SURAT MUNICIPAL
CORPORATION

REQUEST FOR PROPOSAL
FOR
SELECTION OF IMPLEMENTING AGENCY FOR
SUMAN EYE (CCTV Network) PROJECT

RFP No.: SSCDL-SumanEye-RFP-01-2018

Last date for Price Bid Submission: 25.09.2018

Invited by
Surat Smart City Development Limited
115, Smart City Cell, Surat Municipal Corporation,
Muglisara, Main Road, Surat - 395003, Gujarat.

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1 Disclaimer

The information contained in this Request for Proposal document ("**RFP**") whether subsequently provided to the bidders, ("**Bidder/s**") verbally or in documentary form by Surat Smart City Development Limited (henceforth referred to as "**SSCDL**" in this document) or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in this Tender document and any other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is not an offer or invitation to any party. The purpose of this RFP is to provide the Bidders or any other person with information to assist the formulation of their financial offers ("**Bid**"). This RFP includes statements, which reflect various assumptions and assessments arrived at by SSCDL in relation to this scope. This Tender document does not purport to contain all the information each Bidder may require. This Tender document may not be appropriate for all persons, and it is not possible for the Chief Executive Officer, SSCDL and their employees or advisors to consider the objectives, technical expertise and particular needs of each Bidder. The assumptions, assessments, statements and information contained in the Bid documents, may not be complete, accurate, adequate or correct. Each Bidder must therefore conduct its own analysis of the information contained in this RFP and to seek its own professional advice from appropriate sources.

Information provided in this Tender document to the Bidder is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. SSCDL accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on law expressed herein.

SSCDL and their employees and advisors make no representation or warranty and shall incur no liability to any person, including the Bidder under law, statute, rules or regulations or tort, the principles of restitution or unjust enrichment or otherwise for any loss, cost, expense or damage which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, reliability or completeness of the RFP, and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

SSCDL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. SSCDL may in its absolute discretion, but without being under any obligation to do so, can amend or supplement the information in this RFP.

The issue of this Tender document does not imply that SSCDL is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter), for implementation and SSCDL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses

associated with any demonstrations or presentations which may be required by SSDL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and SSCDL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Selection process.

2 Glossary

Terms	Meaning
BG	Bank Guarantee
BoQ	Bill of Quantity
BEC	Bidders Evaluation Committee
CC	Command Centre
CCTV	Closed Circuit Television
CEO	Chief Executive Officer
DD	Demand Draft
EMD	Earnest Money Deposit
GST	Goods and Service Tax
HD	High Definition
HDD	Hard Disk Drive
HOD	Head of Department
IP	Internet Protocol
ICT	Information Communication and Technology
IT	Information Technology
INR	Indian Rupee
LoI	Letter of Intent
MP	Mega Pixel
NVR	Network Video Recorder
OEM	Original Equipment Manufacture
PB	Peta Bite
PBG	Performance Bank Guarantee
PQ	Pre-Qualification
PSU	Public Sector Undertaking
RFP	Request for Proposal
SI	System Integrator
SLA	Service Level Agreement
SMC	Surat Municipal Corporation
SPV	Special Purpose Vehicle
SSCDL	Surat Smart City Development Limited
TQ	Technical Qualification

3 Notice Inviting Bid

	Surat Smart City Development Limited (SSCDL) 115, Smart City Cell, Surat Municipal Corporation - Head Quarter, Muglisara, Main Road, Surat - 395003, Gujarat. **Notice for Inviting RFP for** **"Selection of Implementing Agency for** **SUMAN Eye (CCTV Network) Project"** **[RFP No.: SSCDL-SumanEye-RFP-01-2018]**	

Bid for Implementation of Suman Eye (CCTV Network) Project is invited online on https://smc.nprocure.com from the bidder meeting the basic eligibility criteria as stated in the bid document.

Bid Fee (Non-refundable)	• **Rs.20,160 [Rs. 18,000 + 12% GST]** by Demand Draft or Banker's Cheque
EMD Amount	• EMD of Rs. 50,00,000 (Rupees Fifty lakhs only) whereby 50% amount shall be in the form of Demand Draft / Banker's Cheque in favour of "Surat Smart City Development Limited", from a list of approved banks as per the format given in this Bid Document, in favour of Surat Smart City Development Ltd. with validity of 180 days from the date of Bid opening.
Last date to submit the Pre Bid Queries	• By email to it@suratsmartcity.com on or before 17.09.2018, 16:00 hrs
Pre-bid Conference	• On 18.09.2018 at 12:00 noon • 2nd Floor, Room No. 88, Conference Hall, Muglisara, Surat
Online Price Bid End Date	• Till 25.09.2018 up to 18:00 hrs.
Technical Bid Submission (in Hard Copy) along with EMD & Bid fee	• In sealed envelope strictly by RPAD/Postal Speed Post On or before 01.10.2018 up to 18:00 hrs. To the Chief Accounts, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat by RPAD or Speed Post Only.
RFP Document Availability	• https://smc.nprocure.com, http://suratsmartcity.com/Tenders,

The right to accept/reject any or all bid(s) received is reserved without assigning any reason thereof.

CEO
Surat Smart City Development Ltd

4 Important Dates

#	Information	Details
1.	Project Name/ Name of Work	"Implementing agency for SUMAN Eye (CCTV Network) Project"
2.	RFP Reference No.	SSCDL-SumanEye-RFP-01-2018
3	Website to download RFP	https://smc.nprocure.com, http://suratsmartcity.com/Tenders,
4	RFP Fees	Rs.20,160 [Rs. 18,000 + 12% GST] by Demand Draft or Banker's Cheque
5	EMD Amount	EMD of Rs. 50, 00,000 (Rupees Fifty lakhs only) whereby 50% amount shall be in the form of Demand Draft / Banker's Cheque in favour of "Surat Smart City Development Limited", from Nationalized or Scheduled bank and 50 % amount shall be in the form of Bank guarantee of any nationalized / scheduled banks with validity of 180 days from the date of Bid opening.
6	Last date for Queries Submission	By email to it@suratsmartcity.com on or before 17.09.2018, 16:00 hrs
7	Pre-bid meeting: Date, Time and Venues	18.09.2018 at 12:00 noon Address: Room No 88, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat
8	Online Price Bid Submission Date	25.09.2018 up to 18:00 hrs.
9	Technical Bid Submission (in Hard Copy) Filled-in Technical Bid along with Bid Fee, EMD and other documents	In sealed envelope strictly by RPAD/Postal Speed Post On or before 01.10.2018 up to 18:00 hrs. To the Chief Accounts, Surat Municipal Corporation, Muglisara, Surat – 395003, Gujarat by RPAD or Speed Post Only.
12	Contact person and email id	Mitul Patel, Assistant Information System Manager Information Systems Department Email id : it@suratsmartcity.com

5 Introduction and Background

5.1 About Surat

Located in western part of India in the state of Gujarat, Surat is referred as the silk city and the diamond city. It has the most vibrant present and an equally varied heritage of the past. Surat is also known as economic capital of Gujarat and is having one of the highest growth rates amongst Asian cities. As per the Census 2011, it is the eighth largest city in the country with population of 4.48 million population. On the scale of population growth, Surat is the fastest growing city in Asia and holds 4th rank in the world. On the economic front, Surat holds top position with highest per house-hold income in the country

Surat has been selected as one of twenty Indian cities (in the first round of selection) to be developed as a smart city under Smart Cities Mission.

5.2 About Surat Municipal Corporation

The Surat Municipal Corporation (SMC) has responded to the challenges of fastest population growth and high speed economic development by adopting the best urban management practices. The administration of SMC with the help of the people and elected members of the city has transformed Surat to one of the cleanest cities of India. SMC has taken all necessary steps to make the city a better place to live with all amenities. SMC has taken up many path breaking initiatives and these efforts have been acknowledged at national and international level.

Utilization of Information Technology (e-Governance)

SMC had harnessed the power of IT before it became ubiquitous and a necessity for organizations of its nature and size. SMC is one of the few local self-government to adopt computerization in its early phases and use it for better governance, improving operational efficiency and increasing ease of interaction with citizens. SMC has initiated various e-Governance and m-Governance projects. The same have been recognized at national/international level. Following is the list of awards received in recent past:

1. National e-Governance Award Winners 2017 by Department of Administrative Reforms &
2. Public Grievances, Ministry of Personnel, Public Grievances & Pensions, GoI
3. Business World Smart Cities Award 2016 (runner up) for SAFAL Mobile App
4. Business World Smart Cities Award 2016 (winner) for SMC Mobile App
5. Digital India Award 2016 (Platinum Icon) by Ministry of Electronics and Information Technology, Government of India
6. IT Innovation & Excellence 2016 Award by Computer Society of India, Mumbai Chapter
7. Express IT Award 2015 (Bronze) For SMC Mobile App
8. Vodafone – Mobile for Good Award 2014 to Citizen's Connect – SMC Mobile App
9. Skoch Order-of-Merit to Citizen's Connect – SMC Mobile App
10. mBillionth Award South Asia 2014 to Citizen's Connect – SMC Mobile App
11. HUDCO Award for Best Practices to Improve the Living Environment 2013-14 for Mobile App & Virtual Civic Center (Online Services)

12. Skoch Gold Award & Order-of-Merit for Use of e-Governance for Improved Service Delivery
13. The Janaagraha G2C Award 2012 for Best website under the category "Transparency and Accountability"
14. City Civic Centre won the National Award for e-Governance 2007-08 (Bronze) for Outstanding Performance in Citizen Centric Service Delivery
15. Golden Jubilee Memorial Trust Awards 2007-08 for Outstanding Utilisation of Communication & Information Technology from Southern Gujarat Chamber of Commerce
16. The Grievance Redressal System awarded the Best Practice Award by CMAG & FIRE[D]
17. Certificate of Merit by NIUA – FIRE(D) for the best website in the year 2001

5.3 About Surat Smart City Development Limited (SSCDL)

As per the GoI guidelines, Surat Municipal Corporation has formed a separate Special Purpose Vehicle (SPV) as Surat Smart City Development Ltd. (SSCDL) for the implementation of projects under the smart city mission for the city of Surat. This SPV shall carry end to end responsibility for vendor selection, implementation and operationalization of various smart city projects.

5.4 Project Background

Surat Smart City Development Ltd (SSCDL) as part of Smart City initiative intends to improve the efficiency of municipal services and promote a better quality of life for residents. Thus, SSCDL propose to implement CCTV Based Surveillance System, "Suman Eye" with a view to monitor the civic facilities and services across Surat City with an objective to improve the service delivery more proactively. Moreover, "Suman Eye Project" also helps to improve the safety and security at Bus Stations, Gardens, Suman High schools and Municipal Board schools.

The Suman Eye Project will cover following locations for monitoring:
1. Municipal Board Schools
2. Suman High School
3. BRTS Bus Stops
4. Public Parks
5. Infrastructure Construction Site
6. Water works
7. Water Distribution Plants
8. Overloaded container spots
9. Water logging spots
10. Other locations as instructed by SSCDL/SMC

With this RFP SSCDL wishes to select System Integrator (SI) for implementation of CCTV System at multiple locations within the limit of Surat City. Implementation of CCTV System will comprises of below broad components as under:
1. 2 MP IR IP Dome camera
2. 2 MP IR IP Bullet Camera
3. 2 MP IR IP Vandal Proof Dome Camera
4. 2 MP IR IP Vandal Proof Bullet Camera

5. 2 MP IR IP PTZ Camera
6. Network Video Recorder
7. Video Management Software
8. Server, Storage, Network Switch and other Data Centre Equipment's
9. Pole, cable and other related accessories

5.5 Project objectives

The Project envisages to implement a Video Surveillance system for:
1. Improving civic services
2. Monitoring infrastructure development
3. Enhancement of Safety and Security at various ULB facilities
4. Reducing the response time to attend any unwanted incident.

5.6 Project coverage

The scope of work includes Supply, Installation, Testing, Commissioning, and Maintenance of CCTV system and solution at various locations within Surat. The requirement mentioned in this RFP, being a turnkey basis project, calls for a complete working system and not components thereof. Therefore, the Bids must be complete with all equipment and required accessories for complete installation& commissioning of the System under this contract. Project coverage will include Supply of CCTV System/equipment's, Networking, Installation, Testing, Commissioning and O&M of the CCTV System. The selected vendor will also be responsible for supply of IT solution for the management of these CCTV System hardware and application software, networking, installation, Training, and comprehensive onsite warranty(3 years) and O&M support(2 years) for 5 year in an efficient and effective manner

5.7 Existing infrastructure

5.7.1 Smart City Centre (SMAC)

One of the flagship project implemented under smart city initiatives is the Smart City Center (SMAC Center). The SMAC Center is an administrative command and control Centre to monitor effective delivery of various civic services. The SMAC Center houses a large video wall and seating space for operators to monitor various services. SI will be required to ensure that Cameras feeds are accessed through SMAC Center. This will facilitate SMC to monitor various civic services like Activities at BRTS Bus Stop, situation at various nuisance container spots, various water logging spots, etc. through surveillance cameras.

5.7.2 Data Center

SMC has its own data center located in SMC HQ. As part of the project, the SI will be provide the space to host the IT infrastructure required and proposed as part of this project.

5.7.3 Network Infrastructure

As part of Smart City project, SMC is creating network infrastructure across various SMC facilities. The bandwidth for these connectivity ranges from 2 Mbps to 100 Mbps depending on the site requirement. The SI will be required to utilize the network infrastructure that is available or will be made available as part of this project.

6 Scope of the Project

Surat Smart City Development Limited (SSCDL) request proposal from the interested bidders to bid for the "Suman Eye (CCTV Network) Project". The System Integrator (SI) shall install CCTV system at identified locations across Surat city. The SI shall also be responsible to integrate the CCTV system which is being implemented under the scope of "Suman Eye (CCTV Network) Project" with the multiple Command Control Centre including a centralized video management platform as per SLA requirements. The scope of work under this RFP is broadly divided into two parts.

A. **System Integration of CCTV Surveillance Network:** Design, Supply, Installation, Commissioning of complete IP Based CCTV Surveillance System at identified locations across Surat city. All items procured under this contract shall be with 3 years of warranty support.

B. **Comprehensive Operation & Maintenance (O&M):** SI is required to carry out Comprehensive Operation and Maintenance of entire CCTV Surveillance System installed at identified locations across Surat city as per the scope of work defined in this RFP.

6.1 System Integration of CCTV Surveillance Network (Suman Eye)

CCTV Surveillance System will be installed at multiple identified locations across Surat city. The list of locations is mentioned in Annexure 16.1. The scope of work of the project is as per below:

1. Supply, Installation, Testing and Commissioning of end-to-end IP based CCTV systems with all related accessories including but not limited to following components

    i. IP Based CCTV Cameras
    ii. Network Video Recorders(NVR)
    iii. Video Management Software
    iv. Active and passive networking components including structured cabling and LAN
    v. Data center equipment's i.e., Racks, Network Switch, Next Generation Firewall, Server, Storage etc.
    vi. UPS and Battery banks for data centre
    vii. Any other components like Poles, Field Junction Box, PVC Conduit, HDPE/DWC Pipes etc. as per project requirements

2. Setup 24 X 7 surveillance of day to day activity with minimum 30 days backup/retention of video feeds at Full HD (1920 x 1080P) resolution at minimum 25 Frames Per Second (FPS).

3. Bidder shall have to design their solution for CCTV system considering the bit rate of minimum 5 Mbps for each camera.

4. Selected SI shall provide end to end solution for H.265 compression technology for proposed solution components (CCTV, NVR, VMS, etc.) for Suman Eye (Network Camera) Project.

5. Conduct detailed feasibility study and site survey in accordance with scope of work as mentioned in this RFP document for implementing CCTV System. The feasibility report shall clearly highlight following:

    i. Type and quantity of CCTV cameras at each Location
    ii. Video Management Software (VMS) including License requirements
    iii. Source of power supply
    iv. Storage requirements
    v. Bandwidth Requirements at each Location etc.
    vi. List of existing infrastructure (Cameras, make & model, technology, storage etc.) if any at each location. In this regard if any upgradation/replacement is required, the SI shall mention the same in the feasibility study report. Further, the bidder shall have to design their solution after considering the re-usability of existing available infrastructure.
    vii. Cabling, Trenching and last mile connectivity requirements with detailed drawings to be submitted as part of feasibility report
    Note: Please refer section 6.1.2 for more details on Feasibility Report requirements.

6. The SI shall prepare and submit the detailed feasibility study report including final Bill of Quantity (BoQ) within the time limit from the date of issuance of LoI. Any discrepancies noticed in the BOQ or sites, or if there is any requirement of extra items, or if there is a major excess of the quantity, bidder should immediately bring it in the notice of the SSCDL/SMC in writing to take necessary action in time. Failing so, the bidder will not get any extra payment or extension in timeline for such instances. However, if authority suggest any work which is not included in the tender and to be executed as an extra item / excess item, agency has to carry out the work as per tender terms and conditions and SI cannot deny to execute the same.

7. Final Solution architecture design along with BoQ is required to be submitted for the approval from SSCDL. SI will commence the installation work only after SSCDL/SMC has approved the final design. Final design shall ensure high availability and maximum fault tolerance of the CCTV System.

8. SI to ensure centralized monitoring, playback and storage of video feeds coming from CCTV cameras, which is being implemented at different field locations of SMC premises as mentioned below:

    i. BRTS Bus Stops
    ii. Public Parks
    iii. Infrastructure Construction Site
    iv. Water Distribution Plants
    v. Overloaded container spots
    vi. Water logging spots

vii. Others locations as instructed by SSCDL/SMC

9. SI to ensure local monitoring, playback and storage of video feeds coming from CCTV cameras, which is being implemented at below mentioned locations. The storage of video feeds should be made available locally. Provision shall also be made available for monitoring the live feeds as well as recorded videos of CCTV Systems implemented at below mentioned locations from Centralized Command Centre either in real time or on demand except for Municipal Board Schools and Suman High Schools.

    i. Municipal Board Schools
    ii. Suman High Schools
    iii. Large Public Parks / recreation facility as decided by SSCDL/SMC
    iv. Water Works
    v. Others locations as decided by SSCDL/SMC

10. Provision shall be made to integrate the CCTV system implement under Suman Eye Project with existing infrastructure/ Project of SMC/SSCDL /Police Department:

    i. SI shall be responsible to integrate the CCTV system implemented under the scope of "Suman Eye (CCTV Network) Project" with existing video wall available at SMAC Center.
    ii. SI shall be responsible to provide the feeds, if required to Police Command Control Center. The cameras feed shall be on demand or on real time basis.
    iii. SI shall also be responsible to integrate the video feeds with Video Wall to be supplied under Integrated Command Control Center (ICCC) in future. The ICCC is currently under construction and soon it will be operational. Moreover, SI is also responsible to provide support to ICCC service provider for the integration of Suman Eye (CCTV Network) Project with ICCC software for incidents and event monitoring.
    iv. SI shall ensure to integrate existing cameras, if any at any locations wherever it is possible. The integration solution shall be clearly highlighted in feasibility report
    v. SMC has implemented CCTV system at some of the municipal board schools, Suman High schools, Water Works, etc. If the existing system is ONVIF compliant, the same should be integrated with Suman Eye (CCTV Network) Project. If any upgradation/replacement is required for integration, the SI has to mention the same in the feasibility study report. Further, the bidder shall have to design their solution after considering the re-usability of existing available infrastructure.

11. Provision shall be made to monitor the real time feeds as well as playback of CCTV cameras implemented under the scope of "Suman Eye (CCTV Network) Project" from multiple locations at the same time on demand.

12. SI shall be responsible for Installation and Commissioning of the Software for Video Management System (VMS) including all features as mentioned in this RFP.

13. Supply of workstation including operating system and other related accessories shall not be in the scope of SI. However selected SI shall be responsible to supply and install necessary

software i.e., VMS software and others software as required to run the Suman Eye Project.

14. The selected bidder shall be responsible to provide the detailed requirement of bandwidth at each identified location with proper justification of the same considering the number of cameras and other factors. The network connectivity is not in the scope of the SI. SSCDL/SMC shall provide network connectivity through their appointed Service Provider in the form of lease line/Dark fibre/Other Media at each identified location as per bandwidth requirement shared by SI after due validation. However, SI shall be responsible for the LAN cabling and last mile connectivity at each identified locations.

15. SI shall be responsible to coordinate with SSCDL/SMC or its appointed service provider for network connectivity at respective site. The SI shall be responsible to provide infrastructure i.e. civil work, space in Junction box, etc., at the identified location for housing the equipment provided by SSCDL/SMC or its appointed service provider for lease line/Dark Fibre connectivity. The provision of network connectivity is not in the scope of SI.

16. SI shall be responsible for cable laying, ducting, trenching etc. for CCTV system. SI is responsible for termination of LAN cable/ last mile connectivity of CCTV system to the existing network infrastructure at respective site to integrate the CCTV System with data centre, command centre etc.

17. The IP Pool and network routing requirements are to be finalised by the SI in consultation with SSCDL/SMC. It is to be noted that the range/class/IP pool may be different at different locations and hence SI should design their solution accordingly.

18. SSCDL/SMC needs to be fully informed of the results of the feasibility survey and the amount and extent of the demolition and site clearance shall then be agreed with the SSCDL. Selected bidder has to inform & take necessary approval from SSCDL/SMC in advance (minimum 2 weeks) for the digging or excavation required wrt ROW/RI. The bidder is required to submit the detailed plan with drawing for approval. SSCDL/SMC will facilitate such permissions and provide support wherever required. The restoration cost, if any shall be borne by SI and same shall be reimbursed by SSCDL/SMC.

19. SI is responsible to carry out Civil Work (Supply, Erection and commissioning) of Non-IT infrastructure like poles/frames/fixtures/housing etc. with proper electrical earthing (as per IS-3043) wherever required based on the feasibility study report.

20. The SI has to ensure that on completion of work, site has to be restored to its original condition as per site requirements.

21. The successful bidder has to provide structural safety certificate from qualified structural engineers approved/ certified by Government Agency for the approval of Pole design and foundations for CCTV system implemented under Suman Eye (CCTV Network) Project.

22. The CCTV system implemented at Construction site shall be temporary implemented. SI shall carry out shifting and or alignment of CCTV Cameras installed system implemented at

construction site within same premise for better monitoring. SI shall also carry out the relocation of CCTV System at another construction sites without any extra cost if the work at existing site has been completed. In this regard, SI shall carry out above said activities only after intimation and written permission from SSCDL/SMC.

23. All equipment installed as part of CCTV system under the scope of "Suman Eye (CCTV Network) Project" should be with 3 year replacement warranty and 2 years comprehensive Operation and Maintenance (O&M) after the completion of 3 years warranty period.

24. SI shall provide necessary training to end users to access the feeds pertaining to their site/department and other relevant technical training to manage the system.

25. SI is also responsible to design Standard Operating Procedure (SOP) for all incidents during Operation & warranty support.

26. SI shall be responsible to integrate the CCTV system with the EMS and helpdesk software for SLA monitoring.

27. It is proposed that the SI shall provide the IT hardware infrastructure along with system softwares at the Data Center for successful operations of the systems. The Primary DC will be at SMC, Muglisara Office where in space will be provided to the selected bidder to host the IT infrastructure pertaining to this project. Once the Integrated Command & Control Center (ICCC) in Surat is operational, then the SI, shall migrate DC components to the ICCC at no additional cost. SI has to ensure that redundancy is provided for all the key DC components to ensure that no single point of failure affects the performance of the overall system.

28. After the completion of contract duration, SI shall hand over the entire solution covering all the components in working condition to SMC/SSCDL.

6.1.1   RoW and Restoration Charges

1. SI is required to carry out complete process as per SMC guidelines including taking permission. SSCDL/SMC will provide necessary support to expedite the permission.
2. The security deposit required to be paid at the time of Road Digging Permission will be waived off by SMC.
3. The Road Reinstatement Charge (RI Charge) will be reimbursed on quarterly basis as per actuals on submission of bills.
4. In case of HDD, the Road Reinstatement Charges will be calculated considering the actual road that has been dug (the pit area).
5. For micro trenching SI is required to undertake the restoration at his cost. No reimbursement will be made in this regard by SSCDL. Depth of cable using Micro trenching should be in compliance with the specification of the RFP.
6. Annual Rentals as per SMC policy will be waived off by SMC
7. The SI shall inform all concerned authorities and obtain NOC or permissions as required before starting work

8. In case of the permission is required from any other authority apart from SMC, the SI is required to coordinate. SMC/SSCDL will facilitate and provide necessary support to expedite the same

6.1.2 Feasibility Report

After signing of contract, the Systems Integrator needs to deploy local team (based at Surat) proposed for the project and ensure that a Project Inception Report is submitted to SSCDL which should cover following aspects:

1. Project organization structure and escalation metrics
2. Approach and methodology to be adopted to implement the Project
3. Responsibility matrix for all stakeholders
4. Detailed project plan specifying dependencies between various project activities / sub-activities and their timelines
5. Installation locations geo mapped preferably on google earth to visually identify the geographical area

The SI as part of the feasibility study shall conduct below mentioned activities. Based on below mentioned activities SI shall have to prepare detailed feasibility study report and submit the same to SSCDL/SMC.

1. Conduct Survey of each identified location for implementing CCTV System including Data Centre and ICCC
2. Comprehensive As-Is study of the existing CCTV system which are identified for integration and upgradation if any.
3. Assess the reusability of the existing infrastructure (i.e., Junction Box, Switch, CCTV System etc.) wherever possible and will submit a reusability report to SSCDL.
4. Assess the requirement of IT Infrastructure and Non IT Infrastructure including type and count of CCTV cameras at each identified locations, Video Management Software requirement, EMS software etc.
5. Assess the network connectivity and bandwidth requirement at each identified locations including SMAC Centre and ICCC covered under Suman Eye (CCTV Network) Project
6. Assess the storage requirement for CCTV system at data center and each identified location as per the scope of Suman Eye (CCTV Network) Project
7. Assessment of the cable laying requirement including trenching and ducting
8. Assessment of integration requirement if any
9. Any other relevant information
10. Preparation and submission of Final BoQ for Suman Eye (CCTV Network) Project

Additionally, the System Integrator should provide as part of feasibility report the detailed To-Be designs (layout plans) specifying the following:

1. Location of all field systems and components proposed at the identified locations, (KML /KMZ file plotted google earth etc.)

2. Height and foundation of CCTV Camera Poles and other mounting structures for field devices.
3. Design of pole, Junction box and other fabricated components
4. Location of Junction Box
5. Location of Network Provider's Point of Presence (PoP)
6. Design of Cables routing, Ducts routing, digging and trenching
7. Electrical power provisioning, etc

6.1.3 Detailed Functionalities of Suman Eye (CCTV Network) Project

1. The Surveillance System shall offer centralized management of all devices, servers and users.

2. The Surveillance System shall not have any limit on the number of cameras to be connected for Surveillance, Monitoring and recording. The solution shall be scalable to accept any increase in no. of cameras by augmentation of Hardware components.

3. The Surveillance System shall have ability to knit the video streams from multiple cameras, based on the date/time stamp. Every video stream shall have date, time, source camera location, FPS etc. water-marked. These attributes shall be finalized at the System Design time. There shall be a centralized NTP server, from which all devices shall synchronize the date and time.

4. The Surveillance System shall support distributed viewing of any camera in the system using Video walls or big screen displays.

5. The Surveillance System shall support alarm management. The alarm management shall allow for the continuous monitoring of the operational status and event-triggered alarms from system servers, cameras and other external devices.

6. It should be possible to integrate the Surveillance System with 3rd-party software, to enable the users to develop customized applications for enhancing the use of video surveillance solution. For e.g., integrating alarm management to initiate SMS, E-Mail, VoIP call etc.

7. The Surveillance system shall store the overall network elements configuration in central database, either on the management server computer or on a separate DB Server on the network.

8. The Recording Server / System shall support camera (analogue and IP cameras) devices from various manufacturers.

9. The Recording Server / System shall support the PTZ protocols not limited to certain OEMs but in general all the PTZ cameras of the supported devices listed by the camera OEMs.

10. The system shall support full two-way audio between Client systems and remote devices. (Audio from certain set of cameras can be recorded in future).

11. The system shall support automatic failover for recording servers. This functionality shall be accomplished by failover server as a standby unit that shall take over in the event that one of a group of designated recording servers fails. Recordings shall be synchronized back to the original recording server once it is back online.

12. The system shall support multiple failover servers for a group of recording servers.

13. The system shall support Simple Network Management Protocol (SNMP) in order for third-party software systems to monitor and configure the system.

14. The system shall act as an SNMP agent which can generate an SNMP trap as a result of rule activation in addition to other existing rule actions.

15. The System Administration Server shall provide a feature-rich administration client for system configuration and day-to-day administration of the system

16. The System Administration Server shall support different logs related to the Management Server
    i.   The System Log
    ii.   The Audit Log
    iii.   The Alert Log
    iv.   The Event Log

17. The system shall support the use of rules to determine when specific actions occur. Rules shall define what actions shall be carried out under specific conditions. The system shall support rule initiated actions such as:
    i.   Start and stop recording
    ii.   Set non-default live frame rate
    iii.   Set non-default recording rate
    iv.   Start and stop PTZ patrolling
    v.   Send notifications via email
    vi.   Pop-up video on designated Client Monitor recipients

18. The Client system shall provide remote users with rich functionality and features as described below.
    i.   Viewing live video from cameras on the surveillance system
    ii.   Browsing recordings from storage systems
    iii.   Creating and switching between multiple of views.
    iv.   Viewing video from selected cameras in greater magnification and/or higher quality in a designated hotspot.
    v.   Controlling PTZ cameras.
    vi.   Using digital zoom on live as well as recorded video.
    vii.   Using sound notifications for attracting attention to detected motion or events.
    viii.   Getting quick overview of sequences with detected motion.
    ix.   Getting quick overviews of detected alerts or events.

x. Quickly searching selected areas of video recording for motion (also known as Smart Search).

19. The web-based remote client shall offer live view of up to 16 cameras, including PTZ control and event / output activation. The Playback function shall give the user concurrent playback of multiple recorded videos with date, alert sequence or time searching.

20. User Authentication – The Remote Client shall support logon using the user name and password credentials.

21. User role & right management – There should be provision to define access control depending upon different user roles. It should be possible to map the camera depending on location, type, etc.

22. Matrix Monitor – The Matrix Monitor feature shall allow distributed viewing of multiple camera on the system on any monitor. It shall be possible to define the viewing matrix like nXn covering maximum 16 cameras. The Matrix Monitor feature shall access the H.264/H.265/MJPEG/MPEG4 stream from the connected camera directly and not sourced through the recording server

23. The alarm management module shall allow for continuous monitoring of the operational status and event-triggered alarms from various system servers, cameras and other devices. The alarm management module shall provide a real-time overview of alarm status or technical problems while allowing for immediate visual verification and troubleshooting.

24. The alarm management module shall provide interface and navigational tools through the client including;
    i. Graphical overview of the operational status and alarms from servers, network cameras and external devices including motion detectors and access control systems.
    ii. Intuitive navigation using a map-based, hierarchical structure with hyperlinks to other maps, servers and devices or through a tree-view format.

25. The module shall include flexible access rights and allow each user to be assigned several roles where each shall define access rights to all or selected cameras.

26. Basic VMS should be capable to accept third party generated events / triggers. Based on alarms/alerts, customized/standard alert messages should be published on VMB/PA, after authorization by a supervisor/operator.

27. System should have a facility to create CDs or other storage media for submission to Judiciary, which can be treated evidence for legal matters.

28. There should be functionality to convert Video clips into .AVI and other suitable formats as per requirement.

29. All the systems proposed and operationalization of Video Management System should comply with requirements of IT Acts.

30. Any hardware or software required to achieve the functional requirement and technical solution of the overall Project (may not be specified in the schedule) is to be proposed in the Bid and borne by the SI.

31. SI to provide the access of Surveillance system through mobile app for viewing of any video steam from Central VMS.

32. There should be provision to group the set of cameras depending on the location or the departments, type, etc.

33. There should be provision to set various camera related parameters like frame rate, compression rate, zoom, etc. from the centralized console for a specific camera or set of cameras.

6.1.4 Data Center

Bidder is required to propose Data Center components within SSCDL/SMC premises. SI shall submit the suitable design to meet the project requirements to SSCDL for approval at design stage of the project. The space for installation of Racks shall be provided by SSCDL/SMC. Further, SI shall also require to support the SSCDL/SMC to migrate the data center to ICCC in future once the same is operational without any additional cost.

The successful bidder will be required to commission and integrate the underlying infrastructure required for running the applications and manage the entire system. The bidder as the part of overall solution should consider latest & innovative technologies and propose the most optimal solution. SI shall be responsible to integrate the CCTV system with the EMS and helpdesk software for SLA monitoring.

As part of preparing the final bill of material for the physical Data Centre, the successful bidder will be required to list all passive & active components required in the Data Centers. The bill of material proposed by the successful bidder will be approved by SSCDL/SMC for its supply and installation. Indicative equipment to be commissioned as part of Server Side infrastructure at Data Center are as under:

1. Servers
    i.   Application Servers
    ii. Recording Server
    iii. Database Server
    iv. Management Server
    v.   Antivirus Server
    vi. Any other Server required to cater to the scope of work mentioned in this RFP
2. Application & System Software
    i.   Video Management System including Licenses
    ii. Network Management & SLA Management, Helpdesk Management

    iii.   Anti-virus Software for Servers

    iv.   Customized Software to cater to requirements of Project Requirements

    v.   Any other software with all necessary licenses

3. Storage & Storage Management Solution
4. Switches
5. Next Generation Firewall
6. Racks
7. All required Passive Components

The above are only indicative requirements of IT & Non-IT Infrastructure requirements at Data Centre. Benchmark specifications for various items mentioned above are given in this RFP document.

6.1.5 Key Consideration for IT Infrastructure for Suman Eye

6.1.5.1 General Instructions

1. SI is responsible to size and propose the IT infrastructure required for smooth functioning of the entire solution as per OEM guidelines and standard industry practice. SI has to supply, install, commission and manage/maintain the IT Infrastructure components such as Servers, Databases, Storage Solution, Software and other supporting IT components as required at the Data Centre that has been proposed as part of the bid. The space for Data Centre (DC) used for this project will be provided by SMC/SSCDL.

2. The System Integrator has to procure the materials and equipment as required and given as part of the System Integrator's response. However, it should be noted that the System Integrator has to procure all necessary equipment to run the solution as per the requirement of the RFP documents including the SLA. In case, it is identified that certain components are required but not quoted by the bidder, the SI will procure and commission the same without any financial implications.

3. The System Integrator shall note that the specification provided is the minimum requirement and the System Integrator shall procure better equipment if it is required to meet the service levels mentioned in the RFP

4. SMC/SSCDL reserves the right to ask the bidder to supply only part of the hardware quoted and procure the rest of it separately by itself. The payments schedule will be adjusted accordingly. The Bill of Quantity mentioned in this RFP is indicative and may vary at the time of implementation. The bidder is required to propose the same during feasibility survey report.

5. SMC/SSCDL is not responsible for any assumptions or judgments made by the Bidder for arriving at any type of sizing or costing. SMC/SSCDL at all times will benchmark the performance of the Bidder to the RFP Documents circulated to the Bidder and the expected service levels as mentioned in these documents. In the event of any deviations from the requirements of these documents, the Bidder must make good the same at no

extra costs to SMC/SSCDL within two weeks of detection of the deviation, in order to achieve the desired service levels as well as meeting the requirements of these documents. SMC/SSCDL shall not be responsible for any assumptions made by the Bidder. Also, if bidder misses to factor the cost of any item required to deliver the solution successfully or undersizes the solution, then the bidder has to provide that without any additional cost.

6. The section 14 details out the minimum technical specification of the hardware and software to be used in the project. The bidder is free to provide any additional/higher features or capabilities.

7. All the patches have to run successfully on Test & Development (T&D) environment before deployed Live for production. Bidder has to ensure that the patches provided are compatible with the customized solution running at SSCDL/SMC and will not have any adverse impact on the existing functionalities.

8. Bidder can leverage virtualization to arrive on the solution.

9. The Bill of Quantity(BOQ) as estimated by SSCDL/SMC is not exhaustive. Any additional items/ components like Hardware, Software, any licenses, accessories, service etc. as required to make the project completely operational may be assessed by the Bidder and the same may be incorporated in the offer. Even at the time of execution, if any additional items/ components like Hardware, Software, any licenses, accessories, service etc. are required to complete the system integration, notwithstanding the BOQ as identified by the Bidder as above, the same shall be provided at no additional cost.

6.1.5.2   Key Aspects to be considered

1. The solution should be highly scalable and capable of delivering high performance as and when number of camera increases without compromising the performance.

2. All components of the IT Infrastructure should be based on standards to avoid compatibility issues.

3. The IT Infrastructure should have ability to withstand all single point of failure.

4. The IT Infrastructure should support auto-switching to available server in case of server failure.

5. It should be possible to configure data replication synchronously or asynchronously.

6. The solution proposed should include servers with latest CPU architecture offered by the hardware provider.

7. All the hardware shall be new and procured for this project. The ownership of hardware shall be transferred to SMC/SSCDL on commissioning of hardware. However, SI will be

fully responsible for maintaining these Assets during the contract period and will be fully accountable for the same.

8. All the software used for SMC/SSCDL shall be licensed to SMC/SSCDL and will be the property of SMC/SSCDL. The licenses shall be perpetual.

9. The hardware sizing proposed for hosting the solution shall be based on the VMS OEM guideline.

6.1.5.3 Key Activities and Deliverables

The SI is responsible to supply, configure and manage the IT infrastructure under this project. All necessary activities in this regard shall be the responsibility of the SI during the implementation and post-implementation period. Operations and Maintenance of IT infrastructure shall include a range of services related to the operation & maintenance of the IT infrastructure.

Following is the indicative list of activities to be performed:

1. The System Integrator shall be responsible for end-to-end implementation and shall quote and provide/supply any items not included in the bill of material but required for commissioning of the application and meet the requirements of the RFP/Contract. SSCDL/SMC shall not pay for any of the equipment not quoted in the bid but are required for successful completion of the project. However, the same has to be supplied by the System Integrator without any additional fees.

2. The bidder shall propose hardware such that at any point in time during the contract period, the resource utilization does not go beyond the levels defined below

      i.   The average CPU utilization should not exceed 70% for more than 15 minutes in a single stretch
      ii. The average memory utilization should not exceed 70% for more than 15 minutes in a single stretch
      iii. In case of breach of above, the bidder will be required to optimize the solution else the additional hardware has to be provided by the successful bidder to ensure the performance within the indicated levels, at no further cost.

3. The SI shall be required to carry out preventive and corrective maintenance of all hardware supplied including replacement of defective parts, installation and configuration of OS and other tools during warranty period. The SI will ensure maximum uptime of the solution.

4. The SI shall be required to repair the faulty component/equipment at the earliest or within the problem resolution time as per SLA defined in this RFP. However if any component/equipment gives continuous trouble, the SI shall replace the same with the new compatible component/equipment of the same or higher configuration without any additional cost to SSCDL/SMC.

5. The SI must integrate hardware and software components along with rest of the IT Infrastructure at SMC to make the system integrated and fully functional.

6. Necessary installation/reinstallation, configuration and implementation support to be provided by SI.

7. In case if breakdown/ maintenance work is required to be carried out during non-working days/ hours, the SI shall attend the task(s) during this period at no extra payment.

8. The System Integrator may be asked to supply all the installation material/ accessories/ consumables (e.g. screws, clamps, fasteners, ties anchors, supports, grounding strips, wires etc.) necessary for the installation and operation of the systems.

9. The System Integrator has to prepare and submit a delivery report including details of components supplied. The delivery report will be validated by the identified SSCDL/SMC authorized person.

10. None of the components and sub-components that are declared "End-of-sale" by the respective OEM in next 5 years as on date of submission of Bid shall be proposed.

11. Configure, Install and maintain licensed software required for CCTV system with latest antivirus with all critical updates to be installed in the server.

12. The server and other system software should be regularly patched/ updated. Major patching / update which requires system downtime has to be informed well in advance and should be undertaken only after SSCDL/SMC's confirmation.

13. System Integrator should have a governance structure in place to report to SSCDL/SMC's team on daily, weekly and monthly basis and the solution should allow downloading of standard and custom reports on the monitoring status in various formats like PDF, Excel etc.

14. Necessary network connectivity WAN will be provided by SSCDL/SMC. However, the SI will be responsible for network configuration and management of the IT infrastructure provided under this project.

15. The System Integrator shall provide monitoring and management services during the contract period. The scope of the services shall include Monitoring, Administration and Management of the entire DC infrastructure together with other SSCDL/SMC's offices. The entire stack of monitoring and management services shall include the following:
    i. Infrastructure Monitoring, Administration & Management Services
    ii. Database Administration & Management Services
    iii. Storage Administration & Management Services
    iv. Backup & Restore Services
    v. Production Control and Job Scheduling
    vi. Security, Patch and antivirus management

6.1.5.4 Monitoring, Administration & Management of IT infrastructure for CCTV Solution

All the devices that will be installed in the Data Centre should be SNMP enabled and shall be centrally and remotely monitored and managed to ensure maximum uptime and optimum performance. The physical infrastructure management and maintenance services shall include but not limited to:

1. Administration and Management of all physical and virtual environments. Bidder should provide skilled resources on all leading Operating Platforms

2. Administration service to keep servers, storage and other IT infrastructure stable, reliable and efficient.

3. Proactive and reactive maintenance, repair and replacement of defective components (IT and Non-IT/ Hardware and Software). The cost for repair and replacement shall be borne by the System Integrator.

4. The selected System Integrator shall have to stock and provide adequate onsite and offsite spare parts and spare component to ensure that the uptime commitment as per SLA is met. To provide this service it is important for the selected System Integrator to have back to back arrangement with the OEMs.

5. Component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA). In case the selected System Integrator fails to meet the above standards of maintenance, there will be a penalty as specified in the SLA.

6. The selected System Integrator shall also maintain records of all maintenance of the system and shall maintain a logbook on-site that may be inspected by SSCDL/SMC at any time.

7. Regular analysis of events and logs and maintain the reports for future audit purposes.

8. Periodic health check of the systems, troubleshooting problems, analyzing and implementing rectification measures.

9. Take appropriate steps to comply with the audit observations made by various internal/ external auditors.

10. Systems Administration Services performed by System Integrator shall ensure that SSCDL/SMC's IT Environment operates smoothly, securely and consistently. It also ensures Optimized use of IT resources. System Integrator shall ensure following Server Administration activities for SSCDL/SMC.

11. Configuration of server, storage, networking & security component parameters, operating systems administration and tuning.

12. Adequate hardening of the operating systems of the servers, storage & network equipment and security equipment to prevent known and unknown attacks.

13. Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of upgrades including migration to higher versions and patches to ensure that the system is properly updated.

14. Re-installation in the event of system crash/failures.

15. Maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc.

16. Periodic health check of the systems, troubleshooting problems, analyzing and implementing rectification measures.

17. Troubleshooting issues in the infrastructure, network and IT application to determine the areas where fixes are required and ensuring resolution of the same.

18. Identification, diagnosis and resolution of problem areas pertaining to the DC site infrastructure and application and maintenance of assured SLA levels.

19. Implementation and maintenance of standard operating procedures for maintenance of the infrastructure based on SSCDL/SMC's policies.

