# Revised Bid Document

**GUJARAT INFORMATICS LIMITED**
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## Bid for Selection of Agency for Supply, Installation, and 5 years Warranty support/services of IT Infrastructure and Operation & Management Services for 5 years on behalf of Bhavnagar Municipal Corporation, Bhavnagar

## Tender no. HWT230617440

**Pre-bid Meeting: 05.07.2017 at 1200 hours (Completed)**

**Last Date of Submission of Bid: 04.08.2017 till 1500 hours**

**Last Date of Submission of Bid Processing Fees & EMD and Physical Bid (for Eligibility & Technical Bid): 04.08.2017 till 1500 hours**

**Date of Opening of Technical Bid: 05.08.2017 on 1200 hours**

## Bid Processing Fee: Rs. 15,000/-

## Project Preamble

The objective is to strengthen existing IT infrastructure and procurement of Servers, Storage, Networking, Software, CCTV Surveillance and Data Centre related items including supply, implemention and post implementation support for the same.

Bhavnagar Municipal Corporation (BMC) is a local government committed to provide basic infrastructure facilities to the people of the city. BMC is very well known for the managing the city by using private sector participation as well as introduction of innovative mechanism in management to serve people efficiently. City has prepared different plans for improving services and to nullify gap between services and demands.

Development of Information Technology (IT) has enabled facilities for handling the voluminous data. The balanced urban development in the local bodies and the probe for generating revenue using IT has become mandatory. It is possible only by upgrading infrastructure that envisages for easy understanding, planning and generating revenue. While so, after analysing trends in various sources of server, networking, software, CCTV surveillance and data centre, it was found that the concept and the technology would be viable.

In its continued pursuit to provide best Quality & Quantity (Q&Q) and enhanced service of global standards to the people of Bhavnagar, Bhavnagar Municipal Corporation wants to purchase, implement and post implementation support for Server, Storage, Networking, Software, CCTV surveillance and Data centre equipments (with 5 year of Warranty). New setup would help the corporation for planning and management of the city by Decision Support System as well as in generating higher revenue using latest IT infrastructure.

The broad objective of the work is to establish a latest IT infrastructure (including server, networking, software & CCTV Surveillance) for BHAVNAGAR MUNICIPAL CORPORATION which will help BMC in planning, management and governance of entire functioning of the organization.

Bidders shall be deemed to have full knowledge of the requirements of the work. Municipal Corporation Bhavnagar will not accept any responsibility or liability for any errors, omissions, inaccuracies or errors of judgment with respect to information or materials provided by Municipal Corporation, in this tender Document or otherwise, with respect to this Project. Although such information and materials are to the best of Municipal Corporation's belief, however their verification is the sole responsibility of Bidder. Neither Corporation, nor their employees or Bidders make any representation or warranty as to the accuracy, reliability or completeness of the information provided nor will have any liability to any bidder which may arise from or be incurred or suffered in connection with anything contained in this tender and the award of the work or otherwise arising in any way from the selection process.

## Invitation for the Proposal

Gujarat Informatics Limited (herein after referred to as GIL), on behalf of Bhavnagar Municipal Corporation (BMC) (herein after referred to as the Purchasers) for the requirements to establish a latest IT infrastructure (including server, networking, software & CCTV Surveillance) which will help BMC in planning, management and governance of entire functioning of the organization, intend to invite Bid for Selection of Agency for Supply, Installation, and 5 years Warranty support / services of IT Infrastructure and Operation & Management Services for 5 years on behalf of Bhavnagar Municipal Corporation, Bhavnagar (Tender No. HWT230617440).

Proposal in the form of BID are requested for the item(s) in complete accordance with the documents to be uploaded as per following guidelines.

**Bidder shall submit their bids on https://www.gil.nprocure.com. In addition to that, self-attested (seal and signature on each page by authorized person) hard copy (spiraled copy of documents) for Eligibility & Technical bid to be submitted at GIL Office along with the Bid Processing Fees & EMD on or before last date of submission of bid processing fees & EMD and physical tender documents. However, Financial Bid must be submitted only online through e-Tendering website on https://www.gil.nprocure.com using digital signatures.**

The Bid Processing Fees & EMD Section and Eligibility Section will be opened on the specified date & time in presence of the committee members and representatives of the bidders who choose to attend. The representative will be held responsible for all commitments made on behalf of the bidder and that will be considered valid for all further dealings related to this tender process.

Once quoted, the bidder shall not make any subsequent price changes, whether resulting or arising out of any technical/commercial clarifications sought regarding the bid, even if any deviation or exclusion may be specifically stated in the bid. Such price changes shall render the bid liable for rejection.

In addition to this bid, the following sections uploaded are part of Bid Documents.

## Important Dates & Details:

| | | |
|---|---|---|
| 1 | Bid Reference Number | Tender No. HWT230617440 |
| 2 | Date of Pre-Bid Meeting | 05.07.2017 on 1200 hours (Completed) |
| 3 | Venue of Pre-Bid Meeting | Bhavnagar Municipal Corporation Sir Mangal Sinhji Road, Near Kalanala, Bhavnagar – 364001 |
| 4 | Last Date & Time for Submission of Bid electronically on https://gil.nprocure.com | 04.08.2017 till 1500 hours |
| 5 | Last Date of Submission of Bid Processing Fees & EMD and Physical Bid (for Eligibility & Technical Bid) | 04.08.2017 till 1500 hours |
| 6 | Date & Time of Opening of Bids (Un-priced Bids) | 05.08.2017 at 1200 hours |
| 7 | Date & Time of Opening of Commercial Stage | Will be intimated to the qualified bidders at a later date. |
| 8 | Venue of Opening of Bids | Gujarat Informatics Limited Block No. 1, 8<sup>th</sup> Floor, Udyog Bhavan, Sector-11, Gandhinagar 382 010 |
| 9 | Bid Processing Fees (Non-refundable) | **Rs. 15,000/-** (Rupees Fifteen Thousand Only) |
| 10 | Earnest Money Deposit (E.M.D.) | **Rs. 6,00,000/-** (Rupees Six Lacs Only) |
| 11 | Period of Support/Maintenance | 5 (Five) Years from the date of FAT |
| 12 | GIL Contact Person | DGM (Tech.), GIL |

