his representative has made false and misleading statement and/or have tried to influence KDS, KoPT in the process of examination, evaluation etc. of the tender.
  - (e) KDS, KoPT reserves the right to postpone the deadline for submission of Bids through notice.
- 4.11 **BID FORMAT:** The Bid shall be typed or printed and shall be signed on each page and sealed. The person(s) signing the Bid shall initial any modification made to the Bid.
- 4.12 **ONE BIDDER - ONE BID CLAUSE:** One Bidder shall submit one Bid only in response to this tender.
- 4.13 **LANGUAGE OF BID:** The Bid and any notations or accompanying documentation shall be in English Language only and dimensions / measurements, if any, shall have to be indicated in Metric System.

- 4.14 **INFORMATION REGARDING RATES QUOTED:** Rates quoted should be in figures and words. In case, there is any difference between rates quoted in figures and in words, only the lower of the two rates, quoted in figures or in words shall be construed as correct and valid.
- 4.15 **QUOTATION AS PER BILL OF QUANTITY:** The bidder shall quote rate strictly as per the 'Bill of Quantity' separately in figure as well as in words with no counter conditions / deviations whatsoever. No alternative mode of offer shall be accepted. Conditional Price Bid is liable to be rejected outright.
- 4.16 (a) The bid should be submitted by hand at the Office of Joint Director (P&R), P&R division, Finance department, 6<sup>th</sup> Floor, 15, Strand Road, Kolkata Port Trust – 700001 within 1400 hrs. On 05/01/2016 after which time and date, no bid shall be accepted.
- (b) The bid ( cover 1 only ) of the tender shall be opened at 1500 hours on 05/01/2016 at the Office of Joint Director (P&R), P&R Division, Finance Department, 6<sup>th</sup> Floor, 15, Strand Road, Kolkata Port Trust – 700001 and any bidder or his authorized representative who wishes to be present at the time of the opening of the Cover 1 ('Techno-Commercial Bid') may do so, if desired.
- (c) KDS, KoPT may, at its sole discretion, extend the Submission / Opening due date(s) by issuing a 'Notice / Extension Notice' in the official websites of KDS, KoPT.
- 4.17 **OPENING OF PRICE BID:** The 'Price Bid' of only Techno-Commercially qualified bidders, will be opened on a subsequent date for which date & time will be intimated to the techno-commercially qualified Bidders.
- 4.18 **CONTENT OF TECHNICAL-COMMERCIAL BID:** The 'Technical commercial Bid' shall contain only the Techno-Commercial Part of this tender document duly filled in and signed, without price part as mentioned in clause 4.3 above.
- 4.19 **CONTENT OF PRICE BID:** The 'Price Bid' shall contain 'Bill of Quantity' duly filled in and signed. It is to be noted that the sealed envelope containing 'Price Bid' shall contain price only and no conditions whatsoever. Any condition imposed in 'Price Bid' shall make the bid liable for outright rejection.
- 4.20 **BIDDER LIABILITY TO UNDERSTAND IN FULL:** The bidder shall be deemed to have carefully examined and fully understood the General Instructions to Bidders, the Special Conditions of the Contract, General Conditions of Contract, Scope of Work, Eligibility Criteria, Terms of Payment, Evaluation Criteria, etc.
- 4.21 **VALIDITY OF OFFER:**
- (a) The tender including Price Bid shall remain valid for acceptance for a period of 180 days from the actual date of opening of price of the tender.
- (b) Prior to expiry of the validity period as indicated in the original tender, KDS, KoPT may request bidders to extend the validity for a specified period.
- 4.22 **ADDRESS ETC. OF BIDDER:** The bidder shall furnish the address of his Head Office &

Local Office(s) with respective telephone / mobile numbers, fax, email etc.

- (a) The Bidder shall be deemed to have inspected the entire project site including the available facilities and conditions prevailing thereon and the equipment, manpower etc. to be supplied / provided by them for the work prior to submitting their bid.
- (b) Once the bid is submitted by the bidder, he shall be deemed to have fully acquainted himself with all aspects of the tender and he shall not be entitled to raise any claims or deviate from the tender condition(s) citing lack of knowledge about any aspect of the site / tender.
- (c) No cost or expense incurred by the Bidder in preparation of bid or for attending Pre-Bid Conference or any other such issue will be reimbursed by KDS, KoPT.

#### 4.23 PRE-BID CONFERENCE:

- (a) A Pre-Bid Conference shall be held on 18/12/2015 at 11:30 AM at the Office of Joint Director (P&R), P&R Division, Finance Department, 6<sup>th</sup> Floor, 15, Strand Road, Kolkata Port Trust, Kolkata – 700001. The Bidders may participate in the same, if they so desire. **For participation in the pre bid conference, the bidders should submit the Tender Document fee of Rs. 5000/- in cash to Treasurer, KoPT and obtain TR ( Treasury Receipt ). Firms submitting the tender document fee would only be allowed for the pre-bid conference ( on the date as mentioned in the Tender Document ) .**
- (b) The intending bidders are advised to formulate their queries relating to any aspect mentioned in the tender document or any clarification required well in advance and forward the same in writing or by e-mail ( [dpr@kopt.in](mailto:dpr@kopt.in) ) by five ( 5 ) days in advance of the pre-bid meeting to Joint Director (P&R), P&R Division, Finance Department, 6<sup>th</sup> Floor, 15, Strand Road, Kolkata Port Trust, Kolkata – 700001 so that the same may be discussed / clarified in the Pre-Bid Conference. During the Pre-Bid Conference, the queries received in advance would be clarified first followed by those raised during the meeting.
- (c) Modifications / amendments, if any, to the terms and conditions of the original tender, scope of the project etc. as decided in the pre-bid conference which the intending bidder is to note for submitting their tender. The amendments / modifications / clarifications shall be hosted in KoPT website in the form of an "Addendum" which shall become an integral part of the tender document for all purposes and shall be binding on the bidder. The content of the Addendum shall be accepted and submitted by all along with their techno commercial bids.
- (d) Attending the Pre-Bid Conference will be helpful for the intending bidder but is not mandatory.

- (e) The bidders are also advised to inform in advance about their intention to attend the Pre-Bid Conference. A maximum of two representatives of each intending bidder shall be allowed to participate on production of authority letter from the intending bidder.

#### **4.24 DECLARATION REGARDING BAN / DELISTING/ DEBARMENT:**

Bidder must give a declaration to the effect that they have not been banned or de-listed or debarred by any Government or Quasi-Government Agency or PSU. If a bidder has been banned / de-listed / debarred by any Government or Quasi-Government Agency or a PSU, the details must be clearly stated along with the relevant documents, which the bidder is to enclose together with the Techno-Commercial Bid.

#### **4.25 ADDENDA / CORRIGENDA etc. :**

At any time prior to the due date for submission of tender, KDS, KoPT may, for any reason, whether at its own initiative or in response to queries / clarifications raised by the intending bidder(s) during pre bid meeting or otherwise, modify the tender document by issuance of addenda to the bidders. The bidders are advised to note the details of addenda/corrigenda etc., as may be given in KoPT's website, prior to submission of bids.

#### **4.27 SUBSTITUTION OR WITHDRAWAL OF TENDER:**

- (a) The Bidder may substitute or withdraw its tender after submission, provided that written notice of the substitution or withdrawal is received by KDS, KoPT before the due date and time of submission of the tender or any extension thereof.
- (b) No tender shall be substituted or withdrawn by the bidder after the due date and time of submission of tender or any extension thereof.
- (c) If the bidder substitutes or withdraws its Bid during the interval between the specified date and time of submission of tender or any extension thereof and expiration of the validity period of the tender including extension thereof, the Earnest Money deposited would be forfeited.
- (d) Substituted tender shall also be prepared, sealed, marked, and delivered in accordance with relevant clauses of the Tender Document with all the covers being additionally marked "SUBSTITUTION".
- (e) In the event of "SUBSTITUTION", only the substituted tender would be considered. The original tender shall be returned to the bidder concerned unopened.

#### **4.28 Acceptance of offer:**

It is not obligatory on the part of the Trustees to accept the lowest offer. They reserve the right to accept a tender in full or in part and /or reject tender(s) without assigning any reason.

The tenderer has to execute the work in accordance with the General Conditions of Contract, Special Conditions of Contract, Scope of work and Bill of Quantities.

#### **4.29 Security Deposit :**

The firm would require to submit a Bank guarantee equivalent to 10% of the total contract value which will be kept as security deposit and should be valid for a period of 39 months from the date of acceptance of the work.

#### **4.30 Deviations from Terms and Conditions**

No deviation of any terms and conditions as mentioned in the subject document would be accepted.

#### **4.31 Preliminary Examination :**

Arithmetical errors shall be rectified on the following basis:-

If there is a discrepancy between the unit price and the total cost that is obtained by multiplying the unit price and the quantity, the unit price shall prevail and the total cost will be corrected.

#### **4.32 Taxes and duties etc. :**

The tenderer shall be entirely responsible for all taxes, duties and other such levies arising out of this contract except Service tax and Cess which will be payable at actual, as applicable. Kolkata Port Trust will not issue any Sales Tax Declaration Forms.

Deduction shall be made from payments to the tenderer towards Income Tax, if Applicable, as per the law and rules of the Government in force at the time of Payment, as KoPT is not a 'Registered body Corporate' under Service Tax Law.

#### **4.33 Time of Completion :**

The entire work of installation and commissioning of the CCTV surveillance system along with installation and commissioning of all accessories should be completed within the period of **75** days from the date of issuance of work order.



#### **4.34 Transport and Permit:**

The tenderer is also required to have their own transport for movement of their men and material inside/outside the port premises. No vehicle or manual assistance will be provided by Kolkata Port Trust.

However free permits will be issued by Kolkata Port Trust to the officials of the firm engaged in the work inside docks and other areas and the contractor will submit their offer accordingly.

Contractor shall strictly abide by the Security norms including Information Security Regulations wherein employers of the contractor should not have access to any system without prior permission.

#### **4.35 Acceptance Criteria :**

- a) The tenderer shall provide all necessary instruments at their own cost for the purpose of inspection and testing.
- b) All results of inspection and tests will be recorded for inspection and verification by KoPT. These reports shall form a part of the job completion documents.
- c) Inspection and acceptance of the work shall not relieve the Contractor from any of his responsibilities under this contract.

### **5.0 GENERAL CONDITIONS OF THE TENDER :**

- 5.1 'General Conditions of Contract, Forms and Agreements' as sanctioned by the Board of Trustees and attached herewith.
- 5.2 Only those Clauses, Forms or Formats, which are not covered elsewhere in this Tender Document, shall be applicable.
- 5.3 Also, for the sake of interpretation of the contents of the Appendices, the terms contained in the main tender document (other than Appendices) including the 'General Conditions of Contract, Forms and Agreements' shall prevail.