20. Management of the user names, roles and passwords of all the relevant subsystems, including, but not limited to servers, applications, storages etc.

21. System administration activities shall include tasks including but not limited to setting up the IT assets, executing hardware and software updates when necessary. The indicative activities include
    i. Configuring and apportioning storage space
    ii. Setting up of working e-mail accounts and mailing lists
    iii. Management and integration of databases if required
    iv. Implementing security on the Internet / Intranet
    v. Performing periodic backup of data and automating reporting tasks
    vi. Executing hardware and software updates when necessary

22. IT assets performance monitoring, fine-tuning, optimization & Problem Resolution

23. Pro-active Disk management /Capacity planning

24. IT assets Configuration changes

25. Understanding Performance Bottlenecks and solving the issue proactively

26. Log in ID administration (addition / modification / deletion / maintenance etc.)

27. Perform file back-up/recovery as defined in the process

28. Intrusion / Malware / Virus etc. detection and neutralization

6.1.5.5 Backup & restore services:

SI will be responsible to take the backup of operating system, database and application as per industry best practices. SI will be responsible to restore the backup in case of failure.

6.1.5.6 Storage, Administration & Management Services

The indicative list of activities shall include:

1. Installation, configuration, monitoring and management of the storage system in accordance to the application requirement.

2. Creation of required number of VLUNs to optimize the speed and storage of data. The VLUNs created would also ensure segregation of the data as per the application requirement. The VLUNs should be dynamically configurable for the space allocation.

3. Management of storage environment to maintain performance at desired optimum levels.

4. Development of storage management policy, configuration and management of disk array, SAN fabric / switches, virtual Storage, etc.

5. Configuration of SAN shall include activities such as management of storage space, volume, RAID configuration, LUN, zone, security, business continuity volumes, performance, etc.

6.1.5.7 Database administration and Management Services

The indicative list of activities shall include:

1. Monitoring, maintenance and tuning of the databases to meet performance standards, maximize efficiency and minimize outages, as necessary and proactively reviewing database logs and alert logs and taking appropriate actions.

2. Management of database upgrade or patch upgrade as and when required with minimal downtime.

3. Regular backups for all databases in accordance with the backup and archive policies and conduct recovery whenever required with appropriate permissions.

6.1.5.8 Security Administration Services at DC

The indicative list of activities shall include:

1. Sever and application hardening to prevent attack from any known and unknown attacks.

2. Root domain administration by creating the root and sub-domains and setting the root level security policies such as authentication mechanisms (single/multi factor), password policies such as password length, password complexity, password expiry, account lockout policy, certificate policies, etc.

3. Maintaining an updated knowledge base of all the published security vulnerabilities and threats.

4. Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.

5. Respond to security breaches or other security incidents and coordinate with respective OEM in case of a new threat is observed to ensure that workaround / patch is made available for the same.

6. Operating system hardening through appropriate configuration and patch updates.

7. Periodic reviews of rights and privileges.

6.1.5.9 Warranty, ATS and Annual Maintenance Services

System Integrator shall provide warranty, ATS, and maintain the IT infrastructure and software infrastructure for the entire solution provided to SSCDL/SMC. System Integrator shall provide the comprehensive manufacturer's warranty in respect of proper design, quality and workmanship of all hardware, equipment, accessories etc., covered by this bidding document. System Integrator must warrant all hardware, equipment, accessories, spare parts, software etc. procured and implemented as per this bidding document against any manufacturing defects during the warranty period.

1. Hardware Warranty: 3 years on-site comprehensive warranty with parts (Back-to-back from OEM).

2. Hardware O&M after warranty: Comprehensive onsite O&M with parts from the date of end of warranty till the end of contract covering back-to-back support from the OEM.

3. Software ATS: Comprehensive O&M/ATS services from the date of completion of Warranty on all the licensed software (IT product, associated software components, VMS Software, database, operating systems, etc.) provided by the System Integrator till 5 years from the date of first Go live. The ATS from OEM shall be applicable for VMS and

antivirus software. All minor and major updates/upgrades shall be made available as part of ATS. The SI will be responsible to installation of the same from time to time. For OS & Database, the SI will be required to carry out necessary patch updates/ service pack updates from time to time.

4. System Integrator shall, for this purpose, stock sufficient spares for rendering service and meeting SLA. SSCDL/SMC is not obliged to continue with the System Integrator providing O&M and may choose another System Integrator as O&M Partner.

5. No separate charges shall be paid for visit of engineers or attending to faults and repairs or supply of spare parts.

6. During the implementation period and warranty period System Integrator shall perform all the functions as enunciated under the O&M at no extra cost to SSCDL/SMC.

7. The support for planning, optimization and tuning of hardware and software after commissioning, whenever needed during Operation period/ Warranty / AMC shall be provided by System Integrator at no extra cost to SSCDL/SMC.

8. Mean Time between Failures (MTBF): If during contract period, any equipment has a hardware failure on four or more occasions in a period of less than three months or six times in a period of less than twelve months, it shall be replaced by equivalent or higher-level new equipment by the System Integrator at no cost to SSCDL/SMC. For any delay in making available the replacement and repaired equipment for inspection, delivery of equipment or for commissioning of the systems SSCDL/SMC reserves the right to charge a penalty.

9. Warranty should not become void, if SSCDL/SMC buys, any other supplemental hardware from a third party and installs it within these machines under intimation to the System Integrator. However, the warranty will not apply to such supplemental hardware items installed

10. The System Integrator shall carry out Preventive Maintenance (PM).

11. The System Integrator shall ensure that the warranty complies with the agreed Technical Standards, Security Requirements, Operating Procedures, and Recovery Procedures.

12. System Integrator shall have to stock and provide adequate onsite and offsite spare parts and spare component to ensure that the uptime commitment as per SLA is met.

13. Any component that is reported to be down on a given date should be either fully repaired or replaced by temporary substitute (of equivalent configuration) within the time frame indicated in the Service Level Agreement (SLA).

14. The System Integrator shall develop and maintain a database of IT inventory to include the registered hardware warranties.

6.1.6 Design Considerations and Operating Condition for Suman Eye Project (CCTV Network)

1. **Reliability:** The proposed equipment must be designed to cater for 24x7 round-the clock operations.

2. **Maintainability:** The bidder has to maintain the uptime for entire system as mentioned in SLA. This uptime is exclusive of regular maintenance. The minimum down-time for all the components, factors such as ease of replacement, mean-timeto-repair (MTTR) has to be incorporated in the system design and proposal and the same to be submitted.

3. **User-Friendly:** The system server should / may be based Windows, Linux or Unix OS. At the same time, the administrative and dispatch console should be World Wide Web based, the multi-channel S/W client should operate on Windows and Linux based client Operating System". The server system can be based on Windows/Linux/Unix OS.

4. **Upgradeability**: Each part of the system produced should be modular and easily reconfigurable and upgradeable. The system should be preferably based on an open system concept.

5. **Security:** Network and Physical Security of the equipment against all the possible threats needs to be taken care of while designing the entire system. The utmost care and due consideration for the security of data / video is mandatory as the data is directly related to law & order and Surveillance.

   The architecture must adopt an end-to-end security model that protects data and the infrastructure from malicious attacks, theft, etc. SI must make provisions for security of field equipment as well as protection of the software system from hackers and other threats. Using Next Generation Firewall such attacks and theft should be controlled and well supported (and implemented) with the security policy. The virus and worms attacks should be well defended with gateway level Anti-virus system, along with workstation level anti-virus mechanism. Furthermore, all the system logs should be properly stored & archived for future analysis and forensics whenever desired. SSCDL may carry out the Security Audit of the entire system post acceptance / operationalization through a Third Party Auditor (TPA). The following guidelines need to be observed for security:

   i.   Build a complete audit trail of all activities and operations using log reports, so that errors in system – intentional or otherwise – can be traced and corrected.

   ii.   The most appropriate level of security commensurate with the value to that function for which it is deployed must be chosen

   iii. Access controls must be provided to ensure that the system is not tampered or modified by the system operators.

   iv.   Implement data security to allow for changes in technology and business needs.

v.   The security of the field devices must be ensured with system architecture designed in a way to secure the field devices in terms of physical damage & unauthorized access.

6. **Electromagnetic Compatibility:** The IP Interoperability and Collaboration System shall be able to operate without any complication due to any electromagnetic interference exists in or between sub-systems.

7. **At expiry of Contract :** For smooth handing over/transfer of the system, at the time of expiry the contract, all the system (Software, Hardware, Connectivity, Control Room, Field equipment, Components and subcomponents etc used in the project) shall be fully functional with detailed diagrams and drawings.

8. **Scalability:** The system should be designed for scalability and allow future expansions in terms of subsequent project phases, increased user density and geographical coverage. Important technical components of the architecture must support scalability to provide continuous growth. The system should support vertical and horizontal scalability so that depending on change in requirements from time to time, the system may be scaled upwards. There must not be any system imposed restrictions on the upward scalability in number of field devices. Main technological components requiring scalability are storage, computing performance (IT Infrastructure) and software / application performance.

9. **Availability** - Components of the architecture must provide redundancy and ensure that there are no single point of failures in the key project components. Considering the high sensitivity of the system, design should be in such a way as to be resilient to technological sabotage. To take care of remote failure, the systems need to be configured to mask and recover with minimum outage. The SI shall make the provision for high availability for all the services of the system.

10. **Convergence** – SSCDL/SMC has already initiated many projects which have state of the art infrastructure at field locations deployed under them. The System Integrator shall ensure leveraging the existing infrastructure for optimum utilization, and hence the SI shall submit a re-usability report for all IT and non IT Infrastructure during the feasibility study period after signing of contract. Further, Suman Eye (CCTV Network) Project Infrastructure should be made scalable for future convergence needs. Under the smart city program, SSCDL/SMC has envisaged to create a state of the art infrastructure and services for the citizens of Surat, hence it is imperative that all infrastructure created under the project shall be leveraged for maximum utilization. Hence the System Integrator is required to ensure that such infrastructure will allow for accommodation of equipment's being procured under other smart city projects. The procedure for utilization of the infrastructure will be mutually agreed between the SSCDL/SMC and System Integrator.

6.1.7   Acceptance Testing

The SSCDL/SMC shall review and finalize the detailed acceptance test plan proposed by the SI. The SSCDL/SMC would also conduct audit of the process, plan and results of the Acceptance Test carried out by the SI for both IT & non-IT components. The SSCDL/SMC would issue

certification of completion for which SSCDL/SMC shall verify availability of all the defined services as per the contract signed between the SI and SSCDL. The SI shall be required to demonstrate all the services, features, functionalities as mentioned in the agreement.

All acceptance testing, project review and monitoring shall be enabled through a Project Management Unit (PMU) nominated by SSCDL/SMC prior to certification by SSCDL/SMC.

Commissioning shall involve the completion of the site preparation, supply and installation of the required components and making the Project available to the SSCDL/SMC for carrying out live Operations and getting the acceptance of the same from the SSCDL/SMC. Testing and Commissioning shall be carried out before the commencement of Operations.

6.1.7.1 Partial Acceptance Test

Partial Acceptance Test shall involve scrutiny of documents for various IT / Non-IT components to verify if the specifications conform to the technical and functional requirements mentioned in the Tender and subsequent corrigendum. SSCDL/SMC reserves right to conduct physical inspection of the equipment delivered to ensure that they arrive at the sites in good condition and are free from physical damage and incomplete shipments and shall return the products to the supplier at the supplier's expenses if the same is not as per RFP requirements. Physical inspection of hardware will also include physical checking and counting of the delivered equipment in presence of the Successful SI. This equipment will only be acceptable as correct when each received item corresponds with the checklist that will be prepared by the Successful SI prior to shipment. Any shortfalls in terms of number of items received may render the delivered equipment incomplete. This is required to be carried out for all request orders issued under this project.

6.1.7.2 Final Acceptance Testing

The final acceptance shall cover 100% of the "Suman Eye (CCTV Network) Project", after successful testing by the SSCDL/SMC or its PMU; a Final Acceptance Test Certificate (FAT) shall be issued by the SSCDL to the SI.

Prerequisite for Carrying out FAT activity:

1. Detailed test plan shall be developed by the SI and approved by SSCDL/SMC. This shall be submitted by SI before FAT activity to be carried out.

2. All documentation related to Suman Eye (CCTV Network) Project and relevant acceptance test document (including IT Components, Non IT Components etc.) should be completed & submitted before the final acceptance test to the SSCDL.

3. The training requirements as mentioned should be completed before the final acceptance test.

4. Successful hosting of Application and Software.

5. For both IT & Non-IT equipment's / software manuals / brochures / Data Sheets / CD / DVD / media for all the Suman Eye (CCTV Network) Project supplied components.

The FAT shall include the following:

1. All hardware and software items must be installed and configured at respective sites as per the specification.

2. Availability of all the defined services shall be verified.

3. The SI shall be required to demonstrate all the features / facilities / functionalities as mentioned in the RFP.

4. The SI shall arrange all tools/equipments required to carry out successful FAT, and will also provide documented test results for the same.

Any delay by the SI in the Final Acceptance Testing shall render him liable to the imposition of appropriate Penalties. However, delays identified beyond the control of SI shall be considered appropriately and as per mutual agreement between SSCDL and SI. In the event the SI is not able to complete the installation due to non-availability of bandwidth from the bandwidth service providers, the Supplier and SSCDL may mutually agree to redefine the Network so the SI can complete installation and conduct the Final Acceptance Test within the specified time.

6.1.8 OEM Support

1. Bidders are required to specify **only one specific make and model of each item** and provide the details in the Technical bid. Providing more than one option shall not be allowed.

2. Bidder must be authorised by the OEM by submission of MAF in original or notarized copy (No photocopy accepted) to quote on behalf of the manufacturer for supply, install and comprehensive onsite warranty and O&M support of the equipment that they offered. The MAF from OEM has to be as per format mentioned in section 13.9.

3. The bidder should have a back-to-back support from OEMs on the CCTV system equipment, hardware & software for 5 years. Any upgrade and updates of software for the next 5 years shall be made available by the bidder without any additional cost. OEM should provide adequate spares support to SI to upkeep the CCTV system.

4. The relevant product information, brand and model number offered, printed product brochure, technical specification sheets, datasheets etc. should be submitted along with the bid. Failure to submit this information along with the bid shall results in disqualification.

5. The bidder shall furnish undertaking confirming compliance to technical specifications and complete functional requirements as stated in the bid document for all equipment proposed from OEMs. Please refer to section 14 for Technical and functional specifications.

6. The bidder shall also furnish the undertaking from their OEM confirming compliance to technical specifications and complete functional requirements as stated in the bid document. Please refer to section14 for Technical and functional specifications.

7. The bidder must not bid/supply any equipment that is likely to be declared end of sale within one year from the date of supply. The successful bidder would be required to replace all such equipment with latest and at least of equivalent configuration. The successful bidder shall submit an undertaking from OEM in this regard to the SSCDL/SMC.

6.1.9 Training

SI is responsible for providing required training as mentioned below:

1. Training to the staff of SSCDL/SMC/Suman High School/Municipal Board Schools or SSCDL's appointed agencies on related operations of Suman Eye (CCTV Network) Project including reports generation etc.

2. Training on basic troubleshooting of all equipment/infrastructure during comprehensive onsite warranty and O&M support of equipment/infrastructure to SSCDL/SMC officials

3. Training sessions should be conducted on a requisite mix of theory & practical operations. The trainings should be conducted in English and Hindi/Gujarati. For practical training, SI is responsible to make provision of cameras, NVR etc. for better understanding to trainees

4. SI is responsible for providing user manuals at the time of training. The user manual should also be periodically updated (if necessary) and provided in hard copy as well as in soft copy.

5. The training shall be carried out for adequate period as mentioned above for which the detailed training schedule along with the content of the training shall be submitted by the SI.

6. SI will have to bear all the cost associated with the conducting such training programs. The space for training shall be provided by SSCDL/SMC.

6.1.10 Electrical works and power supply

For those locations where the existing power supply is there in place, the SI will be required to lay necessary power cable with conduit to draw power upto the POE/Camera(s). For those locations, where power supply is required to be obtained to make the CCTV System functional, the SI will be responsible to apply and obtain the same on behalf of SSCDL/SMC by undergoing necessary formalities with electricity boards for provision of mains power supply at desired location. Necessary expense on actuals, based on the payment receipt from electricity board in terms of meter charge, connection charge, etc. will be reimbursed to the SI. The recurring electricity charges will be borne by SMC/SSCDL.

6.1.11 Cabling Infrastructure

1. The SI shall provide standardized cabling for all devices and subsystems in the field and Data Centre.

2. SI shall ensure the installation of all necessary cables and connectors between the field devices assembly, outstation junction box, for pole mounted field devices the cables shall be routed down the inside of the pole and through underground duct to the outstation cabinet.

3. All cables shall be clearly labelled with indelible indications that can clearly be identified by maintenance personnel. The proposed cables shall meet the valid directives and standards.

4. Cabling must be carried out as per relevant BIS/IS standards. All cabling shall be documented in a cable plan by the SI.

6.1.12 Lightning-proof measures

The SI shall comply with lightning-protection and anti–interference measures for system structure, equipment type selection, equipment earthing, power, signal cables laying. The SI shall describe the planned lightning-protection and anti–interference measures in the feasibility report. Corresponding lightning arrester shall be erected for the entrance cables of power line, video line, data transmission cables. All crates shall have firm, durable shell. Shell shall have dustproof, antifouling, waterproof function & should be capable to bear certain mechanical external force. Signal separation of low and high frequency; equipment's protective field shall be connected with its own public equal power bodies; small size/equipment signal lightning arrester shall be erected before the earthling. The Internal Surge Protection Device for Data Line Protection shall be selected as per zone of protection described in IEC 62305, 61643-11/12/21, 60364-4/5. Data line protection shall be used for security system, server data path and other communication equipment. Data line protection shall be installed as per zone defined in IEC 62305.Type 1 device shall be installed between zone 0B and zone 1. Type 2 devices shall be installed before the equipment in zone 2 and 3.

6.1.13 Earthing System

All electrical components are to be earthen by connecting two earth tapes from the frame of the component ring and will be connected via several earth electrodes. The cable arm will be earthen through the cable glands. The entire applicable IT infrastructure i.e signal junction or command centre shall have adequate earthing. Further, earthling should be done as per Local state national standard in relevance with IS standard.

1. Earthing should be done for the entire power system and provisioning should be there to earth all equipment procured under this project so as to avoid a ground differential. SSCDL shall provide the necessary space required to prepare the earthing pits.

2. All metallic objects on the premises that are likely to be energized by electric currents should be effectively grounded.

3. There should be enough space between data and power cabling and there should not be any cross wiring of the two, in order to avoid any interference, or corruption of data.

4. The earth connections shall be properly made.

6.1.14 Others

SI will have to carry his own four-wheeler and a ladder of 15 feet length for carry out implementation and maintenance work (including transportation of items required for Project) during the Contract Period. All the expenses pertaining to four wheeler such as driver's expense, fuel, lubricants, maintenance etc., will have to be borne by the SI. The SI will have to keep minimum 1 number of loaded 4 wheeler for maintenance work. SMC/SSCDL may ask bidder to arrange additional vehicle if required. The vehicle & related accessories should follow RTO norms of Government of Gujarat.

6.2 Onsite Warranty Support and Comprehensive Operation & Maintenance (O&M)

The components procured under Suman Eye Project shall be with 3 years of Onsite Warranty Support and 2 years of Comprehensive O&M Support. The broad scope of the work during onsite Warranty Support and **Comprehensive O&M Support** are as follows:

1. The SI is required to provide the warranty to Hardware and Software items (including Non-IT/ passive items) forming part of Suman Eye Project and supplied and installed by the SI for a period of 3 (three) years from the date of issuance of Project Acceptance/Go Live Certificate (the **"Warranty Period")**. The Warranty Period of different Request Order items shall end at different dates. The SI shall not dispute the same in future in any manner. SI to ensure uptime and availability of Project all time during the Warranty Period as well by resolving any bug and technical problems as soon as possible.

2. Maintenance Terms and O&M obligations are inclusive of spares during **Contract period (2 years post completion of Warranty Support**) and followings shall constitute the Maintenance Terms, obligations and responsibilities of the SI during Operation and Maintenance (**the "Maintenance Terms");**

3. Following activities to be carried out by SI during Warranty and O&M Support:

   i. Maintain the Project , modify, repair or otherwise make improvements to the Project to comply with Technical Specifications, Service Level Agreements specified in RFP Good Industry Practice, Applicable Laws and Applicable Permits, and manufacturer's guidelines and instructions.

   ii. The SI shall be responsible for ensuring smooth operation of the Project and undertaking routine and periodic maintenance including all periodic software upgrades in order to maintain the Minimum Service Levels specified in RFP.

   iii. Take responsibility for any defect or failure of Project Components comprising of

Hardware and Software (including Non-IT/ passive items) due to defective design, material or workmanship, manufacturing or development defects or latent defect or normal wear and tear within the design limit, during the Contract Period.

iv. The SI shall be responsible for any defect or failure of Suman Eye Project Components comprising of Hardware and Software (including Non-IT/ passive items) due to defective design, material or workmanship, manufacturing or development defects or latent defect or due to normal wear and tear within the design limit, during the Warranty period.

v. The rectification, change of spare of hardware and software units, modification and all software upgrades (Major and minor) shall have to be undertaken by the System Integrator to cure the faults/defects/deficiency in order to raise speed, efficiency and/or effectiveness of the sub system and achieve a higher performance level of Project within the Remedial Period specified by the SSCDL/SMC.

vi. In case if breakdown/ maintenance work is required to be carried out during non-working days/ hours, the bidder shall attend the task(s) during this period at no extra payment.

vii. The SI should either repair the equipment, or replace the equipment with new equipment, to ensure the CCTV system is operational. Any equipment is either breakdown, damaged due to the negligence of SI, or any technical reasons, it should be replaced with new equipment or item under the guidance of operational team of the SSCDL/SMC.

viii. In case the quoted item is not available in the market, the SI shall have to supply higher Version/ Replacement of that item with prior approval of SSCDL/SMC at no extra cost. No "End of Life" product should be supply to minimize such instances during OEM support for 5 years. If any spare(s)/ material(s) found defective than same should be repaired or new spare(s)/ material(s) is to be replaced. In any case second hand material is not allowed.

ix. In case if the SI is not able to repair the original equipment or any part of it, the SI shall supply the new substitute of same specifications or of higher specifications, with prior approval of the concern officer in SSCDL/SMC. In case, if it is found that the substituted item is of lower quality/specification then the same must be replaced. In case of, repetitive instances, SSCDL/SMC will take punitive action against the bidder.

x. The SI should perform all the tasks that need to be taken to upkeep the CCTV system in a 24 x 7 days environment. This includes but not limited to any component breakdowns, reworks; relay of cable/re-configure system that needed to perform / replacing the breakdown components etc. as per SLA.

xi. The SI should also take up the work including reworks, relaying of cable cuts, shifting of cameras and equipment, reconfiguring the system, optimization or performance of

CCTV system, re-installation of software, expansion to the existing system such as adding cameras etc. as & when needed. SI to ensure above activities without any additional cost to SMC/SSCDL

xii. Deploy required number of competent technical manpower /engineers/ supervisors along with necessary spare parts, standby items and inventories of all parts of Project during the Contract period at its own cost for evaluation of performance, operation, maintenance and management of the Project and its components in order to maintain the Minimum Service Levels specified in RFP during the Contract period. Necessary technical personnel shall also be deputed by the SI at its own cost for investigating defects and failures and carrying out modifications as and when required during the Contract Period.

xiii. Resolve any bugs, technical problems with regards to ticketing operation on urgent basis.

xiv. To ensure that ticketing operation shall not get affected owing to technical issues.

xv. Ensure smooth operation of Project during the Contract Period by undertaking routine and periodic maintenance of the Project components and carrying out rectification, modification , software upgrades , change of spare if need so arise in order to maintain the Minimum Service Levels all time during the Contract Period.

xvi. Ensure uptime and availability of I Project, all times of Contract Period at all identified locations in relation to the minimum Service Levels specified in this RFP and the scope specified in RFP section 6 and 14.

xvii. Undertake timely upgradation of Project if need so arise during the Contract Period.

xviii. Prepare a Maintenance Manual and other manuals specified in this RFP in consultation with SSCDL/SMC or its PMC specifying the detailed operation plan, methodology and   time period of regular and preventive maintenance, comprehensive information of equipment, hardware, software (including Non-IT/ passive items) used in Project, operation procedure of each sub system installed, the repair and maintenance procedures of each component and hardware of the Project, procedures for diagnosis, removal of bugs and replacement of any item of equipment, diagnosis procedures of faults and procedures for removing it and replacing. These manuals shall be detailed as per the RFP requirements.

xix. Provide all MIS report specified in RFP or any other reports required by SSCDL/SMC.

xx. Take all precautions to ensure that the Project including all software and hardware (including Non-IT/ passive items) involved remains safe and secure in general and free from attacks arising from attempted manipulation, fraud, break down,

compromising of data security, malware and virus attacks, physical attacks or damage due to neglect or omission.

xxi. Provide training and handholding support to SSCDL/SMC as follows;

- Provide training to SSCDL/SMC personnel with regards to operation of Cameras / viewing of feeds/reporting etc and;

- Provide training to SMC/SSCDL personnel with regards to functioning of Control Center, handling incidents etc.

xxii. Ensure that any premises/Project Site provided by SSCDL/SMC to the System Integrator for the purpose of carrying out its obligations shall be used solely for the purpose of carrying out the functions intended and obligations placed under this contract and not for any other purposes.

xxiii. The SI shall not permit anti social activities/illegal activities on Project Site during the Contract Period. Any liabilities arise as consequences of such event shall be borne by the SI. On occurrence of such event, the SI shall solely responsible for legal remedies and SSCDL/SMC may consider Termination on occurrence of such event.

xxiv. Take prompt and reasonable action for redressal of each complaint received from users including complaints received by SSCDL/SMC related to Project.

xxv. Obtain and keep valid all applicable permits/ Licenses required by it under applicable laws for carrying out its scope of work during the Contract Period.

xxvi. The SI shall be required to hand over all the equipments in working condition at the time of completion/termination of the Contract, otherwise the equipment, found faulty, shall be rectified from any external agency and whole replacement/repair cost will be borne by the SI only.

xxvii. SI is not responsible to maintain the existing infrastructure which is being re-utilized for Suman Eye Project. However, SI is required to inform the SMC/SSCDL if any damage/discrepancies observed during the monitoring. SMC.SSCDL shall get the faulty equipment repaired by their respective Service Provider.

xxviii. Warranty and O&M Terms shall not be applicable in the event of damages due to Vandalism, tempering of hardware or any of the Project components by Authority's staff or any external party. In such an event, the SSCDL/SMC shall request the SI to repair/replace the damaged component of Project and reinstall the same. Reasonable repair/replacement costs towards the same shall be reimbursed by the SSCDL/SMC to the SI less of insurance proceeds.

6.2.1 Helpdesk System

As part of Overall project scope, the SI will provide the necessary support services for complaint registration related to any component of the solution as part of the Scope. The detailed activities to be carried out by Service agency are listed below:

Given below is an initial list of tasks to be performed by the bidder for support services. SMC/SSCDL may direct bidder to perform any additional / similar tasks, as per its requirement during the contract period.

#	Services
1.	SI shall provide the customer care number and email id to SSCDL/SMC for registration of complaint. Each complaint shall generate the ticket mentioning date and time of registration. The ticket number should be provided to client at the time of complain registration
2.	SI will nominate one senior person as the Single Point of Contact (SPOC) for the purpose of receiving the complaint and resolution of the same from Go Live of RO 1. The nominated SPOC must interact cordially with the end user. S/he will carry out necessary activities to resolve the problem as per the response and resolution time.
3.	Call center/support center, Call Logging for queries / services / complaints (Trouble Ticketing)
4.	Facility to log calls through telephone / mobile, e-mail or service desk software or through personal messenger. Proactive monitoring has to be done by System Integrator to reduce the resolution time in case of any failure. Proactive monitoring should have mechanism of auto generation of ticket for faster resolution. Ticket raise information should be informed to SMC/SSCDL.
5.	Recording redressal of complaints in the Service Desk Software, Call closure
6.	Ensuring the resolution of the complaints in the shortest possible time. To escalate call internally if the same is not redressed by respective field representative of the vendor or requires intervention of higher official.
7.	Incident Management
8.	Call analysis and generation of reports using a computerized tool for uptimes and SLA's.
9.	Bidder shall keep SMC/SSCDL informed about the progress at regular intervals.
10.	Assigning a dedicated senior account manager as a SPOC for all the services/issues as listed in this RFP.
11.	To provide the outage report on its closure listing the reasons for the same.
12.	Any other help / service desk related services not listed above but required for smooth functioning of help / service desk services as directed by SMC

Note: Helpdesk support is not required to be setup onsite.

6.2.2 Deployment of Onsite Support Engineer

1. The successful SI shall depute 5 (five) trained and qualified on-site support engineers during Warranty and O&M support period i.e for the period of 5 years from the date of Go-Live of RO1. Support engineer must have mobile phones round the clock and must have personal vehicle.

i. Availability of the required man-power should be 100% except for Sundays. SSCDL/SMC shall take the attendance through biometric and/or mobile based GPS attendance of each person proposed as part of team on monthly basis.

ii. Support Engineer team shall require to take the approval from the SSCDL or concerned authority for in case of planned leaves. SI is responsible to provide the replacement of unavailable manpower till the leaves duration.

iii. Support Engineers are entitled to take 12 leaves in a year.

iv. Any leave beyond permissible leave shall be subject to penalty if no suitable replacement is available.

2. Considering the criticality of the nature of work, the SI is expected to deploy the best of the breed resources to ensure smooth service delivery to the end users and seamless coordination with other entities involved for tasks related to smooth operation of entire "Suman Eye (CCTV Network) Project.

3. The SI will be notified through an email or phone or any other medium by the SSCDL/SMC or any operational team that would exist as the case may be on the issues faced related to the system. The SI will be required to extend support during office hours and beyond as well to attend the issues.

4. SI shall have to ensure local service support within Surat city for all locations/service calls under "Suman Eye (CCTV Network) Project". The SI shall submit a detailed support plan providing complete details in terms of address of the support centre, number of service engineers available along with their names, telephone/mobile numbers, fax number, spares that will be stocked for comprehensive warranty service etc.

5. The support engineer will visit the installation site once quarterly with the provision that monthly/quarterly reports of the failures and health of the equipment is generated from the EMS and submitted to the Authority. The SI shall arrange the suitable replacement in case the assigned support engineer goes on leave or is unavailable due to any other reason to ensure uninterrupted support services. SI may also require to engage additional manpower on case to case basis for proper operation & support of the system

6. The SI's Engineer shall be responsible to identify the fault and take corrective measures.

7. These engineers shall be deputed for the sole purpose for configuring, installing and maintaining the hardware, deploying and installing the system software as per the requirements /testing /integration of various hardware and software, as may be needed at SMC/SSCDL Site without any additional cost during contract period from the date of installation for all supplied items.

8. The server and storage products if used in virtualized environment for video management software necessary Installation / reinstallation of VMS, configuration and implementation support in future if required shall be provided by successful SI through deployed man-power.

9. These engineers shall be deputed for the sole purpose of installation, re-installation, maintenance and troubleshooting the hardware and software supplied and installed for the duration of the contract. SMC shall provide a table space for the engineer(s) deputed for the sole purpose of servicing products installed under Suman Eye project at SMC.

10. The onsite engineers shall also be required to install, configure and trouble shoot all hardware / software issues pertaining to smooth functioning of CCTV cameras deployed

at various locations within SMC limit. In case of major issues, the support engineer will be required to inform SMC. The same applies for network problems as well, where in client side trouble shooting and primary diagnosis is to be done by the deputed resident support engineer.

11. The Engineer must be equipped with all necessary facilities/equipments such as Laptop, mobile telephone, Internet connection, personal vehicles, etc.

12. The SI shall depute only such individuals as are skilled and experienced in the works to be executed under the contract. The SMC has all the rights to reject the services of any support engineer and can ask for a change, if not found fit. The service engineer's leave applications are to be channelled through ISD, SMC. In the event of change of any support engineer from the site, prior approval from the Head of ISD, SMC shall be essential.

13. The SI shall be responsible for providing all materials, equipment, installation / maintenance tools and services, specified or otherwise, which are required to fulfil the intent of ensuring operation-ability/ maintainability and reliability of total materials covered under these specifications.

14. The indicative list of functions through the engineers deputed at the SMC-site is as under:

Field Support	
i.	Providing hands and feet support in field for fixing reported incidents
ii.	Provide quarterly Helpdesk and alarm reporting
iii.	Coordinating with SMC/SSCDL nominated officers/agencies to ensure fault free system
iv.	Ensuring completion of upgrade/change activities as required
v.	Quarterly station visit with necessary tools and equipment to check all the hardware, software, peripheral instruments installed
vi.	Logging incident calls and tickets from field with respective OEMs
vii.	Follow up with the concerned OEM and engineer to resolve the incident
viii.	Coordinate and liaise with OEM/Vendor engineers visiting site for issue rectification
ix.	Monitoring installed IT infrastructure/application and alerting concerned person in case of any damage or misconduct
x.	Conducting day to day operations as instructed by SMC/SSCDL
Datacenter Support	
i.	Alarm monitoring
ii.	Filtering of alarms based upon service affecting categories and/or predefined alarm reaction lists.
iii.	Advising field support Engineers for corrective action to be taken.
iv.	Network Management misbehaviours and malfunctions.
v.	Support from EMS for all planned activities.
vi.	Generating a Service request to respective vendor for further Activity
vii.	Follow up with vendor and field engineers to resolve the network issues
viii.	Escalation to respective managers for long pending network issues and opened service request with vendor.
ix.	Generation of weekly report for all service requests opened/closed with vendor
x.	Conduct day to day operation in accordance to SMC/SSCDL recommended procedures.

Server Management

i.	Performing management of Servers for inscope application/system
ii.	Setting of key monitoring parameters from availability point of view i.e. System performance monitoring, tuning, server utilization, scheduling and optimizing the services running on server etc.
iii.	Managing physical system elements (servers, storage devices) including configuration and maintenance tasks
iv.	Managing local systems components, such as operating systems and their configurations
v.	Managing asset register for all server equipment. Record information such as serial number, asset code, warranty, AMC details etc. for in-scope applications
vi.	Planning for patch release and upgrades
vii.	Any other activities pertaining to server management and maintain SLAs

Database Management

i.	Performing database installation, configuration and maintenance activity related to scope
ii.	Setting data storage parameters for storage associated with the physical elements of the database
iii.	Setting up of the backup procedures and restoration of the back in case of requirement
iv.	Analyzing alerts
v.	Any other activities pertaining to database management and maintain SLAs

Storage Management

vi.	Backup Administration - Manage and monitor activities for Production Environment
vii.	Handling service requests to provide the Flagged/Marked Data (if any)
viii.	Generating daily/weekly/monthly report on the backup as per agreed policy
ix.	Any other activities pertaining to storage management and maintain SLAs
x.	Preventive maintenance of the storage e.g: Firmware upgrade/Interoperability with OS/Server

Security Management

i.	Managing and monitoring of system to protect from – virus, phishing and malware for managed resources. Virus should be removed or system should be isolated from the network successfully within agreed time from the time of detection of virus at that designated target system.
ii.	Ensuring 100% antivirus coverage with patterns not old more than period agreed on in-scope system
iii.	Reporting security incidents to co-ordinate for resolution
iv.	Performing Virus pattern update within agreed time period of new release at the OEM site
v.	Performing patch management for antivirus for in-scope system
vi.	Performing vulnerability scanning of all servers/devices (in-scope), which are IP Based. Vulnerability assessment report should be share with SMC/SSCDL every Quarter.
vii.	Testing and implementation of patches and upgrades
viii.	Any other activities pertaining to security management and maintain SLAs

Application Management

i.	Performing vendor/OEM interaction for resolving application related issues

ii.	Performing performance tuning of applications
iii.	Performing Access Management
iv.	Performing periodic review of access
v.	Performing patch updates and software updates for application
vi.	Any other activities pertaining to application management and maintain SLAs
Network Management	
i.	Troubleshooting communication disruptions and working with vendors to resolve the issues
ii.	Performing policy management (firewall users, rules etc.)
iii.	Network /device hardening procedure
iv.	Troubleshooting firewall hardware related issues and coordinating the replacement of hardware
v.	Implementing and maintaining of security rules
vi.	Rapidly resolving every incident/problem and ensuring adherence to SLA
vii.	Disabling/enabling service/ports
viii.	Performing any other day-to-day administration and support activities

6.3 Audit Observations and Compliance

SMC/SSCDL is subjected to various audits [internal / external]. In the event of any observation by the audit team the same will be intimated to the Bidder. The Bidder is required to assist the SMC/SSCDL for compliance of the same.

6.4 Rate Contract

The approved rate of the selected bidder shall be considered as the rates under rate contract and the same will be valid for the period of 5 years. SMC/SSCDL may ask SI for any additional work incorporating one or more items in one or more quantity and cost for these quantities shall be same as discovered as part of the commercial bid.

6.5 Project Planning & Management

The success of the project depends on the proper project planning and management. At the onset, the SI shall plan the project implementation in great details and should provide a micro level view of the tasks and activities required to be undertaken in consultation with SMC/SSCDL. Initial list of planning related tasks and procedures (along with corresponding documentation) that the System Integrator should be submitted at the onset is as follows:

1. **Project Schedule:** A detailed timeline indicating various activities to be performed along with completion dates and resources required for the same

2. **Progress Monitoring Plan**: Detailed periodic Progress Report formats along with issue escalation format. The format shall be approved by SMC/SSCDL to the successful bidder before start of the project.

3. **Escalation Matrix & Incident Management:** A detailed list of key contact persons with contact details with escalation hierarchy for resolution of issues and problems.

6.5.1 Resource Requirement

The selected bidder shall be required to identify and appoint a senior responsible person as a Project Manager. The same should be available locally at Surat. S/he will be required to constantly interact and coordinate with SMC/SSCDL and appointed agency for the timely rollout of the project. S/he will visit SMC/SSCDL or any other office on a short notice.

The Project Manager will perform the following roles & responsibilities:

#	Role	Responsibility
1	Project Manager	• Plans and manages the activities for successful completion of the project • Manages quality assurance and Ensures compliance with policies and procedures • Defines the phase deliverables and is responsible for meeting project milestones • Establishes appropriate metrics for measuring key project criteria • Participate in periodic reviews • Management Summary to Reports and Root Cause Analysis with Technical Specialist • Planning and Execution • Co-ordination with SMC /SSCDL

In addition, the selected bidder shall be required to make available necessary back office support staff as and when required depending on the type and nature of support required for the scope to be executed under this project.

7 Eligibility Criteria

7.1 Bidder's Eligibility Criteria

The bidder or consortium must possess the requisite experience, strength and capabilities in providing services necessary to meet the requirements as described in the RFP document. Keeping in view the complexity and volume of the work involved, following criteria are prescribed as the eligibility criteria for the bidder or consortium interested in undertaking the project. The bidder or consortium must also possess technical know-how and financial ability that would be required for comprehensive onsite warranty and O&M support services sought by the SSCDL for the entire contract duration. The Bids must be completed in all respect and should cover entire scope of work as stipulated in the bid document. This invitation to bid is open to all bidders or consortium who qualify the eligibility criteria as given below. In case of consortium, please refer section 8.6.

Note: For evaluation following definition is considered

i.   The completion / implemented project is defined as those projects that have been supplied and installed in last 7 years from the date of publishing of this RFP.

ii. The total Project value shall be considered as Capex Cost + Opex Cost.

iii. OEM experience will not be considered for Eligibility Criteria and Technical Evaluation.