Note:

1. Please specify tender number in all your correspondence.

2. Please address all queries and correspondence to:

   **DGM (Tech.)**
   **Gujarat Informatics Limited,**
   8th Floor, Block No.1, Udyog Bhavan,
   Gandhinagar 382010,
   Phone: 079 - 232 59239
   E-mail: viveku@gujarat.gov.in; vijayb@gujarat.gov.in

# SECTION I

## Eligibility Criteria for the bidder:

1.  Bidder should be a company registered under Indian Companies Act, 1956 and should have been operating for the last five years as on bid submission date. Copy of Certificate of Incorporation to be submitted. **(Form no. E-1)**

2.  The bidder should have average annual turnover of at least Rs. 5 Crore of last three financial years as on bid submission date. The copies of Audited Annual Accounts/Balance Sheet along with Profit & Loss Account and CA Certified Statement for last three financial years shall be attached along with the bid**. (Form no. E-2)**

3.  The Bidder should have at least one office in Gujarat and preferably support centers/logistics for the entire state. Please attach the copies of any of the following: Property Tax Bill of last year / Electricity Bills of last one year / Telephone Bills of last one year / VAT Registration / CST Registration / Valid Lease Agreement. In case, bidder does not have office in Gujarat, bidder should give undertaking to open office in Bhavnagar within 45 days from the date of purchase order, if the order is placed with it. **(Form no. E-3)**

4.  The bidder must have experience of executing at least Five (5) System Integration engagements each of value of Rs. 1 Crore or more during last 5 years as on bid submission date and out of five, at least two project must be executed for State/ Central Government/ Public sector undertakings in India. Copies of PO & customer certificates to be submitted.  **(Form no. E-4)**

5.  The bidder must have experience of executing **at least TWO project of supply & installation of Servers, Storage, Switches, Backup device etc. in India during last five years** as on bid submission date. Copies of PO & customer certificates to be submitted. **(Form no. E-5)**

6.  The bidder must have experience of executing **at least ONE project of setting-up of Data Centre in India during the last five years** as on bid submission date. Copies of PO & customer certificates to be submitted. **(Form no. E-6)**

7.  The bidder must have experience of executing **at least ONE project CCTV Surveillance & Networking components in India during the last five years** as on bid submission date. Copies of PO & customer certificates to be submitted. **(Form no. E-7)**

8.  The OEM / IP CCTV Camera Product Company / System Integrator should have installed at least a single project in India containing minimum 500 IP CCTV Cameras (of quoted camera brand) **OR** 2 projects containing minimum 250 IP CCTV Cameras (of quoted camera brand) **OR** 3 projects containing minimum 170 IP CCTV Cameras (of quoted camera brand) **OR** 5 projects containing minimum 100 IP CCTV Cameras (of quoted camera brand). Copies of Purchase Order(s) / Contract Agreement and Certificates of Successful Completion from Customer should be submitted. **(Form no. E-8)**

9.  The bidder should be authorized by its OEM (for the items as mentioned in Form no. E-8) to quote this bid. The bidder should have a back-to-back support agreement/arrangement for services including supply of spare parts etc. with the Original Equipment Manufacturer (OEMs). Please attach the copy of Authorization on OEM letter head and signed by authorized signatory for the item(s) to be offered in this bid. **(Form no. E-9)**

10. The Manufacturer of the product (OEM) should be ISO 9001:2008 Process Certified for manufacturing. ISO certificates are required for items like Server, Storage, Switches, Tape Library, CCTV Camera, NVR, PAC and UPS. **(Form no. E-10)**

11. Bidder should not be blacklisted by any Ministry of Government of India or by Government of any State in India or any of the Government PSUs at the time of bidding. Anti-blacklisting Certificate (On Non judicial

Stamp paper of Rs. 100 duly attested by the First class Magistrate/Notary Public) mentioning that the Bidder is not blacklisted as per the clause to be submitted. (As per Annexure B).

12. No consortium will be allowed. The bidder must meet all the eligibility criteria by self. Bidders undertaking should be submitted.

13. OEM for Server, Storage & Networking Equipments should be from companies featuring in latest Gartner Magic Quadrant in "Leadership" position. Documentary proof to be submitted for latest available Gartner Magic Quadrant for Modular Servers (for Server), for General Purpose Disk Arrays (for Storage) & for the Wired and Wireless LAN Access Infrastructure (for Networking equipments).

14. The proposed Antivirus (Endpoint Anti Virus & Security Solution for Server) should be from companies featuring in latest Gartner Magic Quadrant in "Leadership" position. Documentary proof to be submitted.

15. Bidder will have to furnish Bank Solvency Certificate of Rs. 25 Lacs for the proposed IT infrastructure project of this bid, which should be valid for 1 year. The solvency certificate shall be from a nationalized or scheduled bank and should be issued by bank after the date of publishing this bid and before submission of the bid.

**Note:**

1. All the details and the supportive documents for the above mentioned items should be uploaded in eligibility section in the bid.

2. Bidders who wish to participate in this bid will have to register on https://gil.nprocure.com. Further bidders who wish to participate in online bids will have to procure Digital Certificate as per Information Technology Act 2000 using which they can sign their electronic bids. Bidders can procure the same from (n) code solutions – a division of GNFC Ltd., or any other agency licensed by Controller of Certifying Authority, Govt. of India. Bidders who already have a valid Digital Certificate need not procure a new Digital Certificate.

# SECTION II

## Scope of Work

The Project at Bhavnagar Municipal Corporation is proposed to provide a robust, reliable, fast, latest, secure and well-established/managed IT infrastructure to BMC by installing/establishing Server, Storage, Networking, Software, CCTV surveillance and Data Centre equipments with 5 year of Warranty and Support & Maintenance.

Currently there are around 200 nodes in the BMC main office which may increase up to 300 numbers in near future.

Currently there are two internet lines terminated at BMC Office having 2 / 4 Mbps capacity which may be upgraded up to 10 Mbps in future.

BMC has one 12 Core Rack based Server at their head office.