### **6. SPECIAL CONDITIONS OF TENDER :**

#### **6.1 PERIOD OF CONTRACT:**

- (a) The contract shall commence from the date of Order Letter.

- (b) All activities as per "SCOPE OF WORK" shall have to be completed within **60 days** from the date of Order Letter including "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY".
- (c) The contract shall remain valid for a period of 36 months, as per "Warranty", from the date of "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY".

## **6.2 DEFINITION OF "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY":**

"SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY" shall include successful supply, installation, seamless integration and comprehensive commissioning of all relevant components of the "SCOPE OF WORK ". This shall be certified by a committee to be formed by KoPT with the representatives of KoPT, Vendor and the FM Service provider of KoPT at KDS, as satisfactory after which it shall be deemed as "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY".

## **6.3 ACCEPTANCE OF ORDER LETTER:**

After finalization of the tender, KDS, KoPT shall issue Order Letter to the successful bidder. The successful bidder, on receipt of the same, shall remit requisite Performance Guarantee within a period of 30 days from the date of issuance of Order Letter, failing which the Order Letter will become liable for cancellation. Pending execution of Contract Agreement, (explained under Clause 6.17) the Order Letter and its acceptance by the successful bidder will be construed as an Agreement between KDS, KoPT and the successful bidder for fulfilling the scope of work and obligation of the contract by the successful bidder.

## **6.4 PRIORITY OF CONTRACT DOCUMENTS:**

- 6.4.1 The documents forming the Contract are to be taken as mutually explanatory to one another, but in case of ambiguity or discrepancies, the same shall be explained and adjudicated by the Engineer of the Contract (Joint Director (P&R)) , who shall thereupon issue to the successful bidder instructions thereon, which will be final and binding on the successful bidder.
- 6.4.2 Unless otherwise specified in the Contract, if the stipulations in the various documents forming a part of the Contract are found to be in variation in any respect then, unless a different intention appears, the provision(s) of one will override other (but only to the extent these are at variance) in order of precedence as given in the list below i.e. a particular item in the list will take precedence over all those placed lower down the list:

1. Order Letter
2. Special Conditions of the Contract
3. Scope of Work
4. Bill of Quantity
5. Instructions to Bidder
6. General Conditions of Contract
7. Any other document(s) forming part of the Contract

## **6.5 SERVICE TAX & CESS, if any:**

Service Tax and Cess, if any would be payable extra by KDS, KoPT as applicable. The successful bidder shall have to submit valid Service Tax Registration Certificate and disclose his Service Tax Code number along with his offer. The Bidder would also declare the applicable Service Tax rate in percentage with corroborating documents as specified in the Tender document.

The bidder should note that KoPT is not an entity registered a body corporate for the purpose of service tax law and therefore as per clause (v) of section A of Service tax notification no. 30/2102-ST dt. 20.06.2012, KoPT is not liable to pay service tax under reverse charge mechanism on the service of renting of motor vehicles to carry passengers, supply of manpower for any purpose and service portion in execution of works contract. In case of liquidated damages / damages / penalties or any recoveries, service tax at the appropriate rates will be charged on such deductions / recoveries and deducted from the bills of contractors.

## **6.6 PERFORMANCE GUARANTEE / SECURITY DEPOSIT:**

- 6.6.1 The successful bidder, at own expense, shall have to keep with KDS, KoPT a Security Deposit amounting to 10% of the Order Value (valid) for the entire period of contract plus three months in the form of Bank Guarantee as per Schedule B within 30 days from the date of Order Letter. If the successful bidder fails to pay the Security Deposit as indicated above, the Security Deposit will be recovered from the bill of the successful bidder ( clause 4.29 above ).
- 6.6.1 The Security Deposit shall be held by the "ENGINEER OF THE CONTRACT" ( i.e. Joint Director (P&R)) as security for the performance of the successful bidder's obligation under the contract. The Security Deposit shall be refunded without interest after successful completion of the entire period of contract plus three months subject to recovery of damage and / or loss incurred, if any, by KDS, KoPT due to default on the part of the successful bidder.

## **6.7 DELIVERY:**

All aspects of safe delivery shall be the exclusive responsibility of the successful bidder. KDS, KoPT reserves the right to reject any item, if found

unsuitable and/or not conforming to the specification provided in the Tender Document. The rejected items, if any, shall have to be taken back and replaced by good quality equipment forthwith at the cost of the successful bidder. No payment will be made for the rejected items. During installation at site, if any item is found to be defective or broken, it will be replaced with new one by the successful bidder at his own cost and risk.

KDS, KoPT may without prejudice to any other method of recovery, deduct the amount of such damages from any amount which is due or which may become due to the successful bidder. The payment or deduction of such damages shall not relieve the successful bidder from the obligation to complete the contract provisions / liabilities or from any other of his obligation or liabilities under the contract.

#### **6.8 WARRANTY:**

- 6.8.1 The successful bidder must provide onsite comprehensive (including spares & labour) next-business-day replacement warranty for all equipments for a minimum period of 36 (Thirty six) months from the date of "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY".
- 6.8.2 The successful bidder shall make good at his own expenses all defects due to faulty design, material and workmanship of the equipment, its integration and commissioning detailed in the Tender Document, which may develop during a period of 36 (Thirty six) months from the date of "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY". If any difference of opinion arises on any of the provisions of this clause, the decision of the Joint Director (P & R), KoPT shall be final and binding on the successful bidder.
- 6.8.2 In default the Joint Director (P & R), KoPT will be at liberty to get the repair / replacement of any / all faulty equipment, its integration and commissioning detailed in the Tender Document free of cost from the successful bidder without any obligation.

#### **6.9 SERVICE ENGINEER:**

- 6.9.1 The successful bidder shall have to station competent Service Engineer at KDS during the period of contract. The Service Engineer shall have to address / execute / resolve any / all issue(s) mentioned in the tender document, without any additional cost. Sufficient tools & spares for attending the complaint shall have to be maintained by the successful bidder.
- 6.9.2 During the warranty & CAMC period the successful bidder shall have to provide support on all working days ( from 0800 hrs. to 1800 hrs. ) and shall have to attend, isolate & rectify all fault(s), within 24 (twenty four) hours from the time of lodging of the complaint for any component of the CCTV surveillance system to the satisfaction of Joint Director (P & R), KoPT or her authorized representative, of the equipment detailed in the Tender Document.
- 6.9.3 If the successful bidder fails to rectify the fault within the stipulated time

frame ( both during Warranty and CAMC period ) as mentioned above, the successful bidder shall be required to pay penalty @INR 1000.00 per day or part of a day for the entire period of defect.

#### **6.10 INSPECTION:**

The "ENGINEER OF THE CONTRACT" may carry out an inspection of the products being offered independently or by engaging a third party inspection agency. It shall be the exclusive responsibility of the successful bidder to ensure the same as and when desired by the "ENGINEER OF THE CONTRACT".

#### **6.11 PAYMENT:**

- 6.11.1 Payment shall be made strictly as per provisions mentioned in the Payment terms ( clause 7.0 ). No other charges shall be admitted or paid.
- 6.11.2 Payment, subject to relevant conditions of the contract like Performance Guarantee etc., shall be made after submission of clear, correct and complete bills along with relevant documents, after "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY" or from the date of submission of clear, correct and complete bills, whichever is later.
- 6.11.3 As payment shall be made electronically, the successful bidder is required to submit information regarding bank details along with the Techno Commercial bid.
- 6.11.4 For non-fulfilment of any obligation under the contract, KDS, KoPT reserves the right to withhold the payments due to the successful bidder in part or full till such period as KDS, KoPT may consider necessary for due performance by the successful bidder.

#### **6.12 EVENT OF DEFAULT CASES:**

- (a) In case there is delay in "SUCCESSFUL EXECUTION OF THE ORDER IN TOTALITY" beyond 75 days.
- (b) If the successful bidder fails to perform or discharge any of its obligations under the provisions of the contract.
- (c) If representation made, or documents / certificates submitted or warranties given by the successful bidder during the tendering stage or during the currency of the contract is / are found to be false or misleading.

- (d) If the successful bidder is adjudicated bankrupt or insolvent.
- (e) If the successful bidder assigns or transfer job as per provisions of the contract to any third party without permission from KDS, KoPT.
- (f) If the successful bidder, through its employees, gets engaged or wrongly takes part in prohibited or unlawful activities or even fails to prevent such prohibited / unlawful activities.

**6.13 TERMINATION OF CONTRACT EITHER IN PART OR IN FULL:**

- 6.13.1 If at any point of time during the period of contract it is observed that supply / services under the provisions of this contract are not being rendered in part / full or not up to the satisfaction of KDS, KoPT and / or the legal obligations in respect of contract are not being fulfilled by the successful bidder, the Joint Director (P & R), KoPT through her authorized representative shall assess the position and if she is of the opinion that the service is not to the satisfaction of the authorities of KDS, KoPT and/or legal obligations are not being fulfilled by the successful bidder, Joint Director (P & R), KoPT shall terminate the full or part of the contract after giving 30 days' notice and her decision in the matter shall be final and binding on the successful bidder.
- 6.13.2 During the termination period of 30 days as above, the successful bidder may be asked by KDS, KoPT to continue to discharge its obligations under the contract as may be mutually agreed upon with the objective, as far as possible, of ensuring continued availability of the facilities and services.
- 6.13.3 **Risk Purchase :** Upon termination of the contract, for any of the reasons indicated in 6.13.1, Joint Director (P & R), KoPT shall be entitled to execute the balance work as per the scope of work at the risk and expenses of the successful bidder through any independent agency for the balance / remaining period/ portion of the contract and to recover from the terminated successful bidder in addition to any other amount, compensation or damages that KDS, KoPT is entitled to in terms of the other relevant clauses in the contract. KDS, KoPT will be entitled to retain or deduct money due under the contract from any amount due to the successful bidder under any other contract.
- 6.13.4 Security Deposit would be liable to forfeiture in case of pre-mature termination of the contract owing to breach of contractual obligation(s) by the successful bidder.
- 6.13.5 No compensation shall be paid by KDS, KoPT to the successful bidder in the event of termination of the contract.
- 6.13.6 If after termination, any amount is due to be paid by KDS, KoPT to the successful bidder, the same shall be paid after adjustment of the dues and damages receivable by KDS, KoPT from the successful bidder.