#	Eligibility Criteria	Proof Document Required	Applicable to Sole Bidder	Applicable to Consortium
1.	The Prime Bidder / Sole Bidder should be registered under the Companies Act 1956 and should be in operation in India for a period of at least 5 years as on publication of bid. In case of Consortium, the Consortium Partner should be registered under the Companies Act 1956 Or a partnership firm registered under LLP Act, 2008 or partnership firm registered under Indian Partnership Act 1932	Copy of certification of incorporation issued by competent authority/ Registration Certificate/ Shop and Establishment certificate	Yes	Yes
2.	Bidder/ Primer Bidder should have a minimum average annual turnover of **Rs. 25 crore** from ICT business for	Copy of the Audited Profit and Loss statement and statutory auditor / CA certificate from a regarding	Yes	Yes

#	Eligibility Criteria	Proof Document Required	Applicable to Sole Bidder	Applicable to Consortium
	last three financial years i.e. FY 2017-18,FY 2016-17, 2015-16 In case of Consortium, Consortium Partner should have a minimum average annual turnover of **Rs. 5 crore** from ICT business for last three financial years i.e. FY 2017-18,FY 2016-17, 2015-16 The copies of Audited Annual Accounts for last three years to be submitted along with the bid [Financial Years of 2015-16, 2016-17 and 2017-18]. If 2017-18 Financial Statements of any bidder is unaudited then the Audited Financial Statements of 2014-15 along with an undertaking letter from the bidder that the 2017-18 Statements are not audited is to be submitted.	turnover. The certificate should be originally signed or notarized		
3.	Bidder/ Consortium should have a positive net worth as on 31st March 2018 If 2017-18 Financial Statements of any bidder is unaudited then Bidder should have a positive net worth as on 31st March 2017. Moreover, an undertaking letter from the bidder that the 2017-18 Statements are not audited is to be submitted	Certificate from the statutory auditor / CA towards positive net worth of the company. The certificate should be originally signed or notarized	Yes	Yes (All Members of Consortium)
4.	Bidder should have supplied and installed any of the following in last 7 years from the date of publishing this RFP as below: At least one project	1. Copy of completion certificate issued by client 2. Copy of Work order / Contract	Yes	Yes (Any Member of Consortium)

#	Eligibility Criteria	Proof Document Required	Applicable to Sole Bidder	Applicable to Consortium
	covering minimum 800 CCTV Cameras **OR** Two Projects each covering minimum 500 CCTV Cameras **OR** Three Projects each covering minimum 400 CCTV Cameras			
5.	Bidder should be registered for GST number in India	GST Registration Certificate PAN Card	Yes	Yes (All Members of Consortium)
6.	Bidder should not be blacklisted or debarred by any Government / PSU in India at the time of submission of the bid.	Declaration letter by bidder as per format given in the RFP document	Yes	Yes (All Members of Consortium)
7.	Bidder should have a local office in Surat. Note: If bidder does not have the local presence, it should open a local office within 60 days from issuance of LOI / Work Order whichever is earlier.	Supporting Documents like Rent Agreement/ Electricity Bill / Self Declaration on Company's Letter head to be submitted. In case local presence is not available then an Undertaking from authorized signatory to open the local office within 60 days from issuance of LOI to be submitted	Yes	Yes (In case of consortium, the lead bidder should meet this criteria)

Note:

1. In case of Consortium only 2 partners are allowed including Prime Bidder.
2. The bidder cannot be a member of more than one bidding consortium. An individual firm applying as a single/consortium cannot at the same time be the member of any other consortium.
3. For more details on Consortium please refer to the section 8.6

7.2 OEM's Eligibility Criteria

1. To be considered qualified for evaluation of Technical Proposal, the respective OEM must meet the below mentioned OEM eligibility criteria:

#	Selection criteria for the OEM	Proof Document Required
A	**CCTV Cameras and NVRs**	
1.	**Presence in India** The OEM for CCTV Camera should have registered office and service center in India since last 3 years (i.e. If bidder wants to quote the "X" brand of CCTV Camera, then OEM of "X" brand of CCTV Camera should have registered office and service center in India since last 3 years).	Please attach the following: • Certificate of Incorporation / Registration in India • Copy of GST registration / Copy of PAN Card / VAT Registration/CST Registration • Details of Address and support phone number for Indian registered office and service center. • Any one of the following: Property Tax Bill / Electricity Bill / Telephone Bill / Valid Lease Agreement indicating presence since last 3 years.
2.	**Experience in Public Sector / Government** OEM must have supplied minimum 3000 CCTV surveillance cameras in last 5 years as on bid start date for any PSU/State Govt./Central Govt./Police Department/ULB/Airport Authority .	End-user work order or PO document specifying no. and type of CCTV camera supplied under the project.
3.	OEM must have supplied minimum 500 outdoor camera for atleast one City Surveillance in last 5 years as on bid start date.	SI work order or PO document specifying no. and type of CCTV camera supplied under the project.
4.	OEM must be one of the Top 10 as per Latest IHS World Report for Network Security Cameras.	In this regard OEM shall have to submit the latest IHS report
5.	**ONVIF Compliance:** All CCTV Cameras & NVRs should be ONVIF Core Specification '2.X' compliant and provide support for ONVIF profiles such as Streaming, Storage, Recording, Playback etc.	In this regard OEM shall have to submit self-declaration on their letterhead duly signed and stamp by competent authority as per Form-TQ_11
6.	**Commitment to Support** The OEM should commit to support the product proposed in the scope of this RFP for at least five (5) years. End of support date should not have been announced for the product proposed. OEM will abide by the same SLA during support period as System Integrator.	OEM self-certification as per Section-TQ_8 indicating the commitment to support along with product roadmap
B	**Video Management System Software**	
1.	From any of Top 10 OEM from Latest IHS World Report for Video Management Software. In this regard OEM shall have to submit the latest IHS report	Latest and relevant report from IHS to be submitted clearly showing presence of the OEM.
2.	**ONVIF Compliance**	In this regard OEM shall have to

#	Selection criteria for the OEM	Proof Document Required
	Video Management System and its solution component should be ONVIF Core Specification '2.X' compliant and provide support for ONVIF profiles such as Streaming, Storage, Recording, Playback etc.	submit self-declaration on their letterhead duly signed and stamp by competent authority as per Form-TQ_11
3.	**Commitment to Support** The OEM should commit to support the product proposed in the scope of this RFP for at least five (5) years. End of support date should not have been announced for the product proposed.	OEM self-certification as per Section-TQ_8 indicating the commitment to support along with product roadmap
C	**Active Network Equipments (POEs, Network Switches)**	
1.	OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for Wired and Wireless LAN Access Infrastructure or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Ethernet Switch Market.	Latest and relevant report from Gartner or IDC to be submitted clearly showing presence of the OEM.
2.	**Commitment to Support** The OEM should commit to support the product proposed in the scope of this RFP for at least five (5) years. End of support date should not have been announced for the product proposed.	OEM self-certification as per Section-TQ_8 indicating the commitment to support along with product roadmap
D	**Server**	
1.	OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for Modular Servers or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Server Market.	Latest and relevant report from Gartner or IDC to be submitted clearly showing presence of the OEM.
2.	**Commitment to Support** The OEM should commit to support the product proposed in the scope of this RFP for at least five (5) years. End of support date should not have been announced for the product proposed.	OEM self-certification as per Section-TQ_8 indicating the commitment to support along with product roadmap
E	**Storage**	
1.	OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for General-Purpose Disk Arrays or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Enterprise Storage Market.	Latest and relevant report from Gartner or IDC to be submitted clearly showing presence of the OEM.
2.	**Commitment to Support** The OEM should commit to support the product proposed in the scope of this RFP for at least five (5) years. End of support date should not have been announced	OEM self-certification as per Section-TQ_8 indicating the commitment to support along with product roadmap

#	Selection criteria for the OEM	Proof Document Required
	for the product proposed.	
F	**Enterprise Next Generation Firewall**	
1.	OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for Enterprise Firewall or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Enterprise Firewall Market.	Latest and relevant report from Gartner or IDC to be submitted clearly showing presence of the OEM.
2.	**Commitment to Support** The OEM should commit to support the product proposed in the scope of this RFP for at least five (5) years. End of support date should not have been announced for the product proposed.	OEM self-certification as per Section-TQ_8 indicating the commitment to support along with product roadmap

8 Instructions to Bidder

1. Bidders are advised to study all instructions, forms, terms, requirements and other information in the Bid Documents carefully.

2. Submission of bid shall be deemed to have been done after careful study and examination of the Bid Document with full understanding of its implications.

3. The response to this Bid Document should be full and complete in all respects. Failure to furnish all information required by the Bid Documents or submission of a proposal not substantially responsive to the Bid Documents in every respect will be at the bidder's risk and may result in rejection of its Proposal.

4. Additionally, proposals of only those Bidders who satisfy the Conditions of Eligibility, stated herein, will be considered for evaluation by SSCDL.

8.1 Purpose of Bid Document

1. The purpose of this tender is to select an Implementation Agency for implementation of CCTV system at identified locations under "Suman Eye (CCTV Network) Project" across Surat City. This document provides information to enable the bidders to understand the broad requirements to submit their 'Bids'.

2. In case a bidding firm possesses the requisite experience and capabilities required for undertaking the work, it may participate in the selection process either individually (the "Sole Firm") or as lead member of a consortium of firms (the "Prime Bidder") in response to this invitation. The term "Bidder" means the Sole Firm or the Prime Bidder, as the case may be.

3. The manner in which the Proposal is required to be submitted, evaluated and accepted is explained in this RFP. The detailed scope of work is provided in this RFP document.

4. The bidder shall be required to submit their bid in two parts –

    i. Technical Bid (Basic Eligibility Criteria and Technical Compliance)

    ii. Commercial Bid (in line with instructions in Section 8.11).

8.2 Proposal Preparation Cost

1. The bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by SSCDL to facilitate the evaluation process, and in negotiating a definitive Contract or all such activities related to

the bid process. The department will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

2. This Bid Document does not commit the SSCDL to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award. All materials submitted by the Bidder shall become the property of SSCDL/ SMC and may be returned at its sole discretion.

8.3 Online Pre-bid Queries

1. A prospective Bidder requiring any clarification on the RFP Document may submit his queries, via email, to the following e-mail id on or before 18.09.2018 up to 16:00 am. Email Id for submission of queries: it@suratsmartcity.com

2. The queries should necessarily be submitted in the following format:

Bidders Request for Clarification		
Name and Address of the Organization submitting request	**Name and Position of Person submitting request**	**Contact Details of the Organization / Authorized Representative**
		Tel: Mobile: Fax: Email:
#	**RFP Document Reference (Section No., Page No.)** **Content of the RFP requiring clarification**	**Clarification Sought**

3. Queries submitted post the above mentioned deadline or which do not adhere to the above mentioned format may not be considered.

8.4 Amendment of RFP Document

1. At any time before the deadline for submission of bids, the SSCDL, may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by an amendment.

2. The bidders are advised to visit the http://suratsmartcity.com/Tenders and https://smc.nprocure.com on regular basis for checking necessary updates. SSCDL also reserves the rights to amend the dates mentioned in this RFP for bid process

3. In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the SSCDL may, at its discretion, extend the last date for the receipt of Bids.

8.5 Conflict of Interest

1. A "Conflict of Interest" is any situation that might cause an impartial observer to reasonably question whether Bidder actions are influenced by considerations of your firm's interest at the cost of Government. Bidders shall not have a conflict of interest that may affect the Selection Process or the scope (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified.

2. SSCDL requires that the Bidder provides professional, objective, and impartial advice and at all times hold the SSCDL's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work.

8.6 Consortium Conditions

1. The number of consortium members cannot exceed two, including the Prime Bidder.

2. A Bidder applying individually or as consortium member shall not be entitled to submit another application either individually or as a member of any other consortium, as the case may be.

3. Consortium members must provide a Memorandum of Understanding (MoU) covering above points and showing their intention to enter into such an Agreement at the time of bidding along with Pre-Qualification Bid.

4. A Bidding Consortium is required to nominate a Prime Member. The formation of the consortium including identification of Prime member and role and responsibilities of each member shall be supported by Memorandum of Agreement and Power of Attorney signed by all the members on a stamp paper of INR 100/-.

5. The successful bidder (SI) shall require to enter into agreement with all member of Consortium Members specifying following points in the Agreement. These points shall also be captured in MoU

   - Identity Prime Member and Power of Attorney in favor of Prime Member.

   - Roles and responsibilities of each consortium partner, the identification of the lead partner, and providing for joint and several liability for each partner.

   - All consortium members would be available throughout the Contract Period.

   - Each member of the Consortium shall be jointly and severally liable for the due implementation and comprehensive onsite warranty support of the Project.

   - The role and responsibility of any member must be commensurate with the technical/financial capabilities that such member is contributing towards meeting the qualification criteria. Each consortium member is liable to contribute resources in terms

of knowledge, skills and trained manpower commensurate with its role and responsibilities during the Contract Period.

- The Consortium Agreement must also state that the period of the Agreement would coincide with the Contract period. Consortium must continue to be in existence during the period of the contract and that any change will be subject to approval of the Authority (SSCDL) only.

- The final contract between the consortium members (The Consortium Contract) would be available for legal vetting and open to suggestions by the SSCDL. SSCDL will suggest binding corrections if it finds that such contract does not meet its requirements and interests as per the Tender in letter and spirit.

- The Agreement should be on stamp paper and notarized. The signatories must be duly authorized.

- Any modification in roles and responsibilities between consortium members during Contract Period shall be allowed only after approval from SSCDL. Any changes and deviation of roles and responsibilities of consortium members during the execution, and comprehensive onsite warranty support of this Project without prior approval of Authority shall be viewed seriously by the SSCDL as it can affect an important public service. Such unilateral action by the SI shall entitle SSCDL to take appropriate action including considering it an Event of Default under this Contract leading to consequences including termination with appropriate notice.

- Any Dispute arising during Contract Period between the Consortium Member shall be resolved amicably without adversely impacting Project Implementation and Operation. If in SSCDL's opinion, Dispute between Consortium members adversely impacting implementation and operation of the Project then Authority may its sole discretion in the interest of the Project (a) Terminate the Contract after due process and/or (2) Provide a binding solution.

- In case SSCDL Intends to proceed for Termination on account of SI Event of Defect and /or unresolved disputes between the Consortium Members, both the Consortium Members shall be jointly and severally liable for Implementation and comprehensive onsite warranty support of project at Agreed prices and payment terms specified in this Tender till Authority or any new agency appointed by it takes over the Project

- SSCDL reserves the right to reject the Bid in case of change in the constitution of the consortium after the submission of Bid and before the execution of the Agreement.

8.7 Right to amendment of the project scope

1. SSCDL retains the right to amend the scope of work or amend the program for service delivery at any time and without assigning any reason. SSCDL makes no commitments,

express or implied, that the full scope of work as described in this RFP will be commissioned.

2. The bidder's technical and commercial proposals received in this process may result in SSCDL selecting to engage with the bidders' in further discussions and negotiations toward execution of a contract including finalization of the scope elements. The commencement of such negotiations does not, however, signify a commitment by the SSCDL to execute a contract or to continue negotiations. SSCDL may terminate negotiations at any time without assigning any reason.

8.8 SSCDL rights to terminate the selection process

1. SSCDL may terminate the RFP process at any time and without assigning any reason. SSCDL makes no commitments, express or implied, that this process will result in a business transaction with anyone.

2. This RFP does not constitute an offer by SSCDL.

3. The bidder's participation in this process may result in SSCDL selecting the bidder to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by the SSCDL to execute a contract or to continue negotiations. SSCDL may terminate negotiations at any time without assigning any reason.

8.9 Right to reject any proposal

1. Notwithstanding anything contained in this RFP, SSCDL reserves the right to accept or reject any Proposal and to annul the Selection Process and reject all Proposals, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore.

2. Besides other conditions and terms highlighted in the Tender Document, bids may be rejected under following circumstances:

General rejection criteria

    i.   Conditional Bids;

    ii.   If the information provided by the Bidder is found to be incorrect / misleading / fraudulent at any stage / time during the Tendering Process;

    iii.   Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract award decisions;

    iv.   Bids received after the prescribed time & date for receipt of bids;

    v.   Bids without signature of person (s) duly authorized on required pages of the bid;

    vi.   Bids without power of attorney/ board resolution or its certified true copy.

Technical Rejection criteria

    i.   Bidders not complying with the Eligibility Criteria given in this Tender document

    ii.   Technical Bid containing commercial details;

    iii.   Revelation of Prices in any form or by any reason before opening the Commercial Bid;

    iv.   Failure to furnish all information required by the Tender Document or submission of a Bid not substantially responsive to the Tender Document in every respect;

    v.   Bidders not quoting for the complete scope of work as indicated in the Tender Documents, addendum /corrigendum (if any) and any subsequent information given to the Bidder;

    vi.   Bidders not complying with the Technical and General Terms and conditions as stated in the Tender Documents;

    vii.   The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the scope of work and Service Level Agreements of this Tender;

Commercial Rejection Criteria

    i.   Incomplete price Bid;

    ii.   Price Bids that do not conform to the Tender's price bid format;

    iii.   Total price quoted by the Bidder does not include all statutory taxes and levies applicable;

    iv.   If there is an arithmetic discrepancy in the commercial Bid calculations the Technical Committee shall rectify the same. If the Bidder does not accept the correction of the errors, its Bid may be rejected.

3. Misrepresentation/ improper response by the Bidder may lead to the disqualification. If such disqualification / rejection occurs after the Proposals have been opened and the highest ranking Bidder gets disqualified / rejected, then SSCDL reserves the right to consider the next best Bidder, or take any other measure as may be deemed fit in the sole discretion of SSCDL, including annulment of the Selection Process.

8.10 Bid Fee and Earnest Money Deposit (EMD) and amount

1. The bidder should pay non-refundable Bid Fee of Rs.20,160 [Rs. 18,000 + 12% GST] by Demand Draft or Banker's Cheque in favor of Surat Smart City Development Limited, from Nationalized or Scheduled Banks except Co-operative Banks, payable at Surat. The Bid fees shall be in the form of a Demand Draft / Banker's Cheque.

2. *GST Registration Number* for SURAT SMART CITY DEVELOPMENT LIMITED (SSCDL) is "24AAWCS9229G1ZR"

3. The bidder should also pay EMD of Rs. 50, 00,000 (Rupees Fifty lakhs only) whereby 50% amount shall be in the form of Demand Draft / Banker's Cheque in favour of "Surat Smart City Development Limited", from Nationalized or Scheduled bank and 50 % amount shall be

in the form of Bank guarantee (BG) of any nationalized / scheduled banks with validity of 180 days from the date of Bid opening. The format for BG is enclosed in Annexure 16.2, The details of the SSCDL bank is as below :

Name of Beneficiary:	Surat Smart City Development Ltd
Name of Bank:	State Bank of India
Bank address:	Nanpura, Surat Branch
Bank Account No:	35661186460
IFSC CODE:	SBIN0001388
MICR CODE:	395002004
BRANCH CODE:	1388

4. No interest will be payable by the SSCDL on the Earnest Money Deposit.

5. In case bid is submitted without EMD or Bid fees as mentioned above then SSCDL reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned.

6. The EMD of unsuccessful Bidders will be returned by the Authority, without any Interest, as promptly as possible on acceptance of the Proposal of the Selected Bidder or when the Authority cancels the Bidding Process.

7. The Selected Bidder's EMD will be returned, without any interest, upon the Selected Bidder signing the Agreement and furnishing the Security Deposit / Performance Guarantee in accordance with the provision thereof

8. The decision of SSCDL regarding forfeiture of the EMD and rejection of bid shall be final & shall not be called upon question under any circumstances.

9. The EMD may be forfeited:

- If a Bidder withdraws their bid or increases their quoted prices during the period of bid validity or its extended period, if any; or

- In the case of a successful bidder, if the Bidder fails to sign the Contract or to furnish Performance Bank Guarantee within specified time

- During the bid process, if a Bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.

- During the bid process, if any information found wrong / manipulated / hidden in the bid.

8.11 Sealing, Marking and Submission of Bids

Bidders are required to submit their bids in separate sealed envelopes as per instructions given below:
Part 1: **Bid Fees, EMD** with complete details as mentioned in Section 8.10 in **"Envelop 1"** super scribed with Tender No, Due Date and RFP Name – *"Selection of Implementing Agency for SUMAN Eye (CCTV Network) Project"*.   The proposal shall also consist with

all supporting documents.

Part 2: **Technical Bid along with Eligibility and soft copy in CD/DVD/ Pen drive/ USB stick** with complete details as mentioned in Section 10& Section 11 in **"Envelop 2"** super scribed with Tender No, Due Date and RFP Name "*Selection of Implementing Agency for SUMAN Eye (CCTV Network) Project".* The proposal shall also consist with all supporting documents, RFP Copy, Addendum & Corrigendum, if any.

The large envelope / outer envelope containing above envelopes must be sealed and super scribed and shall be sent as under

Details to be mentioned exactly on sealed envelop	
Tender Details • **RFP No.: SSCDL-SumanEye-RFP-01-2018** • **Tender name: Selection of Implementing Agency for SUMAN Eye (CCTV Network)** • **Project Last date of Submission: 01.10.2018**	To, **The Chief Accountant,** **Surat Municipal Corporation,** Mahanagar Seva Sadan, Gordhandas Chokhawala Marg, Muglisara, Surat – 395 003, Gujarat, INDIA.

1. The Bid must be sent strictly by **Postal Speed Post or Registered Post AD only** so as to reach on or before 01.10.2018 up to 18.00 hrs. *Bids received in any other manner or mode (like courier, in person, etc.) will not be considered. SSCDL won't be responsible for postal delays.*

2. SSCDL will not accept submission of a proposal in any manner other than that specified in the document. Proposals submitted in any other manner shall be treated as defective, invalid and rejected.

3. If the envelopes are not sealed and marked as instructed above, the SSCDL assumes no responsibility for the misplacement or premature opening of the contents of the application and consequent losses, if any suffered by the Bidder.

4. Each Bidder shall submit only one proposal containing documents as below. A bidder who submits more than one proposal under this contract will be disqualified
   a. Original copy of the Bid fee & EMD
   b. Technical Proposal related documents including Eligibility Criteria and Technical Compliance
   c. RFP Copy and Addenda & Corrigendum
   d. The Bidder shall prepare original set of the Application (together with originals /copies of documents required to be submitted along therewith pursuant to this document) and applicant shall also provide a soft copy on a Compact Disc (CD) / Pen

Drive / USB stick. In the event of any discrepancy between the original and CD/Pen Drive/USB stick, the original shall prevail

e. **Each page of the above should bear the initials of the Applicant along with the seal of the Applicant in token of confirmation of having understood the contents. In case of consortium the bid will be signed by the Prime Bidder.**

5. Technical proposal should be signed by an authorized person of the bidder. The technical proposal should be submitted along with a certified true copy of a board resolution/power of attorney empowering signatory to sign/act/execute documents binding the bidder to the terms and conditions detailed in this tender. In case of the Consortium the Prime bidder will submit this document.

6. Proposals must be direct, concise, and complete. SSCDL will evaluate bidder's proposal based on its clarity and completeness of its response to the requirements of the project as outlined in this RFP. The Chairman, SSCDL or Municipal Commissioner, SMC reserves the right to accept or reject any or all the proposals without assigning any reason

Online PRICE BID

The price bid must be submitted online on *https://smc.nprocure.com*. It should not to be sent physically, if submitted physically the bid shall be rejected. Please refer Section 15 for format and instructions.

In case bidder needs any clarification or if training required for participating in online tender, they can contact the following office: -

(n) Code solutions – A division GNFC Ltd.
403, GNFC Infotower, Bodakdev, Ahmedabad – 380 054, Gujarat (India)
Tel: +91 26857316/17/18 Fax: + 91 79 26857321
E-mail: nprocure@gnvfc.net Web-site: www.nprocure.com
Toll Free: 1800-233-1010 (Ext. 501 & 512)
For further particulars contact above office/ or visit on following websites:
   1. www.nprocure.com ,

   2. www.smc.nprocure.com

8.12 Language of Bids

1. The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and SMC, shall be written in English language, provided that any printed literature furnished by the Bidder in another language shall be accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

2. If any supporting documents submitted are in any language other than English, Notarized copy of the translation of the same in English language shall be submitted by the bidder.

8.13 Concessions permissible under statutes

Bidder, while quoting against this tender, must take cognizance of all concessions permissible, if any, under the statutes and ensure the same is passed on to SSCDL, failing which it will have to bear extra cost. In case Bidder does not avail concessional rates of levies like customs duty etc. SSCDL will not take responsibility towards this. However, SSCDL may provide necessary assistance, wherever possible, in this regard.

8.14 Bid Validity

The proposal should be valid for acceptance for a minimum period of 180 days from the Bid Opening Date (the "Proposal Validity Period"). If required, Authority may request the bidder to have it extended for a further period. The request and the responses thereto shall be made in writing. A Bidder agreeing to the request will not be required or permitted to modify his Proposal but will be required to extend the validity of EMD for the period of the extension, and in compliance with Clause 8.10 in all respects.

8.15 Taxes

The Prices mentioned in the Price Bid should include all applicable taxes & duties as applicable. The L1 evaluation will be done exclusive of taxes only. If any duties are applicable to the product the same will be considered for L1 evaluation. The bidder to quote the duties along with the rate of products proposed for L1 evaluation.

However, the bidder is expected to provide the tax components in commercial bid. The payment of taxes to the selected bidder will be done as per the prevailing rate.

Further, SSCDL shall be entitled to deduct tax at source or any other taxes/ cess as may be applicable.

8.15.1 GST

GST (Goods & Service Tax) has come in existence from 1st July, 2017. Contractor/Successful Bidder is bound to pay any amount GST prescribed by the Govt. of India as per the terms of Contract agreed upon during the course of execution of this Contract.

During the course of execution of Contract, if there is any change in Rate of GST (Goods & Service Tax) by the Government, the same shall be reimbursed/recovered separately by SSCDL, subject to the submission of Original Receipt/Proof for the amounts actually remitted by the Successful Tendered/Contractor to the Competent Authority along with a Certificate from Chartered Accountant of Contractor/Successful bidder certifying that the amount of GST paid to the Government and the same shall be intimated/submitted/claimed within 30 (Thirty) Days from the date of payment. Remittance of GST within stipulated period shall be the sole responsibility of the Successful bidder/contractor, failing which, SSCDL may recover the amount due, from any other payable dues with SSCDL and decision of SSCDL shall be final and binding on the Contractor/Successful Bidder in this regard. Further the non- payment of GST to

the Government may lead to the termination of contract and forfeiture of Security Deposit/Performance Guarantee Amount.

If imposition of any other new Taxes/Duties/Levies/Cess or any other incidentals etc. or any increase in the existing Taxes/Duties/Levies/Cess or any other incidentals etc. (excluding GST) are imposed during the course of the contract, the same shall be borne by the Contractor/Successful Bidder Only, in no case SSCDL shall be liable for the same.

8.16 Firm Prices and Bid Currency

Prices quoted must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. Prices shall be expressed in Indian Rupees (INR) only.

8.17 Right to vary the scope of the work at the time of award

SSCDL reserves its right to make changes to the scope of the work at the time of execution of the resultant Agreement. If any such change causes an increase or decrease in the cost of, or the time required for the SI's performance of any part of the work under the Agreement, whether changed or not changed by the order, an equitable adjustment (if required) shall be made in the Contract Value or time schedule, or both, and the Agreement shall accordingly be amended. Any claims by the SI for adjustment under this Clause must be asserted within thirty (30) days from the date of the SI's receipt of the SSCDL changed order.

8.18 Modification or Withdrawal of Bids

1. No bid may be withdrawn in the interval between the bid submission deadline and the expiration of the specified bid validity period. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder's EMD.

8.19 Evaluation Process

1. A two-stage selection procedure will be adopted: Stage-1: Technical Bid (Basic Eligibility Criteria + Technical Compliance) and Stage-2: Commercial bid.

2. In the first stage the Evaluation Committee shall examine the statement of eligibility, experience, technical capabilities etc. furnished by the Bidder and select the bidders who satisfy the technical evaluation criteria

3. In the second stage, subsequent to technical evaluation stage, commercial bids of only shortlisted Bidders will be opened. It should be noted the bids shall be evaluated on the basis of price. However, if required SSCDL/SMC as per its own discretion may also consider other factors like technology, innovative solution, etc. There should be no mention of bid prices in any part of the Bid other than the Commercial Bids.

8.20 Opening of Technical Bid

1. The Technical Bids of Bidders shall be considered and will be evaluated as per the eligibility criteria mentioned in section 7.

2. SMC/SSCDL may require written clarifications from the Bidders to clarify ambiguities and uncertainties arising out of the evaluation of the Bid

8.21 Evaluation of Technical Bids

1. The Bidder must meet the eligibility criteria and possess the technical know-how and the financial wherewithal that would be required to successfully provide the services sought by SSCDL, for the entire period of the contract. The Bidder's Bid must be complete in all respects, conform to all the requirements, terms and conditions and specifications as stipulated in the Bid Document.

2. The bidder must make sure to provide all the relevant documents to support the claim made with regards to various evaluation criteria like turnover, net worth, projects executed, etc. SSCDL will examine the Bids to determine whether they are complete, response and whether the Bid format confirms to the Bid Document requirements. SSCDL may waive any informality or nonconformity in a Bid which does not constitute a material deviation according to SSCDL.

3. There should be no mention of bid prices in any part of the Bid other than the Commercial Bids.

4. The commercial bid of only those bidders shall be opened which meet all the criteria of the mentioned in Section 7 of this RFP.

8.22 Opening of Commercial Bid

1. The Commercial bids shall not be opened by SSCDL until the evaluation of the Technical bid has been completed.

2. SSCDL will open the Commercial Bids of those Bidders who qualified in Technical bid.

3. Commercial Bids from bidders who have failed to qualify in evaluation of the technical bid will not be opened. Only bids that are opened and read out at the proposal opening shall be considered further.

8.23 Evaluation of Commercial Bids and Selection Method

1. SSCDL will award the Contract to the Bidder based on **Lowest Quoted price (L1).** No additional cost in any form will be entertained by SSCDL during the contract period. The L1 evaluation will be done exclusive of taxes. However, the bidder is expected to provide the tax components in commercials. The payment of taxes to the selected bidder will be done on

actuals / prevailing rates. The L1 evaluation will be done exclusive of taxes only. If any duties are applicable to the product the same will be considered for L1 evaluation. The bidder to quote the duties along with the rate of products proposed for L1 evaluation.

Further, SSCDL shall be entitled to deduct tax at source or any other taxes/ cess as may be applicable.

2. Commercial bid should be exclusive of ROW/RI Cost.

3. The RI cost incurred shall be reimbursed in next billing cycle by SSCDL/SMC on submission and verification of bill submitted by SI

4. Total Estimated Commercial Bid of a bidder would be calculated based on quantities given in Section 15. The quantities in this table are estimated quantity and the actual quantity will be determined at the time of project execution based on the feasibility report and actual requirements considering site situation.

5. The Commercial Bids of only the technically qualified bidders will be opened for evaluation.

6. The bidder achieving the L1 price will be invited for negotiations for awarding the contract. In case of a tie where two or more bidders achieve the same price, the bidder with higher turnover will be invited for negotiations and awarding of the contract.

7. **Arithmetical errors:** If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Bidder does not accept the correction of the errors, its bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail

8.24 Notifications of Award and Signing of Contract

1. Prior to the expiration of the period of proposal validity, the bidder will be notified in writing or by fax or email that its proposal has been accepted.

2. It is to be noted that the date of commencement of the project and all contractual obligations shall commence from the date of issuance of Purchase Order/Letter of Intent (LoI), whichever is earlier. All reference timelines as regards the execution of the project and the payments to the System Integrator shall be considered as beginning from the date of issuance of the Purchase Order/Letter of Acceptance, whichever is earlier.

3. The notification of award (LoI/Purchase Order) will constitute the formation of the Contract. Upon the Bidder's executing the contract with SSCDL, it will promptly notify each unsuccessful bidder and return their EMDs.

4. At the time SSCDL notifies the successful Bidder that its bid has been accepted, SSCDL will send the Bidders the Pro forma for Contract, incorporating all clauses/agreements between

the parties. Within 15 days of receipt of the Contract, the successful Bidder shall sign and date the Contract with SSCDL. Draft Format of the contract is given in the Annexure, Section 16.4

8.25 Rights to Accept/Reject any or all Proposals

SSCDL reserves the right to accept or reject any proposal, and to annul the bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected bidder or bidders of the grounds for SSCDL's action.

8.26 Quantity Variation

1. The quantity defined in the RFP are estimated and the actual quantity will be executed based on the actual site survey by the selected bidder at the time of project implementation. The quoted rate will remain firm and same for such variation in quantity. The successful bidder shall not object to the upward or downward variation in quantities (including locations).

2. Quantities mentioned in the commercial formats are indicative in number. SMC/SSCDL at its discretion may or may not procure the listed components in mentioned quantities at the time of placing order / agreement. SSCDL has the rights to delete any of the component before final implementation. The successful bidder shall not object to the upward or downward variation in quantities of any item.

3. If required additional quantity over and above may be executed on later stage, the payment for such additional quantities shall be made at tender rates and the tender rates shall be valid for 5 years.

4. The payment for cables, ducting, trenching and HDPE / DWC/PVC pipes will be made on actual quantity and payment will be made at tender rates for entire duration of contract.

5. No claim shall be entertained or become payable for price variation of additional quantities.

8.27 Performance Bank Guarantee

1. The successful bidder shall at his own expense, deposit with department, within 10 days of the notification of award (done through issuance of the Purchase Order/Letter of Acceptance), an unconditional and irrevocable Performance Bank Guarantee (PBG) from a list of approved banks as per the format given in this Bid Document, in favour of Surat Smart City Development Ltd for the due performance and fulfilment of the contract by the bidder. Failing which a penalty @ 0.065% of the amount of PBG will be imposed for delay of each day.

2. This Performance Bank Guarantee will be for an amount equivalent to 10% of contract value. All charges whatsoever such as premium, commission, etc. with respect to the Performance Bank Guarantee shall be borne by the bidder.

3. The successful bidder shall maintain a valid and binding Performance Guarantee for a period of six months after the expiry of the Contract Period ("Validity Period").

4. The Performance Bank Guarantee letter format can be found in the Annexure- section 16.3 of this document.

5. The Performance Bank Guarantee may be discharged/ returned by department upon being satisfied that there has been due performance of the obligations of the Bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.

6. If the Bidder, fails to furnish the Performance Guarantee, it shall be lawful for the Authority to forfeit the EMD or cancel the contract or any part thereoff

7. In the event of the Bidder being unable to service the contract for whatever reason, department would evoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of department under the Contract in the matter, the proceeds of the PBG shall be payable to department as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. Department shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default.

8. Department shall also be entitled to make recoveries from the Bidder's bills, performance bank guarantee, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

8.28 Governing Law

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Surat shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding Process.

8.29 Failure to agree with the Terms & Conditions of the Bid Document/ Contract

Failure of the bidder to agree with the Terms & Conditions of the Bid Document/Contract shall constitute sufficient grounds for the annulment of the award of contract, in which event the contract may be awarded to the next most responsive bidder.

8.30 Terms and Conditions of the Tender

1. Bidder is required to refer to the draft Contract Agreement, attached as Annexure, 16.4 in this Bid Document, for all the terms and conditions (including project timelines) to be adhered by the successful bidder during Project Implementation and Post implementation period.

2. Please note that one needs to read the Contract Agreement as a whole document; and the Annexure mentioned there-in may not correspond to the Bid Document Annexure. Please refer to the Interpretation Section of the Draft/Master Service Agreement.

8.31 Restriction on Transfer of Agreement

The System Integrator shall not assign or transfer its right in any manner whatsoever under this agreement to a third party or enter into any agreement for sub-contracting and/or partnership relating to any subject matter to the agreement to any third party or any sister-concerned firm within a group either in whole or in any part i.e., partnership/third party interest shall be created. The sub-contracting is allowed only for activities mentioned in section 16.4.

8.32 Subcontracting

Sub-contracting / Outsourcing shall be allowed only for "Passive Networking & Civil Work" work.

8.33 Safety Regulation, Accident and Damage

The Bidder shall be responsible at his own cost in and relative to performance of the work and bidder to observe and to ensure observance by his Sub-contractors, agents and servants of the provisions of Safety Code as hereinafter appearing and all fire, Safety and security regulations as may be prescribed by the Owner from time to time and such other Precautions, measures as shall be necessary and shall employ / deploy all equipment necessary to protect all works, materials, properties, structures, equipments, installations, communications and facilities whatsoever from damage, loss or other hazard whatsoever (including but not limited to fire and explosion) and shall during construction and other operations minimize the disturbance and inconvenience to the Owner, other bidders, the public and adjoining land and property owners and occupiers, and crops, trees and vegetation and shall indemnify and keep indemnified the One from and against all losses and damages and costs, charges and expenses and penalties, actions, claims, demands and proceedings whatsoever suffered or incurred by or against the Owner, as the case may be, virtue of any loss, alteration, displacement, disturbance or destruction or accident to any works materials, properties, structures, equipments, installations communications and facilities and land and property owners and occupiers and crops, trees and vegetation as aforesaid, with the intent that the Bidder shall be exclusively responsible for any accident, loss, damage, alteration, displacement, disturbance or destruction as aforesaid resultant directly or indirectly from any breach by the Bidder of his obligation aforesaid or upon any operation, act or omission of the bidder his Sub-contractor(s) or agent(s) or servant(s).

The Bidder's liabilities under Clause (a) and otherwise under the Contract shall remain unimpaired notwithstanding the existence of any storage cum erection or other insurance covering any risk, damage, loss or liability for which the Bidder is liable to the Owner in terms of the foregoing Sub-Clause or otherwise and / or in respect of which the Bidder has indemnified the Owner with the intent that notwithstanding the existence of such insurance, the Bidder shall be and remain fully liable for all liabilities and obligations under the contract and indemnified to the Owner, and the Owner shall not be obliged to seek recourse under such policy(ies) in

preference to recourse against the Bidder or otherwise to exhaust any other remedy in preference to the remedies available to in under the Contracth prior written approval of SSCDL. However, even if the work is sub-contracted / outsourced, the sole responsibility of the work shall lie with the SI. The SI shall be held responsible for any delay/error/non-compliance etc. of its sub-contracted vendor. The details of the sub-contracting agreements (if any) between both the parties would be required to be submitted to SSCDL.

9 Service Level Agreements (SLA)

Service Level Agreement (SLA) shall become the part of Agreement between SSCDL and the Successful Bidder. SLA defines the terms of the Successful Bidder's responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed Performance Indicators as detailed in this section. The Successful Bidder has to comply with Service Levels requirements to ensure adherence to Project timelines, quality and availability of services.

The Successful Bidder (refer as System Integrator, SI) has to supply software/automated tools to monitor all the SLAs mentioned below.

Note: Penalties shall not be levied on the Successful Bidder in the following cases:
1. There is a Force Majeure event effecting the SLA which is beyond the control of the Successful Bidder
2. The non-compliance to the SLA has been due to reasons beyond the control of the Bidder.
3. Theft cases by default would not be considered as "beyond the control of Bidder". However, certain cases, based on circumstances & certain locations, SSCDL may agree to qualify as "beyond the control of Bidder". Damages due to any accident / mishap shall be considered as "beyond the control of Bidder". However, Power shut down or deliberate damage to field devices such as Cameras, Network Switch Systems etc. would not be considered as "beyond the control of Bidder".

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the System Integrator to SSCDL for the duration of this Agreement.

9.1 Definitions

For the purposes of this service level agreement, the definitions and terms are specified in the contract along with the following terms shall have the meanings set forth below :

- "Uptime" shall mean the time period for the specified services / components with the specified technical service standards are available to the user department. Uptime, in percentage, of any component (Non IT & IT) can be calculated as:

  Uptime = {1- [(Downtime) / (Total Time – Maintenance Time)]} * 100%

- "Downtime" shall mean the time period for which the specified services / components with specified technical and service standards are not available to the user department and excludes downtime owing to Force Majeure & Reasons beyond control of SI.

- "Incident" refers to any event / abnormalities in the functioning of the Services specified as part of the Scope of Work of the Systems Integrator that may lead to disruption in normal operations of the Surveillance System.

- "Resolution Time" shall mean the time taken (after the incident has been reported at the helpdesk), in resolving (diagnosing, troubleshooting and fixing) or escalating (to the second level or to respective vendors, getting the confirmatory details about the same from the vendor and conveying the same to the end user), the services related troubles during the first level escalation.

9.2 Measurement of SLA

The SLA metrics provided specifies performance parameters as baseline performance, lower performance and breach. All SLA calculations will be done on monthly basis. The monthly O&M cost shall be calculated as "Cost of that particular year / 12".

The SLA also specifies the liquidated damages for lower performance and breach conditions. Payment to the SI is linked to the compliance with the SLA metrics.

The aforementioned SLA parameters shall be measured as per the individual SLA parameter requirements and measurement methods, through appropriate SLA Measurement tools to be provided by the SI and audited by SMC/SSCDL or its appointed Consultant for accuracy and reliability.

SMC/SSCDL shall also have the right to conduct, either itself or through any other agency as it may deem fit, an audit / revision of the SLA parameters/ penalty. The SLAs defined, shall be reviewed by SMC/SSCDL on an annual basis after consulting the SI, Project Management Consultants and other experts. All the changes would be made by SSCDL after consultation with the SI and might include some corrections to reduce undue relaxation in Service levels or some corrections to avoid unrealistic imposition of liquidated damages/ penalties, which are noticed after project has gone live.

Total liquidated damages to be levied on the SI shall be capped at 10% of the total contract value. However, SSCDL would have right to invoke termination of the contract in case the overall liquidated damages equals 10% of total contract value.

9.3 SLAs

#	Performance Area	SLA	Penalty
Project Implementation SLA			
1	**Delay in Delivery of Project scope**	As per RFP	Any delay in the delivery of the project (solely attributable to vendor) would attract a liquidated damage per day of 0.2% of the CAPEX value of that particular item.
			Total Liquidated Damages

#	Performance Area	SLA	Penalty
			applicable under this clause shall be limited to 10% of the value of the equipment/device in software or hardware to be supplied, installed and commissioned for which Request Order is placed
			If the liquidated damage reaches 10% of the total contract value, Authority may invoke termination clause.
Uptime of all Data Center components			
1	**Equipment Availability (EA)** **Uptime (%) =** [Total minutes in a month –Planned downtime – Total down time(min) in a month]*100/[Total minutes in a month - Planned downtime] **X= [100-(uptime value)]/2**	>97.5%	No Penalty
		<97.5 % to >=95%	Penalty of 0.1% of purchase cost for that particular equipment during warranty or 0.5% of yearly AMC for that particular equipment
		< 95%	Penalty of X*0.1% of purchase cost for that particular equipment during warranty or X*0.5% of yearly AMC for that particular equipment
Mean Time To Repair (MTTR) - MTTR shall be monitored on the time taken between logging of complain against the equipment & its closure			
1	NVR and Edge level Switch	<= 4 Hrs	No penalty
		>4 Hrs to <= 6 Hrs	Penalty of Rs 250 for each hour of delay
		>6 Hrs to <= 8 Hrs	Penalty of Rs 500 for each hour of delay
		> 8 Hrs	Rs. 2000 for each day's delay whichever is higher.
2	All type of Surveillance Cameras	<= 6 Hrs	No penalty
		>6 Hrs to <= 8 Hrs	Penalty of Rs 250 for each hour of delay
		> 8 Hrs	Rs. 500 for each day's delay whichever is higher.
Incidence Resolution			
1	Priority Level 1 (Critical) Incident	Within 2 hr.	0.25% of quarterly payment after every 2 hours delay in

#	Performance Area	SLA	Penalty
			resolution
2	Priority Level 2 (Medium) Incident	Within 6 hr	0.25% of quarterly payment after every 3 hours delay in resolution
3	Priority Level 3 (Low) Incident	Within 12 hr	0.25% of quarterly payment after every 6 hours delay in resolution

Note:

1. The performance report for all above shall be generated from the Measurement Tool (EMS, Helpdesk tool, etc.). SI shall submit the monthly Reports on the performance and adherence to the SLA through these tools. All incidences reported by EMS and all tickets registered in Helpdesk should be part of the performance report.

2. Following will not be considered for downtime calculation

   i. Equipment down due to power failure at Location or due to loss of network connectivity attributable to SMC
   ii. Schedule maintenance by SI with prior information to SMC

3. The payment shall be made on quarterly basis on completion of respective quarter.

4. SLA for MTTR shall be calculated within Business Hours of SSCDL/SMC. However, SLA for Data Center Component shall be calculated 24*7.

9.4 Security Breach SLA

Note – This SLA for Security Breach is applicable over and above the SLAs mentioned in above table.

Definition	Security of the video feeds and the overall system is quite important and Successful Bidder shall be required to ensure no compromise is done on the same. Security Breach types considered for this SLA are– • Availability of Video feeds to any other user than those authorized by SSCDL/SMC/End user department and provided passwords • Availability of any report / data to any other user than those authorized by SSCDL/SMC/End user department, and provided passwords • Successful hacking on by any unauthorized user Or any other privacy rule is broken as per Govt. of India guidelines
Service Level	Security compliance of the system should be 100%

Requirement	
Measurement of Level Service Parameter	Any reported security breach shall be logged into the SLA Management solution as a security breach and same should be resolved under Priority level 1.
	For every security breach reported and proved, there shall be a penalty of INR 2,00,000/- or lead to termination of contract

9.5 Breach in supply of Onsite Support Engineer

Note – This SLA for supply of Technical Manpower is applicable over and above the SLAs mentioned in the above tables.

Definition	SI to ensure that support engineers are available to SSCDL/SMC/End user department and performs to the expected levels. The current SLA breach shall specify penalty amount for non-availability of these man-power.
Service Level Requirement	i. Availability of the required man-power should be 100% except for Sundays. SSCDL/SMC shall take the attendance through biometric attendance of each person proposed as part of team on monthly basis. ii. Support Engineer team shall require to take the approval from the SSCDL or concerned authority for in case of planned leaves. SI is responsible to provide the replacement of unavailable manpower till the leaves duration. iii. Support Engineers are entitled to take 12 leaves in a year. iv. The penalty shall be waived off for that approved leaves provided replacement is available. In case of absence of approval the penalty shall be levied.
Measurement of Service Level Parameter	Non-deployment of the profile for more than 1 month. Authority reserves the right to ask SI to replace the manpower if the performance / commitment are not up to the mark.
Penalty for non-achievement of SLA Requirement	For every SLA non-compliance reported and proved, there shall be a penalty as given below: | **Team Member**	**Penalty**
Support Engineer	• Penalty of Rs 1,000 per day for non-availability (beyond permissible leaves and without any suitable replacement) • Penalty of Rs. 2,000 per day in case of continuous non-availability for more than 5 days	

	Note: The non-availability shall be calculated on working days.