BMC has developed around 25 applications to provide the services to public. These includes applications like Property Tax, Online Payment of Property, Birth & Death Registration, Marriage Registration, Auto DCR, Fire NOC, Vehicle Tax, Grievance – Complaint Monitoring, eRegistry, HR Module, Account, RTI, Shops & Established etc. Most of the applications are online Windows based. These applications were installed on this server.

**Note:**
- The Bidders should note that the number of items mentioned in the bid can vary and is not an absolute number. The number of items can also increase/decrease subject to the requirements.
- **BMC reserves the rights to increase or decrease the quantity of any item, at the time of placing purchase order, without increasing the quoted/accepted rates.**
- If mentioned item not available in market then higher version item has to be provided by bidders without any extra cost.
- The Municipal Commissioner, Bhavnagar Municipal Corporation, Bhavnagar reserves the rights to reject any one or all tenders without assigning any reason thereof.
- Each of the items of this RFP must have to be quoted with 5 years of warranty.
- If any item has upper side compliance deviation, then bidder must have to specify it in remarks along with necessary proof/documents.

**Site Address and Details**

Proposed infrastructure of this Bid will have to be created at below three locations.

1) **BMC Main Office**
   - **Address :** Sir Mangalsinhji Road, Near Kalanala, Bhavnagar – 364001,
   - This office infrastructure will be treated as Primary Site.
   - In this office, bidder will have to create New Server, New Networking, Softwares, CCTV Surveillance and Data centre.
   - This office may have approximately 200 to 250 nodes/computers.

2) **BMC Chitra Zonal Office**
   - **Address:** Near Aakhlol Jakatnaka, Bhavnagar-364004, Gujarat
   - This office infrastructure will be treated as Secondary Site.

3) **BMC Tarsamiya Zonal Office**
   - **Address:** Near Tarasamiya Ring Road, Bhavnagar-364002, Gujarat.
   - This office infrastructure will be treated as Secondary Site.

## Configuration Requirement

BMC wants current latest all required configuration/setup within newly established blade servers, network, software, CCTV surveillance and data center to achieve fast, secure, seamless and robust IT environment.

BMC wants implementation of the project on complete turnkey basis which includes supply, installation, integration and smooth line functioning of all the devices and current existing BMC's application by the vendor.

Successful bidder will have to integrate the existing hardware of BMC like Firewall and existing old server (if required), with the proposed solution as per the requirement of BMC.

**Note:**
1) It is responsibility of successful bidder to do all latest and standard (as per current industry practice) required configuration/setup which is required in new IT infrastructure.

2) Successful bidder must have to do any other required configuration/setup which BMC wants during this project.

3) Successful bidder will have to deploy the qualified professionals for the implementation and to provide the required services as defined under scope of work.

**LAN between Blade Server, SAN, Chassis and L3 switch**

- Successful bidder must have to establish 40 Gbps connectivity between Blade Server, SAN, Chassis and L3 switch using OFC cable only from day 1.
- The core switch must be redundant L3 in newly established network.

**LAN Configuration/Set up**

- Successful bidder has to implement the complete LAN cabling as per standard structured cabling rules, site certification and performance warranty by OEM.
- Successful bidder has to use 6 core multimode fiber optic cable to set up backbone of LAN at main site.
- Apart from 6 core of fiber cable, 2 cores will have to be used for Data traffic, 2 cores will have to be used for CCTV video data traffic and 2 cores will have to be keep spared for future fiber cable damage control requirement.
- The connectivity between core switch (L3 switch) to access switches (L2 Switched) should be 10G (capable to upgrade 40G in near future) using Fiber optic cable only.
- Successful bidder has to provide redundant connectivity using 6 core fiber optic cable for connection between core switch (L3 switch) and each access switch (L2 switches) from alternate/different route. It means "In case of direct connection of OFC between L3 to any L2 switch broken down, there must be a provision of establishing quick connection between L3 and L2 switches to make the broken down L2 switch up again and connectivity should be restored with all the existing set up / configuration of VLAN".
- From all L2 switches to each computer node IO box in different departments of BMC, successful bidder has to use CAT6 cable to create network.
- All these network cabling must be covered in secure and robust duct casing (no PVC pipe should be used), so that future repairing and maintenance could be achieved easily.
- All L2 switches should be stackable. It means "If any wing of BMC (i.e. L2 switch of 24 ports) requires more number of connections than the capacity of L2 switch of that wing, then new L2 switch will have to be stacked with existing L2 switch in the same rack".
- Each L2 switch must have its power supply from central UPS, so that all L2 switches can also be alive during power cut till the capacity of UPS.

- Successful bidder must have to number/tag /do marking of each CAT6 and OFC cable in/out at L3 and L2 switches for easy maintenance purpose and provide the final list to EDP department at the time of completion of project.
- Successful bidder must have to provide complete network drawing of full new network of main office and zonal office separately.
- Once new IT infrastructure starts working successfully and complete 3 successful month of working, successful bidder has to remove the whole old network with consultation of EDP department.
- Successful bidder has to establish VLAN for each department of BMC (or as per the BMC requirement) and do all latest required/needful configuration of it (i.e. LAN speed for department etc.).
- Established VLAN for any department will not allow login in the server of the different VLAN user.
- All wall mount racks (12U/15U) should be installed at proper places on particular floor of BMC Main office building.
- Power supply from central online UPS should be provided using 2x15 amp plugs with switch inside each wall mount rack.
- Mounting of switch/patch panel/cable manager and all needful cabling accessories along with proper tagging is also required.

**CCTV Surveillance**

- CCTV surveillance setup includes complete fitting and mounting of the cameras, installation of POE switches, installation and configuration of NVR, demanded recording and intelligent surveillance features with as on when required backup on USB/CD/DVD media devices.
- As per government rules, BMC want to preserve/store CCTV recording at minimum 1080P resolution with 15fps till 30 days. After that new recording will be overwritten on existing 30 days recording from oldest recording overwritten first and so on.
- Successful bidder has to install the camera on proper and desired places.
- CCTV surveillance's monitoring of Main offices cameras as well as both zonal offices cameras must be possible at minimum 3 or more different places in BMC Main office premises as well as on internet and on mobile.
- CCTV surveillance must be capable of identifying and retrieving clip of any incident with ease.
- CCTV cameras must be capable of night vision surveillance.