#### **6.13.7 Liquidated Damages payable by the contractors**

In case the firm engaged in the work fails to complete the work satisfactorily within the stipulated time period of 75 days, then liquidated damages @0.5% of the contract value, will be applicable for delay per week or part thereof subject to a maximum limit of 10% of the contract value of the work. Service tax at applicable rates shall be charged on all damages and penalties as per statute.

#### **6.14 SUCCESSFUL BIDDER TO INDEMNIFY:**

##### **6.14.1 Damage & loss to private property & injury to workmen**

The Contractor shall at their own expenses, reinstate and make good upto the satisfaction of Kolkata Port Trust and pay compensation for any injury or loss or damage accrued to any property or rights whatsoever, including property and rights of Kolkata Port Trust or Agents or servants or employees of Kolkata Port Trust, the injury, loss or damage arising out of or in any way in connection with the execution or purported execution of the contract(s) and further, the Contractor will indemnify Kolkata Port Trust against all claims enforceable against Kolkata Port Trust or any Agents, servant or employees of Kolkata Port Trust or which would be so enforceable against Kolkata Port Trust where Kolkata Port Trust is a private person, in respect of any such injury including injury resulting to death, loss or damage to any person whomsoever or property including all claims which may arise under the Workmen's Compensation Act or otherwise

**6.14.2** The successful bidder shall indemnify KDS, KoPT from the possible future demand of workers / employees engaged by them under this contract, for absorption in KDS, KoPT. It will be the responsibility of the successful bidder to find a solution for such demand if it arises.

#### **6.15 CONTRACT AGREEMENT:**

The successful bidder shall be required to execute at his own cost and expenses a "Contract Agreement" on a Non-Judicial Stamp paper valued at INR 100.00 or more signed jointly with KDS, KoPT under official seals within a period of 30 days from issuance of Order Letter. Format of the agreement shall be as per Schedule G.

#### **6.16 AMENDMENT:**

In case of exigency or for operational requirements, the conditions of the contract may be amended with mutual consent of both the parties, subject to the condition that such amendments are in conformity with the prevailing policy of Government of India and law(s) of the land.

#### **6.17 ILLEGALITY/INVALIDITY OF CONTRACT PROVISION:**

If for any reason whatsoever, any provision and condition of the contract is held to be void, illegal or invalid under present or future laws or regulations effective and applicable during the contract period, such provision shall be treated as fully separable and the remaining provision of the contract shall remain in full force. The other provisions of contract shall not be affected by such illegal or invalid provisions or by its severance from this contract. For the sake of smooth execution of the contract, any new condition(s) as may be mutually acceptable in supersession of the affected provision and condition of the contract shall be deemed to be a part of the contract from such point of time.

#### **6.18 AMICABLE SETTLEMENT:**

If any dispute or difference or claims of any kind arises between the successful bidder and KDS, KoPT in connection with interpretation or application of any terms and conditions or any matter or thing in any way connected with or in connection with or arising out of the contract, or the rights, duties or liabilities of the parties under the contract, then the parties shall meet together promptly at the request of any party in an effort to resolve such dispute, difference or claim by discussion between them.

#### **6.19 SETTLEMENT OF DISPUTES:**

**6.19.2** Should any dispute, barring legal ones, arise between KDS, KoPT and the successful bidder in connection with this contract, the dispute/difference in opinion will be resolved by Chairman, KDS, KoPT, which shall be final and binding upon the successful bidder.

**6.19.3** In case of any legal dispute between KDS, KoPT and the successful bidder in connection with this contract, the same shall be referred to arbitration in accordance with the provisions of the Indian Arbitration and Conciliation Act, 1996, as amended from time to time. The venue of the arbitration shall be at Kolkata, India.

#### **6.20 GOVERNING LAWS, DAMAGE TO ASSETS AND RELATED ISSUES:**

This contract shall be governed by and construed in accordance with the prevailing laws of the Republic of India. The successful bidder shall fulfil all legal obligations in respect of the contract. KDS, KoPT shall accept no liability whatsoever in the matter and also in case of accident, if any.

**6.21** The successful bidder shall be fully and exclusively liable for the payment of any and all taxes now in force and / or hereafter imposed, increased or modified from time to time in respect of the above job and all contributions and taxes for unemployment compensation, insurance and old age pensions and amenities now or hereafter imposed by any law of the Government / Local Bodies which are imposed with respect to or covered by the wages, salaries or other compensation paid to the persons employed by the successful bidder. KDS, KoPT shall have no liability whatsoever concerning the personnel of the successful bidder. The successful bidder shall keep KDS, KoPT indemnified against all losses or damages or liability arising out of or imposed in the course of employing



the persons or out of his relation with his employees. The successful bidder shall make regular and full payment or wages / salaries and other payments due to his employees and furnish necessary proof whenever required by KDS, KoPT. The successful bidder shall be liable to pay any increase of wages / salaries, if any, of his employees during the contractual period.

**6.21.1** The successful bidder shall defend, indemnify and hold KDS, KoPT harmless from any liability or penalty, which may be imposed by the Central / State Government or Local Authorities by reason of any regulations or requirements and also from all claims, suits arising out or by reason of the work required in this contract including any liability that may arise out of any accident.

**6.22** The successful bidder must ensure that no inconvenience or loss or damage of any asset belonging to either KDS, KoPT or stakeholders of KDS, KoPT takes place during the entire period of contract due to fault on the part of the successful bidder. The successful vendor shall be solely accountable for all liabilities and losses, if caused and the decision of the "ENGINEER OF THE CONTRACT" in such matters shall be final and binding on the successful bidder. The successful bidder shall be required to make good any loss as ascertained by the "ENGINEER OF THE CONTRACT" within the period indicated by the "ENGINEER OF THE CONTRACT".

### **6.23 FORCE MAJEURE:**

**6.23.1** Force Majeure Event - Force Majeure Event shall mean any event or circumstance or a combination of events and/or circumstances set out hereunder or the consequences thereof which materially and adversely affect the successful bidder in due performance of its various obligations under the contract.

- (a) Acts of God, rain, storm, cyclone, hurricane, flood, or fire.
- (b) Strikes, boycotts or other forms of labour unrest, excluding strike or boycotts by employees of the successful bidder.
- (c) Act of war, riot.

**6.23.2** Notice of Force Majeure Event - The successful bidder shall give notice to KDS, KoPT in writing of the occurrence of the Force Majeure Event ["the Notice"] as soon as the same arises which in any event shall be within 24 hours from the time of occurrence.

The notice shall inter-alia include full particulars of:

- (a) The nature, time of occurrence and extent of the Force Majeure Event with evidence in respect thereof,
- (b) The duration or estimated duration and the effect or probable effect which such Force Majeure Event has or will have on the successful bidder to perform its obligations under the contract,
- (c) The measures which the successful bidder has taken or proposes to take, to alleviate the impact of the Force

Majeure Event, and

(d) Any other relevant information.

6.22.3 **Period of Force Majeure** - Period of Force Majeure shall mean the period from the time of occurrence specified in the notice given by the successful bidder in respect of the Force Majeure Event until the earlier of:

(a) Expiry of the period during which the successful bidder is excused from performance of its obligations

Or

(b) Termination of the contract.

6.23.4 **Performance Excused** - The successful bidder, to the extent rendered unable to perform its obligations or part thereof under the contract as a consequence of the Force Majeure Event, shall be excused from performance of the obligations provided that the excuse from performance shall be of no greater scope and of no longer duration than is reasonably warranted by the Force Majeure Event.

6.23.5 **Resumption of Performance** - During the period of Force Majeure, the successful bidder shall make all reasonable efforts to limit or mitigate the effects of the Force Majeure Event on the performance of its obligations under the contract. The successful bidder shall also make efforts to resume performance of its obligations under the contract as soon as possible and upon resumption shall notify KDS, KoPT of the same in writing.

6.23.6 **Extension of time for performance of obligations** - KDS, KoPT may grant extension of time to the successful bidder for the performance of any obligation by such period not exceeding the period during which the relative performance was affected by the Force Majeure Event. Such extension may include extension of the contract by KDS, KoPT.

6.23.7 **Termination due to Force Majeure Event** - If the period of Force Majeure continues or is in the reasonable judgment of the parties likely to continue beyond a period of 90 days, the parties may mutually decide to terminate the contract or continue the contract on mutually agreed revised terms.

#### **6.24 DETERMINATION OF RESPONSIVENESS:**

Prior to evaluation of Techno Commercial part of the tender, KDS, KoPT will determine whether each offer is responsive to the requirement of the Tender Document. An offer shall be considered responsive if the tender -

- (a) Is received by the due date and time including extension thereof, if any,
- (b) Is signed, sealed and marked as stipulated in this Tender Document,
- (c) Is accompanied by the required Covering Letter,
- (d) Is accompanied by the required Power of Attorney,
- (e) Contains all the pages of the Tender Document including Addendum, if any, duly signed as stipulated in this Tender Document,
- (f) Contains all documents, information, certificates, certification / authorization from OEM etc. as requested in this Tender Document,
- (g) Contains information/details in formats specified in this Tender Document,
- (h) Is accompanied by certificates of Chartered Accountant etc. as applicable,
- (i) Is consistent with respect to details submitted in the tender and supporting documents,
- (j) Has not proposed any deviation whatsoever as compared to the terms & conditions, scope of work etc. detailed in the Tender Document together with subsequent amendment(s) / modifications(s) thereof made through issuance of Addenda, if any.

#### **6.25 CLARIFICATION DURING EVALUATION PROCESS:**

To assist in the process of evaluation of Tender, KDS, KoPT may, at its sole discretion, ask any Bidder to provide additional documents/details, seek clarification in writing from any bidder regarding its offer. The request for providing such additional details/documents and/or clarification and the response shall be in writing. KDS, KoPT reserves the right to reject any offer which is non-responsive.

#### **6.26 CONFIDENTIALITY :**

Information required by KDS, KoPT from the bidder for the purpose of examination, evaluation etc. of offer will be kept confidential by KDS, KoPT and no such information will be divulged, unless it is ordered to do so by any authority that has power under the law to do so.

## **6.27 EVALUATION OF TECHNO COMMERCIAL BID:**

- 6.27.1 The techno commercial offers of the bidders found responsive will then be evaluated as per eligibility criteria as detailed in this tender document.
- 6.27.2 KDS, KoPT reserves the right to get the financial capability of the bidder verified from the Annual Accounts of the bidder (to be submitted along with Techno Commercial Bid) and in case of any discrepancy found, findings, as will be ascertained by KDS, KoPT, shall prevail for the purpose of evaluation.
- 6.27.3 Mere submission of offer / participation shall not mean that it will be automatically considered qualified and entertained. Such qualification will be done at the time of evaluation of offers.