9.6 Explanation Notes for SLA Matrix

Issue Resolution

Explanation	Issue Resolution SLA shall monitor the time taken to resolve a complaint / query after it has been reported to the SI by any media i.e., e-mail, Phone, Verbal or through EMS.
Service Level Requirement	Different Issues/Queries shall be classified as in following three categories as defined above. **Critical**: The system is unable to be used for normal business activities. There is certainty of operational inefficiency to SMC/SSCDL. **Medium**: There is a problem with part of the system, which impacts on SMC's/SSCDL decision making. **Low**: Upgrades, shifting, preventive maintenance. Issues which don't have impact on services.

10 Payment Schedules and Milestones

The SI will be required to complete the feasibility and submit the feasibility report as per the RFP requirements within 30 days from date of issuance of LOI.

SMC / SSCDL shall issue a "Request Order" in writing, indicating the number of units of Hardware and Software to be supplied along with the location (Project Site). Upon getting the Request Order, the selected bidder shall promptly and as soon as possible within the lead time specified in the request order, commission the specified no locations. SMC/SSCDL shall specify the Lead Time in Request Order. The delay in delivery will attract delayed penalty. Tentative Number of Request Orders and Lead Time as envisaged at this point of time is specified below:

Services	Approximate Time for Issuance of Request Order	Tentative Scope/ Approximate Sizing	Tentative Lead Time
Request Order 1	Two weeks post issuance of feasibility Report	Locations as prioritized by SMC/SSCDL.	Supply, Installation and commissioning in 90 days post issuance of request order
Request Order 2	Within Three months post issue of LOI	Locations as prioritized by SMC/SSCDL.	Supply, Installation and commissioning in 90 days post issuance of request order
Request Order 3	Within Five months post issue of LOI	Locations as prioritized by SMC/SSCDL.	Supply, Installation and commissioning in 90 days post issuance of request order

Note:

1. Based on requirement/criticality SSCDL/SMC may issue interim/subsequent orders as per the approved rate during and after the Request Orders as specified above. Such order may have different quantity of CCTV Camera and other components and the same shall be required to be delivered.

    a. For CCTV Camera quantity upto 25 – SITC to be completed within 15 days of work order.

    b. For CCTV Camera quantity 25 to 100 – SITC to be completed within 45 days of work order.

10.1 Payment Terms

The below payment terms is applicable for each Request order issued by SSCDL/SMC.

#	Milestone	Payment
1.	Satisfactory delivery and acceptance of materials (as per the Request Order) and after submission of the invoice.	40% of total CAPEX of Request order
2.	Satisfactory competition of Installation of respective items/ equipment and after, submission of the invoice.	20% of total CAPEX of Request order
3.	UAT and Go Live of entire RO (Testing and Commissioning)	25% of total CAPEX of Request order
4.	Successfully completion of 1st year of warranty period after Project "Go Live"	5% of total CAPEX of Request order
5.	Successfully completion of 2nd year of warranty period after Project "Go Live"	5% of total CAPEX of Request order
6.	Successfully completion of 3rd year of warranty period after Project "Go Live"	5% of total CAPEX of Request order
7.	i. OPEX projected by SI in their commercial bid will be made equally on quarterly basis (20 quarters) at completion of each quarter. ii. The payments are subject to meeting of SLA's failing which the appropriate deductions as mentioned in the SLA section of this RFP. iii. The contract period of 5 years are considered from the Go-Live date of 1st Request Order. The payment of subsequent Request Orders will be made from the Go-Live date of that request order till the remaining years of the Contract period i.e. 5 years	

Note:
- All payments to the SI shall be made upon submission of invoices along with necessary approval certificates from concerned Authority like SSCDL, SMC, if applicable.
- The above payments are subject to meeting of SLA's failing which the appropriate deductions as mentioned in the SLA document of this RFP.

10.2 Project Milestone

The selected System Integrator has to execute the project (i.e Supply, Install, Testing and Commissioning) and handover the entire system in fully functional condition under scope within timelines as following.

S/N	Deliverables	Timeline
1.	Signing of contract agreement	Within 10 calendar Days from date of issuance of LOI
2.	Submission of performance Bank Guarantee	Within 10 calendar Days from date of issuance of LOI

S/N	Deliverables	Timeline
3.	Feasibility study / Site Survey Report for each Request Order	Within 30 calendar days of issuance of LOI
4.	Request Order	Within 15 calendar days of submission and approval of Feasibility Report
5.	Supply, Installation, Commissioning and FAT of hardware/software at Site Location	Within **315 calendar** days from the **date of issuance LoI**

11 Project Deliverables and Responsibility Matrix

11.1 Project Deliverables

#	Key Activities	Deliverables
1	Project Kick Off	1. Project Plan 2. Escalation Matrix 3. Risk Management and Mitigation Plan
2	Deployment of manpower	
3	Assess the requirement of IT Infrastructure and Non IT Infrastructure	1. Site Survey Report 2. Functional Requirement Specification document 3. System Requirement Specification document 4. Requirements Traceability Matrix 5. Bandwidth Requirements location wise
4	Assessment of requirement of Software requirements	
5	Assess the Integration requirement	
6	Assess the connectivity requirement for all locations covered under the scope of "Suman Eye (CCTV Network) Project"	
7	Assessment of network laying requirement	
8	Assessment of training requirement	
9	Formulation of Solution Architecture	1. Location wise detailed Bill of Quantity 2. HLD documents 3. LLD documents 4. Network Architecture documents 5. Test Plans 6. SoPs for CCTV Surveillance system 7. Change management Plan
10	Detailed Design of CCTV Surveillance System	
11	Development of test cases (Unit, System Integration and User Acceptance)	
12	Preparation of final bill of quantity and material	
13	SoP preparation based on extensive consultation with all stakeholders	
14	Physical Infrastructure setup	1. IT and Non-IT Infrastructure Installation Report 2. Completion of UAT and closure of observations report 3. Training Completion report 4. Application deployment and configuration report 5. Hardware warranty documents 6. Training
15	Procurement of equipment and other materials	
16	Development, Testing and Production environment setup	
17	IT and Non IT Infrastructure Installation	
18	Implementation of Solutions	
19	Integration of solutions with Command and Control Centre/ Surveillance System	

#	Key Activities	Deliverables
20	Unit and User Acceptance Testing	7. Training Manuals
21	Preparation of User Manuals , training curriculum and training materials	
22	Role based training(s)	
23	SoP implementation	
24	Helpdesk setup	
25	Integration Test, FAT	1. Integration Testing Report 2. FAT Report
26	Go Live	1. Go-Live Report
27	Operation and Maintenance during comprehensive onsite warranty and O&M support of CCTV Surveillance system	1. Detailed plan for monitoring of SLAs and performance of the overall system 2. Fortnightly Progress Report 3. Monthly SLA Monitoring Report and Exception Report 4. Quarterly security Report 5. Issues logging and resolution report 6. Operations manual for all components
28	SLA and Performance Monitoring	
29	Logging, tracking and resolution of issues.	
30	Application enhancement	
31	Patch & Version Updates	
32	Helpdesk services	

11.2 RACI (Responsibility, Accountability, Consult and Inform) Matrix

#	Activity	SSCDL /SMC	PMC	Network Service provider	SI	ICCC Service Provider
A	**Project Inception Phase**					
1.	Project Kick Off	C	C	I	R/A	
2.	Deployment of manpower	C	C		R/A	
B	**Feasibility Study and Site Survey**					
3.	Conduct Survey of each identified location for implementing CCTV System	C	C		R/A	
4.	Assess the requirement of IT Infrastructure and Non IT Infrastructure including type and count of CCTV cameras for Suman Eye Project	C	C		R/A	
5.	Assess the reusability and upgradation of existing infrastructure available at identified location under Suman Eye Project	C	C		R/A	
6.	Assessment and Detailing of VMS and other Software Requirements i.e., EMS etc.	C	C		R/A	
7.	Assess the connectivity requirement at all locations (including Building)	C	C		R/A	
8.	Assessment of the cable laying requirement including trenching and ducting	C	C		R/A	
9.	Assessment and detailing of integration requirement if any	C	C		R/A	
10.	Creation of detailed drawing for each identified location which contains 1. network architecture design 2. cable laying layout 3. Position of Pole and other equipment	C	C	C/R (Network architecture)	R/A	
11.	Preparation of Final BoQ for Suman eye project	C	C		R/A	
12.	Prepare and submit the Feasibility study report for Suman Eye Project	C	C		R/A	

#	Activity	SSCDL /SMC	PMC	Network Service provider	SI	ICCC Service Provider
13.	Review and approval of Feasibility Study Report submitted by Selected SI	I	R/A		C	
C	**Development Phase**					
14.	Procurement and Supply of CCTV Camera and other equipment (IT and Non-IT infrastructure) as per price bid of Suman Eye Project	C	C		R/A	
15.	Inspection and approval of all supplied materials (IT and Non-IT infrastructure) for Suman Eye Project	I	R/A		C/R	
16.	Getting approval for space, Raw power, cabling, trenching, ducting and permission for installation of CCTV System including all IT Infrastructure, Non-IT infrastructure and earthing at all Identified Locations	C	C		R/A	
17.	Trenching, Ducting and cable laying for installation of CCTV System including all IT Infrastructure, Non-IT infrastructure and earthing at all Identified Locations and maintenance of the same.	C	C		R/A	
18.	Getting approval for cabling, trenching, ducting to establish network connectivity for data communication between identified location under Suman Eye Project.	C	C	R/A	C	
19.	Patching including cabling, ducting, trenching, etc. from the existing equipment i.e., Router/Switch (provided by Network service provider) to LAN for CCTV System	C	C	C	R/A	
20.	Providing and maintaining last mile connectivity at all required locations with port and IP details.	C	I	R/A	C	
21.	Installing, configuring, upgrading and maintaining CCTV System (IT and Non-IT infrastructure) and earthing at all identified	C	C		R/A	

#	Activity	SSCDL /SMC	PMC	Network Service provider	SI	ICCC Service Provider
	location covered under Suman Eye project					
22.	Installing and configuring network (connectivity) and related equipment's at all identified location covered under Suman Eye project	C	C	R/A	C	
23.	Configuring existing network to integrate with Suman Eye Project.	C	I	R/A	I	
24.	Integration of CCTV system with ICCC as per the scope of Suman Eye Project	C	C		R/A	R/A
25.	Helpdesk Setup	C	C		R/A	
26.	SoP Preparation and Implementation	C	C		R/A	
27.	Development of test cases (Unit, System Integration, User Acceptance)	C	I		R/A	
28.	Unit and User Acceptance Testing	C	I		R/A	
29.	Implementation of Solutions	C	I		R/A	
30.	Assessment of training needs and Preparation of User Manuals , training curriculum and training materials	C	I		R/A	
31.	Go-Live of the project	C	C	I	R/A	
D	**Onsite Warranty and O&M Support Phase**					
32.	Maintenance of all CCTV System including all IT, Non IT infrastructure, Software and Applications	C	C		R/A	

#	Activity	SSCDL /SMC	PMC	Network Service provider	SI	ICCC Service Provider
33.	Maintaining SLA as per the scope of Suman Eye Project and Performance Monitoring	C	C		R/A	
34.	Maintaining SLA for existing/new network (connectivity)	C	C	R/A		
35.	Logging, tracking and resolution of issues for Suman Eye Project	C	C		R/A	
36.	Logging, tracking and resolution of issues for connectivity	C	C	R/A	R	
37.	Patch & Version Updates	C	C		R/A	
38.	Helpdesk services	C	C		R/A	

Note: All decisions will be taken by SSCDL/SMC, which will be abided by all the stakeholders in the above matrix.

12 General Instructions on Preparation of Technical Proposal

1. Bidders have to submit a very structured and organized technical bid, which will be analysed by the SSCDL for different compliances with regards to the requirements of the project. The document submitted must be searchable and well indexed without any handwritten material. The quality and completeness of the information submitted by the Bidder will matter a lot. All the documents must be submitted in one file only.

2. Bidder is expected to divide its Bid in following sections / documents:

   a. **Bidder's Competence to execute the project**

      - This document should bring about the capability of the firm to execute this project. Bidder to submit the supporting documents for all parameters as mentioned in the section 7 and section 13.

   b. **Technical Proposal:** Bidders have to submit a structured and organized technical proposal, which will be analysed by SSCDL for different compliances with regards to the requirements of the project. Each point listed below must be provided in detail with the necessary supporting documents and assumptions. Information to be included by the bidders in their Technical Proposal is as follows:

      - Understanding of the Project Scope

      - Solution Architecture

      - Approach & Methodology for design, Supply, Installation, Commissioning, Go live and maintenance during comprehensive onsite warranty support.

      - Approach and Methodology for Management of SLA Requirements specified in the bid. Bidder is required to clearly articulate how the SLA requirements would be adhered.

      - Detailed Project Plan with timelines, resource allocation, milestones etc. for supply, installation and commissioning of the various project components.

      - Risk Mitigation plan

   c. **Other Details**

      - **Bill of Material:** This document should give details of all the proposed IT and non IT components without specifying the costs. Please note that the bid shall get disqualified if Bidder gives price details in the technical document.

      - **Make and Model of all Components as per the format mentioned in TQ_10**

      - **Compliance to Technical and Functional Specifications from the Bidder:** The bidder (in case of consortium prime bidder) is required to provide the Compliance to Technical and Functional Specifications in form of undertaking for all the items as mentioned in Section 14.

- **Compliance to Technical and Functional Specifications from the OEM:** The bidder must provide the Compliance to Technical and Functional Specifications in form of undertaking for all the items as mentioned Section 14 from respective OEMs on OEM's letter head duly signed by authorised signatory of OEM. Bidder is required to submit the compliance for all items mentioned in TQ_10 & TQ_11 (Section 13).

- **Authorization letter from OEM**: The bidder must submit the authorisation from the OEM as per the format mentioned in TQ_9. Bidder is required to submit the authorization letter from OEM for all items mentioned in TQ_10 (Section 13.11).

- **Datasheets:** The bidder must submit the Datasheets highlighting the Technical Specification Section 14 parameters for all components so as to derive the technical compliance of the proposed product with the technical specifications of the RFP.

- **The hardware sizing proposed for hosting the solution shall have to be certified by the authorized person of the respective OEM either on OEM's letterhead or on SI;s letter head with OEM's stamp and signature.**

13 Formats for Technical Bid

13.1 Checklist for Technical Qualification Document

#	Documents to be submitted	Submitted (Y / N)	Documentary Proof (Page No.)
1.	Bid fee of Rs.20,160 [Rs. 18,000 + 12% GST] by Demand Draft or Banker's Cheque		
2.	EMD of Rs. 50,00,000		
3.	Bid Covering Letter (Form TQ_1)		
4.	Power of attorney / board resolution to the authorized Signatory of the RFP (in case of consortium, all members to submit)		
5.	Particulars of the Bidders (Form TQ_2)		
6.	Copy of Certificate of Incorporation/Registration certificate/ Shop & Establishment Certificate (In case of consortium, all members to submit)		
7.	Details of Annual Turnover and Networth for last three financial years 2017-18, 2016-17, 2015-16 (Form TQ_3)		
8.	Certificate from the Statutory auditor / CA clearly specifying the annual turnover and Networth for the specified years (Form TQ_4). In case of consortium, all members to submit.		
9.	Declaration letter that the firm is not blacklisted by Central Government or any State Government organization / PSU in India at the time of submission of the Bid, in the format given in the RFP (Form TQ_5). In case of consortium, all members to submit.		
10.	Affidavit on Non-judicial Rs 100 stamp paper (Form TQ_6). In case of consortium, all members to submit.		
11.	Details of the projects executed (Form TQ_7)		
12.	Copy of Audited Balance Sheet for last three financial years 2017-18, 2016-17, 2015-16.		
13.	Copy of the audited Profit & Loss Statements for last three financial years 2017-18, 2016-17, 2015-16.		
14.	Supporting Documents like Rent Agreement/ Electricity Bill / Self-Declaration on Company's Letter head to be submitted for Local Office in Surat OR Undertaking from authorized signatory to open the local office within 60 days		

#	Documents to be submitted	Submitted (Y / N)	Documentary Proof (Page No.)
	from issuance of LOI to be submitted		
15.	Copy of GST registration. In case of consortium, all members to submit		
16.	Copy of PAN registration. In case of consortium, all members to submit		
17.	Authorization letter from OEMs (Form TQ_8)		
18.	Power of Attorney for Prime Bidder of Consortium (TQ_9)		
19.	Consortium Agreement with clear defining roles and responsibilities of each consortium partner		
20.	Make & Model as per TQ_10		
21.	Format of Self Certificate from OEM as per TQ_11		
22.	Compliance to Technical and Functional Specifications from the Bidder for Section 14		
23.	Compliance to Technical and Functional Specifications from the OEM for components mentioned in TQ_10		
24.	Datasheets highlighting the Technical Specification parameters in each datasheet for compliances as mentioned in Section 14		
25.	Bill of Material without prices		
26.	Technical Proposal as mentioned in Section 12		

Note:
- All technical bid document(s)/ details should be duly sealed & signed as required.
- In case of the deviation in the authorization letter by the manufacturer & forwarding letter; the price bid of such bidder will not be opened.
- Any conditional mention regarding any technical details or prices in any document(s)/ forwarding letter; price bid of such bidder will not be opened.

13.2 TQ_1: Technical Bid Cover Letter

<<To be printed on bidder company's letterhead and signed by Authorized signatory>>

<div align="right">Date: dd/mm/yyyy</div>

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Subject: Selection of implementing agency for Suman Eye (CCTV Network) Project

Reference: Tender No :<No> Dated<DD/MM/YYYY>

Dear Sir/ Madam,

Having examined the Bid Document (and the clarification / corrigendum issued thereafter, if any), the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the Bid Document for the "Selection of implementing agency for Suman Eye (CCTV Network) Project" in Surat City. We attach hereto our responses to Technical-Qualification & Commercial proposals as required by the Bid Document. We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to Surat Smart City Development Ltd., is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead SSCDL/SMC in its shortlisting process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the Bid Document (& subsequent clarification / corrigendum, if any) document and also agree to abide by this tender response for a period of 180 days from the Bid Opening date. We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed the Bid Document.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Signature of Authorized Signatory (with official seal)
Name   :
Designation   :
Address   :
Telephone& Fax   :
E-mail address   :

13.3 TQ_2: Bidder Information Format

<<To be printed on prime bidder company's letterhead and signed by Authorized signatory>>

To whomsoever it may concern,

Bidder information Format

Please find below the details of lead bidder and other consortium members for participation in "Selection of Implementing agency for Suman Eye (CCTV Network) Project in Surat City tender:

#	Particulars	Lead Bidder (Consortium Member #1)	(Consortium Member #2)
1	Name of the organization		
2	Type of Organization (Pvt. Ltd/ Public Limited)		
3	Country of registered Office		
4	Address of Registered office		
5	Company Registration Details		
6	Date of Registration		
7	PAN No		
8	GST Registration No		
9	Address of Registered office in India		
10	No of years of operations in India		
11	Authorized Signatory Name		
12	Authorized Signatory Designation		
13	Authorized Signatory Contact Details		

Yours Sincerely,

_____

Signature of Authorized Signatory (with official seal)

Name   :
Designation   :
Address   :
Telephone& Fax :
E-mail address :

Note: To be submitted with any other supporting details specified as Document Proof in Section 7 & 13

13.4 TQ_3: Bidder's Annual turnover over last 3 financial years

<<To be printed on bidder company's letterhead and signed by Authorized signatory. In case of Consortium all members are required to submit >>

Date: dd/mm/yyyy

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Subject: Selection of implementing agency for Suman Eye (CCTV Network) Project

Sir/ Madam,

I have carefully gone through the Terms & Conditions contained in the RFP Document of Selection of implementing agency for Suman Eye (CCTV Network) Project

I hereby declare that below are the details regarding Overall turnover over last 3 financial years for our organization.

#	Details	FY 2015-16 (i)	FY 2016-17 (ii)	FY 2017-18 (iii)	Average Turnover [(i)+(ii)+(iii)/3]
1	Overall Annual Turnover- Prime Bidder (Consortium Member-1)				

Contact Details of officials for future correspondence regarding the bid process:

Details	Authorized Signatory	Secondary Contact
Name		
Title		
Company Address		
Mobile		
Fax		
Email Id		

I further certify that I am competent officer in my company to make this declaration.

Yours Sincerely,

_____

Signature of Authorized Signatory (with official seal)
Name   :

Designation   :
Address   :
Telephone& Fax   :
E-mail address   :

Note: To be submitted with any other supporting details specified as Document Proof in Section 7 & 13

13.5 TQ_4: Auditor's/CA Certificate for turnover for bidder

<<To be printed on CA/Auditors company's letterhead and signed by Authorized signatory>>

<<NOTE: To be filed for each Member company in case of a consortium>>

Date: dd/mm/yyyy

This is to certify that the Annual Turnover and Networth as per books and records of _____ for the following financial years are as under.

#	Financial Year Ending	Annual Turnover (INR)	Networth
1.	31st March, 2016		
2.	31st March, 2017		
3.	31st March, 2018		
	Average Turnover		

I further certify that I am competent officer in my company to make this declaration.

Yours Sincerely,

_____

Signature of Auditor (with official seal)
Name   :
Designation   :
Address   :
Telephone& Fax   :
E-mail address   :

13.6 TQ_5: Self-Declaration – No Blacklisting

<<To be printed on bidders (or in case of consortium, each member of consortium) company's letterhead and signed by Authorized signatory>>

Date: dd/mm/yyyy

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Subject: Selection of Implementing Agency for Suman Eye (CCTV Network) Project

Sir/Madam,

In response to the Tender Ref. No. _____ dated

_____ for **Selection of implementing agency for Suman Eye (CCTV Network)** Project, as an owner/ partner/ Director of _____, I/ We hereby declare that presently our Company/ firm _____is not blacklisted or debarred by any Government / PSU on the date of Bid Submission.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

Name of the Bidder   :
Authorized Signatory   :
Seal of the Organization   :
Business Address   :
Date   :
Place   :

13.7 TQ_6: Affidavit

The affidavit format as indicated below to be furnished on non-judicial stamp paper of Rs: 100 (duly notarized) by bidder (or each member of consortium, in case of consortium)

Name of work: Selection of Implementing Agency for Suman Eye (CCTV Network) Project.

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.

2. The undersigned also hereby certifies that neither our firm M/s .... nor any of its constituent partners have abandoned any work in India nor any contract awarded to us for such works has been rescinded during last five years, from the date of this bid submission.

3. The undersigned hereby authorize(s) and request(s) any bank, person, authorities, government or public limited institutions, firm or corporation to furnish pertinent information deemed necessary and requested by the SSCDL/SMC to verify our statements or our competence and general reputation.

4. The undersigned understands and agreed that further qualifying information may be requested, and agrees to furnish any such information at the request of the SSCDL/SMC.

5. The SMC and its authorized representative are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Affidavit will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in the tender or with regard to the resources, experience and competence of the Applicant.

6. My/ our offer shall not be considered in case of fake/ forged document(s) found during verification at any stage or at any stage of contract. I/ We are agreed to whatever action (s) taken by competent authority of corporation in the aforesaid circumstances such as forfeiture of security deposit and debarring from participation in future tenders for the period/ years as deemed fit by the corporation and informing the same to all other state/ central level Government/ semi government organizations.

Signed by the Authorized Signatory of the firm _____

Title of the office: _____

Name of the firm: _____

Date: _____

13.8 TQ_7: Details of Experience

<<**Note:** *To be filled for separately for Prime Bidder and consortium Member companies*>>

Date: dd/mm/yyyy

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Subject: Selection of Implementing Agency for Suman Eye (CCTV Network) Project

Sir/Madam,

I have carefully gone through the Terms & Conditions contained in the RFP Document for "Selection of Implementing Agency for Suman Eye (CCTV Network) Project"

I hereby declare that below are the details regarding relevant work that has been taken up by our company and all the consortium members.

Name of the Project	Prime Bidder				
	Project 1	Project 2	Project 3	-	Project n
General Information					
Client for which the project was executed					
Name of the client contact person(s)					
Designation of client contact person(s)					
Contact details of the client contact person(s)					
Project Details					
Description of the project					
Scope of work of the Bidder					
Deliverables of the Bidder					
Outcomes of the project					
Other Details					
Total cost of the project					
Total cost of the services provided by the Bidder					
Duration of the project (number of months, start date, completion date, current status)					
Other relevant information (Like number of Cameras and Type of Camera, ANPR etc)					

Name of the Project	Prime Bidder				
	Project 1	Project 2	Project 3	-	Project n
Mandatory Supporting Documents:					
Work order / Contract for the project/ Purchase Order					
Client Certificate giving present status of the project and view of the quality of services by the Bidder					

Name of the Project	Consortium Member-2	
	Project 1	Project n
General Information		
Client for which the project was executed		
Name of the client contact person(s)		
Designation of client contact person(s)		
Contact details of the client contact person(s)		
Project Details		
Description of the project		
Scope of work of the Bidder		
Deliverables of the Bidder		
Outcomes of the project		
Other Details		
Total cost of the project		
Total cost of the services provided by the Bidder		
Duration of the project (number of months, start date, completion date, current status)		
Other relevant information (Like number of Cameras and Type of Camera, ANPR etc)		
Mandatory Supporting Documents:		
Work order / Contract for the project/ Purchase Order		
Client Certificate giving present status of the project and view of the quality of services by the Bidder		

I further certify that I am competent officer in my company to make this declaration.
Yours Sincerely,

Signature of Authorized Signatory (with official seal)
Name   :
Designation   :
Address   :
Telephone& Fax   :
E-mail address   :

13.9 TQ_8: Format for Authorization Letters from OEMs

<<To be printed on letter head of OEM and signed by Authorized signatory of OEM>>

Date: dd/mm/yyyy

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Subject: Selection of Implementing Agency for Suman Eye (CCTV Network) Project– Authorization Letter from OEMs

Ref : Tender No: <No> Dated <DD/MM/YYYY>

Dear Sir/ Madam,
We _____, (name and address of the manufacturer) who are established and reputed manufacturers of _____ having factories at _____ (addresses of manufacturing / development locations) do hereby authorize M/s _____ (name and address of the bidder) to bid, negotiate and conclude the contract with you against the above mentioned tender for below mentioned equipment / software manufactured / developed by us.

Sr. No.	Product Name	Make & Model
1		
2		
...		
n		

We herewith certify that the above mentioned equipment / software products are neither end of sale nor end of the life and we hereby undertake to support these equipment / software till the successful completion of O&M phase (3 years of Warranty Support and 2 years of O&M).

Yours faithfully,

(Signature of the Authorized Signatory from OEM) Name Designation Seal. Date: Place: Business Address:	(Signature of the Authorized Signatory Lead Bidder) Name Designation Seal. Date: Place: Business Address:

13.10   TQ_9: Power of Attorney for Prime Member of Consortium

Whereas the Surat Smart City Development Ltd., has invited applications from interested parties for the Selection of "*Implementation Agency for Suman Eye (CCTV Network) Project in Surat City*".

Whereas …………………………………, …………………………………, ………………………………and ………………………… (Collectively "Consortium") being Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal (RFP document) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

We, …………………………………… Having our Registered office at ……………………………………,

M/s,………………………………… Having our Registered office at ……………………………………,

M/s,………………………………… Having our Registered office at ……………………………………,

(hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorize M/s. ……………………… having its registered office at …………………………………………, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney"). We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the concession/contract, during the execution of the Project and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the pre-qualification of the Consortium and submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the SSCDL, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Concession Agreement is entered into with the SSCDL.

 AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS .... DAY OF ...., 20....

For ....

(Signature)

....

(Name & Title)

For ....

(Signature)

....

(Name & Title)

For ....

(Signature)

....

(Name & Title)

Witnesses:

1.

2.

(Executants)

(To be executed by all the Members of the Consortium)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*
- *For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power*

of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Appostille certificate

13.11 TQ_10: Format for Specifying the Make & Model

#	Component	Proposed Make	Proposed Model No./Version	Quantity
1.	2 Megapixel Full HD IR IP Vandal proof Dome Camera with Varifocal Lens			
2.	2 Megapixel Full HD IR IP Vandal proof Bullet Camera with Varifocal Lens			
3.	2 Megapixel IR IP Vandal proof Bullet Camera with built-in 4G supported SIM Card Slot			
4.	2 Megapixel IR Dome Camera with fixed lens			
5.	2 Megapixel IR IP Bullet Camera with fixed lens			
6.	2 Megapixel IR IP PTZ Camera			
7.	4 Channel Network Video Recorder			
8.	4 Channel Network Video Recorder (NVR)			
9.	4 Channel Network Video Recorder with built-in PoE Ports			
10	8 Channel Network Video Recorder			
11.	8 Channel Network Video Recorder with built-in PoE ports			
12	16 Channel Network Video Recorder			
13	32 Channel Network Video Recorder			
14	32" LED Display Screen			

#	Component	Proposed Make	Proposed Model No./Version	Quantity
15	8 Port PoE/PoE+ industrial grade network Switch			
16	8 Port PoE non industrial grade network Switch			
17	Core Switch/Top of the Rack Switch/DC Switch			
18	Enterprise Next Generation Firewall			
19	Servers			
20	Blade Chassis (if applicable)			
21	Storage			
22	Video Management Software			
23	Antivirus Software			
24	Server OS License for physical Servers			
25	Server OS License for VMs			
26	Database Licenses			
27	Virtualisation Solution Licenses			
28	EMS Software			
29	EMS Client/device license			
30	42U Networking/Server Rack			
31	6U Wall Mount Network Rack			
32	9U Wall Mount Network Rack			
33	UPS with battery bank			
34	CAT-6 UTP Cable			

#	Component	Proposed Make	Proposed Model No./Version	Quantity
35	Optical Fiber			
36	Local Storage (MicroSD/SDHC/SDXC card) for CCTV Camera			
37	4 TB Surveillance Hard Disk for NVR			
38	6 TB Surveillance Hard Disk for NVR			
39	8 TB Surveillance Hard Disk for NVR			

13.12 TQ_11: Format for Self Certificate from OEMs

<<To be printed on letter head of OEM and signed by Authorized signatory of OEM>>

Date: dd/mm/yyyy

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation – Head Quarter,
Muglisara, Main Road, Surat – 395003, Gujarat.

Subject: Selection of Implementing Agency for Suman Eye (CCTV Network) Project– Authorization Letter from OEMs

Ref : Tender No: <No> Dated <DD/MM/YYYY>

Dear Sir/ Madam,
We _____, (name and address of the manufacturer) who are established and reputed manufacturers of _____ having factories at _____ (addresses of manufacturing / development locations) do hereby certify that below product shall ONVIF Core Specification '2.X' compliant and provide support for ONVIF profiles such as Streaming, Storage, Recording, Playback etc.

Sr. No.	Product Name	Make & Model
1		
2		
...		
n		

We herewith certify that the above mentioned equipment / software products are neither end of sale nor end of the life and we hereby undertake to support these equipment / software till the successful completion of O&M phase (3 years of Warranty Support and 2 years of O&M).

Yours faithfully,

(Signature of the Authorized Signatory from OEM)

Name
Designation
Seal.
Date:
Place:
Business Address:

14 Technical Compliance Sheet

1. The bidder can quote for each item meeting or exceeding the below mentioned minimum specification. Separate sheet needs to be attached if required.
2. The specification mentioned below are minimum specification. The bidder can quote the products equivalent or higher depending upon the sizing for the entire solution.
3. The technical spec sheet and the product brochure of the product offered should also be submitted along with technical bid.
4. In case the space provided is not sufficient then a separate paper as per the format below can be annexed to the bid. The same must be duly signed and stamped.

14.1 2 Megapixel Full HD IR IP Vandal proof Dome Camera with Varifocal Lens

The proposed CCTV camera should be tamperproof and shall generate real time alert at monitoring station (Offered VMS Software or NVR) in case of any tempering.

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Image Sensor	1/3" Progressive Scan CMOS or better		
2.	Pixels	2 Mega Pixel Full HD (1920 X 1080)		
3.	Min. Illumination	Color: 0.05 lux, B/W: 0 lux with IR (ON)		
4.	Lens	2.8 mm ~ 12 mm Varifocal, DC Auto Iris, IR Corrected, or better		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
5.	Signal to Noise Ratio	More Than 50 dB		
6.	Focus	Automatic, Manual		
7.	Wide Dynamic Range	100 dB or better		
8.	IR Range	30 Meter or better		
9.	Day & Night	Auto (IR), Color, B/W		
10.	Backlight Compensation	Automatic BLC		
11.	Noise Reduction	3D DNR, 2D DNR		
12.	Compression Standard	H.265 (backward compatible with H.264), MJPEG or better		
13.	Streams	Minimum two video Stream Supported. Each stream configurable for resolution, fps.		
14.	Resolution & Frame Rate	Minimum 25 frames per second (FPS) for both the Streams. Full HD (1080P) @ 25 FPS with H.265 compression on one stream & HD (720p) @ 25 FPS with H.265 compression on other stream.		
15.	Data rate	i) 8 Mbps maximum for H.265 Video Compression. ii) Shall work on 5 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 Video Compression.		
16.	Video Streaming	Unicast and Multicast Streams		
17.	Text Superimposing	Camera shall support superimposing the title and date & time on the video		
18.	Ethernet Port	RJ45 (10/100Base-T) self-adaptive		
19.	Protocols	IPv4/IPv6, TCP/IP, UDP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP		
20.	Power	12 V DC / 24V DC/AC and PoE		
21.	Local Storage	Support minimum 128 GB of microSD/SDHC/SDXC card		
22.	Alarm I/O	Alarm I/P Port:1 And O/P Port: 1		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
23.	Audio	2 Way Audio Supported		
24.	Housing	Vandal proof and Impact resistant enclosure with IP66 or NEMA 4X and IK 10 Rated or better		
25.	Operating Temperature	0 °C to 50 °C		
26.	Operating Humidity	0% to 80% Relative, Non-Condensing		
27.	Standard	ONVIF 2.0 and above supported		
28.	Certification	CE, FCC and UL		
29.	Warranty	3 Years comprehensive onsite Warranty with parts		
30.	Specify Make of proposed camera			
31.	Specify Model of proposed camera			

14.2 2 Megapixel Full HD IR IP Vandal proof Bullet Camera with Varifocal Lens

The proposed CCTV camera should be tamperproof and shall generate real time alert at monitoring station (Offered VMS Software or NVR) in case of any tempering.

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Image Sensor	1/3" Progressive Scan CMOS or better		
2.	Pixels	2 Mega Pixel Full HD (1920 X 1080)		
3.	Min. Illumination	Color: 0.05 lux, B/W: 0 lux with IR (ON)		
4.	Lens	2.8 mm ~ 12 mm Varifocal, DC Auto Iris, IR Corrected, or better		
5.	Signal to Noise Ratio	More Than 50 dB		
6.	Focus	Automatic, Manual		
7.	Wide Dynamic Range	100 dB or better		
8.	IR Range	30 Meter or better		
9.	Day & Night	Auto (IR), Color, B/W		
10.	Backlight Compensation	Automatic BLC		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
11.	Noise Reduction	3D DNR, 2D DNR		
12.	Compression Standard	H.265 (backward compatible with H.264), MJPEG or better		
13.	Streams	Minimum two video Stream Supported. Each stream configurable for resolution, fps.		
14.	Resolution & Frame Rate	Minimum 25 frames per second (FPS) for both the Streams. Full HD (1080P) @ 25 FPS with H.265 compression on one stream & HD (720p) @ 25 FPS with H.265 compression on other stream.		
15.	Data rate	i) 8 Mbps maximum for H.265 Video Compression. ii) Shall work on 5 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 Video Compression.		
16.	Video Streaming	Unicast and Multicast Streams		
17.	Text Superimposing	Camera shall support superimposing the title and date & time on the video		
18.	Ethernet Port	RJ45 (10/100Base-T) self-adaptive		
19.	Protocols	IPv4/IPv6, TCP/IP, UDP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP		
20.	Power	12 V DC / 24V DC/AC and PoE		
21.	Local Storage	Support minimum 128 GB of microSD/SDHC/SDXC card		
22.	Alarm I/O	Alarm I/P Port:1 And O/P Port: 1		
23.	Audio	2 Way Audio Supported		
24.	Housing	Vandal proof and Impact resistant enclosure with IP66 or NEMA 4X and IK 10 Rated or better		
25.	Operating	0 °C to 50 °C		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
	Temperature			
26.	Operating Humidity	0% to 80% Relative, Non-Condensing		
27.	Standard	ONVIF 2.0 and above supported		
28.	Certification	CE, FCC and UL		
29.	Warranty	3 Years comprehensive onsite Warranty with parts		
30.	Specify Make of proposed camera			
31.	Specify Model of proposed camera			

14.3 2 Megapixel IR IP Vandal proof Bullet Camera with built-in 4G supported SIM Card Slot

The proposed CCTV camera should be tamperproof and shall generate real time alert at monitoring station (Offered VMS Software or NVR) in case of any tempering.

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Image Sensor	1/3" Progressive Scan CMOS or better		
2.	Pixels	2 Mega Pixel Full HD (1920 X 1080)		
3.	Min. Illumination	Color: 0.05 lux, B/W: 0 lux with IR (ON)		
4.	Lens	Fixed Lens wide angle between 2.8mm to 3.6mm /Fixed Lens narrow angle between 4 mm to 6mm (actual focal length to be decided based on feasibility study)		
5.	Signal to Noise Ratio	More Than 50 dB		
6.	Wide Dynamic Range	100 dB or better		
7.	IR Range	30 Meter or better		
8.	Day & Night	Auto (IR), Color, B/W		
9.	Backlight Compensation	Automatic BLC		
10.	Noise Reduction	3D DNR, 2D DNR		
11.	Compression Standard	H.265 (backward compatible with H.264), MJPEG or better		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
12.	Streams	Minimum two video Stream Supported. Each stream configurable for resolution, fps.		
13.	Resolution & Frame Rate	Minimum 25 frames per second (FPS) for both the Streams. Full HD (1080P) @ 25 FPS with H.265 compression on one stream & HD (720P) @ 25 FPS with H.265 compression on other stream.		
14.	Data rate	i) 8 Mbps maximum for H.265 Video Compression. ii) Shall work on 5 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 Video Compression.		
15.	Video Streaming	Unicast and Multicast Streams		
16.	Text Superimposing	Camera shall support superimposing the title and date & time on the video		
17.	Ethernet Port	RJ45 (10/100Base-T) self-adaptive		
18.	4G SIM Card Slot	Built-in support for 4G SIM		
19.	Protocols	IPv4/IPv6, TCP/IP, UDP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP		
20.	Power	12 V DC / 24V DC/AC and PoE		
21.	Local Storage	Support minimum 128 GB of microSD/SDHC/SDXC card		
22.	Housing	Vandal proof and Impact resistant enclosure with IP66 or NEMA 4X and IK 10 Rated or better		
23.	Operating Temperature	0 °C to 50 °C		
24.	Operating Humidity	0% to 80% Relative, Non-		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		Condensing		
25.	Standard	ONVIF 2.0 and above supported		
26.	Certification	CE, FCC and UL		
27.	Warranty	3 Years comprehensive onsite Warranty with parts		
28.	Specify Make of proposed camera			
29.	Specify Model of proposed camera			

14.4 2 Megapixel IR Dome Camera with fixed lens

The proposed CCTV camera should be tamperproof and shall generate real time alert at monitoring station (Offered VMS Software or NVR) in case of any tempering.

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Image Sensor	1/3" Progressive Scan CMOS or better		
2.	Pixels	2 Mega Pixel Full HD (1920 X 1080)		
3.	Min. Illumination	Color: 0.05 lux, B/W: 0 lux with IR (ON)		
4.	Lens	Fixed Lens wide angle between 2.8mm to 3.6mm /Fixed Lens narrow angle between 4 mm to 6mm (actual focal length to be decided based on feasibility study)		
5.	Signal to Noise Ratio	More Than 50 dB		
6.	Wide Dynamic Range	80 dB or better		
7.	IR Range	30 Meter or better		
8.	Day & Night	Auto (IR), Color, B/W		
9.	Backlight Compensation	Automatic BLC		
10.	Noise Reduction	3D DNR, 2D DNR		
11.	Compression Standard	H.265 (backward compatible with H.264), MJPEG or better		
12.	Streams	Minimum two video Stream Supported. Each stream		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		configurable for resolution, fps.		
13.	Resolution & Frame Rate	Minimum 25 frames per second (FPS) for both the Streams. Full HD (1080P) @ 25 FPS with H.265 compression on one stream & HD (720P) @ 25 FPS with H.265 compression on other stream.		
14.	Data rate	i) 8 Mbps maximum for H.265 Video Compression. ii) Shall work on 5 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 Video Compression.		
15.	Text Superimposing	Camera shall support superimposing the title and date & time on the video		
16.	Ethernet Port	RJ45 (10/100Base-T) self-adaptive		
17.	Protocols	IPv4/IPv6, TCP/IP, UDP, HTTP, HTTPS, DHCP, DNS, DDNS, PPPoE, NTP, UPnP, SMTP		
18.	Power	12 V DC / 24V DC/AC and PoE		
19.	Housing	IP66/NEMA 4X or better		
20.	Operating Temperature	0 °C to 50 °C		
21.	Operating Humidity	0% to 80% Relative, Non-Condensing		
22.	Standard	ONVIF 2.0 and above supported		
23.	Certification	CE, FCC and UL		
24.	Warranty	3 Years comprehensive onsite Warranty with parts		
25.	Specify Make of proposed camera			
26.	Specify Model of proposed camera			

14.5 2 Megapixel IR IP Bullet Camera with fixed lens

The proposed CCTV camera should be tamperproof and shall generate real time alert at monitoring station (Offered VMS Software or NVR) in case of any tempering.

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Image Sensor	1/3" Progressive Scan CMOS or better		
2.	Pixels	2 Mega Pixel Full HD (1920 X 1080)		
3.	Min. Illumination	Color: 0.05 lux, B/W: 0 lux with IR (ON)		
4.	Lens	Fixed Lens wide angle between 2.8mm to 3.6mm /Fixed Lens narrow angle between 4 mm to 6mm (actual focal length to be decided based on feasibility study)		
5.	Signal to Noise Ratio	More Than 50 dB		
6.	Wide Dynamic Range	80 dB or better		
7.	IR Range	30 Meter or better		
8.	Day & Night	Auto (IR), Color, B/W		
9.	Backlight Compensation	Automatic BLC		
10.	Noise Reduction	3D DNR, 2D DNR		
11.	Compression Standard	H.265 (backward compatible with H.264), MJPEG or better		
12.	Streams	Minimum two video Stream Supported. Each stream configurable for resolution, fps.		
13.	Resolution & Frame Rate	Minimum 25 frames per second (FPS) for both the Streams. Full HD (1080P) @ 25 FPS with H.265 compression on one stream & HD (720P) @ 25 FPS with H.265 compression on other stream.		
14.	Data rate	i) 8 Mbps maximum for H.265 Video Compression. ii) Shall work on 5 Mbps bit rate or less average for		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 Video Compression.		
15.	Text Superimposing	Camera shall support superimposing the title and date & time on the video		
16.	Ethernet Port	RJ45 (10/100Base-T) self-adaptive		
17.	Protocols	IPv4/IPv6, TCP/IP, UDP, HTTP, HTTPS, DHCP, DNS, DDNS, PPPoE, NTP, UPnP, SMTP		
18.	Power	12 V DC / 24V DC/AC and PoE		
19.	Housing	IP66/NEMA 4X or better		
20.	Operating Temperature	0 °C to 50 °C		
21.	Operating Humidity	0% to 80% Relative, Non-Condensing		
22.	Standard	ONVIF 2.0 and above supported		
23.	Certification	CE, FCC and UL		
24.	Warranty	3 Years comprehensive onsite Warranty with parts		
25.	Specify Make of proposed camera			
26.	Specify Model of proposed camera			

14.6 2 Megapixel IR IP PTZ Camera with 30X optical zooming

The proposed CCTV camera should be tamperproof and shall generate real time alert at monitoring station (Offered VMS Software or NVR) in case of any tempering.