**CCTV Surveillance LAN configuration/Set up**

- CCTV Surveillance should be done by using 2 cores of master six core fiber backbone cable and will be designed as a separate network/VLAN.
- All POE switches used for CCTV surveillance should be uplink with core switch using 1 Gbps fiber SFP and all IP cameras must connected using CAT6 cables with POE switches.
- All POE switches should be connected with a central CCTV L2 switch using 1G SFP module and OFC cable only.
- From all POE switches to each camera in different part/places of BMC, successful bidder has to use CAT6 cable to create network.
- Complete CCTV networking should be done using different color CAT6 cable then data network cable.
- Each POE switch must have its power supply from central UPS, so that all POE switches can also be alive during power cut till the capacity of UPS.
- Successful bidder must have to number/tag /do marking of each CAT6 and OFC cable in/out at POE and NVR for easy maintenance purpose and provide the final list to EDP department at the time of completion of project.
- Successful bidder must have to provide complete CCTV network drawing of full CCTV network of main office and zonal offices separately.

- Zonal office CCTV surveillance must have separate NVR and storage at the zonal office premises.
- Zonal office CCTV monitoring must be possible from BMC main office.
- CCTV monitoring must be possible in 3 to 5 LED placed at different places (as decided by BMC officials) in the main office.
- CCTV monitoring must be possible via mobile for higher authority of BMC.

## Blade Chassis and Blade Server

- Installation of blade chassis, mounting and fitting inside the rack, integration of complete blade components, power supply and different I/O modules will have to be done by successful bidder.
- Successful bidder has to install total 5 blade servers with operating system, all needful drivers for management, networking and storage.
- License copy of operating system (Microsoft Window Standard Server 2016) and SQL Server Data Centre 2016 (10 Core) will be provided by BMC.
- Installation of existing BMCs application and new applications on blade servers with storage will be done by successful bidder with the help of application vendor and BMC staff.

## Storage

- Successful bidder has to install and integrate the storage with the blade server and network.
- The storage should be configured in such a way so that minimum 15 TB of storage space will be available for utilization with minimum RAID 5.
- BMC wants to keep minimum 7 days backup on SAN/storage in such a manners which can be retrieved on the spot basis as and when required and can be restored on the user's desk with minimum time span.

## L3 core switch Configuration

- Successful bidder has to install both L3 core switch in data centre with mounting inside the rack and termination of all backbone cables.
- Successful bidder has to configure L3 core switch, create VLAN, provide needful security and management console along with redundant L3 core switch also.
- Redundant core switch can be used with minimum downtime in case of downtime.
- The complete network and all switches should be managed from a central management console in datacentre.
- Successful bidder has to configure virtual switching and needful virtualization feature used for blades, storage and virtual servers.

## L2 access switch Configuration

- Successful bidder has to install L2 access switch in wall mount racks.
- Successful bidder has to configure L2 access switch, create VLAN, provide needful security and integrate with core L3 switch.

## Tap library and Backup software configuration

- Successful bidder has to install and configure tap library with backup software.
- Backup mechanism should capable of taking up backup of virtual servers with whole configuration, SQL database, MySQL database, user's data and OS.
- It is possible to take the backup in Windows, Linux and UNIX operating system environment.

- Backup software should be configured to capture/create the image on weekly basis of servers (all the virtual server) along with OS (Windows, Linux), server's all configurations and it can be restored on immediate basis in case of server crash/failure.
- Backup should be capable of taking backup in following way :
  - o Monthly (Capable of storing each 12 months backup individually in compress mode)
  - o Weekly (Capable of storing backup of each week of whole month individually in compress mode)
  - o Daily (2 or 3 times in day, backup should be incremental)

**Active Directory Configuration**

- Domain/Workgroup creation
- Setup of Role/Group policy based Rights management
- Setup administration using group policy
- It must be possible authentication in virtual Linux servers.
- It must be programmable with currently existing online service of BMC. So that all BMC existing applications can do authentication using AD only.
- Authentication must be possible in all virtual servers via AD only.
- After AD implementation, users login and data storage will need to be centralized in SAN.
- Establish separate virtual server to host AD.
- Configuration should be in such a way that in future, BMC can set up thin client architecture for users of BMC.
- Set 90/180 day password policy with last 3 passwords not allowed during creation/changing of new password.
- Create separate folder system for each user based on their Employee Code for storage of data on SAN.
- Employee code will be the user name of each user for login via AD.
- Do needful configurations for storage of user data on centralised storage (SAN), in which user cannot store media files (i.e. video, music etc.) and Executable files on SAN.
- All latest and standard (as per current industry practice) required configuration/setup for AD.

**Firewall Configuration**

- BMC has already procured Fortinet 90D – 200 users firewall. Successful bidder just has to configure it with the new IT infrastructure with all below requirement as well as with latest standard industry practice to make the new BMC IT infrastructure safe and secure from hacker, virus, intruder etc.
- URL screening and filtering
- Content filtering
- Spam filtering
- High availability with load balancing and failover
- Block Social networking sites, Gaming/Gambling sites, adult/porn sites, Share broking sites, Online shopping etc.
- Stop malicious and virus infected downloading.
- Stop access by unauthorised and unauthenticated users in BMC network.
- Capable of Incorporation of VPN gateways.
- Needful configuration for zonal office connectivity with Main office network to establish intranet between them.
- Control access via policies and apply different policies to different users.
- Telnet OS banner and other banners such as FTP banner, etc. have been eliminated.

- Root cannot telnet to the system.
- Use of the firewall's automatic notification/alerting features and archiving the detail intruder information to a database for future analysis.

### VMware Configuration

- BMC wants approximately 17 to 20 Virtual Servers to host existing softwares/application of BMC. Final number of servers will be decided with consultation of successful bidder.
- 4-5 servers need to be host with Linux and rest of all need to be host with Windows OS.
- Successful bidder has to create approximately 17 to 20 virtual servers in 5 Blade servers, each blade server with 2 processors.
- Virtual servers must be capable of keep itself live during failure of any single blade server.
- VM must be capable of providing zero downtime for most critical application.
- All VM must be monitored and managed centrally.
- Be alerted when resource utilization crosses critical thresholds.
- Configuration to know which servers are running low on resources.
- Configuration to quickly identify resource hungry VMs and take corrective action.
- VM must be capable of providing automated server workload balancing.
- VM must be capable of providing automated storage load balancing.
- VM must be capable of providing cluster wise priority storage.