## **6.28 EVALUATION OF PRICE BID:**

- 6.28.1 Evaluation of rates will be carried out per format of "Bill of Quantity" with NO COUNTER CONDITIONS / DEVIATIONS WHATSOEVER. Non compliance of the same shall result in outright rejection of the offer. The price to be submitted according to the BOQ.
- 6.28.2 The Bill of Quantity must contain the comprehensive price offer excluding statutory components like Service Tax and Cess if any
- 6.28.3 Statutory Components only like Service Tax and Cess, if any as applicable and shall be paid at actual should be shown separately.
- 6.28.4 If the lowest rate is quoted by more than one bidder, the bidders concerned offering the lowest rate will be required to submit rebate on such rate within 3 days from the date of opening of Price Bid, in sealed cover to ascertain the revised successful bidder.

KDS, KoPT, at any stage, reserves the right to accept or reject any or all the offers without assigning any reason whatsoever.

### **6.28.5 The basic rate:**

The basic rate ( including all taxes and duties excluding Service tax & cess, if any ) quoted in the tender shall hold good and shall be binding on the tenderer, not withstanding any increase in the prices of materials and labour or in the freights or levy of other charges whatsoever and the tenderer shall not be entitled to claim any increase over the rates quoted by him during the period of currency of the contract except taxes and duties as introduced / modified by Govt. from time to time with respect to Service Tax and Cess, if any.

## 6.29 Notification of the award of contract

The successful tenderer is to be notified that their offer has been accepted and the basis on which, the tender has been accepted through 'Notification of the award of contract'. The 'Notification of the Award of Contract' will constitute the information of a contract until the contract has been effected pursuant to Clause 12 of "General Instructions to Tenderers".

## 7.0 Payment terms :-

Payment will be made as per the payment terms mentioned below:-

- i. **30%** payment will be made after supply of all materials and received by KoPT officials.
- ii. **60%** payment will be made after completion of the work in totality and integration, testing of all cameras with the KDS network and acceptance of the entire work by KoPT.
- iii. **10%** payment will be made after expiry of warranty period of 36 months from the date of acceptance of the work. Instead the firm may submit a BG equivalent to 10% of the contract value from any schedule bank against which the payment may be released. The validity period of the BG would be the total Warranty period of 36 months plus 3 months i.e. 39 months.

## 8.0 Comprehensive Annual Maintenance Contract (CAMC):

- 8.1 The firm would require to provide **CAMC (Comprehensive Annual Maintenance Contract i.e. including replacement of spare parts )** for the entire CCTV surveillance system under the subject contract for a period of 4 (four ) years after completion of the Warranty period of 36 months.
- 8.2 The firm should also indicate the year-wise CAMC charges for a period of 4 years which will be applicable after the warranty Period. The quoted CAMC value will be considered for evaluation of total price for the project..
- 8.3 During CAMC period, payment will be made on quarterly basis after satisfactory completion of service during each quarter. Failure of the CCTV cameras or any of the accessories leading to failure of the video recording will attract penalty at the rate as mentioned above ( @ Rs. 1000/- per point of failure ), subject to a maximum of the total payable amount. The firm would require to submit bank guarantee of 10% of the CAMC value as security deposit to be valid for the entire period of CAMC plus three months, prior to start of the CAMC.

#### **8.4 Completion Time:**

The entire project will have to be executed within **75 days** [including Sundays, holidays etc.] from the date of acceptance of the firm work order. The contractor will be at liberty to work from 08-00 hours to 20-00 hours on weekdays, Saturdays, Sundays and holidays. The job will be certified by the Joint Technical Committee comprising representatives of KoPT and the contractor, to be constituted after placement of the Work Order.

#### **8.5 Earnest Money Deposit (EMD) :**

EMD of an amount of Rs. 2 lakhs to be submitted in the form of Bank Draft / Bankers Cheque in the name of Kolkata Port Trust payable in Kolkata.

**9. Technical Specification of the cameras and other components :**

**Technical Specification :**

**A. Outdoor High Performance colour Day/ Night True IP based IR PTZ HD Dome camera :**

<b>Sl. No.</b>	<b>Parameters</b>	<b>Description</b>
1	Image sensor and Resolution	1/3" progressive CMOS sensor
2	Scanning system	Progressive scanning
3	Multi streaming	Tri streaming or more with individually configurable HD streams
4	Compression Technology	H.264 , MJPEG
5	Recording Resolution	16:9 HD Resolution with 1920 x 1080 pixels at 25 fps or higher
6	Storage Redundancy	The camera should have built in SD card slot for video storage of 32 GB or higher on the edge during any type of physical link failure to ensure mission critical 24 x 7 surveillance.
7	Day / Night function & IR Illumination	Mechanically switching IR cut filter for D/N operation. The IR filter should cover a distance of 100 mtrs. or above during night.
8	Lens	30X optical zoom ( 4.3 – 129 mm) or better and 10X Digital zoom or higher
9	Anti fog	The camera should have improved visibility when viewing foggy or low contrast scenes
10	Iris / Focus	Automatic with manual override
11	Sensitivity	Day & Night operation with minimum illumination 0.002 Lux at 50 IRE or better
12	Dynamic Range	75 db or better for enhanced image quality in different non uniform lighting situation
13	Gain Control	Auto / Manual
14	Presets	256 or more, each with 20-character titles and also option for guard tours

15	Dome bubble	Polycarbonate, clear with UV blocking and anti scratch coating
16	Water / Dust protection	Confirming to IP66 or NEMA 4X certifications with built in heater and blower
17	Operating temperature	Upt 55 <sup>0</sup> C to withstand harsh outdoor heat during summer
18	Operating humidity	90% RH or higher at non-condensing situation to with stand critical outdoor humid weather condition during heavy rainfall
19	Shutter speed	1/1 to 1/1000 sec
20	Electrical	21-340 VAC 50 Hz /POE+ ( IEEE802.3at, class 4 standard
21	Power Redundancy	In case the camera is connected to both 240 AC power supply and POE input, the HD PTZ camera shall switch to the high POE or POE+ power supply if power from 240 VAC is lost with no interruption to camera operation. This will ensure uninterrupted video surveillance in case of local power failure
22	Image stability	Built in Image stabilisation function with motion detection feature
23	PAN, Range and Speed	360 <sup>0</sup> continuous with manual Pan speed from 0.1 <sup>0</sup> /s to 180 <sup>0</sup> /s
24	Tilt angle and speed	180 <sup>0</sup> or higher with manual tilt speed from 0.1 <sup>0</sup> /s to 120 <sup>0</sup> /s
25	Zoom adjustment	The HD PTZ camera should provide zoom adjustment feature that reduces the pan / tilt speed as the camera zoom is on an object so that the relative speed on the screen remains constant
26	Protocols	Should support RTP, Telnet, UDP, TCP IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/ V3, ICMP, ARP, SMTP, SNTP, SNMP V3, RTSP, 802.1x, iSCSI , DynDNS, UPnP, IPv4, IPv6, QoS, SSH, SSL, PPPoE
27	Warranty	3 years warranty from manufacturer
28	Certifications and Compliance	UL, EN, FCC , IK10 and ONVIF Compliant (Profile S)
29	Other Requirement	IP66 fittings / enclosures from same OEM. Model no. to be mentioned
30	Make	BOSCH, PELCO, SONY, INFINOVA, TYCO, PANASONIC, HONEYWELL ( Except VISTA )



**B. Outdoor High Performance colour Day/ Night True IP based Fixed HD Box camera :**

<b>Sl. No.</b>	<b>Parameters</b>	<b>Description</b>
1	Image sensor and Resolution	1/3" progressive CMOS sensor
2	Scanning system	Progressive scanning
3	Multi streaming	Tri streaming or more with individually configurable HD streams
4	Compression Technology	H.264 , MJPEG
5	Recording / Encoding Resolution	Upto 1920 x 1080 pixels at 25 fps or higher with aspect ratio 16:9
6	Storage Redundancy	The camera should have built in SD card slot for video storage of 32 GB or higher on the edge during any type of physical link failure to ensure mission critical 24 x 7 surveillance.
7	Day / Night function	Mechanically switching IR cut filter for D/N operation.
8	Lens	10 to 40 mm or better varifocal IP corrected auto Iris SR lens, F 1.4- F8, equivalent resolution of 2 mega pixel or higher
9	Anti fog	The camera should have improved visibility when viewing foggy or low contrast scenes
10	Iris / Focus	Automatic
11	Sensitivity	Day & Night operation with minimum illumination from 0.001 Lux to 0.1 Lux at 30 IRE or better, F1.2
12	Dynamic Range	75 db or better for enhanced video quality in different non uniform lighting situation
13	Camera contrast	BLC / Contrast / White Balance
14	Back Light compensation	Off/ Auto
15	Housing	Outdoor housing conforming to IP 66 from

		same OEM
16	Operating temperature	Upto 50 <sup>0</sup> C ( +_ 5 <sup>0</sup> ) to withstand harsh outdoor heat during summer
18	Operating humidity	90% RH or higher at non-condensing situation to with stand critical outdoor humid weather condition during heavy rainfall
19	Shutter speed	1/1 to 1/5000 sec, PAL
20	Electrical	21-340 VAC 50 Hz /POE+ ( IEEE802.3at, class 1 standard
21	Power Redundancy	In case the camera is connected to both 240 AC power supply and POE input, the Fixed HD Box camera shall switch to the high POE or POE+ power supply if power from 240 VAC is lost with no interruption to camera operation. This will ensure uninterrupted video surveillance in case of local power failure
22	Mounting	Wall or Pole mounting with necessary brackets / angles / frames / fittings
23	Contrast Enhancement	On / off
24	Tilt angle and speed	180 <sup>0</sup> or better with manual tilt speed from 0.1 <sup>0</sup> to 300 <sup>0</sup> /s
25	Protocols	Should support RTP, Telnet, UDP, TCP IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/ V3, ICMP, ARP, SMTP, SNTP, SNMP V3, RTSP, 802.1x, iSCSI , DynDNS, UPnP, IPv4, IPv6, QoS, SSH, SSL, PPoE
26	Warranty	3 years warranty from manufacturer
27	Certifications and Compliance	UL, EN, FCC, IK10 and ONVIF Compliant (Profile S)
28	Make	BOSCH, PELCO, SONY, INFINOVA, TYCO, PANASONIC, HONEYWELL ( Except VISTA )