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Image Sensor	1/3" Progressive Scan CMOS or better		
2.	Pixels	2 Mega Pixel Full HD (1920 X 1080)		
3.	Min. Illumination	Color: 0.05 lux, B/W: 0 lux with IR (ON)		
4.	Optical Zoom	30X or better		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
5.	Digital Zoom	10X or Better		
6.	Lens	Optical zoom 30x or better IR corrected lens suitable for Full HD camera. Focal length of the lends: Upper range shall be 125 mm or higher		
7.	Signal to Noise Ratio	More Than 50 dB		
8.	Focus	Automatic, Manual		
9.	Wide Dynamic Range	100 dB or better		
10.	IR Range	150 Meter or better		
11.	Day & Night	Auto (IR), Color, B/W		
12.	Backlight Compensation	Automatic BLC		
13.	Noise Reduction	3D DNR, 2D DNR		
14.	Compression Standard	H.265 (backward compatible with H.264), MJPEG or better		
15.	Streams	Minimum two video Stream Supported. Each stream configurable for resolution, fps.		
16.	Resolution & Frame Rate	Minimum 25 frames per second (FPS) for both the Streams. Full HD (1080P) @ 25 FPS with H.265 compression on one stream & HD (720p) @ 25 FPS with H.265 compression on other stream.		
17.	Data rate	i) 8 Mbps maximum for H.265 Video Compression. ii) Shall work on 5 Mbps bit rate or less average for Full HD@ 25 FPS at Variable bit rate (VBR) on individual (Single) stream with H.265 Video Compression.		
18.	Preset	99 preset or more		
19.	PAN	360° continuous		
20.	PAN/Tilt Speed	1°/second to 90°/second or		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		better		
21.	Tilt angle	0° to 90° Tilt from horizontal plane		
22.	Preset Speed	90°/second or better		
23.	Preset Tour	Supported		
24.	Auto tracking	Supported		
25.	Video Streaming	Unicast and Multicast Streams		
26.	Text Superimposing	Camera shall support superimposing the title and date & time on the video		
27.	Ethernet Port	RJ45 (10/100Base-T) self-adaptive		
28.	Protocols	IPv4/IPv6, TCP/IP, UDP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP		
29.	Power	12 V DC / 24V DC/AC / 230 V AC and PoE/PoE+		
30.	Local Storage	Support minimum 128 GB of microSD/SDHC/SDXC card		
31.	Alarm I/O	Alarm I/P Port:1 And O/P Port: 1		
32.	Audio	2 Way Audio Supported		
33.	Housing	Vandal proof and Impact resistant enclosure with IP66 / NEMA 4X Rated or better		
34.	Operating Temperature	0 °C to 50 °C		
35.	Operating Humidity	0% to 80% Relative, Non-Condensing		
36.	Standard	ONVIF 2.0 and above supported		
37.	Certification	CE, FCC and UL		
38.	Warranty	3 Years comprehensive onsite Warranty with parts		
39.	Specify Make of proposed camera			
40.	Specify Model of proposed camera			

14.7 PTZ Joystick Controller

#	Minimum Specifications	Compliances (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	PTZ speed dome control for IP cameras		
2.	Minimum 10 programmable buttons		
3.	Multi-camera operations		
4.	Compatible with all the camera models offered in the solution		
5.	Compatible with VMS /Monitoring software offered		
6.	Third party ONVIF IP camera supported		
7.	12 V DC or better		
8.	0 °C to 50 °C working temperature		
9.	10% to 80% working humidity		
10.	CE, FCC and UL certification		
11.	3 Years comprehensive onsite Warranty with parts		
12.	Specify Make of proposed Joystick Controller		
13.	Specify Model of proposed Joystick Controller		

14.8 4 Channel Network Video Recorder

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	IP Video inputs	4 Channel		
2.	Incoming Bandwidth	Minimum 32 Mbps or better		
3.	Recording Resolutions	2MP (1080P) @ 25 FPS or better		
4.	HDMI Output	Supported (1080P)		
5.	VGA Output	Supported		
6.	Decoding Format	H.265 (backward compatible with H.264), MJPEG or better		
7.	Video Playback	4 Channel simultaneously @		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		Full HD (1920 X 1080) or higher		
8.	SATA interface	Minimum 1 SATA interfaces		
9.	HDD Support	4TB, 6TB capacity for each SATA interface		
10.	Storage Provisioning	Necessary HDD(s) to store CCTV feed from maximum supported cameras at Full HD (1080P) @ 25 FPS with H.265 – High Quality compression for minimum 30 days (Specify the capacity of HDD(s) proposed)		
11.	Network interface	Minimum 1 RJ-45, 10 /100 Mbps self-adaptive Ethernet interface		
12.	Network Protocol	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)		
13.	Features	- Recording & Playback Control - Recording Mode – Manual, Schedule (Continuous/Event), Event (Pre/Post), Motion detection, Alarms, Trigger Input, etc. - Search & Export – Recording search by camera, date and time, export of video clips to USB Flash drives - System Log – Alarms, events, operator log, etc. - User Management – Authentication of User Login, Configuration of Users, User Groups & User Access Rights		
14.	USB Interface	2 * USB 2.0 or better		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
15.	Alarm In/Out	4/1		
16.	Third party IP Camera	Third party ONVIF IP camera supported		
17.	Power Supply	12 V DC or 230 V AC or better		
18.	Working Temperature	0 °C to 50 °C		
19.	Working humidity	10% to 80%		
20.	Certifications	CE, FCC and UL		
21.	Warranty	3 Years comprehensive onsite Warranty with parts		
22.	Specify Make of proposed NVR			
23.	Specify Model of proposed NVR			

14.9 4 Channel Network Video Recorder with built-in PoE Ports

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	IP Video inputs	4 Channel		
2.	Incoming Bandwidth	Minimum 32 Mbps or better		
3.	Recording Resolutions	2MP (1080P) @ 25 FPS or better		
4.	HDMI Output	Supported (1080P)		
5.	VGA Output	Supported		
6.	Decoding Format	H.265 (backward compatible with H.264), MJPEG or better		
7.	Video Playback	4 Channel simultaneously @ Full HD (1920 X 1080) or higher		
8.	SATA interface	Minimum 1 SATA interfaces		
9.	HDD Support	4TB, 6TB capacity for each SATA interface		
10.	Storage Provisioning	Necessary HDD(s) to store CCTV feed from maximum supported cameras at Full HD (1080P) @ 25 FPS with H.265 – High Quality compression for minimum 30 days (Specify the capacity of HDD(s) proposed)		
11.	Network interface	Minimum 1 RJ-45, 10 /100		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		Mbps self-adaptive Ethernet interface		
12.	Network Protocol	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)		
13.	Features	- Recording & Playback Control - Recording Mode – Manual, Schedule (Continuous/Event), Event (Pre/Post), Motion detection, Alarms, Trigger Input, etc. - Search & Export – Recording search by camera, date and time, export of video clips to USB Flash drives - System Log – Alarms, events, operator log, etc. - User Management – Authentication of User Login, Configuration of Users, User Groups & User Access Rights		
14.	PoE Interface	Minimum 4-RJ 45 10/100 Mbps Self-adaptive Ethernet interface (IEEE 802.3af/ IEEE 802.3at)		
15.	PoE Power	Maximum Power requirement for maximum number of supported (offered make) camera		
16.	USB Interface	2 * USB 2.0 or better		
17.	Alarm In/Out	4/1		
18.	Third party IP Camera	Third party ONVIF IP camera supported		
19.	Power Supply	12 V DC or 230 V AC or better		
20.	Working Temperature	0 °C to 50 °C		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
21.	Working humidity	10% to 80%		
22.	Certifications	CE, FCC and UL		
23.	Warranty	3 Years comprehensive onsite Warranty with parts		
24.	Specify Make of proposed NVR			
25.	Specify Model of proposed NVR			

14.10   8 Channel Network Video Recorder

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	IP Video inputs	8 Channel		
2.	Incoming Bandwidth	Minimum 64 Mbps or better		
3.	Recording Resolutions	2MP (1080P) @ 25 FPS or better		
4.	HDMI Output	Supported (1080P)		
5.	VGA Output	Supported		
6.	Decoding Format	H.265 (backward compatible with H.264), MJPEG or better		
7.	Video Playback	8 Channel simultaneously @ Full HD (1920 X 1080) or higher		
8.	SATA interface	Minimum 2 SATA interfaces		
9.	HDD Support	4TB, 6TB, 8TB capacity for each SATA interface		
10.	Storage Provisioning	Necessary HDD(s) to store CCTV feed from maximum supported cameras at Full HD (1080P) @ 25 FPS with H.265 – High Quality compression for minimum 30 days (Specify the capacity of HDD(s) proposed)		
11.	Network interface	Minimum 1 RJ-45, 10 /100/1000 Mbps self-adaptive Ethernet interface		
12.	Network Protocol	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		required for system working)		
13.	Features	- Recording & Playback Control - Recording Mode – Manual, Schedule (Continuous/Event), Event (Pre/Post), Motion detection, Alarms, Trigger Input, etc. - Search & Export – Recording search by camera, date and time, export of video clips to USB Flash drives - System Log – Alarms, events, operator log, etc. - User Management – Authentication of User Login, Configuration of Users, User Groups & User Access Rights		
14.	USB Interface	2 * USB 2.0 or better		
15.	Alarm In/Out	4/1		
16.	Third party IP Camera	Third party ONVIF IP camera supported		
17.	Power Supply	12 V DC or 230 V AC or better		
18.	Working Temperature	0 °C to 50 °C		
19.	Working humidity	10% to 80%		
20.	Certifications	CE, FCC and UL		
21.	Warranty	3 Years comprehensive onsite Warranty with parts		
22.	Specify Make of proposed NVR			
23.	Specify Model of proposed NVR			

14.11 8 Channel Network Video Recorder with built-in PoE ports

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	IP Video inputs	8 Channel		
2.	Incoming Bandwidth	Minimum 64 Mbps or better		
3.	Recording Resolutions	2MP (1080P) @ 25 FPS or better		
4.	HDMI Output	Supported (1080P)		
5.	VGA Output	Supported		
6.	Decoding Format	H.265 (backward compatible with H.264), MJPEG or better		
7.	Video Playback	8 Channel simultaneously @ Full HD (1920 X 1080) or higher		
8.	SATA interface	Minimum 2 SATA interfaces		
9.	HDD Capacity	4TB, 6TB, 8TB capacity for each SATA interface		
10.	Storage Provisioning	Necessary HDD(s) to store CCTV feed from maximum supported cameras at Full HD (1080P) @ 25 FPS with H.265 – High Quality compression for minimum 30 days (Specify the capacity of HDD(s) proposed)		
11.	Network interface	Minimum 1 RJ-45, 10 /100/1000 Mbps self-adaptive Ethernet interface		
12.	Network Protocol	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)		
13.	Features	- Recording & Playback Control - Recording Mode – Manual, Schedule (Continuous/Event), Event (Pre/Post), Motion detection, Alarms, Trigger Input, etc.		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		- Search & Export – Recording search by camera, date and time, export of video clips to USB Flash drives - System Log – Alarms, events, operator log, etc. - User Management – Authentication of User Login, Configuration of Users, User Groups & User Access Rights		
14.	PoE Interface	Minimum 8-RJ 45 10/100 Mbps Self-adaptive Ethernet interface (IEEE 802.3af/ IEEE 802.3at)		
15.	PoE Power	Maximum Power requirement for maximum number of supported (offered make) camera		
16.	USB Interface	2 * USB 2.0 or better		
17.	Alarm In/Out	4/1		
18.	Third party IP Camera	Third party ONVIF IP camera supported		
19.	Power Supply	12 V DC or 230 V AC or better		
20.	Working Temperature	0 °C to 50 °C		
21.	Working humidity	10% to 80%		
22.	Certifications	CE, FCC and UL		
23.	Warranty	3 Years comprehensive onsite Warranty with parts		
24.	Specify Make of proposed NVR			
25.	Specify Model of proposed NVR			

14.12 16 Channel Network Video Recorder

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	IP Video inputs	16 Channel		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
2.	Incoming Bandwidth	Minimum 128 Mbps or better		
3.	Recording Resolutions	2MP (1080P) @ 25 FPS or better		
4.	HDMI Output	Supported (1080P)		
5.	VGA Output	Supported		
6.	Decoding Format	H.265 (backward compatible with H.264), MJPEG or better		
7.	Video Playback	16 Channel simultaneously @ Full HD (1920 X 1080) or higher		
8.	SATA interface	Minimum 2 SATA interfaces		
9.	HDD Capacity	4TB, 6TB, 8TB capacity for each SATA interface		
10.	Storage Provisioning	Necessary HDD(s) to store CCTV feed from maximum supported cameras at Full HD (1080P) @ 25 FPS with H.265 – High Quality compression for minimum 30 days (Specify the capacity of HDD(s) proposed)		
11.	Network interface	Minimum 1 RJ-45, 10 /100/1000 Mbps self-adaptive Ethernet interface		
12.	Network Protocol	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)		
13.	Features	- Recording & Playback Control - Recording Mode – Manual, Schedule (Continuous/Event), Event (Pre/Post), Motion detection, Alarms, Trigger Input, etc. - Search & Export – Recording search by camera, date and time, export of video clips to USB Flash drives - System Log – Alarms,		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
		events, operator log, etc. - User Management – Authentication of User Login, Configuration of Users, User Groups & User Access Rights		
14.	USB Interface	2 * USB 2.0 or better		
15.	Alarm In/Out	4/1		
16.	Third party IP Camera	Third party ONVIF IP camera supported		
17.	Power Supply	12 V DC or 230 V AC or better		
18.	Working Temperature	0 °C to 50 °C		
19.	Working humidity	10% to 80%		
20.	Certifications	CE, FCC and UL		
21.	Warranty	3 Years comprehensive onsite Warranty with parts		
22.	Specify Make of proposed NVR			
23.	Specify Model of proposed NVR			

14.13 32 Channel Network Video Recorder

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	IP Video inputs	32 Channel		
2.	Incoming Bandwidth	Minimum 256 Mbps or better		
3.	Recording Resolutions	2MP (1080P) @ 25 FPS or better		
4.	HDMI Output	Supported (1080P)		
5.	VGA Output	Supported		
6.	Decoding Format	H.265 (backward compatible with H.264), MJPEG or better		
7.	Video Playback	16 Channel simultaneously @ Full HD (1920 X 1080) or higher		
8.	SATA interface	Minimum 4 SATA interfaces		
9.	HDD Capacity	4TB, 6TB, 8TB capacity for each SATA interface		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
10.	Storage Provisioning	Necessary HDD(s) to store CCTV feed from maximum supported cameras at Full HD (1080P) @ 25 FPS with H.265 – High Quality compression for minimum 30 days (Specify the capacity of HDD(s) proposed)		
11.	Network interface	Minimum 1 RJ-45, 10 /100/1000 Mbps self-adaptive Ethernet interface		
12.	Network Protocol	Suitable and required network protocol stack to work Camera in TCP/IP based Ethernet network environment. (As required for system working)		
13.	Features	- Recording & Playback Control - Recording Mode – Manual, Schedule (Continuous/Event), Event (Pre/Post), Motion detection, Alarms, Trigger Input, etc. - Search & Export – Recording search by camera, date and time, export of video clips to USB Flash drives - System Log – Alarms, events, operator log, etc. - User Management – Authentication of User Login, Configuration of Users, User Groups & User Access Rights		
14.	USB Interface	2 * USB 2.0 or better		
15.	Alarm In/Out	8/1		
16.	Third party IP Camera	Third party ONVIF IP camera supported		
17.	Power Supply	12 V DC or 230 V AC or better		
18.	Working Temperature	0 °C to 50 °C		

#	Parameters	Minimum Specifications	Compliance (Yes / No)	Deviation from Specifications/ Remarks if Any
19.	Working humidity	10% to 80%		
20.	Certifications	CE, FCC and UL		
21.	Warranty	3 Years comprehensive onsite Warranty with parts		
22.	Specify Make of proposed NVR			
23.	Specify Model of proposed NVR			

14.14 32" LED Display Screen

#	Parameters	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Screen Size	32 Inch or higher		
2.	Display Type	LED-backlit monitor		
3.	Aspect Ratio	16:9		
4.	Resolution	1920X1080 (Full HD)		
5.	Static Contrast Ratio	1000:1		
6.	Color Display	16.7 million colors or better		
7.	Luminance	250 cd/m2 or better		
8.	Backlight	30,000 hours or better		
9.	Response Time	5 milliseconds or better		
10.	Horizontal viewing angle	≥170° or better		
11.	Vertical: Viewing angle	≥160° or better		
12.	Interface	1- HDMI input, 1- RGB (VGA) input		
13.	Power Supply	AC 220±10%,50Hz.		
14.	Operating Temperature	0°C to +40°C		
15.	Humidity Maximum	0% to 80% relative		
16.	Accessories	All interface cable required		
17.	Warranty	3 Years comprehensive onsite Warranty with parts		
18.	Certificates	UL, CE, FCC		

#	Parameter	Minimum Specifications		
19.	Others	Input interface of the proposed display screen shall be compatible with the proposed NVR		
20.	Specify Make of proposed LED Display Screen			
21.	Specify Model of proposed LED Display Screen			

14.15 8 Port PoE/PoE+ industrial grade network switch

Industrial Grade network Switch shall be utilized at outdoor locations and other SMC premises or as directed by SSCDL/SMC

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Type	Managed Outdoor Industrial grade switch		
2.	Total Ports	• 8 RJ-45 auto-negotiating 10/100/1000 PoE/PoE+ ports • Minimum 2 Combo 100/1000 BASE-X SFP/BASE T ports in addition to above ports • Transceivers and patch cord required must be provided/included with product from day 1.		
3.	PoE Standard	IEEE 802.3af/ IEEE 802.3at		
4.	Protocols	• IPV4, IPV6 • Support 802.1Q VLAN • DHCP support • IGMP • SNMP Management • Should support Loop protection and Loop detection • Should support Ring protection • End point Authentication • Should support NTP • Should have IPv4 and IPv6 Static Routing		
5.	Access Control	• Support port security • Support 802.1x (Port based network access control). • Support for IP and MAC binding based filtering and Access List.		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		• Support security group access control list		
6.	PoE Power per port	Sufficient to operate the Offered CCTV cameras/edge devices connected		
7.	Enclosure Rating	IP 30 or equivalent Industrial Grade Rating(to be housed in Junction box)		
8.	Operating Temperature	0 -50 C or better Industrial Grade Rating		
9.	Multicast support	IGMP Snooping V1, V2, V3		
10.	Management	Switch needs to have RS-232/USB/RJ45 console port for management via a console terminal or PC,Web GUI NTP, Syslog for log capturing SNMP V1,V2,V3		
11.	Compliance	UL/EN/IEC		
12.	Warranty	3 Years comprehensive onsite Warranty with parts		
13.	Specify Make of proposed industrial grade network switch			
14.	Specify Model of proposed industrial grade network switch			

14.16 8 Port PoE Non industrial grade network switch

Non industrial grade switch shall be utilized at Schools, BRTS Bus Stops, Water Works, Water Distribution Plants etc., or as directed by SSCDL/SMC

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Type	Semi-Managed		
2.	Total Ports	• 8 RJ-45 auto-negotiating 10/100/1000 PoE/PoE+ ports • Minimum 2 Combo 100/1000 BASE-X SFP/BASE T ports in addition to above ports • Transceivers and patch cord required must be provided/included with product		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		from day 1.		
3.	PoE Standard	IEEE 802.3af/ IEEE 802.3at		
4.	Protocols	• IPV4, IPV6 • DHCP support • IGMP • SNMP Management • Should support Loop protection and Loop detection • Should support Ring protection • End point Authentication • Should support NTP • Should have IPv4 and IPv6 Static Routing		
5.	Access Control	• Support port security • Support 802.1x (Port based network access control). • Support for IP and MAC binding based filtering and Access List. • Support security group access control list		
6.	PoE Power per port	Sufficient to operate the Offered CCTV cameras/edge devices connected		
7.	Operating Temperature	0 -50 C or better Industrial Grade Rating		
8.	Multicast support	IGMP Snooping V1, V2, V3		
9.	Management	• The Switch should support simple Web management • Support NTP		
10.	Compliance	UL/EN/IEC		
11.	Warranty	3 Years comprehensive onsite Warranty with parts		
12.	Specify Make of proposed network switch			
13.	Specify Model of proposed network switch			

14.17 Core Switch/Top of the Rack Switch/DC Switch

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any

A	B	C	D	E
1.	Switching Capacity	• **Switching Capacity of minimum 640 Gbps** or Higher with Fully populated/all activated ports along with all modules/software/features/support activated from day 1		
2.	Ports	• Minimum 24 X 1G/10G Base-T/SFP/SFP+ ports. • Transceivers and patch cord required must be provided/included with product from day 1.		
		• Minimum 2 X 40G BASE-QSFP+ SX/LX/LR ports as per network solution offered. • Transceivers and patch cord required must be provided/included with product from day 1.		
		• 1G/10G Base T/SFP/SFP+ port Split as per field/site requirement and it should have support for 24 x 1/10GBASE-T ports or 24 x SFP+ ports or 24 Converged ports, or a combination.		
		• All RJ-45 ports can auto-negotiate between 100M/1G/10G, TX, half-duplex or full duplex and flow control for full-duplex ports.		
3.	Switch type	• Fully Managed & Advanced Layer 3 Core/Data Centre Switch & Non Chassis Based.		
4.	Backplane	• Properly sized Switching fabric capacity (as per network configuration to meet performance requirements of wire speed switching for the connected devices)		
5.	Layer-2 Features	• Switch should Support IEEE 802.1Q VLAN encapsulation & must have feature to configure minimum 4090 VLAN IDs.		
		• The switch must support dynamic VLAN Registration or equivalent and Dynamic Trunking protocol or equivalent		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
		• Switch should Support Ether Channelling - IEEE 802.3ad or port aggregation technologies (support of LACP)		
		• Switch should Support IEEE 802.3x flow control for full-duplex mode ports.		
		• Switch should Support IEEE 802.1s/w Rapid Spanning Tree Protocol (RSTP) and Multiple Spanning Tree Protocol (MSTP)		
		• Support for Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
		• IGMP snooping v1, v2 and v3		
		• Should support 32k or more ARP/MAC Address table		
		• Should support Loop protection and Loop detection.		
		• Should support Ring protection.		
6.	Layer-3 Features	• Must have Static, OSPFv3, BGP4, RIPv1, RIPv2 and Policy based routing protocols with IPV4 & IPv6 supported.		
		• Should support Dual IP stack which Maintains separate stacks for IPv4 and IPv6		
		• Should support Virtual Router Redundancy Protocol (VRRP).		
		• Should support Equal-Cost Multipath (ECMP) which provides equal-cost links in a routing environment to increase link redundancy.		
		• Support 802.1D, 802.1S, 802.1w, Rate limiting.		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
		• Inter-VLAN IP routing for full Layer 3 routing between 2 or more VLANs.		
		• Support for Multicast VLAN registration (MVR) to continuously send multicast streams in a multicast VLAN while isolating the streams from subscriber VLANs for bandwidth and security reasons.		
		• Inbuilt Feature of Dynamic Host Configuration Protocol (DHCP) Sever which simplifies the management of large IP networks and supports client and server system.		
7.	Network Security & QoS	• Standard 802.1p CoS and DSCP.		
		• Must have Network traffic filtering and network control using MAC and IP Binding based ACLs		
		• Support for Asynchronous data flows upstream and downstream from the end station or on the uplink using ingress policing and egress shaping.		
		• Should support TACACS+ and RADIUS authentication		
		• Support for Automatic Quality of Service for easy configuration of QoS features for critical applications.		
		• Broadcast storm control to help eliminate network traffic storms		
		• IEEE 802.1x to allow dynamic, port-based security, providing user authentication.		
		• VLAN ACLs (VACLs) on all VLANs to prevent unauthorized data flows from being bridged within VLANs. Port-based		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
		ACLs (PACLs) for Layer 2 interfaces to allow application of security policies on individual switch ports		
		• Standard and Extended IP security router ACLs to define security policies on routed interfaces for control- and data-plane traffic.		
		• Unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address.		
		• Unknown unicast and multicast port blocking to allow tight control by filtering packets that the switch has not already learned how to forward.		
		• Support for SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.		
		• Private VLAN to provide security and isolation between switch ports, helping ensure that users cannot snoop on other users' traffic.		
		• MAC address management to allow administrators for analysis of users added to or removed from the network.		
		• Multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
		• IPv6 Host, Management, multicast and QoS.		
8.	Management	• Easy-to-use, Web-based management interface through either GUI based software utility or using standard web browser interface which Supports configuration, system dashboard, system		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	**B**	**C**	**D**	**E**
		maintenance, and monitoring.		
		• Should have accessibility using Telnet, SSH, Console access.		
		• Intuitive web interface to upload/download Configurations to and from the switch.		
		• Should have feature for easier software/firmware upgrade through network using TFTP/HTTP etc.		
		• Provision of Dual flash images to provide independent primary and secondary operating system files for backup while upgrading.		
		• Availability of Port statistics through industry-standard RMON		
		• Layer 2 trace route of ease troubleshooting by identifying the physical path that a packet takes from source to destination.		
		• SNMPv1, SNMPv2c, and SNMPv3.		
9.	Warranty:	• 3 Years comprehensive onsite back to back Warranty with parts		
10.	Chassis:	• Device must have 1+1 redundant AC power input supply and must be included with switch from day 1.		
11.	Specify Make of proposed network switch			
12.	Specify Model of proposed network switch			

14.18 Enterprise Next Generation Firewall

#	Minimum Parameters	Bidders Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	**Make:** OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for Enterprise Firewall or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Enterprise Firewall Market.		
2.	OEM should have support Centre in India.		
3.	Appliance must be ICSA Labs certified for Firewall.		
4.	**Minimum Hardware Specification**		
	• Minimum 2 x 10GbE SFP+ Ports form day 1 with 2 x 10G SFP+ Transceivers provided/included with product from day 1		
	• Minimum 8 x 1GbE SFP Ports from day 1 with 2 x 1G SFP Transceivers provided/included with product from day 1		
	• Minimum 8 x 1GbE RJ45/Copper Ports from day 1		
	• Minimum 2 x USB Port		
	• 2 x Integrated AC input Power Supply		
	• Minimum 1x Console Management Ports (RJ45) & should provide http, https, SSH, Telnet, SNMP based management console for managing and configuring		
	• Ports can be configurable for LAN/ WAN/DMZ		
5.	**Appliance Throughput**		
	• Minimum Firewall throughput of 15 Gbps or higher		
	• Minimum 1,25,000 New Sessions/sec		
	• Minimum 15,00,000 Concurrent sessions		
	• Minimum 2 Gbps or higher IPS Throughput in real world/Enterprise/Production traffic scenario.		
	• Minimum 1.5 Gbps or higher Threat Protection Throughput with Firewall, IPS and Malware Protection enabled in real world/Enterprise/Production traffic scenario.		

6.	• Should have minimum 400 GB of inbuilt HDD for Local Storage of device Log which can be used for Analysis & Reporting.		
7.	**General Features**		
	• Should be appliance based and rack mountable.		
	• The Firewall should support "Route Mode" or "Transparent Mode" and support web proxy/ssl proxy		
	• Device in built DNS server for prevention of phishing and pharming scams involving DNS poisoning while reducing time taken for DNS mapping.		
	• Intrusion Prevention System		
	• Gateway Anti-virus		
	• Gateway Anti-spam with DLP functionality		
	• Web Content & Application Filtering		
	• Application Control		
	• Cloud Sandbox/Zero day prevention		
	• Botnet Blocking/Prevention		
	• Bandwidth Management/Traffic Shaping capable of setting guarantee bandwidth and maximum bandwidth per firewall policy		
	• High Availability with Active-Active & Active-Passive mode support		
	• The High Availability should be supported in the Firewall from the day one and without any extra license.		
	• The Firewall should support Static, Policy Base, Identity based, Multicast routing and dynamic routing for RIP1 & 2, OSPF, OSPFv3, BGP4, RIPing, Server Load Balancing.		
	• The Firewall should belong to a family of products that attains industry standard Approved Certification and attains IPv6 Ready Phase 2 & IPv6 Certification		
	• Should support IPv6 ACL to implement security Policy for IPv6 traffic.		
	• Support for user authentication over SMS and in built two factor authentication without any additional cost.		
	• The proposed solution should support integration with Windows NTLM, Active Directory, LDAP, Radius, or Local Database for user authentication.		

	• Country Based Blocking, FQDN support and should support MIX mode deployment		
	• Should have an integrated wireless controller and should be able to manage multiple wireless access points centrally from web admin console.		
	• Should have feature/provision for Virtual instance/Appliance/Domain or equivalent feature which splits the physical Appliance/domain into virtual by configuration/Software (Optional).		
	• Should have Feature/module for Device Logging & Reporting and support for appliance/Hardware based Centralized Logging & Reporting Solution deployed additionally.		
8.	**Gateway Antivirus, Anti-Spyware and Anti-Spam**		
	• Firewall must be able to scan http, https, IMAP, IMAPs, FTP, FTPs, POP, POPs, SMTP, SMTPs & MAPI protocols with AV signatures		
9.	• Virus, Worm, Trojan Detection and Removal, Automatic Virus signature database update, Real-Time blacklist, and Redirect spam mails to dedicated email address, image-spam filter, Spam Notification, Zero hour Virus outbreak protection.		
	Web and Application Filtering		
	• The proposed solution should be able to enable or disable Web Filter per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS		
	• Should blocks web plug-ins such as ActiveX, Java Applet, and Cookies & Shall include Web URL block, Web keyword block, Web Exempt List		
	• The proposed solution must work as a HTTP proxy server with integrated Firewall, Anti-Virus, Anti-Spam, Content filtering, IPS.		
	• The proposed solution should be able to enable or disable Web Filter per firewall policy or based on firewall authenticated user groups for both HTTP and HTTPS		
	• The solution shall allow administrators to create multiple new local URL filtering categories besides dynamic categories		
	• Application Control Solution must provide option to create custom signature for applications & it should		

	able to understand		
	• Well-known application like P2P, Voice, etc. without any dependency on the ports		
	• Support for IEEE 802.1X (RADIUS authentication)		
10.	**Intrusion Prevention System (IPS)**		
	• For different attacks like Mail Attack, FTP Attack, HTTP Attack, DNS Attack, ICPM Attack, TCP/IP Attack, DOS and DDOS Attack, Telnet Attack.		
	• Signatures: Custom, IPS Policies: Multiple, Custom, User-based policy creation, Automatic real-time updates.		
	• Should have a built-in Signature and Anomaly based IPS engine on the same unit and Anomaly based detection should be based on thresholds.		
	• Able to prevent denial of service and Distributed Denial of Service attacks on signature.		
	• Administrator shall be able to configure DoS policies that are used to associate DoS settings with traffic that reaches an interface based on defined services, source and destinations IP/Range.		
11.	**Advance Threat Protection**		
	• Advanced Threat Protection (Detect and block network traffic attempting to contact command and control servers).		
	• It must have facility to block Bot/Botnet attacks from day 1 & also should scan Mobile devices security from day 1.		
12.	**Cloud based Zero day prevention or Sandboxing**		
	• Solution should have support to inspect executables and documents containing executable content including .exe, .com, .dll, .docx, rtx, etc , and malware behaviour analysis and should support cloud based Zero day prevention or Sandboxing.		
13.	**VPN**		
	• L2TP, PPTP, IPsec and SSL must be a part of Basic Appliance.		
	• The SSL VPN should be integrated solution and there should be no user based licensing for SSL VPN with SSL encryption/decryption.		
	• Firewall must have at least 100 SSL VPN client in		

	Route mode from the day 1 without any additional cost.		
	• The system shall support IPSEC site-to-site VPN and remote user VPN in transparent mode without any additional cost for VPN clients.		
14.	**Load Balance**		
	• For Automated Failover/Failback, Multi-WAN failover, High availability: Active-Active. QoS, OSPF, RIPv2, BGP, Policy routing based on Application and User support Round Robin Load Balancing		
15.	**Bandwidth Management**		
	• Application and user bandwidth management, Multi WAN bandwidth reporting, guaranteed bandwidth policy. Bandwidth for User, Group, Firewall Rule, URL and Applications.		
16.	**Inbuilt Logging and Reporting Solution**		
	• Should have GUI based access from standard web browsers available for Centralized reports on network traffic, threats, network activities and trends across the network.		
	• Real-time and Historical Views of Network Activity by filtering applications, sources, destinations, websites/URLs, security threats, administrative modifications and system events.		
	• **Log Forwarding for Third-Party Integration** • Should have feature to forward logs from a unit to a syslog server and support for FTP/TFTP log transfer.		
	• The proposed solution must be licensed per unit for minimum 5 **years** subscription for all modules/services and **with 24x7** Hardware & Software support.		
17.	**License for Enterprise Firewall**		
	• The proposed solution must be licensed per unit for **5 years** & there should not be any license limit on number of sessions, firewall rules, maximum number of connections, no of nodes/desktops, no. of IPs, domains, etc. for all modules. It must include minimum **5 years** subscription for Firewall, IPS & IDS, Gateway Antivirus, Anti-Spyware, Anti Malware and Log Analysis & Management solution along with Logging & Reporting Solution.		

#		Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
	• Hardware must be latest released product from OEM and it must not be under the list end of sale, end of support from OEM till **5 years** from date of commissioning and in any case if subscription is not available/provided from OEM after few years but before the end of contract period than bidder is required to provide equivalent or higher model released by OEM with all subscriptions mentioned above till the contract period			
18.	3 Years comprehensive onsite Warranty support			
19.	Specify Make of proposed Next Generation Firewall			
20.	Specify Model of proposed Next Generation Firewall			

14.19 Server (As Building block, to establishing computing solution for sub-systems/solutions)

Server for "Suman Eye (CCTV Network) Project" should not have single point of failover

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Make	OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for Modular Servers or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Server Market		
2.	Form factor	Blade / Rack		
3.	Processor	Latest series/Generation of 64 bit x86 processor(s) with 8 or higher Cores Processor speed should be minimum 2.4 GHz Minimum 2 processors each physical server		
		Specify Processor Model		
		Specify Processor Speed		
		Specify No. of Cores		
		Specify Cache		
		Specify No. of Processors Proposed		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
4.	RAM	• DIMM Slots must be supporting 2400 MHz/2666MHz memory frequency • Memory DIMM Slots must be supporting 8GB / 16GB / 32GB / 64GB/128GB memory modules. • Minimum 64 GB Memory per physical server		
		Specify Maximum RAM supported		
		Specify Total RAM proposed		
5.	Chipset	Compatible latest series of chipset (specify chipset)		
6.	Internal Storage	Minimum 2 x 600 GB SAS (10k rpm) hot swap		
		Specify the No. of HDD Slots Supported		
		Specify the HDD Capacity Offered		
		Specify the HDD Composition proposed with capacity of each type of HDD		
7.	Storage Controllers	Servers must be equipped with RAID Controller supporting RAID 0, 1		
8.	Network interface	2 X 10GbE LAN ports for providing Ethernet connectivity		
9.	Storage Connectivity Interface	2 X Single-port 16Gbps FC HBA for providing FC connectivity		
10.	Operating System	Licensed version of 64 bit latest version of Red Hat Linux/ Unix/Microsoft® Windows based Operating system)		
11.	Virtualization	Shall support Industry standard virtualization hypervisor like Hyper-V, VMWARE, Oracle VM etc. OEM of the blade chassis / rack and servers offered.		
12.	Warranty	24 x 7 Three (3) years on-site back to back comprehensive warranty		
13.	Quantity	Specify the quantity of the proposed server as per the solution		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		architecture		
14.	Specify Make of proposed Server			
15.	Specify Model of proposed Server			

14.20 Blade Chassis

#	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	Minimum 6U size, rack-mountable, capable of accommodating minimum 8 or higher hot pluggable blades		
2.	Dual network connectivity of 10 G speed for each blade server for redundancy		
3.	Shall support Industry standard virtualization hypervisor like Hyper-V, VMWARE, Oracle VM etc.		
4.	DVD ROM shall be available in chassis, can be internal or external, which can be shared by all the blades allowing remote installation of software		
5.	Minimum 4 USB port		
6.	Minimum 2 hot-plug/hot-swap 10 Gbps Ethernet modules each with 8 No. of Ethernet ports for uplink and sufficient internal 10 GBPS ports within chassis to support redundancy for each blade (Flexibility to use any port as 10GbE, 25GbE, 40GbE and 100GbE with optics or breakout cables.)		
7.	Two hot-plugs/hot-swap redundant 16 GBPS Fiber Channel module with 16 number of internal and 8 external 16 GBPS ports for connectivity to the external Fiber channel Switch / Storage Controller (Ports must be active and populated with SFP+ from day one.)		
8.	Power supplies shall have N+N. All power supplies modules shall be populated in the chassis. Required number of PDUs and power cables, to connect all blades, Chassis to Data Center power outlet.		
9.	Hot pluggable/hot-swappable redundant cooling unit		
10.	Provision of systems management and deployment tools to aid in blade server configuration and OS deployment		
11.	Blade enclosure shall have provision to connect to display console/central console for local management such as		

#	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
	troubleshooting, configuration, system status/health display.		
12.	Single console for all blades in the enclosure, built-in KVM switch with facility for Virtual KVM features over IP		
13.	Dedicated management network port shall have separate path for remote management.		
14.	24 x 7 Three (3) years on-site back to back comprehensive warranty		
15.	Specify Make of proposed Chassis		
16.	Specify Model of proposed Chassis		

14.21 Storage

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Make	OEM must be listed in Leader's Quadrant of the latest Gartner Magic Quadrant for General-Purpose Disk Arrays or amongst the top 5 for World-wide Market share in terms of Revenue as per IDC for Enterprise Storage Market		
2.	Controllers	• At least 2 hot pluggable Controllers in active/active mode (for all required protocols) with automatic failover to each other in case of one controller failure. • The controllers / Storage nodes should be upgradable seamlessly, without any disruptions / downtime to production workflow for performance, capacity enhancement and software / firmware upgrades.		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		• Each storage controller should be with minimum Dual Xeon 8 Core CPU • Controller must support Multipath I/O Architecture.		
3.	Storage Operating System	• Storage offered must be with the latest operating system		
4.	Cache	• Minimum 128 GB of useable cache per controllers. • Cache shall be used only for data and control operations and should not handle any overhead of operating system.		
5.	Host Interface Port	Minimum 4 nos. of 16 Gbps Fibre Channel Ports per Controller shall be available. Ports must be active and populated with SFP+ from day one.		
6.	Back and front port	The storage should support 8/16 Gbps on FC to connect SAN Switch, 10Gbps on iSCSI (SFP+/Base-T) to Connect on LAN switch within same controller pair.		
7.	Scalability	System should support a minimum of 500 drives or more within the same set of controllers.		
8.	Disk Drive Support	System should have support for • SSD/Flash drives • SAS drives • Near-line SAS drives		
9.	RAID support	Should support various RAID Levels (RAID 0 / 1 / 5 / 6 / 10 or any combination of RAID level on single Storage system)		
10.	Solution/ Type	Bidder is required to offer corresponding ports both in server as well as storage		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		controller based on the solution proposed (FC/iSCSI).		
11.	Storage	The Storage Array shall be offered with • 2PB Usable Capacity: Using RAID Level 6 (Dual Parity) with 8 no. drives in each LUNS using 6TB Near-Line SAS 7.2k RPM HDDs for mainly storing camera output (video / images / audio) with 10 No. of HDD to be provisioned for Global Hot Spare • 15TB Usable Capacity: Using RAID Level 5 (Single Parity) with 7 no. drives in each LUNS using 1.2TB SAS 10k RPM HDDs with 2 No. of HDD to be provisioned for Global Hot Spare for storing VMS application/ database /etc.		
12.	Global Hot Spare	• System should have the capability to designate global hot spares that can be automatically be used to replace a failed drive anywhere in the system. • Storage system should be configured and offered with required Global Hot-spares for the different type and no. of disks configured, as per the system architecture best practices.		
13.	Minimum LUNs	• Capacity to create minimum 2048 numbers of LUNs		
14.	Thin Provisioning	• Offered Storage System should have Thin Provisioning and Thin		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		Reclamation.		
15.	Hardware Platform	• Rack mounted form-factor • Modular design to support controllers and disk drives expansion		
16.	On-line Expansion/RAID Group creation/ Expansion	• System should have online expansion and shrinking of RAID Group or addition and deletion of new RAID Group. Must be able to add and delete additional disks on the fly to expand or reduce the RAID group capacity or create new RAID Group.		
17.	Redundancy and High Availability	• The Storage System should be able to protect the data against single point of failure with respect to hard disks, Cache memory, Controller card, connectivity interfaces, fans and power supplies		
18.	Management software	• All the necessary software (GUI Based) to configure and manage the storage space, RAID configuration, logical drives allocation, snapshots etc. are to be provided for the entire system proposed from day-1. • Licenses for the storage management software should include disc capacity/count of the complete solution and any additional disks to be plugged in in the future, upto max capacity of the		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		existing controller/units. • A single command console for entire storage system. • Should also include storage performance monitoring and management software. This should provide detail of performance like IOPs utilization, response time and also provide capacity detail like amount of capacity allocated, capacity used and capacity free. • Should provide the functionality of proactive monitoring of Disk drive and Storage system for all possible disk failures • Should be able to take "snapshots" of the stored data to another logical drive for backup purposes • There should be a dedicated Ethernet port for management and it should not use the iSCSI host ports for management.		
19.	Data Protection	The storage array must have complete cache protection mechanism either by de-staging data to disk or providing complete cache data protection with battery backup for up to 4 hours		
20.	Perpetual software License	The software license supplied should be perpetual so that there will be no additional software cost while replacing the storage within the same		

#	Parameter	Minimum Specifications	Compliance (Yes, No)	Deviation from Specifications/ Remarks if Any
		class.		
21.	Server Operating System Support	Must be completely supported by the server operating system offered by the bidder for all the features and technology		
22.	Virtualization Support	Storage System must be completely supported by the virtualization technology offered by the bidder for all the features and technology		
23.	Accessories	All the necessary tools & tackles licenses, cables/ connectors for Ethernet/ Fibre/USB/ Power etc. required for making the system operational shall be provided by the bidder.		
24.	Warranty	24 x 7 Three (3) years on-site back to back comprehensive warranty		
25.	Specify Make of proposed Storage			
26.	Specify Model of proposed Storage			