### Data Centre Configuration

- BMC want's 12 x 12 Sq Ft areas data centre.
- Successful bidder has to do needful raised flooring, false ceiling, perforated tiles, tile liftner etc. civil work for data centre.
- Successful bidder has to do needful electrical cabling for PAC, racks and lightings. They have to do complete cables & fittings with Installation.
- Successful bidder has do proper grounding and bounding of datacentre and racks with Chemical Earth with required.
- Successful bidder has to fit 2 number of 3.5TR Precision AC Systems in data centre.
- Successful bidder has to do durable and standard quality ducting (have to use steel ducting) for PAC for Racks / Low Side Work.
- Data centre must have Password and Thumb based access control mechanism.
- Access control system must capable of alerting via email to BMC officials on unauthorised entry by intruder into the data centre.
- Data centre must have Rodent Repellent System, Fire Alarm System (approved by UL/VDS) and Water Leak Detection System as per the latest industry standard.
- Fire alarm system must capable of detecting and alarming via hooter.
- Successful bidder has to install and integrate the complete fire alarm system with required cabling. 1 Hooter with flasher should be provided at Security Chamber of BMC Main Office.
- Data centre must have sufficient number of network racks and server racks to host blade servers, chassis, NVRs, redundant L3 switches, L2 switch, firewall, SAN storage, tap library, UPS and all other components which are required to fit in data centre.
- Successful bidder has to install main power plus redundant power to each rack from primary and secondary UPS.
- Successful bidder has to install demanded power points along with 2x15 amp plug and switch inside data centre.
- Successful bidder has to install MCB in input and output for each individual circuit.

- Successful bidder has to install network and server racks with all necessary accessories.
- Successful bidder has to provide preventive maintenance schedule of all the data centres components in advance to EDP Department to a smooth line function of datacentre.

### Electric fitting for power supply to all L3, L2 and POE switch

- Its successful bidder's responsibility to do needful electric fitting work to provide power supply from central UPS to each and every L3, L2 and POE switches.
- All L3, L2 and POE switch with Cameras will need to be live/running in the time of power cut till the capacity of UPS.
- Electrification work will have to be done with required earthing.
- Electrification work will have to be done with proper casing and capping using trunking only.

### LAN/Fiber/Electric cable laying

- Backbone cable laying should be done by using 50mmx100mm or higher size trunking with at least 50% breathing space for future expansion.
- Rack to Department cable laying should be done by using 50mmx50mm or higher size trunking with at least 50% breathing space for future expansion.
- Switch to work place cable laying should be done by using 25mm/32mm or higher size casing-capping with at least 50% breathing space for future expansion.
- Any electrical cabling should be done in separate trunking/casing-capping.
- Electric switch board should be provided inside the rack to obtain UPS power from Server Room.
- Successful bidder has to provide required rated MCB switch in the UPS/Server Room to protect the output to the access switches.

### Antivirus configuration

- If required, successful bidder has to provide required support and help in installation/configuration of Antivirus software to the vendor of antivirus software.
- Server and client antivirus software configuration requirement like:
  - Daily scanning of each client and each server machine
  - Daily virus database update
  - Only main server version online download virus databse + software updates, all other server and clients download from main server via LAN.

### Power Backup

- BMC wants 2 number of latest smart 15 KVA online UPS with 4 hours backup on Full load.
- Each UPS must be capable of providing minimum 4 hours battery backup which can keep running all components of data centre (includes blade servers, chassis, L3/L2 switches etc.), L2 switches scattered in BMC main office, all POE switches and cameras, and 15 computers in the time of power cut.
- Successful bidder will have to supply UPS solution with necessary number of batteries as specified in the UPS technical specification (for complete detail regarding batteries).
- UPS solution should capable of running parallelly (automatic switch over when failure of any one UPS) with other UPS solution using Automatic Transfer Switch.
- UPS solution should capable of mount in data centre on network/server rack.
- UPS and ATS switch will be kept in a data centre and batteries will be kept in a separate room approximately 15 feet aside the datacentre. Successful bidder has to provide needful battery - links and power cables related along with the UPS.
- Successful bidder must have to consider inbuilt / external Automatic Transfer Switch with UPS.
- Successful bidder must have to provide appropriate racks and links to integrate UPS with external batteries..

**Transfer of all existing IT setup to New Infrastructure**

- It is successful bidder's responsibility to gather existing user's data which is stored in their local machines, make that data virus free and then upload/put it on centralized storage (SAN).
- It is successful bidder's responsibility to format/clean up and re-install required application, software and OS in all the existing computer systems before connecting them to the new network.
- It is successful bidder's responsibility to create new virtualized environment as per BMC requirement. Also successful bidder has to work with all existing software vendor of BMC to help them to publish their developed software of BMC in their allocated virtual server.
- Configure existing IT resources (printers, scanners etc.) available in departments as shared network resources within that single department only.