**C. Indoor HD 2 MP vandal resistant IR IP Minidome camera with auto focus :**

<b>Sl. No.</b>	<b>Parameters</b>	<b>Description</b>
1	Image sensor and Resolution	1/3" progressive CMOS sensor
2	Scanning system	Progressive scanning
3	Multi streaming	Tri streaming or more with individually configurable HD streams
4	Compression Technology	H.264 high profile , MJPEG
5	Recording Resolution	1920 x 1080 pixels at H.264/ M-JPEG
6	Storage Redundancy	The camera should have built in SD card slot for video storage of 32 GB or higher on the edge during any type of physical link failure to ensure mission critical 24 x 7 surveillance.
7	Day / Night function	ICR
8	Lens	F1.2, f=3.0-9.0 mm Motorized zoom lens for auxiliary focus
9	IR Wavelength	850 nm or above
10	Iris / Focus	Automatic with manual override
11	Sensitivity	Colour mode : 0.05 Lux @F1.2 , 30 IRE, B/w mode : 0 lux @F 1.2(IR ON)
12	Dynamic Range	72 db or better
13	Gain Control	Auto / Manual
14	White balance	Auto / Manual/ Incandescent Light/ Cool white fluroscent light / Sun light/ Cloudy/ Natural light
15	IR Illumination distance	20 m or above
16	Alarms	2 alarm inputs, 1 relay output
17	Operating temperature	Upt 50 <sup>0</sup> C
18	Operating humidity	90% RH or higher at non-condensing situation to with stand critical outdoor humid weather condition during heavy rainfall
19	Shutter speed	1/25 to 1/8000 sec ( auto / manual)

20	Electrical	21-340 VAC 50 Hz /POE+ ( IEEE802.3af, class 3 standard
21	Power Redundancy	In case the camera is connected to both 240 AC power supply and POE input, the HD Mini dome camera shall switch to the high POE or POE+ power supply if power from 240 VAC is lost with no interruption to camera operation. This will ensure uninterrupted video surveillance in case of local power failure
22	Camera angle adjustment	Panning : $0^{\circ}$ -- $340^{\circ}$ , Tilting : $0^{\circ}$ – $72^{\circ}$ , Rotating : $0^{\circ}$ – $340^{\circ}$
23	Frame rate	25 fps or higher
24	Protocols	Should support RTP, Telnet, UDP, TCP IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/ V3, ICMP, ARP, SMTP, SNTP, SNMP V3, RTSP, 802.1x, iSCSI , DynDNS, UPnP, IPv4, IPv6, QoS, SSH, SSL
25	Warranty	3 years warranty from manufacturer
26	Certifications and Compliance	UL, EN, FCC and ONVIF Compliant (Profile S)
27	Make	BOSCH, PELCO, SONY, INFINOVA, TYCO, PANASONIC, HONEYWELL ( Except VISTA )

**Server Specification : ( Make : HP / DELL / IBM / SUN /ORACLE )**

**1. Master / Recording Server specification : 2 nos.**

Hardware Platform :

CPU	:	Intel Xeon Quad core 3.2 GHz or latest
RAM	:	32 GB minimum
Ehternet	:	10 GB preferred
HDD	:	1 TB – E-IDE, PATA, SATA, SCSI, SAS ( 10000 RPM)

Graphics card as per available standard specification.

Operating system	:	Windows Server ( 64 bit ) latest or LINUX
Database	:	Open Source database like MYSQL or any other with high availability support

**2. ANALYTICS and ANPR Server specification : 2 nos.**

Hardware Platform :

CPU	:	Intel Xeon Quad core 3.2 GHz or latest
RAM	:	32 GB minimum
Ehternet	:	10 GB preferred
HDD	:	1 TB – E-IDE, PATA, SATA, SCSI, SAS ( 10000 RPM) ON BOARD GFX or PCI Express, minimum 1024 x 768 , 16 Bit colour

Graphics card as per available standard specification.

Operating system	:	Windows Server ( 64 bit ) latest or LINUX
Database	:	Open Source database like MYSQL or any other with high availability support

**3. Workstation / Client specification ( HP/ DELL/ LENOVO/ACER )**

Intel core i5 with 8 GB RAM, 2 TB HDD, Windows 8.1 ( Licensed version ) or latest, 8 GB dedicated Graphics card, Key board, Mouse, USB Port, HDMI port, DVD writer, LAN port and other standard features.

**NAS for video storage : ( Make : DELL / HP / IBM / EMC / NETAPP/Hitachi )**

The NAS is required for the centralised video data storage directly over the network. The NAS should be compatible with the Video Management Software, Video Analytics and the ANPR. The NAS should be expandable for addition of NAS boxes in future.

Sl no.	Specification	Compliance Yes / No
1	The proposed storage system should be among the top 5/6 high end modular storage i.e should exist in the Leaders of the latest Gartner Magic quadrant. The system should be 2U Rack Mountable chasis	
2	Processor : Intel Xeon processor – latest model. The storage system must have at least two controllers running in active-active mode with automatic failover to each other in case of one controller failure. The chasis of the controller should be separate providing no single point of failure from day 1.	
3	HDD Capacity : upto 32 TB – ( 4 x 8TB ) or higher - for 1 Box	
4	Usable storage : 22 TB with 7 LUN, RAID 5 data redundancy and 200 mbps bandwidth for video application or higher . the RAID implementation on the storage will be such that it is able to protect against two drive failing in the same RAID group simultaneously or at an overlapping time without affecting the performance of the system.	
5	Pre installed licensed software for industry leading operating system platforms like LINUX, Windows Server 2013 R2, 64 bit operating system software for secured and robust application surveillance system.	
6	Hot swappable, Hot pluggable hard drives	
7	Remote monitoring via desktop application or browser	
8	Operating temperature 10 <sup>0</sup> C to 40 <sup>0</sup> C and RH upto 90% or better	
10	Cache Memory 1x 8MB level 2 cache or higher	
11	Memory protection ECC unbuffered or better. Max front side bus 1333 Mhz	

12	Protocol supported : NFS / CIFS / SMB /Iscsi/fc ( depending upon the solution requirement)	
13	2018 base SAS / SATA RAID card 8 internal ports / low profile PCL-E	
14	Memory installed 16 GB DDR3 ECC UNB ( 4 x 4 GB )	
15	Graphics card as per available standard	
16	Dual Intel DVD writer	
17	Dual Intel 82574L Gigabit LAN	
18	Dual Hot swappable active Power supply for the system reliability or better	
19	4 USB 2.0/3.0, 2 in rear, 2 in front ( type A in front )	
20	Expandability : It should be expandable upto minimum 4 NAS box where each NAS box should have minimum capability upto 4 x 8TB HDD with Dual gigE ports, RAID 5 data redundancy, dual SMPS	
20	3 years on-site manufacturer warranty. OEM should have spare depot in Kolkata.	
21	UL, FCC, CE Certifications	

### Intelligent Network Video Management Software – INVMS

The intelligent video management software shall enable management and control of live and recorded video, seamlessly integrating analog and digital video components. This shall be designed for small and medium sized deployments and all-in-one architecture shall be based on one standard PC serving as the recording server, system and client. The system shall be easy to install, configure, maintain and provides all levels of security personnel with intuitive and reliable control. This shall enable fast detection of potential threats and emergency event management. The INVMS shall comply with the following requirements.

SPECIFICATIONS	COMPLIANCE (Yes / No)
<b>Network Video Manager</b>	
Network Video manager shall be a feature-rich system which includes video management software, control and command center, hybrid NVR/DVR software, virtual matrix and any other required software & <b>compatibility with Video Analytics Module.</b>	
Network Video Manager shall use fully distributed architecture to avoid single point failure.	
A Client/server configuration shall be able to supports up to five servers and an <b>unlimited number of users</b> ; ideal for installations with many megapixel and HD cameras.	
For seamless integration, the IVMS shall be from the same OEM as the offered camera. However the Software shall be ONVIF complaint & NO CLOSED ENDED SOFTWARE SHALL BE ACCEPTED.	

MODEL NUMBER OF THE OFFERED SOFTWARE SHALL BE CLEARLY MENTIONED ON THE ONVIF WEBSITE	
<b>Simultaneous Functioning</b>	
Recording	
Alarms handling	
Live view	
Camera control	
Map view	
Video analytics	
Playback	
Configuration and reports	
Multiple monitor support	
<b>Video Input</b>	
Hybrid solution supporting analog video as well as IP video	
Video cameras, video encoders, video servers and DVR models	
Support for mega pixel cameras.	
MJPEG, MPEG4, H264 formats	
IR cameras	
Supports dual stream cameras, triple stream cameras	
Independent FPS, resolution and bit rate settings for display stream, recording stream and video analytics stream	
Fully optimized video capture to minimize the bandwidth usage	
Flexible architecture to quickly integrate any new cameras	
Auto search for IP video devices	
Auto search analog cameras	
Y-flip video to manage difference in co-ordinate systems	
Automatic restore of video connection	
Fixed cameras and PTZ cameras.	
<b>Alarms Management</b>	
Dedicated recent alarms console screen	
Ability to independently configure alarm management for alarms generated from different sources	
Alarm categories – Logs, Warnings and Alerts	
Manual and auto alarm acknowledgement	
Advanced alarm acknowledgement screen displaying active alarms queue; and live and alarm videos associated with each of them	



<b>Live Video View</b>	
Tree view of cameras and sequences	
Drag and drop camera selection	
Patrolling mode / video sequences	
Multiple layout options combined with patrolling mode	
Page navigation within layout	
Compact layout button	
Digital PTZ	
Interactive digital PTZ	
Magnifying glass	
Video overlay text	
Bandwidth usage indicator	
Multiple live view screens (up to 14)	
Independent layout settings for each screen	
<b>Camera Control</b>	
Camera PTZ	
Presets and tours	
USB joystick support	
CCTV keyboard support	
Drag and drop camera selection	
<b>Map View</b>	
Dedicated map view screen	
Tree view of cameras and sequences	
Drag and drop camera selection	
JPEG / BMP map images	
Camera / device indicators on map	
Alarm indication on map	
Live video display of multiple channels and sequences on map	
Video view state and camera indicator state for each camera	
Device indicators display on the map	
Alarm indicator on map	
Digital PTZ for map	
Interactive digital PTZ	
Map location presets	

<b>Reports and Logs</b>	
Session logs display	
Session alarms display	
Detailed user logs / activity reports / system logs	
Search user logs to generate reports	
Report includes details like activity description, source IP address	
Alarms search to generate alarm reports	
Search alarms based on alarm type, channel and time duration	
Alarm video display with video navigation controls	
Quick access to multi-channel playback and video export associated with search results	
Print logs	
Save logs in TXT, CSV or PDF formats	
Print reports	
Save reports in TXT, CSV or PDF formats	
Automated daily reports saving	
Automated daily reports e-mailing	
Print images	
<b>Playback</b>	
Synchronized playback of multiple video channels	
Video navigation - play, pause, up to 16X fast forward and up to 16X rewind	
Time-lapse video playback mode	
Time based playback	
Alarm based playback	
Tree view of cameras	
Drag and drop camera selection	
Multiple layout options	
Page navigation within layout	
Compact layout button	
Digital PTZ	
Interactive digital PTZ	
Magnifying glass	
Video overlay text	
Multiple playback screens (up to 14)	