14.22 42 U Server/Networking Rack

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Type	• 19" 42U racks mounted on the floor • Floor Standing Server Rack - 42U with Heavy Duty Extruded Aluminium Frame for rigidity. Top		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
		cover with FHU provision. Top & Bottom cover with cable entry gland plates. Heavy Duty Top and Bottom frame of MS. Two pairs of 19" mounting angles with 'U' marking. Depth support channels - 3 pairs with an overall weight carrying Capacity of 500Kgs. • All racks should have mounting hardware 2 Packs, Blanking Panel. • Stationery Shelf (2 sets per Rack) • All racks must be lockable on all sides with unique key for each rack • Racks should have Rear Cable Management channels, Roof and base cable access		
2.	Wire managers	Two vertical and four horizontal		
3.	Power Distribution Units	• 2 per rack • Power Distribution Unit - Vertically Mounted, 32AMPs with 25 Power Outputs. (20 Power outs of IEC 320 C13 Sockets & 5 Power outs of 5/15 Amp Sockets), Electronically controlled circuits for Surge & Spike protection, LED readout for the total current being drawn from the channel, 32AMPS MCB, 5 KV AC isolated		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
		input to Ground & Output to Ground		
4.	Doors	• The racks must have steel (solid / grill / mesh) front / rear doors and side panels. Racks should NOT have glass doors / panels. • Front and Back doors should be perforated with at least 63% or higher perforations. • Both the front and rear doors should be designed with quick release hinges allowing for quick and easy detachment without the use of tools.		
5.	Fans and Fan Tray	• Fan 90CFM 230V AC, 4" dia (4 Nos. per Rack) • Fan Housing Unit 4 Fan Position (Top Mounted) (1 no. per Rack) - Monitored - Thermostat based - The Fans should switch on based on the Temperature within the rack. The temperature setting should be factory settable. This unit should also include - humidity & temperature sensor		
6.	Metal	Aluminium extruded profile		
7.	Side Panel	Detachable side panels (set of 2 per Rack)		
8.	Accessories	Accessories like Nut & Bolt Set for Whole rack to mount desired Equipment's.		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
9.	Warranty	3 Years comprehensive onsite Warranty Support		
10.	Specify Make of proposed 42U Rack			
11.	Specify Model of proposed 42U Rack			

14.23 6 U wall mount Network Rack

#	Parameters	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Rack	6U ISO certified Wall mount Powder coated Steel cabinet		
		Lock & key with Toughened glass door at front side		
2.	Accessories	• 1 Cooling Fan • 1 Cable Manager • 1 Equipment Placement tray • 5 Socket Power Strip • Accessories like Nut & Bolt Set for Whole rack to mount desired Equipments.		
		Compatible with 19 inch International Standards & ETSI Standards		
3.	Warranty	3 Years comprehensive onsite Warranty Support		
4.	Specify Make of proposed 6U Rack			
5.	Specify Model of proposed 6U Rack			

14.24 9U wall mount Network Rack

#	Parameters	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E

#	Parameters	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Rack	9U ISO certified Wall mount Powder coated Steel cabinet		
		Lock & key with Toughened glass door at front side		
2.	Accessories	• 1 Cooling Fan • 1 Cable Manager • 1 Equipment Placement tray • Socket Power Strip • Accessories like Nut & Bolt Set for Whole rack to mount desired Equipments.		
		Compatible with 19 inch International Standards & ETSI Standards		
3.	Warranty	3 Years comprehensive onsite Warranty Support		
4.	Specify Make of proposed 9U Rack			
5.	Specify Model of proposed 9U Rack			

14.25 Field Junction box for outdoor locations

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/R emarks if Any
A	B	C	D	E
1.	Size	Suitable size as per site requirements to house the field equipment		
2.	Cabinet Material	GI with powder coated		
3.	Material Thickness	Min 2 mm		
4.	Number of Locks	One		
5.	Protection	IP 55, Junction Box design should ensure to keep the temperature within suitable operating range for equipment's and should also avoid		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/Remarks if Any
		intentional water splash and dust intake		
6.	Mounting	On Camera Pole / Ground mounted on concrete base		
7.	Form Factor	Rack Mount/DIN Rail		
8.	Other Features	Rain Canopy, Cable entry with glands, proper earthing and Fans/any other accessories as required for operation of equipment's within junction box.		
9.	Warranty	3 Years comprehensive onsite Warranty Support		

14.26 Online UPS for Data Centre

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Capacity	Adequate capacity to cover all above IT Components at respective location		
2.	Output Wave Form	Pure Sine wave		
3.	Input Power Factor at Full Load	>0.90		
4.	Input	Three Phase 3 Wire for over 5 KVA		
5.	Input Voltage Range	305-475VAC at Full Load		
6.	Input Frequency	50Hz +/- 3 Hz		
7.	Output Voltage	400V AC, Three Phase for over 5 KVA UPS		
8.	Output Frequency	50Hz+/- 0.5% (Free running); +/- 3% (Sync. Mode)		
9.	Inverter efficiency	>90%		
10.	Over All AC-AC Efficiency	>85%		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
11.	UPS shutdown	UPS should shutdown with an alarm and indication on following conditions 1)Output over voltage 2)Output under voltage 3)Battery low 4)Inverter overload 5)Over temperature 6)Output short		
12.	Battery Backup	60 minutes in full load		
13.	Battery	VRLA (Valve Regulated Lead Acid) SMF (Sealed Maintenance Free) Battery		
14.	Indicators & Metering	Indicators for AC Mains, Load on Battery, Fault, Load Level, Battery Low Warning, Inverter On, UPS on Bypass, Overload, etc. Metering for Input Voltage, Output Voltage and frequency, battery voltage, output current etc.		
15.	Audio Alarm	Battery low, Mains Failure, Over temperature, Inverter overload, Fault etc.		
16.	Cabinet	Rack / Tower type		
17.	Operating Temp	0 to 50 degrees centigrade		
18.	Management Protocol	SNMP Support through TCP/IP		
19.	Warranty	3 Years comprehensive onsite Warranty Support		
20.	Specify Make of proposed UPS			
21.	Specify Model of proposed UPS			

14.27 Media Convertor

#	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any

#	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	Speed (Auto, 100/1000 Mbps), Full Duplex		
2.	Unmanaged Fast Ethernet media converter which supports 1000 Base-Tx to 1000Base-Fx media conversion		
3.	1 x 1000 Base-FX (SC) optical port along with required optical fiber patch cord and 1 x Fast Ethernet port		
4.	Distance up to 100Kms on Single Fiber		
5.	Required accessories for complete installation and configuration		
6.	3 Years comprehensive onsite Warranty with parts		
7.	Specify Make of proposed Media Convertor		
8.	Specify Model of proposed Media Convertor		

14.28 LIU

#	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	Have sufficient slots accommodate Simplex/duplex SC adapters individually		
2.	Aluminum base material for light mounting		
3.	Should have Splice Tray & Cable Spool provision inside		
4.	Accessory kit consists of cable ties, mounting ear screw earthling and spiral wrap tube.		
5.	Panel cover should be slide out for easy maintenance		
6.	Removable Rear & Front cover for better access to interior of LIU		
7.	Adaptors All SC adaptors should be Simplex and duplex type. Adapters should have compact design & high precision, which perform well under various circumstances & maintain good plug retention strength.		
8.	Insertion Loss: 0.20db for Zirconia Sleeve		
9.	The connector must: Be field installable		

#	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
10.	3 Years comprehensive onsite Warranty Support		
11.	Specify Make of proposed LIU Convertor		
12.	Specify Model of proposed LIU Convertor		

14.29 Pole for CCTV Camera with cantilever arm

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Pole type	Hot Dip Galvanized after Fabrication with Silver coating of 86 micron as per IS:2629; Fabrication in accordance with IS-2713 (1980)		
2.	Height	5-10 Meters from ground level (or higher), as-per-requirements for different types of cameras & Site conditions		
3.	Pole Diameter	Min. 10 cm diameter pole (bidder to choose larger diameter for higher height)		
4.	Cantilevers	Based on the location requirement suitable size cantilevers to be considered with the pole		
5.	Bottom base plate	Minimum base plate of size 30x30x1.5 cm		
6.	Mounting facilities	To mount CCTV cameras and related accessories		
7.	Pipes, Tubes	All wiring must be hidden, through tubes/pipes. No wires shall be visible from outside.		
8.	Foundation	Casting of Civil Foundation with foundation bolts, to ensure vibration free erection (basic aim is to ensure that video feed quality is not impacted due to winds in different climatic conditions). Expected foundation depth of min. 100cms. Please refer to earthing standards		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
		mentioned elsewhere in the document.		
9.	Protection	Lightning arrester shall be provided, to protect all field equipment mounted on pole.		
10.	Warranty	3 Years comprehensive onsite Warranty Support		

14.30 Cat-6 UTP Cable

#	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	Shall be of 4 twisted pairs of 23 AWG solid conductors or better		
2.	Shall support network line speeds upto 1 gigabits per second or better		
3.	Shall be 4-pair Unshielded twisted pair with a cross filler/ isolator (+), meeting Category 6 tested till 500 MHz as per TIA-568C.2.		
4.	Should comply with all of the performance requirements for current and proposed applications such as Gigabit Ethernet, 100BASE-Tx, token ring, 155 Mbps ATM, 100 Mbps TP-PMD, ISDN, analog (broadband, baseband) and digital video and analog and digital		
5.	The Category 6 Solution shall fully comply with the link segment specifications for 1000 Base-TX in addition to the ANSI/TIA and ISO/IEC Category 6 requirements.		
6.	Shall have the length printed on the outer jacket of the cable after every meter.		
7.	3 Years comprehensive onsite Warranty Support		
8.	Specify Make of proposed Cat 6 Cable		
9.	Specify Model of proposed Cat 6 Cable		

14.31 Optical fiber cable

#	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D
1.	6 Core Single Mode Optical fibre Cable		
2.	Optical Fiber cable should be ISO/IEC-11801, Indoor/Outdoor, IEC 60332-3, IEC 61034-2, IEC 60754-2		
3.	Shall be 9µ, 6-core Single mode OS2 steel armoured cable as per ISO/IEC-11801		
4.	Shall be able to meet Gigabit & 10 Gigabit Ethernet performance requirement specified by IEEE 802.3z (1000 Base-X) & IEEE 802.3ae (10G Base-X)		
5.	Shall be jelly filled with loose tube construction		
6.	Shall have water blocked construction to prevent water absorption and consequent damages		
7.	Optical Fibers should be in multitube/Unitube type of cables		
8.	Fiber cable shall be RoHS Compliant.		
9.	Shall have minimum 25 year performance Warranty		
10.	Specify Make of proposed Fiber Cable		
11.	Specify Model of proposed Fiber Cable		

14.32 Power Cable

#	Component	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	No's of core	3 core 1.5 sq. mm.		
2.	Materials	XLPE insulated and PVC sheathed armored cable with copper conductor of suitable size		
3.	Certification	ISI Marked		
4.	IS: 7098	XLPE insulated electric cables (heavy duty)		
5.	Warranty	3 Years comprehensive onsite Warranty Support		

14.33 DWC and HDPE Conduit pipe

#	Parameters	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Diameter	32/40 mm (Inner Dia./Outer Dia.)		
2.	Standard	IS		
3.	Warranty	3 Years comprehensive onsite Warranty Support		

14.34 PVC Conduit pipe

#	Parameters	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	E
1.	Diameter	25 mm (Dia.)		
2.	Standard	ISI		
3.	Warranty	3 Years comprehensive onsite Warranty Support		

14.35 Local storage (MicroSD/SDHC/SDXC) for CCTV Camera

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	A
1.	Capacity	Minimum 128 GB		
2.	Class	Class 10 (C10) and UHS Speed Class 3 (U3)		
3.	Form Factor	MicroSD/SDHC/SDXC card with		

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
		adaptor		
4.	Compatibility	Compatible with offered make of camera		
5.	Transfer Speed (Read/Write)	Minimum 30 Mbps (read/write)		
6.	Warranty	3 Years comprehensive onsite Warranty Support		
7.	Specify Make of proposed SD Card			
8.	Specify Model of proposed SD Card			

14.36 Surveillance Hard disk (HDD) for Network Video Recorder (NVR)

#	Parameter	Minimum Specifications	Compliance (Yes/No)	Deviation from Specifications/ Remarks if Any
A	B	C	D	A
1.	Formatted Capacity	4TB/6TB/8TB		
2.	Interface	SATA		
3.	Form Factor	3.5" or Compatible with SATA interface of offered NVR		
4.	RPM	Minimum 5400 RPM or better		
5.	Certification	RoHS complient		
6.	Warranty	3 Years comprehensive onsite Warranty Support		
7.	Specify Make of proposed HDD			
8.	Specify Model of proposed HDD			

14.37 Enterprise Management System (EMS)

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
A	B	C	D
Server Performance Monitoring			
1.	The proposed server performance management system shall integrate network performance management systems and provide the unified performance state view in a single console.		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
2.	The current performance state of the entire network and server infrastructure shall be visible in an integrated console.		
3.	The proposed tool must provide lightweight server agents to ensure availability and performance for target server nodes and deliver scalable, real-time management of critical systems.		
4.	The proposed tool should be able to monitor various operating system parameters such as processors, memory, files, processes, file systems, etc. where applicable, using agents on the servers to be monitored.		
5.	It should be possible to configure the operating system monitoring agents to monitor based on user-defined thresholds for warning/critical states and escalate events to event console of enterprise management system.		
6.	The proposed tool should integrate with network performance management system and support operating system monitoring for various platforms including Windows, UNIX and Linux.		
7.	It should also be able to monitor various operating system parameters depending on the operating system being monitored yet offer a similar interface for viewing the agents and setting thresholds.		
8.	The proposed tool should be able to gather information about resources over a period of time and provide historical performance and usage information through graphical reports, which will quickly show performance trends		
9.	The proposed solution should support management following parameters: • Processors: Each processor in the system should be monitored for CPU utilization. It should compare Current utilization against user specified warning and critical thresholds. • File Systems: Each file system should be monitored for the amount of file system space used, which should be compared to user-defined warning and critical thresholds. • Log Files: Logs should be monitored to detect faults in the operating system, the communication subsystem, and in applications. System agents should also analyze log files residing on the host for specified string patterns. • System Processes: System agents should provide		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	real-time collection of data from all system processes. Using this it should help identify whether or not an important process has stopped unexpectedly. It should provide an ability to automatically restart Critical processes. • Memory: System agents should monitor memory utilization and available swap space and should raise an alarm in event of threshold violation		
Database Performance Monitoring			
1.	The proposed database performance management system shall integrate network and server performance management systems and provide the unified view of the performance state in a single console.		
2.	It should be able to automate monitoring, data collection and analysis of performance from single point.		
3.	It should also provide the ability to set thresholds and send notifications when an event occurs, enabling database administrators (DBAs) to quickly trace and resolve performance-related bottlenecks.		
4.	Database performance management solution for Distributed RDBMS must include hundreds of predefined scans for monitoring various database, operating system and network resources. This should minimize the need to write and maintain custom scripts. If a special monitoring situation exists, you can modify an existing script to meet your requirements.		
5.	The event management system must send alerts for an array of server conditions, including inadequate free space, runaway processes, high CPU utilization and inadequate swap space.		
6.	The database performance management solution must support historical archive store for performance information in a compressed time-series form. DBAs should be able to drill down through layers of data to discover the cause of a condition occurring with the databases, operating system or network. These historical reports must also be usable to perform trend analysis and capacity planning.		
7.	The database performance management solution must have a console to enable users to monitor, analyze and take corrective action from a centralized point. It should also include a platform-independent, browser-based console to monitor performance from		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	remote locations		
Application Performance Monitoring			
1.	The proposed solution must determine if the root cause of performance issues is inside the monitored application, in connected back-end systems or at the network layer from a single console view.		
2.	The proposed solution must proactively monitor 100% of real user transactions, detect failed transactions, gather evidence necessary for triage and diagnosis of problems that affect user experiences and prevent completion of critical business processes.		
3.	The proposed solution must provide deeper end-to-end transaction visibility by monitoring at transactional level.		
4.	The proposed solution must provide a single view that shows entire end-to-end real user transaction and breaks down times spent within the application components, SQL statements, backend systems and external 3rd party systems.		
5.	The proposed solution must be able to provide root-cause probability graphs for performance problems showing the most probable root-cause area within application infrastructure.		
6.	The proposed solution must support any combination of operating platforms that support JDKs higher than 1.2 or Application Server (or .NET v1.1 and above) with a single methodology.		
7.	The proposed solution must provide a real-time application topology map to triage and quickly pinpoint the component causing a performance bottleneck in the end-to-end transaction flow.		
8.	The proposed solution must gather available performance indicator metrics from all within real-time production environments and real user transactions 24x7 with minimal overhead on monitored applications without sampling.		
9.	The proposed solution must provide for easy dynamic instrumentation of application code, i.e. be able to enhance out of the box monitoring with extra monitoring definitions without having to restart application or JVM.		
10.	The proposed solution must be able to detect production Memory Leaks from mishandled Java Collections and Sets and isolate exact component		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	creating leaking Collection or Set (or .NET Memory Leaks within the CLR).		
11.	The proposed solution must allow monitoring granularity of no more than 15 seconds for all transactions.		
12.	The proposed solution must provide real-time monitoring of resource utilization like JVM memory usage, Servlets, EJB pools, DB connection pools and Threads.		
13.	The proposed solution must be able to identify socket and file Input / Output activity from the application.		
14.	As a means of detecting poorly performing SQL, the solution must be able to proactively record all SQL calls, and report on the slow performing ones.		
15.	The proposed solution must monitor performance of all stored procedures being executed from within the Java/.NET application.		
16.	The solution should have provision for automatic transaction discovery, for example by setting up some bounding parameters to describe transactions like the web site, the language, and parameters (such as post, query, and cookies).		
17.	The proposed solution must provide ability to monitor performance of applications up to the method level of execution (Java/.Net method) 24x7 in production environments with negligible impact on monitored application		
18.	The proposed solution must be able to report on any application errors occurred while executing application functionalities and pinpoint exact place of error within the transaction call stack.		
19.	The proposed solution must provide for at least 2 levels of thresholds which can be set on alerts and provide for actions so that alerts can automatically trigger other processes when thresholds are breached. The proposed solution must not necessitate any changes to application source code.		
20.	The proposed solution must proactively identify any thread usage problems within applications and identify stalled (stuck) threads.		
21.	The proposed solution should allow SQL statement normalization by aggregating hundreds of related SQL statements into a single performance metric using regular expressions and pattern matching.		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
22.	The proposed solution must monitor individual web service and performance transaction debugging for web services. The proposed solution must also monitor web services across multiple processes (cross JVM tracing)		
End-User Experience Management System			
1.	The proposed solution should measure the end users' experiences based on transactions.		
2.	The solution should be deployable as an appliance-based system acting as a passive listener on the network thus inducing zero overhead on the network and application layer.		
3.	The proposed system must be able to detect user impacting defects and anomalies and reports them in real-time: • Slow Response Time • Fast Response time • Low Throughput • Partial Response		
4.	The proposed system must be able to provide the ability to create user groups based on application criteria or location and link user ids to user names and user groups.		
5.	The proposed system must be able to provide user usage analysis and show how user's success rate, average time and transaction count has changed over a specific period of time such as current week versus previous week.		
6.	The proposed system must be able to provide the ability to detect and alert when users experience HTTP error codes such as 404 errors or errors coming from the web application.		
7.	The proposed system must be able to provide root-cause probability graphs for performance problems showing the most probable root-cause area within application infrastructure		
Network Fault Management System			
1.	Provide fault and performance management of the network infrastructure that various services operate in.		
2.	The Network Fault Management consoles must provide the topology map view from a single central console.		
3.	The proposed Network Fault Management console must also provide network asset inventory reports		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	and SLA reporting for the managed network infrastructure.		
Network Discovery and Reporting:			
1.	The proposed solution must automatically discover manageable elements connected to the network and map the connectivity between them.		
2.	The proposed system must support multiple types of discovery including the following : • IP range discovery – including built-in support for IPv6 and IPv4 • Import data - from pre-formatted files (IPs, ranges, strings or ports) • Host Name discovery • Service based discovery – including ping, FTP, JDBC, HTTP etc.		
3.	The system should provide discovery & inventory of heterogeneous physical network devices like Layer-2 & Layer-3 switches, Routers, CCTV Cameras, NVR and other IP devices and do mapping of LAN & WAN connectivity with granular visibility up to individual ports level.		
4.	The system must be able to support mapping and modelling of the infrastructure grouped by network connectivity, physical location of equipment and user groups or departments.		
5.	The modelling of network connectivity must be performed using standard or vendor-specific discovery protocols to ensure speed and accuracy of the network discovery		
6.	The system should support maps grouped by network topology, geographic locations of the equipment's and user group/departments. These should help in understanding physical Network, virtual Network services and the relationships between them.		
7.	It shall be possible to reduce the set of displayed devices in the topology views by flexible rules, based on the attribute contents stored with each device.		
8.	The system must provide visualization tools to display network topology and device to device connectivity. The system must also be able to document connectivity changes that were discovered since the last update.		
9.	The system must provide a user-configurable event to alarm mapping system that sets a differentiation that		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	events do not necessarily need an alarm to be generated.		
10.	The proposed solution must provide a detailed asset report, organized by vendor name and device, listing all ports for all devices. When a report is run the administrator must have an option of specifying the number of consecutive days the port must be "unused" in order for it to be considered "available".		
11.	The proposed solution must provide sufficient reports that identify unused ports in the managed network infrastructure that can be reclaimed and reallocated. The proposed management system must also intelligently determine which ports are operationally dormant.		
12.	The proposed solution must poll all the ports to determine if any traffic has passed through it. If not the port must be marked unused for that day.		
Fault Analysis:			
1.	The proposed solution should provide out of the box root cause analysis with multiple root cause algorithms inbuilt for root cause analysis. It should also have a strong event correlation engine which can correlate the events on the basis of event pairing, event sequencing etc.		
2.	The system must be able to 'filter-out' symptom alarms and deduce the root cause of failure in the network automatically.		
3.	The system should support creating and monitoring of rising or falling thresholds with respect to basic key performance indicators for network, system and application infrastructures and provide immediate notification when service metrics fall outside the baselines.		
4.	The proposed system must include the ability to monitor and visualize a virtualized system infrastructure by discovering and monitoring virtual machines and providing ability to depict the logical relationships between virtual servers and virtual machines.		
5.	The proposed solution must detect virtual server and virtual machine configuration changes and automatically update the topology.		
6.	The proposed system must support enhanced fault isolation to suppress alarms on logical VMs.		
7.	The proposed solution must have the ability to collect		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	data from the virtual systems without solely relying on SNMP.		
8.	The proposed solution must support WMI for collecting and isolating Windows host issues.		
9.	The proposed solution must support SSH polling method to collect and isolate Linux host issues.		
10.	The proposed solution must support an architecture that can be extended to support multiple virtualization platforms and technologies.		
Configuration Management			
1.	The system should be able to clearly identify configuration changes as root cause of network problems.		
2.	The system should support secure device configuration capture and upload and thereby detect inconsistent "running" and "startup" configurations and alert the administrators.		
3.	The proposed system should be able to administer configuration changes to network elements by providing toolkits to automate the following administrative tasks of effecting configuration changes to network elements : • Capture running configuration • Capture start up configuration • Upload configuration • Compare configuration		
4.	The proposed solution must be able to perform real-time or scheduled capture of device configurations.		
5.	The proposed solution must be able to store historical device configurations captured in the database and thereby enable comparison of current device configuration against a previously captured configuration as well as compare the current configuration against any user-defined standard baseline configuration policy.		
6.	The proposed system should be able to monitor compliance & enforce change control policies within the diverse infrastructure by providing data & tools to run compliance reports, track & remediate violations, and view history of changes.		
Advanced IP Services Management:			
1.	The proposed solution should be able to monitor VPNs by automating the provider connection resolution and monitoring the service health with an		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	option to auto-provision service assurance tests to proactively calculate the availability of remote sites		
2.	The proposed solution should be capable of managing the VPN Service including a complete Service Discovery of all the Devices and components that support each VPN. The solution must be able to automatically configure and provision site-to-site VRF Ping tests on each router that support VPNs to verify the ability to ping each other.		
3.	The proposed solution should be able to support response time agents to perform network performance tests to help identify network performance bottlenecks.		
4.	The proposed solution should be able to monitor QoS parameters configured to provide traffic classification and prioritization for reliable traffic transport.		
5.	The proposed solution should provide the ability to discover, map & monitor multicast sources & participating routers wherein the system should be able to visualize the distribution tree in the topology map.		
Performance Management:			
1.	This provides a comprehensive end-to-end performance management across key parts of the network infrastructure. It should allow identifying trends in performance in order to avert possible service problems.		
2.	The proposed performance management system shall integrate network, server and database performance information and alarms in a single console and provide a unified reporting interface for network components. The current performance state of the entire network & system infrastructure shall be visible in an integrated console.		
3.	The proposed solution must scale to large networks while supporting a single web interface for access to reports. The system must support multiple locations and a distributed deployment for collection and monitoring. Primary instrumentation should exist in the data center		
4.	Provide SNMP device management of the network and server infrastructure.		
5.	Provide flow-based reporting for network troubleshooting and capacity management.		
6.	Provide Server Performance Monitoring as described.		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
7.	Provide Database Performance Monitoring.		
8.	Provide Application Transaction Deep-Dive Monitoring for Web-Based Business Applications.		
9.	Provide End-User Response Time Monitoring for Browser-Based Applications.		
Network Performance Management and Performance Reporting System:			
1.	The Network Performance Management consoles must provide a consistent report generation interface from a single central console.		
2.	This central console will also provide all required network performance reports (including latency, threshold violations, packet errors, availability, bandwidth utilization etc.) for the network infrastructure.		
3.	The proposed system shall collect, analyze and summarize management data from LAN/WAN, MIB-II interfaces and various servers for performance management.		
4.	The proposed system shall identify over-and under-utilized links and assist in maximizing the utilization of current resources		
5.	The proposed system shall provide Performance of Network devices like CPU, memory & buffers etc, LAN/WAN interfaces and network segments.		
6.	It shall provide comprehensive health reporting to identify infrastructure in need of upgrades and immediate attention. Capacity planning reports shall identify network traffic patterns and areas of high resource utilization, enabling to make informed decisions about where to upgrade capacity and where to downgrade or eliminate capacity. It should also support 'What if' analysis and reporting to enable understanding the effect of growth on available network resources.		
7.	The proposed system shall provide easy to read representations of health, utilization, latency and availability.		
8.	It shall provide Real time network monitoring and Measurement of end-to-end Network performance & availability to define service levels and further improve upon them.		
9.	The proposed system must have a report authoring capability built-in which will enable complete customization flexibility of performance reports for		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	network devices and monitored servers.		
10.	The proposed system should provide a real-time performance view for all the managed systems and networks along with the various threshold violations alarms in them. It should be possible to drill-down into the performance view to execute context specific reports.		
11.	The tool should have the capability to configure different polling speeds for different devices in the managed infrastructure with capability to poll critical devices using 30 second poll periods.		
12.	The system must provide the following reports as part of the base performance monitoring product out-of-the-box to help network operators quickly identify device problems :		
13.	Trend Reports to present a single graph of a single variable (e.g. CPU utilization) for multiple devices across time. This would help network operators & IT managers plan for capacity and identify long drawn problems.		
14.	Top N Reports to present a list of elements that exceed / fall below a particular threshold value. This would help network operators to identify elements that share specific performance characteristics (for example, to identify over utilized elements, you would run a Top-N report for all elements whose bandwidth utilization exceeds 90% or availability falls below 95%).		
15.	What-If Reports to perform capacity planning by observing the effect of changes in capacity & demand (for example, the report should indicate what the bandwidth utilization would be if the demand was double the historical value).		
16.	Executive Summary Report that gives an overall view of a group of elements, showing volume and other important metrics for the technology being viewed.		
17.	Capacity Planning Report which provides a view of under-and-over-utilized elements.		
18.	Service Level Reports to analyze & display service level information for an enterprise, region, department or business process. This report must show the elements with the worst availability and worst response time-the two leading metrics used to monitor SLAs.		
19.	Health Reports to analyze trends calculate averages and evaluate the health of the infrastructure. With		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	this information, operators should be able to determine how efficiently applications and systems are running, whether critical resources are available, and what capacity planning initiatives would make sense.		
20.	The system must provide capability to measure & generate detailed performance reports for the following common TCP/IP applications: • DHCP: Measure the round trip latency required to obtain an IP address. • DNS: Measure the DNS lookup time including Latency and Packet Loss. • FTP: Measure the time it takes to connect and transfer a file including Latency and Packet Loss. • ICMP Ping: Measure round trip source to destination including Latency and Packet Loss. • Latency and Packet Loss for : • POP3 • SMTP • TCP • UDP Echo Test		
21.	The proposed system should be able to auto-calculate resource utilization baselines for the entire managed systems and networks and allow user to set corresponding upper and lower threshold limits.		
22.	The tool should provide Latency (both one way and round trip times) report for critical devices and links.		
23.	The tool should provide Latency (both one way and round trip times) report for critical devices and links.		
24.	The proposed system should use intelligent alarm de-duplication and automatic baselining capability to learn the behavior of the managed infrastructure components over a period of time.		
Flow-based Traffic Analysis System:			
1.	The proposed traffic monitoring system must be able to track all flow of traffic on the network and identify malicious behavior with all IP conversations.		
2.	The proposed system must use non-intrusive monitoring to reduce the impact on the monitored network and improve scalability.		
3.	The proposed system must provide details of applications, hosts, and conversations consuming WAN bandwidth to isolate and resolve problems.		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
4.	The proposed system must provide eight-hour, daily, weekly, monthly, yearly, or customizable reporting time periods.		
5.	The bidder must provide a solution for collecting Flow data from multiple devices simultaneously across the network. The solution must provide the following Flow-based metrics: • Utilization • Flow Count • IP conversation pairs • Router/interface • Protocol breakdown by host, link, ToS or conversation. • IPv6 addresses • IPv4 addresses		
6.	The proposed solution must be able to monitor and report on a minimum of 15000 unique protocols per day and display utilization data for each protocol individually. This capability must be available for each monitored interface uniquely.		
7.	The proposed solution must keep historical rate and protocol data for a minimum of 12 months (most recent) in its current long term operating database. All data in that database must have a maximum 15 minute window granularity.		
8.	The proposed solution must keep historical rate and protocol data for a minimum of 30 days (most recent) in its short term operating database. All data in that database must have a maximum 5 minute window granularity.		
9.	The system must support the ability to specify which hosts, conversations, IP ports, custom ToS matches and interfaces are included or excluded from the web based report.		
10.	The system must support the ability to create reports that allow the user to search all IP traffic over a specified historical period, for a variety of conditions. The system must have the ability to search all IP traffic without loss or exclusion of any traffic. The system must support search within this period for the following at minimum; • Search for any traffic using a specific configurable destination port, or port range.		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	• Search for any traffic using a specific autonomous system (AS) number. • Search for any traffic using a specific IP subnet mask. • Search for any traffic using a specific IP ToS bit. • Search for any clients or servers communicating with more than a specific number of other unique clients or servers. • Search for any clients or servers that are experiencing more than a specified number of TCP resets per hour within a specified reporting period. • Search for any IPv4 or IPv6 conversation across the entire network. • Search for any protocol in use by a specific host, interface or list of hosts or interfaces.		
11.	The proposed system must be capable of automatically detecting anomalous behavior such as virus attacks or unauthorized application behavior. The system should analyze all Flow traffic and alert via SNMP trap and syslog of any suspicious activity on the network.		
12.	Flow collection systems must support a minimum of 5 million flows per minute and be capable of storing gathered information in a common database where all long term reporting information is held.		
13.	The proposed system must spot potential bottlenecks with color-coded indicators for interfaces that breach defined thresholds and durations		

14.38 Video Management Software (VMS)

Video management system shall constitute of a platform which will be designed for viewing, recording and replaying acquired video as part of overall project solution. This platform will be based on the Internet Protocol (IP) open platform concept. Major functionalities are described here:

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
A	B	C	D

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
Video Management Application			
10.	VMS shall be an enterprise level software solution		
11.	VMS shall be used for centralized management of all field camera devices, video servers and client users.		
12.	VMS shall be based on the open software platform and industry standards		
13.	VMS shall include all modules and licenses required to provide a complete and fully functional system with camera licenses equal to the number of cameras and unlimited storage licenses and recording server licenses.		
14.	VMS server shall be deployed in a clustered server environment or support inbuilt mechanism for high availability and failover.		
15.	VMS shall support a flexible rule-based system driven by schedules and events.		
16.	VMS shall be supported for fully distributed solution for monitoring and control function, designed for limitless multi-site and multiple server installations requiring 24/7 surveillance with support for devices from different vendors.		
17.	The VMS shall have a flexible, open configuration architecture that facilitates Firewalls Traversing for the Review application, Web Review, Mobile application and Client Software Development Kit (SDK) connections.		
18.	The VMS shall have a flexible, open video, over IP architecture built on accepted industry standards that facilitate integration with IT infrastructures		
19.	VMS shall support recording and management of video and audio sources through the use of industry standard drivers. These drivers shall include ONVIF compliant and published APIs. It should support video & audio sources from other camera manufacturers including ONVIF compliant internet protocol (IP) cameras.		
20.	VMS system should have provision of Role Based Access Control		
21.	The bidder shall clearly list in their proposal the make and models of the camera that can be integrated with the VMS, additionally all the offered VMS and cameras		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	must have Open Network Video Interface Forum (ONVIF) compliance. VMS shall be enabled for any standard storage technologies and video wall system integration.		
22.	VMS System shall support H.265 and H.264 compression technology .		
23.	VMS shall be enabled for integration with any external Video Analytics Systems (Online or Offline) both server & edge based.		
24.	VMS shall be capable of being deployed in a virtualized server environment without loss of any functionality.		
25.	All CCTV cameras locations shall be overlaid in graphical map in the VMS Graphical User Interface (GUI) or VMS Software shall have capability to integrate with GIS maps (Google or Open Street). The cameras selection for viewing shall be possible via clicking on the camera location on the graphical map. The graphical map shall be of high resolution enabling operator to zoom-in for specific location while selecting a camera for viewing.		
26.	VMS shall have an administrator interface to set system parameters, manage codecs, manage permissions and manage storage.		
27.	VMS day to day control of cameras and monitoring on client workstations shall be controlled through the administrator interface.		
28.	Whilst live control and monitoring is the primary activity of the monitoring workstations, video replay shall also be accommodated on the GUI for general review and also for pre- and post-alarm recording display.		
29.	The solution design for the VMS shall provide flexible video signal compression, display, storage and retrieval.		
30.	All CCTV camera video signal inputs to the system shall be provided to various command control center(s), viewing center etc., and the transmission medium used		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	shall best suit the relative camera deployments and access to the CCTV Network.		
31.	All streams coming from camera shall be available in real-time and at full resolution. Resolution and other related parameters shall be configurable by the administrator in order to provide for network constraints.		
32.	VMS shall enable to set each camera's bit rate, frame rate and resolution. These parameters shall be set independently from other cameras in the system, and altering these settings shall not affect the recording and display settings of other cameras.		
33.	The VMS software shall provide automatic search and discovery of components of video surveillance system on the network which can be network cameras.		
34.	The software shall have the facility to export the desired portion of clipping of video from a desired date/time to another desired date/time on DVD/ on any client/ network storage device. Viewing of this recording shall be possible on popular media player.		
35.	The VMS shall support field sensor settings. Each channel configured in the VMS shall have an individual setup for Field Sensor. The specific settings shall be determined according to the encoding device:		
36.	The VMS shall support for the firmware upgradation of the CCTV Camera (Offered Make) from CCC. VMS shall capable to upgrade the firmware of cameras either individually or in groups.		
37.	The VMS shall support the following operations (not limited to): • Add, update and remove an IP device/channel • Updating basic device parameters like brightness, saturation, contrast, bitrate, frame rate, etc. • Adding/removing channels • Adding/removing output signals • Enabling/disabling an IP device/channel		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	• Refreshing an IP device (in case of firmware upgrade) • Multicast at multiple aggregation points		
38.	VMS shall support storage and processing of video and audio: • Audio and video must be recorded natively from the camera with no transcoding • Audio and video must be synchronized regardless of frame-rate, resolution or bitrate		
39.	The VMS shall support bookmarking the videos. Thus, allowing the users to mark incidents on live and/or playback video streams.		
40.	The VMS shall allow the administrator to distribute camera load across multiple recorders and be able shift the cameras from one recorder to another by simple drag and drop facility.		
41.	The VMS shall be able to support native video motion detection. This operation can be executed by the edge device, the IP Camera or the server. Enabling motion detection shall be performed either: • On a continuous basis • As scheduled for particular times, dates, days, months, etc. • For defined areas of interest, defined using an easy-to-use user interface and simple editing tools • At a defined sensitivity level		
42.	VMS shall support manual failover for maintenance purpose.		
43.	VMS shall support integration with the ANPR application.		
44.	The proposed VMS shall support offered Joystick controller to controller the movement of PTZ camera		
45.	VMS shall have the ability to integrate NVR (offered make) and fetch the CCTV viewing from the NVR.		
46.	The VMS shall have an easy process for upgrading versions where it is capable of		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	• Being upgraded from one version to another without having to uninstall the previous version. • Being upgraded from one edition to another without having to uninstall the application. • Automatically detected if video or audio source firmware is out of date with respect to the current installed software and upgrade it. • Automatically detected if client application software is out of date with respect to the current installed server software and upgrade it.		
47.	VMS System shall capable of • Digitizing and compressing video • Writing video and maintaining an accurate index of the stored video file • Deleting older video files as needed, to free up space to record newer video files • Selectively transferring recorded video to external storage or storage media		
Recorder			
48.	The VMS Recorders shall be able to record in a VMware environment		
49.	The Recorder shall offer a fail-over solution, either to another recorder or group of recorders, dynamically, and without any user intervention.		
50.	VMS should also support dual recording or mirroring if required.		
51.	The VMS shall support retrieving data from edge storage. Thus when a lost or broken connection is restored, it shall be possible to retrieve the video from local storage devices (like SD card) and store it on central storage. System should support to view the recordings available over cameras local storage device (such as an SD card), and copy them to the server. VMS should support following functionality • Automatic gap detection of missing video • Automatic retrieval of the missing video from the camera edge storage upon reconnection between the camera and the recorder. • Retrieved video transferred and saved on the		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	recorder using the recorder original file format. • Seamless playback of retrieved video, without extra retrieval time upon query. • Network/Recorder management to avoid congestion or video overflow in the recorder		
Client System The Client system shall provide remote users with rich functionality and features as described below:			
52.	VMS shall support live or recorded video monitoring of minimum 1 to 64 video streams simultaneously on a single monitor with the following standard layouts such as Full Screen; 2 x 2 to 8 x 8; 1+5; 1+7; 1+12; 2+8 etc.		
53.	Browsing recordings from storage systems.		
54.	Creating and switching between multiple of views.		
55.	VMS client shall have the capability to work with touch enabled multi-monitor workstations. It shall be capable of displaying videos in up to three (3) monitors simultaneously. It shall support popular video and image codecs like AVI, M-JPEG, MPEG-4, MP4, etc.		
56.	Viewing video from selected cameras in greater magnification and/or higher quality in a designated hotspot.		
57.	VMS shall support digital zooming within the specified Area of Total field of view during both live and playback mode		
58.	VMS shall have the ability to • Physical and digital zooming and panning on live and recorded video streams. • Take a snapshot of a live or recorded image and export it from the system with ability tag the same with date & time, location detail, etc. • export recorded video in AVI format and image in JPEG/PNG • export log reports in PDF and excel		
59.	Using sound notifications for attracting attention to detected motion or events.		
60.	Getting quick overview of sequences with detected motion.		
61.	Getting quick overviews of detected alerts or events.		
62.	• Quickly searching selected areas of video recording for motion (also known as Smart Search).		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	• Video Search on the basis of date, time, event, camera , location & alarm • Sorting / search by camera name & IP Address		
63.	Logical camera grouping. Auto as well as manual switching of groups.		
64.	Viewing of Minimum 9 cameras on Single screen at full HD (1920 X 1080 p) resolution at 15 fps and minimum 5 Mbps bit rate of each camera		
65.	User wise selection and grouping of camera as favorite.		
66.	Camera selection by double-click or drag and drop from site maps, logical group or favorites group		
67.	Extended camera viewing on multiple monitors		
68.	VMS system shall have PTZ control tab on GUI to control the movement of PTZ camera.		
Remote Web Client			
69.	The web-based remote client shall offer live view of up to 9 cameras, including PTZ control (if applicable) and event / output activation. The Playback function shall give the user concurrent playback of multiple recorded videos with date, alert sequence or time searching.		
70.	Web client shall be supported by major browsers (IE, Chrome, Firefox, Mozilla) on Windows and Linux based desktops		
71.	User Authentication – The Remote Client shall support logon using the user name and password credentials		
Mobile Client			
72.	The bidder shall be required to provide a standardized Mobile Application for Android as well as iOS to integrate smart phones and tablets for 2-way communication with the Video Management System in a secure manner for live as well as recorded video streams for 1 or more than 1 cameras.. It will be responsibility of SI to configure such tablets / Smartphone with the Surveillance System and ensure that all the necessary access is given to these mobile users.		
73.	• Communication with mobile client and server shall be encrypted with Digital Certificate. • Mobile application should allow MAC/IMEI No. binding, role based user access over secured VPN client on users mobile/smart phone		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
74.	The VMS shall provide a Mobile Client Application via Wi-Fi, 3G or 4G networks		
75.	The Mobile Client shall utilize live transcoding to low-bandwidth H.264/H.265 streaming in 4CIF resolution and lower		
76.	Mobile client support Digital Zooming, Alarm Notification, Camera selection using filters and favorites		
Matrix Monitor			
77.	Matrix Monitor – The Matrix Monitor feature shall allow distributed viewing of multiple cameras on the system on any monitor.		
78.	The Matrix Monitor feature shall access the H.265/H.264/MJPEG/MPEG4 stream from the connected camera directly and not sourced through the recording server.		
Alarm Management Module			
79.	The alarm management module shall allow for continuous monitoring of the operational status and event-triggered alarms from various system servers, cameras and other devices. The alarm management module shall provide a real-time overview of alarm status or technical problems while allowing for immediate visual verification and troubleshooting.		
80.	The alarm management module shall provide interface and navigational tools through the client including; • Graphical overview of the operational status and alarms from servers, network cameras and external devices including motion detectors and access control systems. • Intuitive navigation using a map-based, hierarchical structure with hyperlinks to other maps, servers and devices or through a tree-view format.		
81.	• The module shall include flexible access rights and allow each user to be assigned several roles where each shall define access rights to cameras. • VMS system should have provision in the system to define Alert Privileges, Alert re-cipients based on user profiles etc.		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	• The VMS shall be able to configure scheduled alarm		
82.	Basic VMS should be capable to accept third party generated events / triggers.		
83.	The VMS system shall detect signal loss and have the capability to alert the systems administrator.		
84.	VMS shall be able to accept the real time alerts coming from edge equipment (i.e., Camera, Sensor etc.) and reflect the same on GUI. VMS shall also reflect the real time alert for Motion Detection, Tempering, Video Loss, Connectivity Loss, camera blocked fully or partially, Camera defocus and other built-in analytics available in offered make of camera on GUI.		
Management / Integration Functionality			
85.	The Surveillance System shall offer centralized management of all devices, servers and users.		
86.	The Surveillance System should not have any limit on the number of cameras to be connected for Surveillance, Monitoring and Recording. Any increase in the no. of cameras should be possible by augmentation of Hardware components.		
87.	The Surveillance System shall support distributed viewing of any camera in the system using Video walls or big screen displays.		
88.	The Surveillance System shall support alarm management. The alarm management shall allow for the continuous monitoring of the operational status and event-triggered alarms from system servers, cameras and other external devices.		
89.	It should be possible to integrate the Surveillance System with 3rd-party software, to enable the users to develop customized applications for enhancing the use of video surveillance solution. For e.g., integrating alarm management to initiate SMS, E-Mail, VoIP call, etc.		
90.	The Management system shall store the overall network elements configuration in central database, either on the management server computer or on a separate DB Server on the network.		
91.	System should be able to be integrated with Event Management / Incident Management System.		
System Administration Functionality			

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
92.	The System Administration Server shall provide a feature-rich administration client for system configuration and day-to-day administration of the system.		
93.	VMS shall provide the ability to manage operator access to the VMS and assets, including ability to • Automatically log out of a server when the application is left idle. • Save and restore the window layout. • Control the system using a PC keyboard or joystick. • Import & export system settings such as maps, views, web pages, users & groups.		
94.	The System Administration Server shall support different logs related to the Management Server. It can define the reporting level for system events generated by various services, Filtering log files and events, system availability • The System Log • Access Log • The Audit Log • The Alert Log • The Event Log VMS system shall have ability to filter log files.		
95.	Rules: The system shall support the use of rules to determine when specific actions occur. Rules shall define what actions shall be carried out under specific conditions. The system shall support rule initiated actions such as: • Start and stop recording • Set non-default live frame rate • Send notifications via email • Pop-up video on designated Client Monitor recipients		
96.	VMS System shall support User based authority configuration. • Users shall only see devices for which they have access. • It shall enable setting user rights for protecting,		

#	Description	Compliance (Yes/No)	Deviation from Specification / Remarks if Any
	deleting, exporting video. • User role management should enable to assign one or more camera and NVRs to a specific user.		
Other Miscellaneous Requirements			
97.	System should have a facility to create CDs or other storage media for submission to Judiciary, which can be treated evidence for legal matters. Such storage media creation should be tamper proof and SI to provide appropriate technology so that integrity and quality of evidence is maintained as per requirements of the judiciary. Bidder is required to specify any additional hardware / software required for this purpose & the same can be listed in Miscellaneous section of the commercial bid. The bidder will also prepare the guideline document to be followed by the Police Personnel for the retrieval of Video / images from the CCTV System so as to maintain integrity of the evidence. Such a guideline document should include methods of retrieval of data, check-list to be followed and flowchart of the entire process to be followed.		
98.	All the systems proposed and operationalization of Video Management System should comply with requirements of IT Acts.		
99.	Security Platform shall have strong security mechanism such as the use of advance encryption/digital certificates/ authentication to ensure that only authorized personnel have access to critical information, prevent man-in-the-middle attacks, and that the data is kept private.		
100.	System should ensure that once recorded, the video cannot be altered, ensuring the audit trail is intact for evidential purposes.		