**BMC Chitra Zonal Office Implementation**

- This office infrastructure will be treated as Secondary Site.
- In this office, bidder will have to create CCTV Surveillance.
- This zonal office may have approximately 40 to 45 nodes/computers with one L2 switch to connect these nodes/computers with main office server.
- This zonal office may have approximately 10 to 12 cameras with One POE switch and one 32 channel NVR. These cameras must be capable to be monitored from main office.
- This site will have to establish intranet with main office.
- This site will have to be directly connected with main/primary site network using point to point Lease Line for network connectivity which provides secure, fast and seamless connection with BMC main office network.
- Point to point Lease Line network connectivity must have to achieve network speed of minimum 10 Mbps between zonal office/secondary site and main/primary site.
- Identified intranet connectivity technology must be safe and secure with respect to hacker or intruder.
- Integration of required routing and security for provided point to point lease line connectivity between main office and zonal office will remain in the scope of successful bidder.
- Point to point lease line connectivity between main office and zonal office will be provided by BSNL or appointed vender by BMC.
- Successful bidder will have to complete work of this site in the scheduled time as mentioned in Project Timelines. Failing in this will leads to penalties to the successful bidder as per the Penalty for delay in project execution.
- VLAN at zonal offices
  o Successful bidder has to create VLAN at Zonal office
  o Successful bidder has to establish VLAN for each department of BMC (or as per the BMC requirement) and do all latest required/needful configuration of it (i.e. LAN speed for department etc.).
  o Established VLAN for any department will not allow login in the server of the different VLAN user.
- Connecting zonal & main office using firewall: BMC has already procured Fortinet 90D – 200 users firewall. Successful bidder will have to configure it with the new IT infrastructure with requirement as per bid, as well as with latest standard industry practice to make the new BMC IT infrastructure safe and secure from hacker, virus, intruder etc.
- BMC will provide 3 KVA UPS with necessary batteries. Its successful bidder's responsibility to do needful electric fitting work to provide power supply from central UPS Room/Server Room to each and every L2, POE switches and cameras in this zonal office. L2 switch, all POE switch with Cameras and 2 to 3 computers which is inside UPS Room/Server Room will need to be live/running in the time of power cut till the capacity of UPS.

**BMC Tarsamiya Zonal Office Implementation**

- This office infrastructure will be treated as Secondary Site.
- In this office, bidder will have to create CCTV Surveillance.
- This zonal office may have approximately 40 to 45 nodes/computers with one L2 switch to connect these nodes/computers with main office server.
- This zonal office may have approximately 10 to 12 cameras with one POE switch and one 32 channel NVR. These cameras must be capable to be monitored from main office.
- This site will have to establish intranet with main office.
- This site will have to be directly connected with main/primary site network using point to point Lease Line for network connectivity which provides secure, fast and seamless connection with BMC main office network.
- Point to point Lease Line network connectivity must have to achieve network speed of minimum 10 Mbps between zonal office/secondary site and main/primary site.
- Identified intranet connectivity technology must be safe and secure with respect to hacker or intruder.
- Integration of required routing and security for provided point to point lease line connectivity between main office and zonal office will remain in the scope of successful bidder.
- Point to point lease line connectivity between main office and zonal office will be provided by BSNL or appointed vender by BMC.
- Successful bidder will have to complete work of this site in the scheduled time as mentioned in Project Timelines. Failing in this will leads to penalties to the successful bidder as per the Penalty for delay in project execution.
- VLAN at zonal offices
  o Successful bidder has to create VLAN at Zonal office
  o Successful bidder has to establish VLAN for each department of BMC (or as per the BMC requirement) and do all latest required/needful configuration of it (i.e. LAN speed for department etc.).
  o Established VLAN for any department will not allow login in the server of the different VLAN user.
- Connecting zonal & main office using firewall: BMC has already procured Fortinet 90D – 200 users firewall. Successful bidder will have to configure it with the new IT infrastructure with requirement as per bid, as well as with latest standard industry practice to make the new BMC IT infrastructure safe and secure from hacker, virus, intruder etc.
- BMC will provide 3 KVA UPS with necessary batteries. Its successful bidder's responsibility to do needful electric fitting work to provide power supply from central UPS Room/Server Room to each and every L2, POE switches and cameras in this zonal office. L2 switch, all POE switch with Cameras and 2 to 3 computers which is inside UPS Room/Server Room will need to be live/running in the time of power cut till the capacity of UPS.

**Training to BMC all staff for working with new IT infrastructure**

- Successful bidder must have to give a full training to all departments' BMC staff for utilizing new IT infrastructure.
- Train all staff for accessing data on centralized storage (SAN), printers, scanners etc.
- Give proper training to security staff for CCTV surveillance and monitoring, retrieval of clip for any incident etc.

**Training to EDP staff for Maintenance and Management of New IT infrastructure**

- Successful bidder must have to give training to staff of EDP department for utilizing, maintaining and managing new IT infrastructure.

- Training shall also be provided for teaching the basic trouble shooting activities in case of problems.
- Training should include
  a) Blade servers management and troubleshooting
  b) Virtual servers management and troubleshooting
  c) SAN storage management and troubleshooting
  d) Network management and troubleshooting
  e) L3/L2 switch configuration/management and troubleshooting
  f) CCTV surveillance management and troubleshooting
  g) Network traffic monitoring and troubleshooting
  h) Firewall configuration/management and troubleshooting
  i) Antivirus management and troubleshooting
  j) Backup management and retrieval
  k) Health monitoring of complete new IT infrastructure
  l) UPS solution management and troubleshooting
  m) Troubleshooting of routine issue/problem of BMC staff

**Health Monitoring Provision**

- Successful bidder has to set up Health monitoring process/policy for new IT infrastructure by co-ordination with EDP department.
- Successful bidder has to perform health monitoring of all new complete infrastructure at the end of each quarter and submit a detailed report to EDP Manager, Bhavnagar Municipal Corporation.
- Health monitoring report of minimum 1 year is to be preserved in soft format by the successful bidder.

**Post Implementation Service**

- The service engineers shall have to check and service all the supplied & installed items periodically; say quarterly and as and when required, and repair/replace any component which is found defective, free of cost as part of preventive maintenance.
- Successful bidder has to follow the EDP Department to get the successful installation certificate.

**Installation Reports**

- Successful bidder has to submit detailed installation report of each hardware item in prescribed manners demanded by EDP Department, Bhavnagar Municipal Corporation.
- Installation report should be submitted in hard copy as well as soft copy.
- Detailed configuration and back up of all the configuration file should be provided by the successful bidder to EDP Department along with the credentials like username, password, IP address, MAC Address and whatever required by EDP Department, Bhavnagar Municipal Corporation.

**Testing and Go Live**

- Upon completion of all above activities, Successful Bidder will have to submit detailed plan for live implementation of the system.
- Successful bidder has to finalize the Go Live plan with the coordination of EDP Manager and other officials of Bhavnagar Municipal Corporation.
- Successful Bidder has to ensure that the new IT infrastructure is completely operational as per the requirements in this RFP and all the tests are successfully concluded as per the satisfaction of BMC.
- Before Go Live, new IT infrastructure must have to pass the TPI which will be carried out by GIL. Go Live will not be allowed till new IT infrastructure get clearance from TPI agency.