Independent layout settings for each screen	
Recording history indicator	
<b>Users and Privileges</b>	
Multiple user levels and privileges	
Built in standard privileges	
Ability to define custom privileges	
Built in standard uses	
Unlimited number of users can be added	
Ability to associate / change privilege for any user	
Ability to disable a user. Ability to delete a user	
Administrator control to change password for any user	
User information like name, contact information etc.	
<b>Video Export</b>	
Video export based on time duration or alarm	
Option for video overlay text on exported video	
Standard format video export, exported video can be played in any standard media player like Windows Media Player	
Native format video export with player application	
<b>User Interface</b>	
Multiple monitors and video walls support	
Virtual matrix	
Video thumbnail views	
Full screen view of any video channel	
Quick set up wizard for easy initial configuration	
All windows can be resized to custom sizes	
Single click 'Fit to screen size' support for all windows	
Recording status summary	
Video channel availability summary	
Video analytics status summary	
Integrated web server	
Simultaneous functioning of all features	
View video channels as a list or as thumbnails	
<b>Data Management</b>	
Archiving or deleting history data	
Manual data clean up	

Scheduled data clean up	
Manual data archiving	
Scheduled data archiving	
Video player application is available along with the archived data for reviewing archived data	
<b>Server Application</b>	
Standard web based architecture	
Encrypted data communication between server and clients	
Support for port forwarding to support far away / remote clients	
Client software can be download from server URL	
Automatic client software upgrade, if required	
Multi-site monitor - connect to multiple servers and view combined data	
Ability to simultaneously view live videos from multiple clients	
Ability to simultaneously view Playback videos from multiple clients	
Automatic time synchronization with server computer	
Automatic time synchronization between multiple connected server computers	
Configuration to get live video streams from server or directly from cameras	
Smartphone client	
<b>Video Analytics</b>	
Shall support Intrusion Detection	
Shall Support Unattended Object Detection	
Shall Support Left Object Detection	
Shall Support Camera Tempering Alarm	
Shall Support Loitering Detection	
Shall support Event Based Search	
<b>Licenses</b>	
Base License to support streaming of 64 cameras in a single Video Management Server at 1080p 25 fps	
Recording License for 67 cameras	
Video Analytics License for the fixed cameras	
Bidder to clearly specify the number of video management & video analytics server required with declaration from the OEM on letter head	

### **Vehicle Entry-Exit Monitoring at Gates using ANPR**

The vehicle entry and exit are to be monitored at the gates to realize the following functionality:

- Generating report of all vehicles that have entered/Exited during a specified time slot
- List of all vehicles that are within premises (i.e, Entered but not exited yet)
- List of all vehicles that are within the premises for more than a user specified time limit.
- Incidence list of any particular vehicle showing how many times and when that vehicle has entered/exited the premises.
- Search of vehicle log by colour of the vehicle
- Provision to generate an Alert if a vehicle that is marked a 'Not permitted' appears at the Entry/exit gate
- Provision of additional report which will be finalized in consultation with concerned users during implementation.

**Specification of 8-port POE switch : ( Make : Cisco /HP/ Juniper/ Extreme/ Avaya/ Dell)**

Sl no.	Description	Compliance ( Yes / No )
1	Port type /density /architecture	
	<p>a)All ports on the switch should be of non-blocking architecture</p> <p>b)Switch ports of 8 x 10/100/1000 Base T(PoE +) with additional 4x SFP ports for uplink loaded with 4x SFP modules..</p> <p>All Copper ports to support 802.3at, 802.3af</p>	
2	Switching fabric 20 Gbps	
3	Should have minimum 256 MB DRAM and 256 MB Flash	
4.	<p>Resiliency Support.</p> <p>1.Should support 802.1w,802.1S,PVST+,</p> <p>2.Should support ITU G.8032 fast ring based network recovery</p> <p>3. Should support 128 or more LAG group support</p>	
5.	Switching/ Security /QOS	
	<p>1.Support Private Vlan , Vlan Translation , 802.1V, MAC Vlan , and VMAN(Q-in-Q)</p> <p>2.Minimum 1k Configurable VLANs with Port, 802.s1Q tag Protocol , MVRP</p> <p>3.Should support 16K MAC address , 1K hardware Multicast entries and minimum 1K ACL</p> <p>4.Minimum 8 hardware queues per port , 64kbps bandwidth rate limit granularity.</p> <p>5.Should support policy based traffic redirection and IP route concession</p> <p>6.Sshould 802.1x with dynamic vlans and local radius server. Should also have guest</p> <p>VLAN and web based captive portal.</p> <p>7.Should support Many to many mirroring per session ,multisession mirroring and Remote Mirroring</p>	

	<p>8.Should support IPv6 in hardware and software from day 1</p> <p>9. Should support DHCP Snooping , Trusted DHCP server , Packet Anomaly Detection ,</p> <p>DHCP Secured ARP, GARP protection.</p> <p>10.Should support DOS protect , Loop detection and prevention , Storm control for multicast , unicast and broadcast</p> <p>11.Should support flexible traffic analysis with NetFlow or sFlow</p> <p>12.Should support minimum 16 K arp entries</p>	
6.	<p>Management Features:</p> <p>1.Supports embedded DHCP Server , BOOTP, support Embedded Event Manager with support for event based macro execution.</p> <p>2. SNMPv3 , NTP, HTTPS,SSHv2,SCP2,SFTP</p> <p>3.L2 Ping &amp; L2 trace route , IPv6 telnet and TFTP , LLDP and CDP</p> <p>4.Switch should have OS api interfaces to integrate with 3<sup>rd</sup> party application s</p> <p>5.Should have automated port profile technology for smart plug and play and seamless deployment.</p> <p>6 Should have media traffic monitoring with 802.1AVB or equivalent in hardware for lossless audio video transport.</p>	
7.	<p>Operating conditions :</p> <p>Operating Temp: 0 Degree C to + 45 Degree C,</p> <p>Operating Humidity : 10% to 95% non-condensing</p>	
8.	<p>Standards and Compliance</p> <p>Should be compliant to MEF 9 and MEF 14, ASTM D3580, RoHS 6, WEEE</p> <p>CISPR24 A2:2010, IEC 61000-4-5:2005/EN 61000-4-5:2006</p>	

**Specification of 24 port Central Core switch : ( Make : Cisco /HP/ Juniper/ Extreme/Avaya/ Dell)**

Sl. No.	Required specification	Compliance ( Yes/ No )
1.	<p>Switch Architecture and Performance.</p> <p>Switch should have minimum 290 Gbps Switching capacity</p> <p>Switch should be equipped with minimum 1GB RAM and 4 GB Flash memory.</p> <p>Switch shall be extensible either by VCS or VSS or equivalent architecture by which minimum 6 separate units can be combined in a single switch fabric and managed as single switch or by adding Card.</p> <p>Module in a Chassis Architecture.</p> <p>Interconnection speed or per slot speed should be minimum 160 Gbps or more.</p> <p>Switch should support IPv4 and IPv6 switching and routing in hardware from day 1.</p> <p>Support redundant PSU(both AC and DC supported) and Fan. Should be hot Swappable.</p>	
2.	<p>Required Port Densities</p> <p>Switch should have minimum 20 x1 G Base T, 8 x1G SFP and 4 x SFP + scalable up to minimum 6 X 10 G ports with necessary Uplink Modules;.</p> <p>Should upgradeable to support 40G QSFP ports.</p>	
3.	<p>Layer 2 features</p> <p>802.1Q VLAN on all ports with support for 4000 concurrent VLANS.</p> <p>Support MLAG/TRILL for L2 Multipath</p> <p>Minimum 90 K MAC addresses in each switch</p> <p>Must support Private VLAN , VLAN Aggregation , Translation and 802.1v</p> <p>Port mirroring functionally for measurements using a network analyser for upto 64 simultaneous ports.</p> <p>Must support Layer2 Ping and Layer 2 Traceroute for connectivity and Fault Management,</p> <p>Must support multicast Traceroute</p> <p>Should support SNMP and syslog Notification for MAC addition , deletion and movement across ports.</p> <p>Support ERPS v2 - G.8032 or equivalent for Fast link failover in campus environment .</p>	
4.	<p>Layer 3 features</p> <p>Support for IP Unicast routing protocols (static , RIP v2, OSPF, ISIS)</p>	



	<p>Multicast routing protocol with PLM-SM and upgradeable to PIM DM with license.</p> <p>Should be upgradeable to BGP / MPLS within same hardware.</p> <p>Multicast routing protocol with PIM-SM and PIM DM</p> <p>Should support MPLS in Hardware</p>	
5.	<p>Quality Service (QoS) Features.</p> <p>Should support Diffserv – RFC 2474, RFC 2475 RFC 2597 and RFC 2598</p> <p>Switch should support eight hardware queues per port.</p>	
6.	<p>Security Features</p> <p>Switch should be scalable to support minimum 4000 Hardware ACLs</p> <p>Should support technology for threshold based detection of Malicious Threats. Should support Protocol based anomaly detection . If required necessary add-on line cards for threat detection should be quoted.</p>	
7.	<p>Management Features</p> <p>Must support serial RS232 port, OOV Ethernet management port and USB or External compact Flash slot.</p> <p>Compact Flash slot.</p> <p>Support features / protocol to measure Frame Delay and Latency between devices to pinpoint slow traffic paths.</p> <p>Must support scheduled archiving / uploading of configuration and system log to a central server.</p> <p>Switch Must Support ASIC based Flow monitoring like SFLOW/NetFlow/IPFIX</p> <p>Must support scripting via TCL or Ruby or Python programming.</p> <p>Must support ability to restart individual CPU process like SNMP , ssh, stp etc. In case of process crash.</p> <p>Must be manageable by SSH, RMON, SNMP, XML API and HTTP/s.</p>	
8.	<p>Data Center /Server Room</p> <p>Data Center /Server Room Bridging eXchange (DCBX) or IEEE 802.1Qaz</p> <p>Must support SDN with Openflow and Openstack</p> <p>Must support standard based tunnel for L2 Traffic Transport to DR site across 13 hops.</p> <p>Please explain how this can be achieved.</p> <p>Must support Automatic Migration of Port Profiles with VM – aware Network Automation.</p> <p>Must be able to integrate with Virtualization platforms like VMware- VSphere/Microsoft Hyper V to track location of VM and edit policies in context to Switch ports.</p>	
9.	<p>Support and Maintenance.</p> <p>Switch should have proactive support Framework to notify OEMTAC with Tech Support logs in case of any problem.</p>	