14.39 Key consideration for Server components

1. **Video Management System Server:** Video Management System Servers will maintain coherent operations between all servers and workstations. It will host Control Center, where the system is administered, and System database. It will monitor one or more Recorder servers on separate dedicated computers, storage devices, IP-compatible devices, and one or more workstation. All network communication will also be is performed via the Video Management servers.
    i. Video Management System Server is to be configured in high-availability mode and failure of one server shall not affect the operations (n+n)

ii. The VMS software shall be backed up at least once a day, or on higher frequently as per requirement.

iii. VMS software shall act as a single management interface enabling efficient administration of the system, including all cameras irrespective of count and locations/sites.

2. **Video Recording Server:** The Video Recorder Server will be a dedicated server that will store and processes video with the help of Video Management System.
   i. Video Recorder shall capable to record in a VMware environment
   ii. The Recorder shall offer a fail-over solution, either to another recorder or group of recorders, dynamically, and without any user intervention
   iii. Support H.264 as well as H.265 compression.
   iv. Upon reconnection, the VMS recorders shall be capable to retrieve video from a camera edge storage device (SD card) and bring it back to the recorder and in the recorder original file format.

3. **Web Server:** It will be used to launch the client application remotely through web browsers.
   i. Support multiple browser i.e. IE, Chrome, Firefox etc.
   ii. Support minimum 9 camera @25 fps @ 1080p resolution
   iii. Shall have user authentication functionality

4. **Media gateway server:** A Media Gateway server will be used to establish remote connections to review and transcode the video. Standalone Media Gateway servers can also be installed on separate machines. Standalone servers will be recommended for such large systems that will transfer video data to remote clients.
   i. The Media Gateway Server shall transcode received video from IP cameras or edge devices at a certain resolution, and then convert, and send a lower resolution video through a bandwidth limited WAN link.
   ii. The Media Gateway shall support bandwidth as low as 56 kb/s for remote viewing through VMS Web Review, and 256 kb/s through VMS Review.

Note: All other servers except VMS shall be provisioned for high-availability in n+1 mode.

14.40 Key consideration for Storage requirement

1. The video of each camera is required to be stored for 30 days at Full HD (1920X1080) resolution at H.265 High quality compression at minimum 25 fps with 5 mbps bit rate of each camera.
2. Selected SI shall have to consider 50% scalability in storage requirement for future expansion
3. The flagged data of any incident to be retained for the period of 90 days as a backup.
4. Redundancy shall be considered while designing the storage solution.
5. The proposed storage solution should not have single point of failover
6. Proposed storage solution should have at least 2 Controllers in active/active mode for each storage

15 Commercial Bid Format & Instructions

15.1 Cover letter for Commercial Bid

<<To be printed on letter head of Prime Bidder and signed by Authorized signatory of Prime bidder>>

Date: dd/mm/yyyy

To
Chief Executive Engineer,
115, Smart City Cell,
Surat Municipal Corporation - Head Quarter,
Muglisara, Main Road, Surat - 395003, Gujarat.

Subject: Selection of Implementation Agency for Suman Eye (CCTV Network) Project in Surat City

Reference: Tender No :<No> Dated<DD/MM/YYYY>

Dear Sir/ Madam,

We, the undersigned Bidders, having read and examined in detail all the bidding documents in respect of **"Selection of Implementation Agency for Suman Eye (CCTV Network) Project in Surat City"** do hereby propose to provide services as specified in the Bid Document referred above.

1. PRICE AND VALIDITY
   - All the prices mentioned in our Tender are in accordance with the terms as specified in the Tender documents. All the prices and other terms and conditions of this Tender are valid for entire contract duration.
   - We hereby confirm that our Tender prices include all taxes. Taxes are quoted separately under relevant sections, as specified in the Bid Document formats.
   - We have studied the clause relating to Indian Income Tax and hereby declare that if any income tax, surcharge on Income Tax, Professional and any other corporate Tax in altercated under the law, we shall pay the same.

2. DEVIATIONS
   We declare that all the services shall be performed strictly in accordance with the Bid Documents and there are no deviations except for those mentioned in eligibility criteria documents, irrespective of whatever has been stated to the contrary anywhere else in our bid.

   Further we agree that additional conditions, if any, found in our bid documents, other than those stated in the deviation schedule in eligibility criteria documents, shall not be given effect to.

3. QUALIFYING DATA

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Tender, we agree to furnish the same in time to your satisfaction.

4. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in the Bid Document. The bid price at which the contract is awarded shall hold good for entire tenure of the contract. These prices are indicated in the subsequent sub-sections of this Section.

5. CONTRACT PERFORMANCE GUARANTEE BOND

We hereby declare that in case the contract is awarded to us, we shall submit the contract Performance Bank Guarantee in the form prescribed in the Bid Document.

We hereby declare that our Tender is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.

We understand that our Tender is binding on us and that you are not bound to accept a Tender you receive. We confirm that no Technical deviations are attached here with this commercial offer.

Thanking you,

Yours faithfully,

(Signature of the Authorized Signatory)
Name
Designation
Seal.
Date:
Place:
Business Address:

15.2 General Instructions

1. Bidder should provide all prices as per the prescribed format under this Annexure.

2. All the prices are to be entered in Indian Rupees (INR) only

3. The Prices mentioned in the Price Bid should include all applicable taxes & duties as applicable. The L1 evaluation will be done exclusive of taxes but inclusive of any duties applicable to the products which are not covered under GST. The bidder to quote the duties along with the rate of products proposed for L1 evaluation. The SI needs to account for all Out of Pocket expenses due to Boarding, Lodging and other related items.

4. SSCDL shall be entitled to deduct tax at source or any other taxes/ cess as may be applicable

5. It is mandatory to provide breakup of all Taxes, Duties and Levies wherever asked for.

6. SSCDL reserves the right to ask the SI to submit proof of payment against any of the taxes, duties, levies indicated.

7. The price quoted for the items shall be exclusive of RoW and Restoration charge / Road Reinstatement (RI charge) to be incurred for this project. At the time of project implementation RI charges will be paid by bidder on actual basis. At later stage RI charge shall be reimbursed quarterly on actual basis. Please refer to Section 6.1.1 of RFP for more details

8. The Unit Rate as mentioned in the following formats may be used for the purpose of 'Change Order' for respective items, if any. However, based on the market trends, SSCDL retains the right to negotiate this rate for future requirement

9. Quantities mentioned in the commercial formats are indicative in number. SSCDL may or may not procure the listed components in mentioned quantities. SSCDL has the rights to delete any of the component before final implementation. Also, SSCDL reserves the right to remove any of the line components (as per BOQ provided).

10. No escalations of prices will be considered under any circumstances.

11. The successful bidder shall not object to the upward or downward variation in quantities of any item.

12. Payment for additional quantities, if any shall be made at tender rates and the tender rates shall be valid for entire duration of the contract.

13. No claim shall be entertained or become payable for price variation of additional quantities

14. Bidder shall be bound to give same or more % of discount on the list price of the OEMs on the future purchases (additional purchases within the contract period) by SSCDL or.

Bidder shall ensure that the future products supplied are of latest specifications as per the OEM roadmap.

15. For the purpose of evaluation of Commercial Bids, SSCDL shall make appropriate assumptions to arrive at a common Bid price for all the bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder.

16. SSCDL also intends to utilize various rates obtained through this tender for requirements across various departments. Bidders are requested to factor this larger demand and give the best possible rate to SSCDL.

17. Line items mentioned in the Commercial Formats are for representation purpose and SI may propose alternate technology / solution (with proper justification). Bidders are required to suitably add line items / merge the cost components depending upon their proposed solution.

No escalations of prices will be considered under any circumstances.

15.3 Commercial Bid Format

A. Capital Expenditure (CAPEX)

#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
A. CAPITAL EXPENDITURE (CAPEX)								
IT Hardware Components								
1	SITC of 2 Megapixel Full HD IR IP vandal proof Bullet Camera (2.8mm to 12mm Varifocal lense) with Complete mounting accessories as required	Number	765					
2	SITC of 2 Megapixel IR IP vandal proof Dome Camera (2.8mm to 12mm Varifocal lense) with Complete mounting accessories as required	Number	308					
3	SITC of 2 Megapixel IR IP Bullet Camera with Built-in 4G Sim Card Slot with Complete mounting accessories as required	Number	10					
4	SITC of 2 Megapixel IR IP Bullet Camera (Fixed Lens) with Complete mounting accessories as required	Number	1298					
5	SITC of 2 Megapixel IR IP Dome Camera (Fixed Lens) with Complete mounting accessories as required	Number	741					

#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
	A. CAPITAL EXPENDITURE (CAPEX)							
6	SITC of 2 Megapixel IR IP PTZ Camera with Complete mounting accessories as required	Number	26					
7	Local Storage (MicroSD/SDHC/SDXC card) for CCTV Camera	Number	50					
8	PTZ Joystick Controller	Number	1					
9	SITC of 4 Channel Network Video Recorder (NVR) with Complete mounting accessories as required	Number	50					
10	SITC of 4 Channel Network Video Recorder (NVR) with built-in PoE Ports with Complete mounting accessories as required	Number	20					
11	SITC of 8 Channel Network Video Recorder (NVR) with Complete mounting accessories as required	Number	80					
12	SITC of 8 Channel Network Video Recorder (NVR) with built-in PoE with complete mounting accessories as required	Number	36					
13	SITC of 16 Channel Network Video Recorder (NVR) with Complete mounting	Number	30					

#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
			A. CAPITAL EXPENDITURE (CAPEX)					
	accessories as required							
14	SITC of 32 Channel Network Video Recorder (NVR) with Complete mounting accessories as required	Number	18					
15	SITC of 4 TB Surveillance Hard Disk for NVR	Number	To be specified by bidder as per sizing					
16	SITC of 6 TB Surveillance Hard Disk for NVR	Number	To be specified by bidder as per sizing					
17	SITC of 8 TB Surveillance Hard Disk for NVR	Number	To be specified by bidder as per sizing					
18	SITC of 32" LED Display Screen with Complete mounting accessories and HDMI Cable as required	Number	234					
19	SITC of 8 Port PoE/PoE+ industrial grade network Switch with Complete mounting accessories as required	Number	231					

				A. CAPITAL EXPENDITURE (CAPEX)					
#	**Description**	**Unit of Measurement**	**Unit (A)**	**Unit Rate (w/o GST) (INR) (B)**	**Total w/o GST C=A*B (INR)**	**Applicable GST (G)%**	**Total GST D =C*G% (INR)**	**Total With GST E=C+D (INR)**
20	SITC of 8 Port PoE/PoE+ non industrial grade network Switch with Complete mounting accessories as required	Number	456					
21	SITC of Core/Top of the Rack/ Data Centre network Switch with Complete mounting accessories as required	Number	2					
22	SITC of Enterprise next generation firewall with Complete mounting accessories as required	Number	1					
23	SITC of Blade/Rack Servers with Complete mounting accessories as required. Server for Suman eye (CCTV Network) project should have no single point of failover 1. Video Management server (n+n mode) 2. Recording server 3. Database management server 4. Others as per solution provided by the bidder meeting RFP requirement	Number	To be specified by bidder as per sizing					

#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
A. CAPITAL EXPENDITURE (CAPEX)								
	Note: In n+1 mode for Recording Server, Database management server and others.							
24	SITC for Blade Chassis for Blade Server for above mentioned Blade Servers	Number	To be specified by bidder as per sizing					
25	SITC of Storage with Complete mounting accessories	Number	To be specified by bidder as per sizing					
26	3.5" 6TB 7200 RPM Near Line SAS drive compatible with offered storage solution (same as in item No-25)	Number	1					
27	2.5" 1.2 TB 10K RPM SAS drive compatible with offered storage solution (same as in item No-25)	Number	1					
28	2.5" SFF Aditional HDD disk Encloser compatible with offred storage solution (Item No-25) with all necessary cable/accessaries to make it functional	Number	1					

#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
A. CAPITAL EXPENDITURE (CAPEX)								
29	3.5" LFF Aditional HDD disk Encloser compatible with offred storage solution (Item No-25) with all necessary cable/accessaries to make it functional	Number	1					
Software Components								
30	Supply and configuration of Video Management Server Software to meet RFP requirements	Number	1					
31	Supply and configuration of Video Management Software channel license	Number	1476					
32	Supply and configuration of Video Management Software Desktop Client License	Number	15					
33	Supply and configuration of Video Management Software Mobile Client License (for android and iOS)	Number	30					
34	Antivirus software including licenses for DC infrastructure.	Number	To be specified by bidder as per requirement					
35	EMS Software	Number	1					

A. CAPITAL EXPENDITURE (CAPEX)								
#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
36	EMS Client/device license	Number	To be specified by bidder as per requirement					
37	Supply and configuration of Server OS Licenses (for physical Servers)	Number	To be specified by bidder as per requirement					
38	Supply and configuration of Server OS Licenses (for VMs)	Number	To be specified by bidder as per requirement					
39	Supply and configuration of Database Licenses	Number	To be specified by bidder as per requirement					
40	Supply and configuration of Virtualisation Solution Licenses	Number	To be specified by bidder as per requirement					
Civil and Non IT								
41	SITC of 42U Networking/Server Rack in data center with Complete mounting accessories as required	Number	To be specified by bidder as per requirement					
42	SITC of 6U Wall Mount Network Rack with Complete mounting	Set	222					

#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
A. CAPITAL EXPENDITURE (CAPEX)								
	accessories as required							
43	SITC of 9U Wall Mount Network Rack with Complete mounting accessories as required	Set	234					
44	SITC of UPS with Complete mounting accessories and battery Bank as required	Number	1					
45	SITC of Media Convertor with Complete mounting accessories as required	Number	70					
46	SITC of LIU with splicing and Complete mounting accessories as required	Number	243					
47	SITC of Field Junction Box with Complete mounting accessories as required	Set	231					
48	SETC of 6 mtr. Pole for with cantilever CCTV cameras with Complete mounting accessories and civil work as required	Set	420					
49	SETC of 10 mtr. Pole for CCTV cameras with Complete mounting accessories and civil work as required	Set	26					

				A. CAPITAL EXPENDITURE (CAPEX)				
#	Description	Unit of Measurement	Unit (A)	Unit Rate (w/o GST) (INR) (B)	Total w/o GST C=A*B (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST E=C+D (INR)
50	SLTC of UTP Cat-6 Cable with complete accessories	RM	140000					
51	SLTC of 6 core Fiber Optic Cable with complete accessories	RM	5000					
52	SLTC of 3 core 1.5 sq. mm Power cable with complete accessories	RM	1000					
53	SLTC of 3 core 1.5 sq. mm armored Power cable with complete accessories	RM	500					
54	SLTC of 32 mm HDPE Pipe with complete accessories	RM	2000					
55	SLTC of 32 mm DWC Pipe with complete accessories	RM	8000					
56	SLTC of 25 mm PVC Conduit Pipe with complete accessories	RM	70000					
57	Open Digging, Trenching and Ducting	RM	16000					
58	Horizontal Directional Drilling (HDD)	RM	800					
Total (INR)- Without GST								
Total (INR)- With GST								
Total (INR)- Without GST in Words								

B1. Operation and Maintenance Expenditure (OPEX)

B1. OPERATION AND MAINTENANCE EXPENDITURE (OPEX)
#	Description	Unit of Measurement	Unit (A)	Unit Rate / Year (w/o GST) (INR) (B)	Total w/o GST for 5 Years C=A*B*5 (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST for 5 Years E=C+D (INR)
IT Hardware Components
1	2 Megapixel Full HD IR IP vandal proof Bullet Camera (2.8mm to 12mm Varifocal lense) with Complete mounting accessories as required	Number	765					
2	2 Megapixel IR IP vandal proof Dome Camera (2.8mm to 12mm Varifocal lense) with Complete mounting accessories as required	Number	308					
3	2 Megapixel IR IP Bullet Camera with Built-in 4G Sim Card Slot with Complete mounting accessories as required	Number	10					
4	2 Megapixel IR IP Bullet Camera (Fixed Lens) with Complete mounting accessories as required	Number	1298					
5	2 Megapixel IR IP Dome Camera (Fixed Lens) with Complete mounting accessories as required	Number	741					

				B1. OPERATION AND MAINTENANCE EXPENDITURE (OPEX)				
#	Description	Unit of Measurement	Unit (A)	Unit Rate / Year (w/o GST) (INR) (B)	Total w/o GST for 5 Years C=A*B*5 (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST for 5 Years E=C+D (INR)
6	2 Megapixel IR IP PTZ Camera with Complete mounting accessories as required	Number	26					
7	PTZ Joystick Controller	Number	1					
8	4 Channel Network Video Recorder (NVR) with Complete mounting accessories as required including hard disk	Number	50					
9	4 Channel Network Video Recorder (NVR) with built-in PoE Ports with Complete mounting accessories as required including hard disk	Number	20					
10	8 Channel Network Video Recorder (NVR) with Complete mounting accessories as required including hard disk	Number	80					
11	8 Channel Network Video Recorder (NVR) with built-in PoE with complete mounting accessories as required including hard disk	Number	36					
12	16 Channel Network Video Recorder (NVR) with Complete mounting accessories as required including hard disk	Number	30					

#	Description	Unit of Measurement	Unit (A)	Unit Rate / Year (w/o GST) (INR) (B)	Total w/o GST for 5 Years C=A*B*5 (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST for 5 Years E=C+D (INR)
	B1. OPERATION AND MAINTENANCE EXPENDITURE (OPEX)							
13	32 Channel Network Video Recorder (NVR) with Complete mounting accessories as required including hard disk	Number	18					
14	32" LED Display Screen with Complete mounting accessories and HDMI Cable as required	Number	234					
15	8 Port PoE/PoE+ industrial grade network Switch with Complete mounting accessories as required	Number	231					
16	8 Port PoE/PoE+ non industrial grade network Switch with Complete mounting accessories as required	Number	456					
17	Core/Top of the Rack/ Data Centre network Switch with Complete mounting accessories as required	Number	2					
18	Enterprise Next G+D21eneration firewall with Complete mounting accessories as required	Number	1					

#	Description	Unit of Measurement	Unit (A)	Unit Rate / Year (w/o GST) (INR) (B)	Total w/o GST for 5 Years C=A*B*5 (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST for 5 Years E=C+D (INR)
	B1. OPERATION AND MAINTENANCE EXPENDITURE (OPEX)							
19	SITC of Blade/Rack Servers with Complete mounting accessories as required. Server for Suman eye (CCTV Network) project should have no single point of failover 1. Video Management server (n+n mode) 2. Recording server 3. Database management server 4. Others as per solution provided by the bidder meeting RFP requirement Note: In n+1 mode for Recording Server, Database management server and others.	Number	To be specified by bidder as per sizing					
20	SITC for Blade Chassis for Blade Server for above mentioned Blade Servers	Number	To be specified by bidder as per sizing					
21	SITC of Storage with Complete mounting accessories	Number	To be specified by bidder as per requirement					
Software Components								

				B1. OPERATION AND MAINTENANCE EXPENDITURE (OPEX)				
#	Description	Unit of Measurement	Unit (A)	Unit Rate / Year (w/o GST) (INR) (B)	Total w/o GST for 5 Years C=A*B*5 (INR)	Applicable GST (G)%	Total GST D =C*G% (INR)	Total With GST for 5 Years E=C+D (INR)
22	Video Management Server Software to meet RFP requirements	Number	1					
23	Antivirus software for DC infrastructure.	Number	To be specified by bidder as per requirement					
24	EMS Software	Number	1					
25	Virtualisation Solution Licenses	Number	To be specified by bidder as per requirement					
Civil and Non IT								
26	UPS with Complete mounting accessories and battery Bank as required	Number	1					
Total (INR)- Without GST								
Total (INR)- With GST								
Total (INR)- Without GST in Words								

Note:

1. The IT Hardware components are with system software and bundled application including licenses, if any

2. The EMS system shall include licenses as well. Bidder is required to calculate the total no of licenses requirement as per their solution design

3. All above components shall be quoted with 3 years comprehensive onsite warranty and support and 2 years of comprehensive O&M

B2. **Support Engineer Cost**

B2. SUPPORT ENGINEER EXPENDITURE
#	**Description**	**Unit (A)**	**Unit Rate / Year (w/o GST) (INR) (B)**	**Total w/o GST for 5 Years C=A*B*5 (INR)**	**Applicable GST (G)%**	**Total GST D =C*G% (INR)**	**Total With GST for 5 Years E=C+D (INR)**
1	Support Engineer	5					
Total (INR)- Without GST	
Total (INR)- With GST	
Total (INR)- Without GST in Words	

Note:

The cost of Support engineer will be payable from the Go-Live date of RO1 (3 years warranty support + 2 years of O&M)

C. Project Summary

#	Commercial Bid Summary	Total Price (INR) w/o Tax	Total Price (INR) with Tax
1	CAPEX (A)		
2	OPEX (B1+B2)		
	Total Project Cost (INR)		
	Total Project Cost In words		

16 Annexure

16.1 Proposed locations to implement CCTV surveillance system

#	Particular	Locations	Camera Placement	Total Camera	Camera Type
1	Municipal School Board	210	• Corridors / Lobby • Building Entry/ Exit • Playground • Premises Entry/Exit	1250	• Dome Camera • Bullet Camera
2	Suman High School	6		186	• Dome Camera • Bullet Camera
3	Public Parks	51	• Entry / Exit • Playground / Common Area • Critical Locations	367	• Vandal proof Bullet Camera • PTZ Camera
4	BRTS Bus Stops	153	• Entry / Exit (Outside) • Cash Counter (Optional) • Inside the Bus Stand	459	• Dome Camera • Vandal proof Dome Camera • Vandal proof Bullet Camera
5	Overloaded Container Spots	120	• Facing Towards Container	120	• Vandal proof Bullet Camera
6	Water Logging Spots	50	• Facing towards identified Spots	50	• Vandal proof Dome Camera
7	Construction Site	20	• Facing towards Construction site	20	• Vandal proof Bullet Camera
8	Water Works	8	• Entry / Exit Gate • Chlorine Treatment Plant • Filter • Booster Room	166	• Vandal proof Dome Camera • Vandal proof Bullet Camera • PTZ Camera

#	Particular	Locations	Camera Placement	Total Camera	Camera Type
9	Water Distribution Plant	35	• Entry / Exit Gate • Chlorine Treatment Plant	70	• Vandal Dome Camera • Vandal Bullet Camera
10	Camera for Biometric Attendance System	575	• Above Biometric Attendance System	450	• Dome Camera
11	Camera with Built-in 4G Sim Card Slot	10	• For Temporary placement as required	10	• Bullet Cameras
Total No. of CCTV Camera				**3148**	

16.2 Format for Bank Guarantee for Bid Security (Earnest Money Deposit)

(To be printed on Rs. 100/- Stamp Paper)

This Deed of Guarantee is made on this _____day of _____, 2017 at _____ by _____ a _____ Bank and having its Head Office/Registered Office at _____ and a Branch Office at _____, Surat (hereinafter referred to as "the Bank" or "the Guarantor", which expression shall unless it be repugnant to the subject or context hereof be deemed to include its successors and assigns) in favour of Surat Smart City Development Ltd (SSCDL),having its Registered Office at _____ (hereinafter referred to as "Authority" which expression shall unless it be repugnant to the subject or context hereof be deemed to include its successors and assigns).

WHEREAS, the AUTHORITY undertook the process of competitive bidding in order to select the most desirable firm/company for Design, Development, Implementation & Maintenance for Suman Eye (CCTV Network) Project which purpose AUTHORITY issued a RFP document inviting Bids from the Bidders;

WHEREAS, [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated [date] for the execution of the Works (hereinafter called "the Bid").

In the event of any breach or non-performance of the following terms and conditions contained in the Tender document:

(1)   If the Bidder withdraws or modifies his Bid during the period of Bid validity specified in the Tender; or

(2)   If the Bidder refuses to accept the correction of errors in his Bid; or

(3)   If the Bidder submits a conditional Bid which would affect unfairly the competitive provision of other Bidders who submitted substantially responsive Bids and/or is not accepted by AUTHORITY, or

(4)   if the Bidder, having been notified of the acceptance of his Bid by the AUTHORITY during the period of Bid validity and the bidder fails or refuses to execute the Agreement in accordance with the Tender documents;

(5)   If the bidder engages in fraudulent or corrupt practices

The Guarantor agrees absolutely, irrevocably and unconditionally guarantees and undertakes to pay to AUTHORITY a sum of Indian Rupees ………………….. (Amount of EMD in INR) without any protest or demur and upon receipt of first written demand from AUTHORITY, without having to substantiate his demand, provided that in his demand AUTHORITY will note that the

amount claimed by him is due to him owing to the occurrence of any one or more of the conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date _____ (180 days) days beyond the original validity period for the bid or as it may be extended by the bidder on a written request by AUTHORITY, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

The jurisdiction in relation to this Guarantee shall be the Courts at Surat and Indian Law shall be applicable.

The claim in respect of this Bank Guarantee shall be admissible at any of our Surat Branches and such Bank Guarantee is encashable at Surat Branch.

IN WITNESS WHEREOF the Guarantor has executed this Guarantee on this _____ day of _____and year first herein above written.

Signed and delivered by the

above named _____Bank by

its Authorized Signatory as authorized by

Board Resolution passed on _____/

Power of Attorney dated [............]

_____

Authorized Signatory

Name   :

Designation:

In the presence of:

1.

2.

16.3 Format for Performance Bank Guarantee

<< To be printed on Rs. 100/- Stamp Paper >>

IN CONSIDERATION OF bid document submitted by_____ Through _____ for _____

SURAT Smart City Development Ltd (SSCDL) for Selection of Agency for Setting up CCTV System at SMC premises and Municipal board schools in Surat City (hereinafter referred to as the "said work") on the terms and conditions of the AGREEMENT dated the _____day of _____ 2018 executed between SSCDL on the one part and _____(the Company) on the other part (hereinafter referred to as "the said AGREEMENT)   and on the terms and conditions specified in the Contract, Form of Offer and Form of acceptance of Offer, true and complete copies of the offer submitted by the Company, the said Acceptance of Offer and copy of the said AGREEMENT are annexed hereto.

The Company has agreed to furnish SSCDL in Guarantee of the Nationalized Bank for the sum of Rs. <(PBG Amount in Word and Figure)> only which shall be the Security Deposit for the due performance of the terms covenants and conditions of the said AGREEMENT. We <Name of the Bank> Bank Registered in India under Act and having one of our Local Head Office at <Address of the Bank> do hereby guarantee to SSCDL.

i.   Due performance and observances by the Company of the terms covenants and conditions on the part of the Company contained in the said AGREEMENT, AND

ii. Due and punctual payment by the Company to SSCDL of all sum of money, losses, damages, costs, charges, penalties and expenses that may become due or payable to SSCDL by or from the Company by reason of or in consequence of any breach, non-performance or default on the part of the Company of the terms covenants and conditions under or in respect of the said AGREEMENT.

AND FOR THE consideration aforesaid, we do hereby undertake to pay to SSCDL on demand without delay demur the said sum of Rs. <(PBG Amount in Word and Figure)> only together with interest thereon at the rate prescribed under <as per RBI based lending rate (9%)> from the date of demand till payment or such lesser sum, as may be demanded by SSCDL from us as and by way of indemnity on account of any loss or damage caused to or suffered by SSCDL by reason of any breach, non-performance or default by the Company of the terms, covenants and conditions contained in the said AGREEMENT or in the due and punctual payment of the moneys payable by the Company to SSCDL thereunder and notwithstanding any dispute or disputes raised by the Company in any suit or proceeding filed before the Court relating thereto our liability hereunder being absolute and unequivocal and irrevocable AND WE do hereby agree that –

a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said AGREEMENT and that the same will continue to be

enforceable till all the claims of SSCDL are fully paid under or by virtue of the said AGREEMENT and its claims satisfied or discharged and till SSCDL certifies that the terms and conditions of the said AGREEMENT have fully and properly carried out by the Company.

b) We shall not be discharged or released from liability under this Guarantee by reason of
   a. any change in the Constitution of the Bank or
   b. any arrangement entered into between SSCDL and the Company with or without our consent;
   c. any forbearance or indulgence shown to the Company,
   d. any variation in the terms, covenants or conditions contained in the said AGREEMENT;
   e. any time given to the Company, OR
   f. any other conditions or circumstances under which in a law a surety would be discharged.

c) Our liability hereunder shall be joint and several with that of the Company as if we were the principal debtors in respect of the said sum of Rs. <(PBG Amount in Word and Figure)> Only.

d) We shall not revoke this guarantee during its currency except with the previous consent of SSCDL in writing;

e) Provided always that notwithstanding anything herein contained our liabilities under this guarantee shall be limited to the sum of Rs. <(PBG Amount in Word and Figure)> only and shall remain in force until SSCDL certifies that the terms and conditions of the said AGREEMENT have been fully and properly carried out by the Company.

f) Bank hereby agrees and covenants that if at any stage default is made in payment of any instalment or any portion thereof due to SSCDL under the said AGREEMENT or if the Company fails to perform the said AGREEMENT or default shall be made in fulfilling any of the terms and conditions contained in the said AGREEMENT by the Company, the Bank shall pay to SSCDL demand without any demur, such sum as may by demanded, not exceeding Rs. <(PBG Amount in Word and Figure)> and that the Bank will indemnify and keep SSCDL indemnified against all the losses pursuant to the said AGREEMENT and default on the part of the Company. The decision of SSCDL that the default has been committed by the Company shall be conclusive and final and shall be binding on the Bank/Guarantor. Similarly, the decision of SSCDL as regards the Agreement due and payable by the Company shall be final and conclusive and binding on the Bank /Guarantor.

g) SSCDL shall have the fullest liberty and the Bank hereby gives its consent without

any way affecting this guarantee and discharging the Bank/Guarantor from its liability hereunder, to vary or modify the said AGREEMENT or any terms thereof or grant any extension of time or any facility or indulgence to the Company and Guarantee shall not be released by reason of any time facility or indulgence being given to the Company or any forbearance act or omission on the part of SSCDL or by any other matter or think whatsoever which under the law, relating to sureties so releasing the guarantor and the Guarantor hereby waives all suretyship and other rights which it might otherwise be entitled to enforce.

h) That the absence of powers on the part of the Company or SSCDL to enter into or execute the said AGREEMENT or any irregularity in the exercise of such power or invalidity of the said AGREEMENT for any reason whatsoever shall not affect the liability of the Guarantor/Bank and binding on the bank notwithstanding any abnormality or irregularity,

i) The Guarantor agrees and declares that for enforcing this Guarantee by <SSCDL> against it, the Courts at Surat only shall have exclusive jurisdiction and the Guarantor hereby submits to the same

1..

2..

Being respectively the <Branch Manager of the Bank>, who in token thereof, has hereto set his respective hands in the presence of –

1..

2..

16.4 Master Service Agreement

(To be printed on Rs. 100/- Stamp Paper)

<div style="border:1px solid black; padding:10px;">
Passport size Photo of Authorized Signatory with crossed Sign and Seal.
</div>

<u>MASTER SERVICE AGREEMENT</u>

FOR

NAME OF WORK :

CONTRACTOR'S NAME :

TENDER AMOUNT :

LETTER OF INTENT (LoI) :
NO. & DATE

SANCTIONING AUTHORITY :

This **AGREEMENT** is made at 115, Smart City Cell, Surat Municipal Corporation Head Quarter, Muglisara Main Road, Surat, Gujarat on this _____ day of _____, 2018.

BETWEEN

(1) Surat Smart City Development Limited, a company incorporated under the Companies Act, 2013 with CIN : U74999GJ2016PLC091579 and having its Registered Office at Smart City Cell Room NO. 115, Surat Municipal Corporation, Muglisara, Surat-395003 (hereinafter called **"the Company"** or **"the SPV"** or **"the Client"** or **"SSCDL"** which expression unless repugnant to the context therein, shall include its successors, administrators, executors and permitted assignees) of the **FIRST PART** represented by **CEO / Director / GM (IT) of the Company**

AND

(2) _____ a company registered under the Companies Act, 1956, having its registered office at _____ hereinafter referred to as "**Systems Integrator**" or "**SI**" or "**Vendor**" or "**Contractor**", (which expression unless repugnant to the context therein, shall include its successors, administrators, executors and permitted assignees), of the **SECOND PART** as represented by _____ of the _____,

WHEREAS party to the First part is established as the 'Special Purpose Vehicle' (SPV) under the Smart City Program of the Government of India, and based on the submission and approval of the Smart City Proposal (SCP) has authority to execute the projects so approved within the framework of the Smart City Mission Statement and Guidelines issued by the Ministry of Urban Development in June 2015 (hereinafter referred as "Guidelines");

AND WHEREAS RFP for one of the approved projects under SCP related to implementation of CCTV System for the city of Surat (hereinafter referred as the "**Suman Eye (CCTV Network) Project**" or "**the Project**") was published by SSCDL on _____, to seek services of a reputed IT firm as a System Integrator for Design, Development, Implementation & Maintenance of "**Suman Eye (CCTV Network) Project**" for Surat city;

And whereas M/s. _____., has submitted its proposal for "***Selection of Implementation Agency for Suman Eye (CCTV Network) Project in Surat City***";

*AND whereas SSCDL has selected M/s. _____., as successful bidder and issued Letter of Intent No. _____***2018*** to the successful bidder who in turn signed and returned the same as a token of acceptance of Letter of Intent.* As required, the System Integrator has furnished Security Deposit of Rs. _____ (_____) as Bank Guarantee No. _____, dated _____, _____for performance of the Project.

AND Whereas the SSCDL has adopted the System Integrator's tender for the project through the Project Committee established by the Board of Directors of the Company (hereinafter referred

as "The Project Management Committee") vide Resolution No.33/2017-18, Dtd.11/09/2017 having of tender Amount of Rs. _____ Ps (_____)

And whereas SSCDL and M/s. _____., have decided to enter into this Agreement on the terms and conditions stipulated hereinafter.

NOW, THEREFORE, in consideration of the premises covenants and promises contained herein and other good and valuable considerations, the receipt and adequacy of which is hereby acknowledged, the parties intending to be bound legally, IT IS HEREBY AGREED between the Parties as follows:

1. **Definitions**
   In this Agreement, the following terms shall be interpreted as indicated, -

   (a) "SSCDL" means Surat Smart City Development Limited;

   (b) "SPV" means Special Purpose Vehicle

   (c) "SCP" means Smart City Proposal

   (d) "Contract" means this Agreement entered into between SSCDL and the Systems Integrator including all attachments and annexure thereto and all documents incorporated by reference therein;

   (e) "Systems Integrator" means M/s. _____, interchangeably referred to as "SI" in the contract; and

   (f) "RFP" means the Tender Published by SSCDL (Ref. No. _____) and the subsequent Corrigenda / Clarifications issued.

   (g) *"Go Live or successful completion of implementation of the project" date means the 16th day after the date on which the proposed project stream becomes operational after successful conclusion of all acceptance tests to the satisfaction of SSCDL.*

   (h) *"Deliverable" means any action / output generated by the SI while discharging their contractual obligations. This would include information and all the other services rendered as per the scope of work and as per the SLAs.*

   (i) *"Assets" refer to all the hardware / Software / furniture / data / documentations / manuals / catalogs / brochures / or any other material procured, created or utilized by the SI for the Surat City 'Smart Elements' Project.*

   (j) *"Guidelines" refer to the set of instructions given by Ministry of Urban Development regarding Smart City Mission*

2. **Interpretation**

The documents forming this Agreement are to be taken as mutually explanatory of one another. The following order shall govern the priority of documents constituting this Agreement, in the event of a conflict between various documents, the documents shall have priority in the following order:

- this Agreement;
- Scope of Services for the Systems Integrator (hereby annexed as **Annexure I**)
- Detail Commercial proposal of the Systems Integrator accepted by SSCDL (hereby annexed as **Annexure II**)
- SLA to be adhered by the Systems Integrator (hereby annexed as **Annexure III**)
- Clarification & Corrigendum Documents published by SSCDL subsequent to the RFP for this work (hereby annexed as **Annexure IV**)
- RFP Document of SSCDL for this work (hereby annexed as **Annexure V**)
- LoI issued by the SSCDL to the successful bidder (hereby annexed as **Annexure VI**); and
- Successful bidder's "Technical Proposal" and "Commercial Proposal" submitted in response to the RFP (hereby annexed as **Annexure VII**).

3. **Term of the Agreement**

This agreement shall come into force and effect from the date of execution by both parties. The term of this agreement shall be a period of 5 years from the date of Go-Live of all Project Components including 3 year of warranty and 2 years of comprehensive Operation & Maintenance (O&M).

In the event of implementation period getting extended beyond implementation timelines, for reasons not attributable to the Systems Integrator, SSCDL reserves the right to extend the term of the Agreement by corresponding period to allow validity of contract for 5 years from the date of successful completion of implementation of all the project components. (Note: Delay caused due to any reason not in control of the SI would not be attributed to the project period.)

SSCDL also reserves the right to extend the contract at its sole discretion for additional duration, beyond the 5 years of post-implementation period. Terms and conditions of such an extension shall be prepared by SSCDL and finalized in mutual discussion with the SI.

4. **Work Completion Timelines and Fees**

SSCDL shall issue a "Request Order" in writing, indicating the number of units of Hardware and Software to be supplied along with the location (Project Site). The SSCDL shall continue to issue such request until the full quantities of Hardware and Software specified in RFP. Upon getting the Request Order, the SI shall promptly and as soon as possible within the lead time specified in the request order, supply, install and implement specified numbers of hardware and software at stated project site and commissioned the same. SSCDL shall

specify the Lead Time in Request Order. The Lead Time of Request Order shall be decided in discussion with the System Integrator before the Request Order is placed. SSCDL's decision in this regard shall be final but reasonable time shall be provided to the SI. Delay or non-performance will form the basis for application of Liquidated Damages.

1. The authorized personnel of SSCDL will issue Request Order to the SI to carry out the work for "Suman Eye (CCTV Network) Project".

2. SI will initiative the work and complete supply, Installation, Testing, Commissioning and Warranty of CCTV System including 30 days video backup at all locations covered under "Suman Eye (CCTV Network) Project" as per scope of this RFP.

3. SI has to inform respective zonal office regarding completion of the work in their schools under respective zones.

4. SSCDL/ Consultant/ SMC Zonal officers will visit the Site/ schools for inspection and physical verification of installed system. Inspection report along with quantity of materials installed at the site shall be produced.

5. SSCDL/Consultant shall also inspect the make and model of the product installed at the site.

6. SI shall have to submit final expenditure with supporting document to SSCDL. SSCDL will verify the invoices and quantity and initiate the payment. Payment will be released by SSCDL to the concerned System Integrator as per RFP terms

7. The payment shall be made on actual quantity of materials installed at the site by the bidder and verified by the SSCDL/Consultant.

4.1 Payment Terms
The Payment terms is as per section 10 of the RFP and subsequent Addendum & Corrigendum.

4.2 Timeline for Project Execution
The Timeline for Suman Eye (CCTV Network) Project is as per section 10 of the RFP and subsequent Addendum & Corrigendum

5. Scope Extension
SSCDL reserves right to extend the scope of services for the price & timelines as given in Annexure II & Annexure III to this Agreement. The SLAs applicable to this Contract shall be liable for the additional items too.

6. **Service Level Agreement (SLA)**

   System Integrator is required to comply with the SLA as mentioned in Section 9 of the RFP and subsequent Addendum & corrigendum.

7. **Insurance**

   The bidder will be required to undertake the insurance for all components of the Suman Eye (CCTV Network) Project which has been procured under this RFP.

   i. **Insurance during the Contract Period**

   The System Integrator shall, at its cost and expense, purchase and maintain during the Contract Period, such insurances as are necessary including but not limited to the following:

   - Hardware delivered and installed to the extent possible at the replacement value with Authority as beneficiary.

   - Fire and allied natural calamities for the Central Control Centre limited to the scope of supply at replacement value with the Authority as beneficiary;

   - System Integrator's all risk insurance with the Authority as co-beneficiary;

   - Comprehensive third party liability insurance with the SMC/SSCDL as co-beneficiary;

   - Workmen's compensation insurance with the SMC/SSCDL as co-beneficiary;

   - Any other insurance that may be necessary to protect the System Integrator, its employees and the Project against loss, damage or destruction at replacement value including all Force Majeure Events that are insurable and not otherwise covered in items (a) to (e) with the Authority as beneficiary/co-beneficiary;

   ii. **Evidence of Insurance Cover**

   - The System Integrator shall, from time to time, provide to the Authority copies of all insurance policies (or appropriate endorsements, certifications or other satisfactory evidence of insurance) obtained by it in accordance with System Integrator Agreement.