- Go Live will not be allowed till LAN cabling certify as per standard structured cabling rules, site certification and performance warranty by OEM.
- Successful bidder must have to get written Go Live approval letter from EDP Department of Bhavnagar Municipal Corporation. Date written in Go Live Approval written letter will be considered as Go Live date of the project.
- After successful installation of data centre and complete hardware infrastructure, BMC will take 3 months time after Go Live date to check the reliability of the implemented infrastructure.

**Manpower for Hand Holding Support**

- Successful bidder will have to depute One technical manpower to provide hand holding support for the contract period of 5 years.
- The deputed manpower will have to remain present during normal office hours of BMC (9 AM to 7 PM) during working days and co-ordinate with BMC for their daily IT related activities.
- If require, the manpower will have to remain present on holyday(s) based on the requirements of BMC.
- The manpower will have to carry the preventive maintenance activities regularly in coordination with BMC.
- The deputed manpower (resident engineer) will have to provide support for main office and both zonal offices.
- The manpower will have to report to EDP Manager, BMC.

# SECTION III

## Instructions to the Bidders / Terms & Conditions:

1. **The last date of submission of bid on the website https://gil.nprocure.com is 04.08.2017 up to 1500 Hrs. Bidder will also have to submit the self-attested (seal and signature on each page by authorized person) hard copy (spiraled copy of documents) for Eligibility & Technical bid at GIL Office along with the Bid Processing Fees & EMD on or before last date of submission of bid processing fees & EMD and physical tender documents. In case of any dispute, online submission will be considered finally for the evaluation. However Financial Bid must be submitted only online through e-Tendering website on https://www.gil.nprocure.com using digital signatures.**

2. The bid is non-transferable.

3. **The Bidder may quote only one option (i.e. only one product can be quoted) against each item.** Bidders are required to mention make & model of the product. (Do not write "OEM" against items as bidders are expected to give make & model of the product).

4. The successful bidder will have to (1) supply, install and maintain the hardware and system software at site (2) Provide onsite manpower support for Operation and Management services for 5 years from the date of installation and carry out necessary integration with BMC application as mentioned in the scope of work and support for hardware.

5. If in any case, the quoted Item is not available in the market, the bidder will have to supply Higher Version/replacement of that Item in the quoted cost in the same time duration with prior approval of GIL/Purchaser. No "End of Life / End of Support" product should be quoted to minimize such instances.

6. All the items to be quoted in this bid should be available in Market (should not be End of Life) at least for next 2 Years and support should be available (should not be End of Support) for Next 5 Years after End of Life.

7. The Bidder shall bear all the costs associated with the preparation and submission of its bid, and GIL / BMC in no case will be responsible or liable for these costs, regardless of conduct or outcome of bidding process. The Bid document is available free of cost to all the bidders. The soft copy may be downloaded from the **https://gil.nprocure.com, www.gil.gujarat.gov.in & www.bmcgujarat.com.**

8. Technical specifications indicated are minimum specification. Bidder may quote for better solution. The bidder should provide following with the technical bid:
   - Make & Model Number
   - Name of Manufacturer
   - Technical Literature
   - Manufacturer's Data Sheet.
   - Compliance statement from the OEM of the product

9. The bidder has to upload the compliance letter on its letter head duly signed by the authorized signature & other supporting documents as asked for in the bid in scanned format. Failing to submit the same or non-compliance/deviation from any bid terms and conditions, eligibility criteria or technical specifications may result in rejection of the bid.

10. The Bidder has to examine all instructions, forms, terms, conditions and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the biding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

11. Pre-bid Meeting :
    11.1. The Pre-bid meeting will be held at BMC on **05.07.2017, 1200 Hours**. (Completed)
    11.2. The interested vendors submitted their queries in writing at least 5 days before the date of pre-bid meeting date.
    11.3. The answers of the pre-bid queries will be published on the website **https://gil.nprocure.com, www.gil.gujarat.gov.in & www.bmcgujarat.com**.
    11.4. No queries will be allowed after the pre-bid meeting.

12. Amendment of Bidding Documents (Corrigendum)

   12.1. At any time prior to the deadline for submission of bids, GIL may, for any reason, whether its own initiative or in response to the clarification request by a prospective bidder, modify the bidding documents.

   12.2. The corrigendum will be published on website **https://gil.nprocure.com**, **www.gil.gujarat.gov.in** & **www.bmcgujarat.com.**

   12.3. In order to allow prospective bidders reasonable time to take into consideration the amendments while preparing their bids GIL, at its discretion, may extend the deadline for the submission of bids.

13. Bid Currency **-** Prices shall be quoted in Indian Rupees only. Payment for the supply of equipments / services shall be made in Indian Rupees only.

14. The bidder will have to submit **Non refundable Bid Processing Fees of Rs. 15,000/- & Earnest Money Deposit (E.M.D.) of Rs. 6,00,000/- (Rupees Six Lacs Only) (Refundable)** on or before date & hours of submission of bid in a sealed cover at GIL office with the heading **"Bid processing Fees & EMD for E-tender no HWT230617440 for Selection of Agency for Supply, Installation, and 5 years Warranty support / services of IT Infrastructure and Operation & Management Services for 5 years on behalf of Bhavnagar Municipal Corporation, Bhavnagar."**

   • Bid processing fees must be in the form of Demand Draft in the name of "Gujarat Informatics Ltd." payable at Gandhinagar along with the covering letter.

   • EMD as mentioned above, shall be submitted in the form of Demand Draft **OR** in the form of an unconditional Bank Guarantee (which should be valid for 6 months from the last date of bid submission) of any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time; in the name of "Gujarat Informatics Ltd." payable at Gandhinagar (as per prescribed format given at Annexure D ) and must be submitted along with the covering letter.

   Please affix the stamp of your company on the overleaf of demand draft.

   **Note:** Failing to submit physical covers of EMD & bid processing fees and Physical Bid (for Eligibility & Technical Bid) at GIL on or before **04.08.2017 up to 1500 Hrs** may lead to the rejection of the bid.

15. In case of non-receipt of Bid processing fees & EMD as mentioned above in your bid will be rejected by GIL as non-responsive.