	OEM should have India Toll free number for raising TAC Call. Supported with NBD Replacement from direct OEM	

### **Specification of Tape Library LTO 6 :**

Sl. No.	Technical specification of Tape Library	Compliance (Yes / No)
1	Tape library must support LTO Ultrium 6 drives	
2	Drives within the tape library should support speed upto 160 mbps native	
3	Tape library should support minimum 4 x LTO6 drives	
4	The Tape library should have integrated bar code reader	
5	The tape library shall be configured with minimum 40 active cartridge slots with a scaled capacity factor of maximum 150 cartridge slots	
6	The tape library solution should have redundant hot swap power supplies and cooling fans	
7	Host platform : HP UX, IBM, AIX, SUN / ORACLE, WINDOWS, LINUX	
8	The tape library offered should be Robotic controlled to identify media, load tape media into drives and put them back into corresponding shelves automatically	
9	Tape library must support minimum 8 x Mail slots for cartridge loading and unloading from the library	
10	Mean time between failure of 250 000 hrs for higher reliability and ruggedness of tape library	
11	Mean time to repair should be less than 30 mts.	
12	The tape library should support Web based GUI for Remote management to monitor, configure and diagnose as well as SNMP & SMTP Alerting feature	
13	The equipment should be under warranty for a period of 3 years	
14	Availability of local service centre for quick support	
15	Total Physical Capacity (2:1 compression) should be 24 TB supports to 500TB	

Make for all passive components like cable, LIU, Patch cord etc. :

R & M/ Krone/ Systimax/ Tyco

Make for Racks : VALRACK / APW / NETRACK

Make for UPS : Emerson / APC/ Eaton

Make for LED monitor / panel : LG / SAMSUNG/ SONY/AOC

## Location of Cameras:

SL.NO.	LOCATION	FIXED	MOUNTING	PTZ	MOUNTING
1.	NSD GATE 3	1 + 2 ( for ANPR)	25' GI POLE 6" DIA	1	15' GI POLE 3" DIA
2.	NSD GATE 8	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	15' GI POLE 3" DIA
		1 ( for ANPR)	25' GI POLE 6" DIA	1	15' GI POLE 3" DIA ( Rly. Gate)
3.	NSD GATE 7	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	15' GI POLE 3" DIA
4	NSD GATE 4	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	15' GI POLE 3" DIA
5	NSD GATE 5	x		1	25' GI POLE 6" DIA
6.	NSD GATE 6	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	SAME POLE TO BE USED
7.	CFS	x		3	CEILING
8.	NSD LOCK	1	EXISTING ELEC. TOWER	1	25' GI POLE 6" DIA
		1	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
9	KPD LOCK	1	EXISTING ELEC. TOWER	1	25' GI POLE 6" DIA
		1	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
10.	KPD PASSENGER TERMINAL	1	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
		2 INDOOR DOME TYPE	WALL / CEILING WITH SUITABLE BRACKETS	1	CEILING
11.	KPD GATE 1	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
12	KPD GATE 2	1	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA

		+ 1 ( for ANPR)			DIA
13.	KPD GATE 3	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
14.	KPD GATE 4	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
15	KPD GATE 5	1	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
16	KPD GATE 13	1 + 2 ( for ANPR)	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
17	SUBHAS BHAVAN	x		2	WITH BRACKET FROM WALL
18	HEAD OFFICE	2 ( INDOOR DOME TYPE )		1	WITH BRACKET FROM WALL
19	CME OFFICE AT 8 GR ROAD	x		1	WITH BRACKET FROM WALL
20	CE OFFICE AT 51 CGR ROAD	x		1	WITH BRACKET FROM WALL
21	CMM OFFICE BLDG AT 6 G R ROAD	1 ( INDOOR DOME TYPE )			
22	H O SERVER ROOM	2 ( INDOOR DOME TYPE )			
23	SUBHAS BHAVAN SERVER ROOM	2 ( INDOOR DOME TYPE )			
24	3 GRJ (NS DOCK)	1 + 1 ( for ANPR)	25' GI POLE 6" DIA	1	25' GI POLE 6" DIA
	Total	(31+9) = 40	Total	27	

## Bill of Quantity

<u>SL. No.</u>	<u>Item description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit price</u>	<u>Tax/ VAT etc.</u>	<u>Total price</u>
<b>A</b>	IP D/N Outdoor PTZ camera					
1	30x IP based PTZ camera	27	Nos.			
2	Suitable Mounting bracket	27	Nos.			
<b>B</b>	IP Based D/N Fixed camera ( of which 12 for ANPR )					
1	IP based D/N 1080 p resolution fixed HD box camera	31 ( 13 for ANPR )	Nos.			
2	9-40 mm Manual Varifocal SR Iris	31	Nos.			
3	IP 66 Outdoor Housing for the camera	31	Nos.			
4	Mounting bracket with necessary cable	31	Nos.			
<b>C</b>	Indoor HD 2 MP vandal resistant IR IP indoor dome camera with auto focus	9	Nos.			
<b>D</b>	NAS storage with Central Recording software ( 4x 8TB ) with Intel processor ( latest model ) with dual gigE ports and dual SMPS and licensed o/s	1	Nos.			
<b>E</b>	Master Recording Server with operating system (Windows / Linux with license )	2	Nos.			
<b>F</b>	ANALYTICS and ANPR Server with operating system (Windows / Linux with license )	2	Nos.			
<b>G</b>	Workstation / Client	4	Nos.			
<b>H</b>	Key board for PTZ control	1	No.			
<b>I</b>	50" LED full HD Commercial Monitors with proper console	3	Nos.			
<b>J</b>	27" LED monitors with HDMI port	12	Nos.			
<b>K</b>	LTO 6 Tape Library with 40 cartridges ( 800 GB	1	Set.			

	cartridges in 2 packs of 20 nos. ) with cleaning cartridge and other required accessories.					
<b>L</b>	8 port L2 POE switch	30	Nos.			
<b>M</b>	24 port L3 POE Central switch	2	Nos.			
<b>N</b>	STP cable	10	boxes			
<b>O</b>	42U server rack with rotate keyboard tray , monitor self , two nos. heavy duty self, 15 AMP vertical power distribution unit and other required accessories.	2	No.			
<b>P</b>	5 KVA on-line UPS with 30 mts battery backup	2	Nos.			
<b>Q</b>	Video Management Software (NVMS ) and Video Analytic Software (VA ) with necessary licenses	2	sets.			
<b>R</b>	ANPR with necessary licenses	1	Set			
<b>S</b>	Fibre optic cable including laying through soft soil ( earthing and unearthing ) with necessary splicing	2 KM	Mtr.			
<b>T</b>	Patch cord, PBC conduit, GI conduit, Pole, Brackets , armoured power cable, necessary civil and electrical works, proper earthing for ALL the cameras and any other item required for implementation of the CCTV system.	As per requirement	Lump sum			
<b>U</b>	12 port LIU loaded with pig tail	6				
<b>V</b>	Junction box ( IP 66 box )	10				
<b>W</b>	Tape Cartridges – Barcode labeled Ultrium 6 cartridges with 5 cleaning cartridges	50	Nos.			
<b>X</b>	Installation and commissioning including splicing		Lump sum			
<b>Y</b>	CAMC charges ( i.e including replacement of					

	all spare parts )					
a	CAMC charges for YEAR 1		Lump sum			
b	CAMC charges for YEAR 2		Lump sum			
c	CAMC charges for YEAR 3		Lump sum			
d	CAMC charges for YEAR 4		Lump sum			
	Grand Total					

NIT No.

NIT for

GENERAL INFORMATION

Company Name : \_\_\_\_\_

Head Office Address : \_\_\_\_\_  
\_\_\_\_\_

FAX No. : \_\_\_\_\_ Telephone No. \_\_\_\_\_

Regional Office Address : \_\_\_\_\_

FAX No. : \_\_\_\_\_ Telephone No. \_\_\_\_\_

Local Office Address : \_\_\_\_\_

FAX No. : \_\_\_\_\_ Telephone No. \_\_\_\_\_

Country and Year Incorporated \*

Main Lines of Business :

1. \_\_\_\_\_ Since \_\_\_\_\_
2. \_\_\_\_\_ Since \_\_\_\_\_
3. \_\_\_\_\_ Since \_\_\_\_\_

Organisation chart showing structure of company including names and position of Directors, General Managers and other key Personnel and total number of qualified key technical personnel in Company's current employment for execution of this project are enclosed.



Draft Proforma of Bank Guarantee to be issued by the Kolkata Branch of any nationalised Bank of India on Non-Judicial Stamp Paper worth at least Rs. 100/-, in connection with the NIT

To,  
The Board of Trustees  
for the Port of Kolkata.

BANK GUARANTEE NO.....DATE.....

Name of Issuing Bank.....

Name of Branch.....

Address.....

In consideration of the Board of Trustees of the Port of Kolkata, a body corporate - duly constituted under the Major Port Trust Act, 1963 (Act 38 of 1963), having agreed to hand over the work order to Shri/ Messrs ..... a Proprietary/Partnership/Limited/Registered Company, having its Registered Office at..... (hereinafter referred to as "The Contractor") for thorough repair, under the terms and conditions of the contract made between the Trustees and the Contractor, for " .....)" in terms of the Work Order No..... dated.....(hereinafter referred to as "the said contract"), for the due fulfilment by the contractor of all the terms and conditions contained in the said contract, on submission of a Bank Guarantee for Rs..... (Rupees.....), we, ..... Branch, Kolkata, do, on the advice of the contractor, hereby undertake to indemnify and keep indemnified the Trustees to the extent of the said sum of Rs.....(Rupees.....).

We, ..... Branch, Kolkata, further agree that if a written demand is made by the Trustees through any of its officials for honouring the Bank Guarantee constituted by these presents, We, ..... Branch, Kolkata, shall have no right to decline to cash the same for any reason whatsoever and shall cash the same and pay the sum so demanded to the Trustees within a week from the date of such demand by an A/c. Payee Banker's Cheque drawn in favour of "Kolkata Port Trust", without any demur. Even if there be any dispute between the contractor and the Trustees, this would be no ground for us, ..... (Name of Bank), ..... Branch, Kolkata, to decline to honour the Bank Guarantee in the manner aforesaid. The very fact that We, ..... Branch, Kolkata, decline or fail or neglect to honour the Bank Guarantee in the manner aforesaid shall constitute sufficient reason for the Trustees to enforce the Bank Guarantee unconditionally without any reference, whatsoever, to the contractor.