   - If System Integrator shall fail to effect and keep in force the insurance for which it is responsible pursuant hereto , Authority shall have the option to take or keep in force any such insurance, and pay such premium and recover all costs thereof from System Integrator.

   iii. **Application of Insurance Proceeds**

   - All moneys received under insurance policies shall be promptly applied by the System Integrator towards repair or renovation or restoration or substitution of the Project or any hardware/equipment/device thereof which may have been damaged or required repair/modification.

   - The System Integrator shall carry out such repair or renovation or restoration or substitution to the extent possible in such manner that the Project , or any part thereof, shall, after such repair or renovation or restoration or substitution be as far as possible in the same condition as they were before such damage or destruction, normal wear and

tear excepted.

- For insurance policies where the Authority is the beneficiary and where it received the insurance proceeds, only such sums as are required from the insurance proceeds for restoration, repair and renovation of the Project .

iv.   **Validity of Insurance Cover**

The System Integrator shall pay the premium payable on such insurance Policy/Policies so as to keep the insurance in force and valid throughout the Contract Period and furnish copies of the same to the Authority for each year/policy period. If at any time the System Integrator fails to purchase, renew and maintain in full force and effect, any and all of the Insurances required under this System Integrator Agreement, the Authority may at its option purchase and maintain such insurance and all sums incurred by the Authority therefore shall be reimbursed by the System Integrator forthwith on demand, failing which the same shall be recovered by the Authority by encashment of Performance Security, exercising right of set off or otherwise

8. **Use & Acquisition of Assets during the term**

System Integrator shall

- take all reasonable & proper care of the entire hardware & software, network or any other information technology infrastructure components used for the project & other facilities leased/owned by the system integrator exclusively in terms of the delivery of the services as per this Agreement (hereinafter the "Assets" which include all the hardware / Software / furniture / data / documentations / manuals / catalogs / brochures / or any other material procured, created or utilized by the SI or the SSCDL for the Surat Project) in proportion to their use & control of such Assets which will include all upgrades/enhancements & improvements to meet the needs of the project arising from time to time; Note: Hardware upgrades outside the RFP scope would not be part of the original contract and would be catered through change request. Assets would be owned by the SSCDL however, the System Integrator would be custodian of the same during the entire contract period and would take care of all wear-tear, insurance, theft etc. so that the SLAs are not affected.

- Maintain sufficient spare inventory at all times, for all items of importance;

- keep all the tangible Assets in good & serviceable condition (reasonable wear & tear excepted) &/or the intangible Assets suitably upgraded subject to the relevant standards as stated in of the RFP to meet the SLAs mentioned in the contract & during the entire term of the Agreement.

- ensure that any instructions or manuals supplied by the manufacturer of the Assets for use of Assets & which are provided to the system integrator will be followed by the System integrator & any person who will be responsible for the use of the Asset;

- take such steps as may be recommended by the manufacturer of the Assets & notified to the system integrator or as may be necessary to use the Assets in a safe manner;

- provide a well-prepared documentation for users in the manual, a clear plan for training, education & hand holding the users & shall form part of hand holding phase until bringing up the users to use software solution with speed & efficiency;

- To the extent that the Assets are under the control of the system integrator, keep the Assets suitably housed & in conformity with any statutory requirements from time to time applicable to them,

- Provide and facilitate access to SSCDL or its nominated agencies & any persons duly authorized by him/her to enter any land or premises on which the Assets are for the time being sited so as to inspect the same, subject to any reasonable requirements;

- Not, knowingly or negligently use or permit any of the Assets to be used in contravention of any statutory provisions or regulation or in any way contrary to law;

- Use the Assets exclusively for the purpose of providing the Services as defined in the contract;

- Use the Assets only in accordance with the terms hereof & those contained in the SLAs;

- Maintain standard forms of comprehensive insurance including liability insurance, system & facility insurance & any other insurance for the Assets, data, software, etc in the joint names of SSCDL & the System Integrator, where SI shall be designated as the 'loss payee' in such insurance policies; SI shall be liable to pay premium for the insurance policy & shall ensure that each & every policy shall keep updated from time to time.

- Ensure the integration of the software with hardware to be installed and the current Assets in order to ensure the smooth operations of the entire solution architecture to provide efficient services to SSCDL of this Project in an efficient and speedy manner; &

- Obtain a sign off from SSCDL or its nominated agencies at each stage as is essential to close each of the above considerations.

Ownership of the Assets shall vest with SSCDL on Go Live of the project. Ownership of any asset, created during the contractual period after go Live, shall also vest with SSCDL upon creation of such asset. System Integrator shall not use SSCDL data to provide services for the benefit of any third party, as a service bureau or in any other manner. Six months prior to the expiry of the contract (of the respective work streams), there shall be joint inspection by a team of SSCDL and SI to assess the damages to the assets, if any. If damage to the assets is found unacceptable to the SSCDL, then corresponding penalty/liquidated damages shall be recovered from SI from the fees payable.

9. **Security and safety**
   - The System Integrator will comply with the directions issued from time to time by SSCDL and the standards related to the security and safety in so far as it applies to the provision of the Services.
   - System Integrator shall also comply with the SSCDL Project's information technology security and standard policies in force from time to time as applicable.
   - System Integrator shall use reasonable endeavors to report forthwith in writing to all the partners / contractors about the civil and criminal liabilities accruing due to by

unauthorized access (including unauthorized persons who are employees of any Party) or interference with SSCDL's data, facilities or Confidential Information.

- The System Integrator shall upon reasonable request by SSCDL or his/her nominee(s) participate in regular meetings when safety and information technology security matters are reviewed.

- System Integrator and its partners / sub-contractors shall promptly report in writing to each other and SSCDL any act or omission which they are aware that could have an adverse effect on the proper conduct of safety and information technology security at SSCDL's Facilities.

10. Indemnity

The System Integrator agrees to indemnify and hold harmless SSCDL, its officers, employees and agents(each a "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses , claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified Party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from

i.   any mis-statement or any breach of any representation or warranty made by the System Integrator or

ii. The failure by the System Integrator to fulfil any covenant or condition contained in this Agreement, including without limitation the breach of any terms and conditions of this Agreement by any employee or agent of the System Integrator. Against all losses or damages arising from claims by third Parties that any Deliverable (or the access, use or other rights thereto), created System Integrator pursuant to this Agreement, or any equipment, software, information, methods of operation or other intellectual property created by System Integrator or sub-contractors pursuant to this Agreement, or the SLAs (I) infringes a copyright, trade mark, trade design enforceable in India, (II) infringes a patent issued in India, or (III) constitutes misappropriation or unlawful disclosure or use of another Party's trade secrets under the laws of India (collectively, "Infringement Claims"); provided, however, that this will not apply to any Deliverable (or the access, use or other rights thereto) created by (A) "Implementation of Project by itself or through other persons other than System Integrator or its sub-contractors; (B) Third Parties (i.e., other than System Integrator or sub-contractors) at the direction of SSCDL, or

iii. any compensation / claim or proceeding by any third party against SSCDL arising out of any act, deed or omission by the System Integrator or

iv. Claim filed by a workman or employee engaged by the System Integrator for carrying out work related to this Agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.

v.   Any payment made under this Agreement to an indemnity or claim for breach of any provision of this Agreement shall include applicable taxes.

11. Third Party Claims

a. Subject to Sub-clause (b) below, the System Integrator (the "Indemnified Party") from and against all losses, claims litigation and damages on account of bodily injury, death or damage to tangible personal property arising in favor or any person, corporation or other entity (including the Indemnified Party) attributable to the Indemnifying Party's performance or non-performance under this Agreement or the SLAs.

b. The indemnities set out in Sub-clause (a) above shall be subject to the following conditions:

i) The Indemnified Party, as promptly as practicable, informs the Indemnifying Party in writing of the claim or proceedings and provides all relevant evidence, documentary or otherwise;

ii) The Indemnified Party shall, at the cost and expenses of the Indemnifying Party, give the Indemnifying Party all reasonable assistance in the defense of such claim including reasonable access to all relevant information, documentation and personnel. The indemnifying party shall bear cost and expenses and fees of the Attorney on behalf of the Indemnified Party in the litigation, claim.

iii) if the Indemnifying Party does not assume full control over the defense of a claim as provided in this Article, the Indemnifying Party may participate in such defense at its sole cost and expense, and the Indemnified Party will have the right to defend the claim in such manner as it may deem appropriate, and the cost and expense of the Indemnified Party will be borne and paid by the Indemnifying Party.

iv. The Indemnified Party shall not prejudice, pay or accept any proceedings or claim, or compromise any proceedings or claim, without the written consent of the Indemnifying Party;

v. system integrator hereby indemnify & hold indemnified the SSCDL harmless from & against any & all damages, losses, liabilities, expenses including legal fees & cost of litigation in connection with any action, claim, suit, proceedings as if result of claim made by the third party directly or indirectly arising out of or in connection with this agreement.

vi. all settlements of claims subject to indemnification under this Article will: (a) be entered into only with the consent of the Indemnified Party, which consent will not be unreasonably withheld & include an unconditional release to the Indemnified Party from the claimant for all liability in respect of such claim; & (b) include any appropriate confidentiality agreement prohibiting disclosure of the terms of such settlement;

Viii. the Indemnified Party shall take steps that the Indemnifying Party may reasonably require to mitigate or reduce its loss as a result of such a claim or proceedings; &

ix. In the event that the Indemnifying Party is obligated to indemnify an Indemnified Party pursuant to this Article, the Indemnifying Party will, upon payment of such indemnity in full, be subrogated to all rights & defenses of the Indemnified Party with respect to the claims to which such indemnification relates;

x. in the event that the Indemnifying Party is obligated to indemnify the Indemnified Party pursuant to this Article, the Indemnified Party will be entitled to invoke the Performance Bank Guarantee, if such indemnity is not paid, either in full or in part, & on the invocation of the Performance Bank Guarantee, the Indemnifying Party shall be subrogated to all rights & defenses of the Indemnified Party with respect to the claims to which such indemnification relates.

12. Publicity

Any publicity by the SI in which the name of SSCDL is to be used should be done only with the explicit written permission of the CEO, SSCDL.

13. Warranties

a. The System Integrator warrants and represents to SSCDL that:
   i. It has full capacity and authority and all necessary approvals to enter into and to perform its obligations under this Agreement;
   ii. This Agreement is executed by a duly authorized representative of the System Integrator;
   iii. It shall discharge its obligations under this Agreement with due skill, care and diligence so as to comply with the service level agreement.

b. In the case of the SLAs, the System Integrator warrants and represents to SSCDL, that:

   - the System Integrator has full capacity and authority and all necessary approvals to enter into and perform its obligations under the SLAs and to provide the Services;

   - The SLAs have been executed by a duly authorized representative of the System Integrator;

   - The System Integrator is experienced in managing and providing works similar to the Services and that it will perform the Services with all due skill, care and diligence so as to comply with service level agreement;

   - The Services will be provided and rendered by appropriately qualified, trained and experienced personnel as mentioned in the RFP;

   - System Integrator has and will have all necessary licenses, approvals, consents of third Parties free from any encumbrances and all necessary technology, hardware and software to enable it to provide the Services;

- The Services will be supplied in conformance with all laws, enactments, orders and regulations applicable from time to time;

- System Integrator will warrant that the goods supplied under the contract are new, unused, of the most recent higher version /models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The System Integrator further warrants that the goods supplied under this contract shall have no defects arising from design, materials or workmanship.

- The overall system design shall be such that there is no choking point / bottleneck anywhere in the system (end-to-end) which can affect the performance / SLAs.

Subject to the fulfillment of the obligations of the System Integrator as provided for in sub clause (viii) above, in the event that such warranties cannot be enforced by SSCDL, the System Integrator will enforce such warranties on behalf of SSCDL and pass on to SSCDL, the benefit of any other remedy received in relation to such warranties.

c. Notwithstanding what has been stated elsewhere in this Agreement and the Schedules attached herein, in the event the System Integrator is unable to meet the obligations pursuant to the implementation of the Project, Operations and Maintenance Services and any related scope of work as stated in this Agreement and the Schedules attached herein, SSCDL will have the option to invoke the Performance Guarantee after serving a written notice of thirty (30) days on the system Integrator.

14. **Force Majeure & Vandalism**

In the event that any Damages to items due to Vandalism (physical Majeure attack by public, tampering of equipment by SMC / SSCDL staff or School staff and damage due to accidents) or due to Force Majeure events (such as earthquake, fire, natural calamities, war, act of God) of any kind during 5 years of comprehensive warranty(3 years) and O&M support(2 years) shall be the liability of SSCDL. In such case, SSCDL/Authority shall request the successful Bidder to repair/replace the damaged unit and reinstall the same. All costs towards the same shall be reimbursed by SSCDL/Authority to the successful Bidder less of insurance proceeds if need of replacement so arise then replacement shall be on tender rates only.

The System Integrator shall not be liable for forfeiture of its Performance Guarantee, imposition of liquidated damages or termination for default, if and to the extent that it's delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the "reasonable" control of the System Integrator, not involving the System Integrator's fault or negligence and not foreseeable. Such events may include Acts of God & acts of Government of India in their sovereign capacity.

For the SI to take benefit of this clause it is a condition precedent that the SI must promptly notify the SSCDL, in writing of such conditions and the cause thereof within 2 calendar days of the Force Majeure event arising. SSCDL, or the consultant / committee appointed by the SSCDL shall study the submission of the SI and inform whether the situation can be

qualified one of Force Majeure. Unless otherwise directed by the SSCDL in writing, the SI shall continue to perform its obligations under the resultant Agreement as far as it is reasonably practical, and shall seek all reasonable alternative means for performance of services not prevented by the existence of a Force Majeure event.

In the event of delay in performance attributable to the presence of a force majeure event, the time for performance shall be extended by a period(s) equivalent to the duration of such delay. If the duration of delay continues beyond a period of 30 days, SSCDL and the SI shall hold consultations with each other in an endeavor to find a solution to the problem.

Notwithstanding anything to the contrary mentioned above, the decision of the SSCDL shall be final and binding on the SI.

15. **Resolution of Disputes**

The SSCDL and the SI shall make every effort to resolve amicably, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Agreement. If after 30 days from the commencement of such informal negotiations, the SSCDL and the SI are unable to resolve amicably such dispute, the matter will be referred to the Chairman, SSCDL, and his / her opinion shall be taken.

If the SI doesn't agree with the opinion of the Chairman, SSCDL, matter shall be referred to two Arbitrators: one Arbitrator to be nominated by SSCDL and the other one to be nominated by the SI. In the case of the said Arbitrators not agreeing, then the matter will be referred to an umpire to be appointed by the Arbitrators in writing before proceeding with the reference. The award of the Arbitrators, and in the event of their not agreeing, the award of the Umpire appointed by them shall be final and binding on the parties. Proceedings under this clause shall be subject to applicable law of the Arbitration and Reconciliation Act, 1996 and the venue of such arbitration shall be Surat. Cost of arbitration shall be borne by each party proportionately. However, expenses incurred by each party in connection with the preparation, presentation shall be borne by the party itself. The provisions of this clause shall survive termination of this Agreement.

16. **Limitation of Liability towards SSCDL**

The SI's liability under the resultant Agreement shall be determined as per the Law in force for the time being. The SI shall be liable to the SSCDL for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the SI and its employees, including loss caused to SMC / SSCDL on account of defect in goods or deficiency in services on the part of SI or his agents or any person / persons claiming through or under said SI. However, such liability of SI shall not exceed 50% of the total CAPEX + OPEX value.

This limitation of liability shall not limit the SI"s liability, if any, for damage to Third Parties caused by the SI or any person or firm acting on behalf of the SI in carrying out the scope of work envisaged herein.

17. **Conflict of Interest**

A conflict of interest is any situation that might cause an impartial observer to reasonably question whether SI actions are influenced by considerations of your firm's interest at the cost of Government.

The SI shall disclose to the SSCDL in writing, all actual and potential conflicts of interest that exist, arise or may arise (either for the Systems Integrator or its Team) in the course of performing Services as soon as it becomes aware of such a conflict. However,SI shall hold SSCDL's interest paramount, without any consideration for future work, and strictly avoid conflict of interest with other assignments.

18. **Safety Regulation, Accident and Damage**

a   The Bidder shall be responsible at his own cost in and relative to performance of the work and bidder to observe and to ensure observance by his Sub-contractors, agents and servants of the provisions of Safety Code as hereinafter appearing and all fire, Safety and security regulations as may be prescribed by the Owner from time to time and such other Precautions, measures as shall be necessary and shall employ / deploy all equipment necessary to protect all works, materials, properties, structures, equipments, installations, communications and facilities whatsoever from damage, loss or other hazard whatsoever (including but not limited to fire and explosion) and shall during construction and other operations minimize the disturbance and inconvenience to the Owner, other bidders, the public and adjoining land and property owners and occupiers, and crops, trees and vegetation and shall indemnify and keep indemnified the One from and against all losses and damages and costs, charges and expenses and penalties, actions, claims, demands and proceedings whatsoever suffered or incurred by or against the Owner, as the case may be, virtue of any loss, alteration, displacement, disturbance or destruction or accident to any works materials, properties, structures, equipments, installations communications and facilities and land and property owners and occupiers and crops, trees and vegetation as aforesaid, with the intent that the Bidder shall be exclusively responsible for any accident, loss, damage, alteration, displacement, disturbance or destruction as aforesaid resultant directly or indirectly from any breach by the Bidder of his obligation aforesaid or upon any operation, act or omission of the bidder his Sub-contractor(s) or agent(s) or servant(s).

b   The Bidder's liabilities under Clause (a) and otherwise under the Contract shall remain unimpaired notwithstanding the existence of any storage cum erection or other insurance covering any risk, damage, loss or liability for which the Bidder is liable to the Owner in terms of the foregoing Sub-Clause or otherwise and / or in respect of which the Bidder has indemnified the Owner with the intent that notwithstanding the existence of such insurance, the Bidder shall be and remain fully liable for all liabilities and obligations under the contract and indemnified to the Owner, and the Owner shall not be obliged to seek recourse under such policy(ies) in preference to recourse against the Bidder or otherwise to exhaust any other remedy in preference to the remedies available to in under the Contracth prior written approval of SSCDL. However, even if the work is sub-contracted / outsourced, the sole responsibility of the work shall lie with the SI. The SI shall be held responsible for any delay/error/non-compliance etc. of its sub-

contracted vendor. The details of the sub-contracting agreements (if any) between both the parties would be required to be submitted to SSCDL.

19. Data Ownership

All the data created as the part of the project shall be owned by SSCDL. The SI shall take utmost care in maintaining security, confidentiality and backup of this data. Access to the data / systems shall be given by the SI only as per the IT Security Policy, approved by SSCDL. SSCDL / its authorized representative(s) shall conduct periodic / surprise security reviews and audits, to ensure the compliance by the SI Vendor to data / system security.

20. Intellectual Property Rights

(A) For the customized solution developed for the project, IPR of the solution would belong exclusively to the SSCDL. The SI shall transfer the source code to SSCDL at the stage of successful implementation of the respective smart element. SI shall also submit all the necessary instructions for incorporating any modification / changes in the software and its compilation into executable / installable product. SSCDL may permit the SI, right to use the customized software for any similar project being executed by the same SI, with payment of reasonable royalty to SSCDL for the same.

(B) Deliverables provided to SSCDL by System Integrator during the course of its performance under this Agreement, all rights, title and interest in and to such Deliverables, shall, as between System Integrator and SSCDL, immediately upon creation, vest in SSCDL. To the extent that the System Integrator Proprietary Information is incorporated within the Deliverables, System Integrator and its employees engaged hereby grant to SSCDL a worldwide, perpetual, irrevocable, non-exclusive, transferable, paid-up right and license to use, copy, modify (or have modified), use and copy derivative works for the benefit of and internal use of SSCDL.

21. Fraud and Corruption

SSCDL requires that SI must observe the highest standards of ethics during the execution of the contract. In pursuance of this policy, SSCDL defines, for the purpose of this provision, the terms set forth as follows:

a. "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of SSCDL in contract executions.

b. "Fraudulent practice" means a mis-presentation of facts, in order to influence a procurement process or the execution of a contract, to SSCDL, and includes collusive practice among bidders (prior to or after Proposal submission) designed to establish Proposal prices at artificially high or non-competitive levels and to deprive SSCDL of the benefits of free and open competition.

c. "Unfair trade practices" means supply of services different from what is ordered on, or change in the Scope of Work which is given by the SSCDL in Volume II.

d. "Coercive Practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the execution of contract.

If it is noticed that the SI has indulged into the Corrupt / Fraudulent / Unfair / Coercive practices, it will be a sufficient ground for SSCDL for termination of the contract and initiate black-listing of the vendor.

22. Exit Management

(i)   Exit Management Purpose

This clause sets out the provisions, which will apply during Exit Management period. The Parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management Clause.

The exit management period starts, in case of expiry of contract, at least 6 months prior to the date when the contract comes to an end or in case of termination of contract, on the date when the notice of termination is sent to the SI. The exit management period ends on the date agreed upon by the SSCDL or Six months after the beginning of the exit management period, whichever is earlier.

(ii)   Confidential Information, Security and Data

Systems Integrator will promptly on the commencement of the exit management period, supply to the SSCDL or its nominated agencies the following:

a) Information relating to the current services rendered and performance data relating to the performance of the services; Documentation relating to Surveillance Project, Project's Intellectual Property Rights; any other data and confidential information related to the Project;
b) Project data as is reasonably required for purposes of the Project or for transitioning of the services to its Replacing Successful Bidder in a readily available format.
c) All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable the SSCDL and its nominated agencies, or its Replacing Vendor to carry out due diligence in order to transition the provision of the Services to SSCDL or its nominated agencies, or its Replacing Vendor (as the case may be).

(iii)   Employees

Promptly on reasonable request at any time during the exit management period, the Successful Bidder shall, subject to applicable laws, restraints and regulations (including in particular those relating to privacy) provide to SSCDL a list of all employees (with job titles and communication address) of the Successful Bidder, dedicated to providing the services at the commencement of the exit management period; To the extent that any Transfer Regulation does not apply to any employee of the Successful Bidder, SSCDL or Replacing Vendor may make an offer of contract for services to such employee of the Successful Bidder and the Successful Bidder shall not enforce or impose any contractual provision that would prevent any such employee from being hired by the SSCDL or any Replacing Vendor.

(iv)   Rights of Access to Information

At any time during the exit management period, the Successful Bidder will be obliged to provide an access of information to SSCDL and / or any Replacing Vendor in order to make an inventory of the Assets (including hardware / Software / Active / passive), documentations, manuals, catalogs, archive data, Live data, policy documents or any other material related to the Surveillance Project.

(v)   Exit Management Plan

Successful Bidder shall provide SSCDL with a recommended exit management plan ("Exit Management Plan") within 90 days of signing of the contract, which shall deal with at least the following aspects of exit management in relation to the SLA as a whole and in relation to the Project Implementation, the Operation and Management SLA and Scope of work definition.

a) A detailed program of the transfer process that could be used in conjunction with a Replacement Vendor including details of the means to be used to ensure continuing provision of the services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer;

b) Plans for the communication with such of the Successful Bidder, staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on Project's operations as a result of undertaking the transfer;

c) Plans for provision of contingent support to the Surveillance Project and Replacement Vendor for a reasonable period (minimum one month) after transfer.

d) Successful Bidder shall re-draft the Exit Management Plan annually to ensure that it is kept relevant and up to date.

e) Each Exit Management Plan shall be presented by the Successful Bidder to and approved by SSCDL or its nominated agencies.

f) The terms of payment as stated in the Terms of Payment Schedule include the costs of the Successful Bidder complying with its obligations under this Schedule.

g) During the exit management period, the Successful Bidder shall use its best efforts to deliver the services.

h) Payments during the Exit Management period shall be made in accordance with the Terms of Payment Schedule.

(vi)   Transfer Cost

On premature termination of the contract for reasons other than those mentioned in section 23.a (Termination for Default), the Successful Bidder shall be paid the depreciated book value of the infrastructure cost and the other assets (as per the Asset Register). The depreciation rates and method followed will be as per Income Tax Rules.

Note: Amount to be payable by SI on premature termination of contract =

Pending amount to be paid against services delivered + Depreciated Book Value of the Assets as per Income Tax Rules – Applicable Penalty / Liquidated Damages

23. Termination of Contract

SSCDL may, without prejudice to any other remedy under this Contract and applicable law, reserves the right to terminate for breach of contract by providing a written notice of 30 days stating the reason for default to the SI and as it deems fit, terminate the contract either in whole or in part:

- If the SI fails to deliver any or all of the project requirements / operationalization / go-live of the project within the time frame specified in the contract; or
- If the SI fails to perform any other obligation(s) under the contract.

Prior to providing a notice of termination to the SI, SSCDL shall provide the SI with a written notice of 30 days instructing the SI to cure any breach/ default of the Contract, if SSCDL is of the view that the breach may be rectified.

On failure of the SI to rectify such breach within 30 days, SSCDL may terminate the contract by providing a written notice of 30 days to the SI, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to SSCDL. In such event the SI shall be liable for penalty/liquidated damages imposed by the SSCDL. The performance Guarantee shall be forfeited by the SSCDL

Consequences of Termination

In the event of termination of this contract, SSCDL is entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective continuity of the services which the SI shall be obliged to comply with and take all available steps to minimize the loss resulting from that termination/ breach, and further allow and provide all such assistance to SSCDL and/ or succeeding vendor, as may be required, to take over the obligations of the SI in relation to the execution / continued execution of the requirements of this contract.

Plans and drawings

All plans, drawings, specifications, designs, reports and other documents prepared by the Vendor in the execution of the contract shall become and remain the property of SSCDL and before termination or expiration of this contract the SI shall deliver all such documents, prepared under this contract along with a detailed inventory thereof, to SSCDL.

24. Miscellaneous
a) Confidentiality

"Confidential Information" means all information including Project Data (whether in written, oral, electronic or other format) which relates to the technical, financial and operational affairs, business rules, citizen information, video footages, alert

information, any police department data, products, processes, data, crime / criminal secrets, design rights, know-how and personnel of each Party and its affiliates which is disclosed to or otherwise learned by the other Party or its consortium partners or subcontractors (whether a Party to the contract or to the SLA) in the course of or in connection with the contract (including without limitation such information received during negotiations, location visits and meetings in connection with the contract or to the SLA) or pursuant to the contract to be signed subsequently.

Except with the prior written permission of SSCDL, the Systems Integrator (including all consortiums or partners) and its Personnel shall not disclose such confidential information to any person or entity not expected to know such information by default of being associated with the project, nor shall the Systems Integrator and it's Personnel make public the recommendations formulated in the course of, or as a result of the Project.

a. The System Integrator recognizes that during the term of this Agreement, sensitive data will be procured & made available to it, its Sub contractors & agents & others working for or under the System Integrator. Disclosure or usage of the data by any such recipient may constitute a breach of law applicable causing harm not only to SSCDL / SMC whose data is used but also to its stakeholders. System Integrator, its Subcontractors & agents are required to demonstrate utmost care, sensitivity & strict confidentiality. Any breach of this Article will result in SSCDL & its nominees receiving a right to seek injunctive relief & damages from the System Integrator.

b. Each Party agrees as to any Confidential Information disclosed by a Party to this Agreement (the "Discloser") to the other Party to this Agreement (the "Recipient") &
    i. to take such steps necessary to protect the Discloser's Confidential information from unauthorized use, reproduction & disclosure, as the Recipient takes in relation to its own Confidential Information of the same type, but in no event less than reasonable care;
    ii. to use such Confidential Information only for the purposes of this Agreement or as otherwise expressly permitted or expressly required by this Agreement or as otherwise permitted by the Discloser in writing; &
    iii. not, without the Discloser's prior written consent, to copy the Confidential Information cause or allow it to be copied, directly or indirectly, in whole or in part, except as otherwise expressly provided in this Agreement, or as required in connection with Recipient's use as permitted under this Article, or as needed for the purposes of this Agreement, or as needed for the purposes of this Agreement, provided that any proprietary legends & notices (whether of the Discloser or of a Third Party) are not removed or obscured; &
    iv. Not, to disclose, transfer, publish or communicate the Confidential Information in any manner, without the Discloser's prior written consent, to any person except as permitted under this Agreement.

c. The restrictions of this Article shall not apply to confidential Information that:

i. is or becomes generally available to the public through no breach of this Article by the Recipient; &

ii. Was in the recipient's possession free of any obligation of confidence prior to the time of receipt of it by the Recipient hereunder; &

iii. Is developed by the Recipient independently of any of discloser's Confidential Information; &

iv. Is rightfully obtained by the Recipient from third Parties authorized at that time to make such disclosure without restriction; &

v. is identified in writing by the Discloser as no longer proprietary or confidential; or vi. Is required to be disclosed by law, regulation or Court Order, provided that the recipient gives prompt written notice to the Discloser of such legal & regulatory requirement to disclose so as to allow the Discloser reasonable opportunity to contest such disclosure.

d. to the extent that such disclosure is required for the purposes of this Agreement, either Party may disclose Confidential Information to:

i. its employees, agents & independent contractors & to any of its affiliates & their respective independent contractors or employees; &

ii. its professional advisors & auditors, who require access for the purposes of this Agreement, whom the relevant Party has informed of its obligations under this Article & in respect of whom the relevant Party has informed of its obligations under this Article has used commercially reasonable efforts to ensure that they are contractually obliged to keep such Confidential Information confidential on terms substantially the same as set forth in this Article. Either Party may also disclose confidential Information or any entity with the other Party's prior written consent.

e. The provisions of this Article shall survive three years post expiration or any earlier termination of this Agreement.

f. confidential Information shall be & remain the property of the Discloser & nothing in this Article shall be construed to grant either Party any right or license with respect to the other Party's confidential Information otherwise than as is expressly set out in this Agreement.

g. Subject as otherwise expressly provide in this Agreement all Confidential information in tangible or electronic form under the control of the Recipient shall either be destroyed, erased or returned to the Discloser promptly upon the earlier of: (i) the written request of the Disclose, or, (ii) termination or expiry of this Agreement or, in respect of the SLAs, the termination or expiry of the SLAs. Notwithstanding the forgoing, both Parties may retain, subject to the terms of this Article, reasonable number of copies of the other Party's Confidential Information solely for confirmation of compliance with the confidentiality obligations of this Agreement.

h. Neither Party is restricted by the provisions of this clause from using (including using to provide products or perform services on behalf of third Parties) any ideas, concepts, know-how & techniques that are related to the Recipient's employees or agents (and not intentionally memorized for the purpose of later recording or use) (collectively, the "residuals"). This Article shall not permit the disclosure or use by either Party or any financial (including business plans), statistical, product, personnel or customer data or the other Party. Each party agrees not to disclose the source of the Residuals.

i. Both Parties agree that monetary damages would not be a sufficient remedy for any breach of this clause by the other Party & that SSCDL & system integrator, as appropriate, shall be entitled to equitable relief, including injunction & specific performance as a remedy for any such breach. Such remedies shall not be deemed to be the exclusive remedies for a breach by a Party of this clause, but shall be in addition to all other remedies available at law or equity to the damaged Party.

j. in connection with the Services, System Integrator may from time to time undertake one or more quality assessment reviews for the purpose of improving the SSCDL Project. In order for such reviews to be frank & candid, for the greatest benefit to both SSCDL & System Integrator, they shall be kept confidential to the greatest extent possible. The Parties agree that any documentation created in connection with such quality assessment reviews shall be confidential Information of System Integrator which is licensed to SSCDL for any internal use except that in no event shall such documentation or the results of such reviews be discoverable or admissible (or used for any purpose) in any arbitration or legal proceedings against System integrator related to this Agreement or the Services.

A Non-disclosure agreement shall be signed separately between the Systems Integrator and SSCDL.

b) **Standards of Performance**
The SI shall provide the services and carry out their obligations under the Contract with due diligence, efficiency and professionalism/ethics in accordance with generally accepted professional standards and practices. The SI shall always act in respect of any matter relating to this contract. The SI shall abide by all the provisions/Acts/Rules/Regulations, Standing orders, etc. of Information Technology as prevalent in the country. The SI shall also conform to the standards laid down by SMC or SSCDL or Government of Gujarat or Government of India from time to time.

c) **Sub Contracts**
All the personnel working on the project and having access to the Servers / data should be on payroll of the Systems Integrator. Sub-contracting / out sourcing would be allowed only for work like
-   Passive Networking & Civil Work during implementation,
-   FMS staff for non- IT support during post-implementation

- Services delivered by the respective Product Vendors / OEMs

The bidder is expected to provide details of the sub-contractors for the work which is allowed as mentioned in the clause. Use of personnel not on payroll of the SI shall be considered as sub-contracting.

The SI shall take prior approval from SSCDL for sub-contracting any allowed work as mentioned in clause, if not already specified in the proposal and approved by SSCDL. Such sub-contracting shall not relieve the SI from any liability or obligation under the Contract. The SI shall solely responsible for the work carried out by subcontracting under the contract.

d) Care to be taken while working at Public Place
SI should follow instructions issued by *concerned Competent Authority and* SSCDL from time to time for carrying out work at public places. SI should ensure that there is no damage caused to any private or public property. In case such damage is caused, SI shall immediately bring it to the notice of concerned organization and SSCDL in writing and pay necessary charges towards fixing of the damage. SI should also ensure that no traffic *congestion*/public inconvenience is caused while carrying out work at public places.

SI shall ensure that its employees/representatives don't breach privacy of any citizen or establishment during the course of execution or maintenance of the project.

e) Compliance with Labor regulations
The SI shall pay fair and reasonable wages to the workmen employed by him, for the contract undertaken by him and comply with the provisions set *forth* under the Minimum wages Act and *the* Contract *Labor* Act 1970.

f) Independent Contractor
Nothing in this Agreement shall be construed as establishing or implying any partnership or joint venture or *employment relationship* between the Parties to this Agreement. Except as expressly stated in this Agreement nothing in this Agreement shall be deemed to constitute any Party as the agent of any other Party or authorizes either Party (i) to incur any expenses on behalf of the other Party, (ii) to enter into any engagement or make any representation or warranty on behalf of the other Party, (iii) to pledge the credit of or otherwise bind or oblige the other Party, or (iv) to commit the other Party in any manner whatsoever in each case without obtaining the other Party's prior written consent.

g) Waiver
A waiver of any provision or breach of this Agreement must be in writing and signed by an authorized official of the Party executing the same. No such waiver shall be

construed to affect or imply a subsequent waiver of the same provision or subsequent breach of this Agreement.

h) Notices

Any notice or other document, which may be given by either Party under this Agreement, shall be given in writing in person or by pre-paid recorded delivery post.

In relation to a notice given under this Agreement, any such notice or other document shall be addressed to the other Party's principal or registered office address as set out below

SSCDL:

Chief Executive Officer
Surat Smart City Development Ltd.

115, Smart City Cell,

Surat Municipal Corporation Head Quarter

Muglisara Main Road, Surat

Tel: 0261 2277429

Fax: 0261 2277043

Systems Integrator:

_____

_____

_____

_____

_____

Any notice or other document shall be deemed to have been given to the other Party when delivered (if delivered in person) if delivered between the hours of 9.30 am and 5.30 pm at the address of the other Party set forth above or on the next working day thereafter if delivered outside such hours, and 7 calendar days from the date of posting (if by letter).

i) Performance Guarantee

The SI shall submit performance guarantee which is unconditional & irrevocable equal to 10% of the order value of the contract in the format prescribed in RFP issued by any of the Nationalized Banks Only. The performance guarantee shall be valid for the term agreement & shall be renewed & maintained by the SI for the term of the agreement &

extension, if any. The performance guarantee shall be forfeited / liquidated by the SSCDL as a penalty in the event of failure to complete obligations or breach of any of the conditions by the SI.

j) Personnel/Employees

i. Personnel/employees assigned by System Integrator to perform the services shall be employees of System Integrator or its sub-contractors, & under no circumstances will such personnel be considered as employees of SSCDL. System Integrator shall have the sole responsibility for supervision & control of its personnel & for payment of such personnel's employee's entire compensation, including salary, legal deductions withholding of income taxes & social security taxes, worker's compensation, employee & disability benefits & the like & shall be responsible for all employer obligations under all laws as applicable from time to time. The SSCDL shall not be responsible for the above issues concerning to personnel of System Integrator.

ii. System Integrator shall use its best efforts to ensure that sufficient System Integrator personnel are employed to perform the Services, & that, such personnel have appropriate qualifications to perform the Services. SSCDL or its nominated agencies shall have the right to require the removal or replacement of any system Integrator personnel performing work under this Agreement. In the event that SSCDL requests that any System Integrator personnel be replaced, the substitution of such personnel shall be accomplished pursuant to a mutually agreed upon schedule & upon clearance of the personnel based on profile review & upon schedule & upon clearance of the personnel based on profile review & personal interview by SSCDL or its nominated agencies, within not later than 30 working days. System Integrator shall depute quality team for the project & as per requirements, SSCDL shall have the right to ask System Integrator to change the team.

iii. Management (Regional Head / VP level officer) of System Integrator needs to be involved in the project monitoring & should attend the review meeting atleast once in a month.

iv. The profiles of resources proposed by System Integrator in the technical proposal, which are considered for Technical bid evaluation, shall be construed as 'Key Personnel' & the System Integrator shall not remove such personnel without the prior written consent of SSCDL. For any changes to the proposed resources, System Integrator shall provide equivalent or better resources (in terms of qualification & experience) in consultation with SSCDL.

v. Except as stated in this clause, nothing in this Agreement will limit the ability of System Integrator freely to assign or reassign its employees; provided that System Integrator shall be responsible, at its expense, for transferring all appropriate knowledge from personnel being replaced to their replacements. SSCDL shall have the right to review & approve System Integrator's plan for any such knowledge transfer. System Integrator shall maintain the same standards for skills & professionalism among replacement personnel as in personnel being replaced.

vi. Each Party shall be responsible for the performance of all its obligations under this Agreement & shall be liable for the acts & omissions of its employees & agents in connection therewith.

k) Variations & Further Assurance

a. No amendment, variation or other change to this Agreement or the SLAs shall be valid unless made in writing & signed by the duly authorized representatives of the Parties to this Agreement.

b. Each Party to this Agreement or the SLAs agree to enter into or execute, without limitation, whatever other agreement, document, consent & waiver & to do all other things which shall or may be reasonably required to complete & deliver the obligations set out in the Agreement or the SLAs.

l) Severability & Waiver

a. if any provision of this Agreement or the SLAs, or any part thereof, shall be found by any court or administrative body of competent jurisdiction to be illegal, invalid or unenforceable the illegality, invalidity or unenforceability of such provision or part provision shall not affect the other provisions of this Agreement or the SLAs or the remainder of the provisions in question which shall remain in full force & effect. The relevant Parties shall negotiate in good faith in order to agree to substitute any illegal, invalid or unenforceable provision with a valid & enforceable provision which achieves to the greatest extent possible the economic, legal & commercial objectives of the illegal, invalid or unenforceable provision or part provision within 7 working days.

b. No failure to exercise or enforce & no delay in exercising or enforcing on the part of either Party to this Agreement or the SLAs of any right, remedy or provision of this Agreement or the SLAs shall operate as a waiver of such right, remedy or provision in any future application nor shall any single or partial exercise or enforcement of any right, remedy or provision preclude any other or further exercise or enforcement of any other right, remedy or provision.

m) Entire Agreement

This MSA, the SLAs & all schedules appended thereto & the contents & specifications of the Volumes I & II, of the RFP subsequent corrigenda issued thereon & clarification (undertakings) accepted by the SSCDL constitute the entire agreement between the Parties with respect to their subject matter.

n) Survivability

The termination or expiry of this Agreement or the SLAs for any reason shall not affect or prejudice any terms of this Agreement, or the rights of the Parties under them which are either expressly of by implication intended to come into effect or continue in effect after such expiry or termination.

o) The stamp duty payable for the contract shall be borne by the Systems Integrator.

p) Deliverables will be deemed to be accepted by SSCDL if no communication from the department is made to the SI after 30 days of delivery, provided the delivery is made to the designated officer and clearly highlighted in at least 3 weekly project progress reports

25. Applicable Law

The contract shall be governed by the laws and procedures prescribed by the Laws prevailing and in force in India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing. All legal disputes are subject to the jurisdiction of Surat courts only.

IN WITNESS WHEREOF the common seal of the Company has been hereinto affixed in the presence of CEO /Director/GM (IT) of the Company has hereinto set their hands and sealed and signature of the System Integrator has been herein affixed this day and year above written.

Signed, sealed and delivered by _____ in the presence of:

Witnesses:

(1)_____

(2)_____

_____
Deputy General Manager
Surat Smart City Development Ltd.

_____
Signed, sealed and delivered

Name & Designation --------------------------
For and on behalf of the "Systems Integrator",

_____
Chief Executive Officer
Surat Smart City Development Ltd

The common seal of the Company was affixed on the...........day of month of.....................2018 in presence of (1) and (2) members of the Project Committee of the Company.

(1)_____

(2)_____

(Any two members of the Project Management Committee of Surat Smart City Development Ltd.

Attachments to the Agreement:
1) Scope of Services for the Systems Integrator (Annexure I)
2) Detail Commercial proposal of the Systems Integrator accepted by SSCDL (Annexure II)
3) SLA to be adhered by the Systems Integrator (Annexure III)
4) Corrigendum Document published by SSCDL subsequent to the RFP for this work (Annexure IV)
5) RFP Document of SSCDL for this work (Annexure V)
6) LoI issued by the SSCDL to the successful bidder (Annexure VI)
7) The successful bidder's "Technical Proposal" and "Commercial Proposal" submitted in response to the RFP (Annexure VII)

16.5 Approved List of Banks

Under this contract, wherever the contractor is required to submit F.D.R., bank guarantee, etc. against payment towards any deposit or advance e.g. EMD,SD, etc. Such F.D.R, bank guarantees, etc. shall be produced from any one of the following Nationalized Bank as listed below:

1. Indian Bank
2. State Bank of India
3. Punjab National Bank
4. Bank of Baroda
5. Union Bank of India
6. Bank of India
7. Oriental Bank of Commerce
8. Canara Bank
9. Central Bank of India
10. Corporation Bank
11. Allahabad Bank
12. Indian Overseas Bank
13. Dena Bank
14. Syndicate Bank
15. Andhra Bank
16. Punjab & Sind Bank
17. Bank of Maharashtra
18. Vijaya Bank
19. United Bank of India
20. UCO Bank or Any other Nationalized Bank
21. IDBI
22. HDFC
23. AXIS BANK
24. ICICI Bank Limited
25. The Surat People's Co—operative Bank Ltd.
26. The Mehsana Urban Co-operative Bank Ltd.
27. Kotak Mahindra Bank
28. The Kalupur Commercial Co-operative Bank Ltd.
29. Rajkot Nagrik Sahkari Bank Ltd.
30. The Ahmedabad Mercantile Co-operative Bank Ltd.
31. Development Credit Bank Ltd.
32. YES Bank Ltd