2. We, ..... Branch, Kolkata, further agree that a mere demand by the Trustees at anytime and in the manner aforesaid, is sufficient for us, ..... Branch, Kolkata, to pay the amount covered by this Bank Guarantee in full and in the manner aforesaid and within the time aforesaid without reference to the contractor and no protest by the contractor, made either directly or indirectly or through Court, can be valid ground for us, ..... Branch, Kolkata, to decline or fail or neglect to make payment to the Trustees in the manner and within the time aforesaid.

3. We, ..... Branch, Kolkata, further agree that the Bank Guarantee herein contained shall remain in full force and effect, during the period that is taken for the due performance of the said contract by the contractor and that it shall continue to be enforceable till all the dues of the Trustees under and/or by virtue of the terms and conditions of the said contract have been fully paid and its claim satisfied and/or discharged in full and/or till the Trustees certify that the terms and conditions of the said contract have been fully and properly observed/fulfilled by the

contractor and accordingly, the Trustees have discharged the Bank Guarantee, subject however, that this guarantee shall remain valid upto and inclusive of .....day of .....20..... and subject all so that the provision that the Trustees shall have no right to demand payment against this guarantee after the expiry of 6 (six) calendar months from the expiry of the aforesaid validity period upto.....or any extension thereof made by us,.....Branch,Kolkata, in further extending the said validity period of this Bank Guarantee on Non-Judicial Stamp Paper of appropriate value, as required/determined by the Trustees, only on a written request by the Trustees to the contractor for such extension of validity of this Bank Guarantee.

4. We,.....Branch,Kolkata, further agree that, without our consent and without affecting in any manner our obligations hereunder, the Trustees shall have the fullest liberty to vary from time to time any of the terms and conditions of the said contract to extend the time for full performance of the said contract including fulfilling all obligations under the said contract or to extend the time for full performance of the said contract including fulfilling all obligations under the said contract by the contractor or to postpone for any time or from time to time any of the powers exercisable by the Trustees against the contractor and to forebear or enforce any of terms and conditions relating to the said contract and We,.....Branch, Kolkata, shall not be relieved from our liability by reason of any such variation or extension being granted to the contractor or for any forbearance, act or commission on the part of the Trustees or any indulgence by the Trustees to the contractor or by any such matter or thing of whatsoever nature, which under the law relating to sureties would, but for this provision, have effect of so relieving us,.....Branch, Kolkata.

5. We,.....Branch, Kolkata, lastly undertake not to revoke this Bank Guarantee during its currency except with the previous consent of the Trustees in writing.

SIGNATURE.....  
NAME.....  
DESIGNATION.....  
(Duly constituted attorney for and on behalf of)  
BANK.....  
BRANCH.....  
KOLKATA.....

(Official seal of the Bank)

Schedule "C"

NIT No.

NIT for

POST SALES SUPPORT IN KOLKATA

Sl.	Type of Manpower Strength	No. of Engineers per category	Certification Standards	Details of the Engineers Annexed Y/ N
1	CCTV Service Engineers			
2	Networking Engineers			

Signature of Tenderer -----

NIT No.

NIT for

## WARRANTY

We warrant that everything to be supplied by us hereunder shall be brand new, free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade and quality and consistent with the established and generally accepted standards for material of the type ordered, shall be in full conformity with the specifications, drawings, or samples, if any, and shall be operational. This warranty shall survive inspection for and payment for, and acceptance of the goods, but shall expire (except in respect of complaints of which we have been notified prior to such date) thirty six (36) months after their successful installation and acceptance by the purchaser.

We agree to depute one Resident Engineer on a regular basis for on site maintenance, troubleshooting and replacement of spares. Breakdown of any system / subsystem shall be attended to by the local Resident Engineer immediately. If any major breakdown is not cleared within 4 hours, alternate suitable arrangement like replacement of faulty system / subsystem has to be organised to make the System operational.

The obligations under the warranty shall include all costs relating to labour, spares, maintenance (preventive and unscheduled) and transport charges from site to manufacture's works and back and for repair/adjustment or replacement at site or any part of the equipment which under normal and proper use and maintenance proves defective in design, material or workmanship or fails to conform to the specifications given by the purchaser to us.

\_\_\_\_\_  
Signature Of Witness

NAME AND ADDRESS

\_\_\_\_\_

\_\_\_\_\_

Tel. / Fax No . \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_  
Signature Of offerer

NAME AND ADDRESS

\_\_\_\_\_

\_\_\_\_\_

Tel. / Fax No . \_\_\_\_\_

Date \_\_\_\_\_

Schedule 'E'

NIT No.

NIT for

Time Schedule

Period required for delivery, installation, commissioning the system at site: -  
\_\_\_\_\_ days.

BAR CHART / PERT CHART FOR THE PROJECT TO BE SUBMITTED

Signature of the offerer -----

NIQ No.

NIQ for

Experience Record

Client List : For Fibre optic network project executed with switches / routers etc.  
(Give details for minimum two clients in the format indicated below)

1. Name of the Client and Address
2. Contact Telephone No / Fax No
3. Details of Hardware and Software Supplied for the project
4. Contract Value
5. Contract Start Date
6. Contract Completion Date

Information need to be supported by certificates from end customers

Signature of the offerer -----

NIT No.

THE BOARD OF TRUSTEES FOR THE PORT OF KOLKATA

FORM OF AGREEMENT

Agreement made this day of \_\_\_\_\_ 2015 between the Board of Trustees for the Port of Kolkata, a body corporate constituted by the Major Port Trusts Act, 1963 (hereinafter called 'Trustees' which expression shall, unless excluded by or repugnant to the context, be deemed to include their successors in office) of one part and \_\_\_\_\_ (hereinafter called the 'the Contractor' which expression shall unless excluded by or repugnant to the context, be deemed to include its heirs, executors, administrators, representatives and assignees or successors in office) of the other part.

Whereas the Trustees are desirous that certain work should be undertaken viz., augmentation / revamping of the fibre optic network at KDS ( existing KDS-Net project ) and have accepted the Tender submitted by the Contractor for the execution of such works. Now this Agreement witnesseth as follows :

1. In the Agreement, words and expressions shall have the same meanings as are respectively assigned to them in "General Instructions to Tenderers" hereinafter referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement viz.,

a) The said NIQ document and the acceptance of the same

b) The General Instructions to the offerers

c) Special Conditions of Contract

d) Rate Schedule

e) All correspondence by which the contract is added, amended, varied or modified in any way, by mutual consent.

3. In consideration of the payments to be made by the Trustees to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Trustees to execute the work in conformity in all respects with the provisions of the contract.

4. The Trustees hereby covenant to pay the Contractor in consideration of such execution at the contract prices at the time and in the manner prescribed by the contract.

In witness whereof the parties hereto have caused their respective common seals to be hereunto affixed (or hereunto set their respective hands and seals) the day and year first above mentioned.

Common Seal of the Board

The Board of Trustees for the Port of the Port of Kolkata.

Kolkata was hereunto affixed in the presence of.

Name.....

Address.....

.....

.....

\_\_\_\_\_  
Jt. Director(P&R)

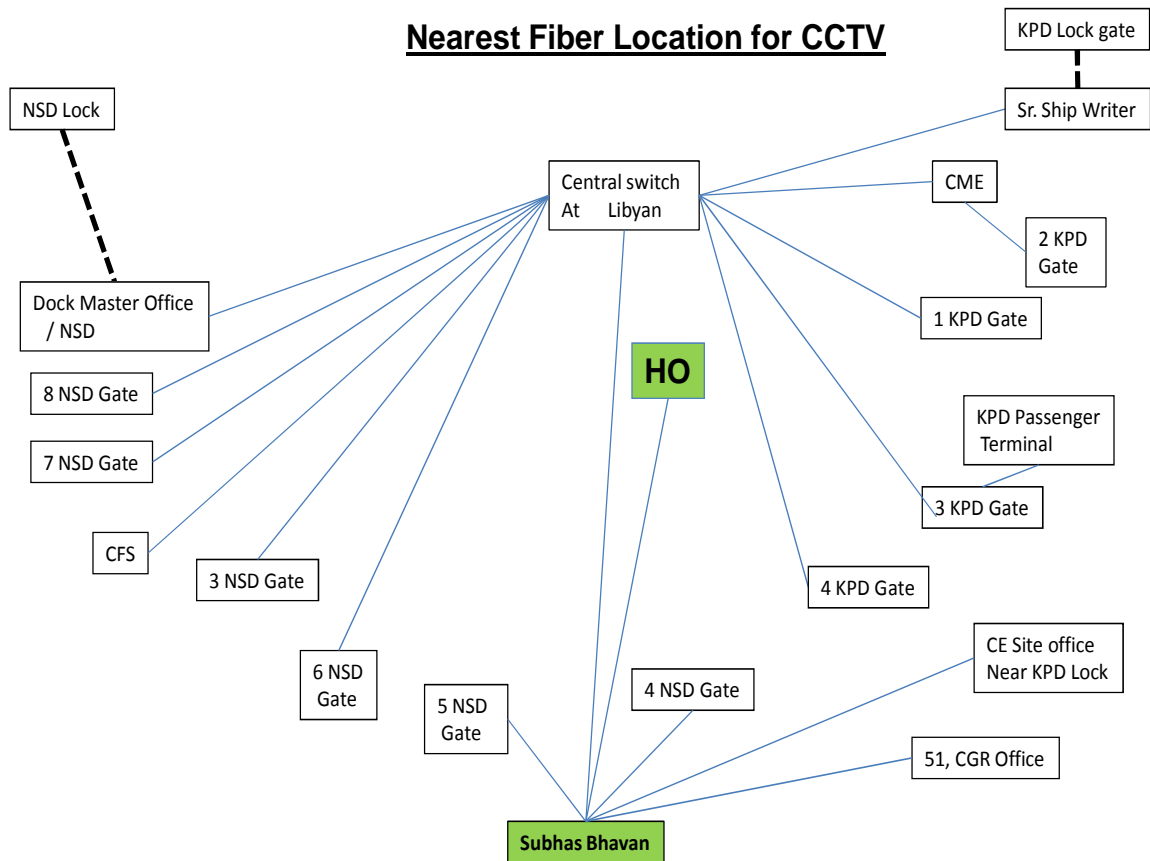
Signed, Sealed and delivered  
at Kolkata in the presence of

Name.....

Address.....

.....

\_\_\_\_\_  
Contractor

**Nearest Fiber Location for CCTV**



# **Physical Layout for Kolkata Port Trust Fiber & Wireles Network**