16. Unsuccessful bidder's E.M.D. will be returned as promptly as possible after the expiration of the period of bid validity OR upon the successful Bidder signing the Contract, and furnishing the Performance Bank Guarantee as prescribed by GIL, whichever is earlier.

17. The Successful bidder has to submit Performance Bank Guarantee @ 5% of total order value within 15 days from the date of issue of **LOI for the duration of 66 months** from any Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative Banks and Rural Banks (operating in India having branch at Ahmedabad / Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time. (The draft of Performance Bank Guarantee is attached herewith). No interest shall be payable on the BG amount. The purchaser may invoke the above bank guarantee for any kind of recoveries, in case, the recoveries from the bidder exceed the amount payable to the bidder.

   The Performance Bank Guarantee may be discharged/ returned by BMC 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.

18. Successful Bidder will have to sign the contract upon receiving the LOI with the purchaser(s) within 15 working days from the date of LOI. The draft is attached herewith.

19. **The Successful bidder has to submit Security Deposit @ 5% of total order value in the form of Demand Draft/Bank Guarantee from any nationalized bank, within 15 days from the date of issue of LOI for the duration of 66 months.**

This Bid Security will be forfeited if the project milestones are not adhered to as per the deadlines mentioned in Project Timelines or if the work is left incomplete in between. Security Deposit will have to be deposited by the agency and it will be kept with BMC till the expiry of service period of 66 months. Security deposit will be repaid without interests after 6 months of the successful completion of the Support and Maintenance period.

20. The successful Bidder's E.M.D. will be returned upon the Bidder signing the Contract, furnishing the Performance Bank Guarantee (5% of total order value) & furnishing the Security Deposit (5% of total order value) and offer of inspection of the ordered material.

21. **Disqualification:** GIL / BMC may at its sole discretion and at any time during the evaluation of Proposal, disqualify any bidder, if the bidder has:

    21.1. Submitted the Proposal documents after the response deadline.

    21.2. Made misleading or false representations in the forms, statements and attachments submitted as per the requirements.

    21.3. Submitted a proposal that is not accompanied by required documentation or is nonresponsive.

    21.4. Failed to provide clarifications related thereto, when sought.

    21.5. Declared ineligible by the any State Government, or any of the PSU in the State Government, for corrupt and fraudulent practices or has been blacklisted by any State Government or Government of India.

    21.6. Submitted a proposal with price adjustment / variation provision.

    21.7. Offered products must be completely matched with the specifications mentioned in the tender Document; any deviation will lead to the disqualification of the bidder.

    21.8. Bidder must have to quote for all the items mentioned in the technical/commercial bid. Incomplete bid will not be accepted.

    21.9. The bids are liable or rejection without OEM authorization certificate.

    21.10. Tender is not submitted in this prescribed Tender Form; with the stamp & signature of the authority on all the pages therein OR Tender contains vague & indefinite expressions and quoted with conditional rates.

    21.11. Any undesirable approach/means at any point of time during the tender process shall result in immediate disqualification of the bidder from the tender process.

    21.12. Firm proposes any alternation in the work specified or any conditions or corrections made in the RFP.

    21.13. Conditional proposal will be outright rejected.

    21.14. The product having higher technical specifications with respect to bid specifications will be allowed, if BMC tender committee allowed. Lower side technical specification / deviation will not be allowed in any circumstances. If any bidder quotes any item with lower technical specification / deviation, bidder will be out right rejected.

22. The E.M.D. may be forfeited at the discretion of GoG / GIL, on account of one or more of the following reasons:

    - If a Bidder withdraws its bid during the period of bid validity.

    - If Bidder does not respond to requests for clarification of their Bid

    - If Bidder fails to co-operate in the Bid evaluation process, and

    - In case of a successful Bidder, if the Bidder fails:

        (i) To sign the Contract as mentioned above or

        (ii) To furnish performance bank guarantee & security deposite as mentioned above or

        (iii) If the bidder is found to be involved in fraudulent practices.

    - If successful bidder fails to submit the Performance Bank Guarantee & sign the Contract Form within prescribed time limit, the EMD of the successful bidder will be forfeited. GIL also reserves the right to blacklist such bidder from participating in future tenders if sufficient cause exists.

23. Termination of Contract:

Under this Contract, BMC may, by written notice terminate the contract with successful bidder in the following ways:

23.1. **Termination for Default:** In case of Successful Bidder failing to perform obligations under the Contract or if the quality is not up to the specification or in the event of non-adherence to time schedule.

The conditions stipulated in the Contract shall be strictly adhered to and violation of any of these conditions shall entail immediate termination of the Contract without prejudice to the rights of BMC with such penalties as specified in the Bid Document and the Contract.

Bidder Event of Default is an event of default by the Bidder (a "Bidder Event of Default") unless such Bidder Event of Default has occurred as a result of BMC Event of Default or a Force Majeure Event.

BMC may, without prejudice, to any other remedy for breach of Contract, by prior written notice of default sent to the Bidder, terminate the Contract in whole without assigning any reason if
- The qualified Bidder fails to deliver any or all of the obligations within the time period(s) specified in the Contract, or any extension thereof granted by BMC.
- The qualified Bidder fails to perform any other obligation(s) under the Contract.
- If the Bidder is in material breach of the representations and warranties contained in this Contract.

Upon receipt of the notice of default, the Bidder shall, within a period of ten (10) working days thereof, vacate the premises of BMC and return all Intellectual Property of the BMC. The disputes, if any, shall be decided by the Municipal Commissioner whose decision shall be final and binding on the Parties.

23.2. **Termination for Convenience:** BMC by written notice sent to the Successful Bidder, may terminate the contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for BMC's convenience, the extent to which performance of the Successful Bidder under the Contract is terminated, and the date upon which such termination becomes effective.

Any service that has been completed or rendered and within 30 days after the Successful Bidder's receipt of notice of termination shall be accepted by BMC at the contract terms and prices.

23.3. **Termination for Insolvency, Dissolution, etc:** BMC may at any time terminate the Contract by giving written notice to the successful bidder, if the service provider becomes bankrupt or otherwise insolvent or in case of dissolution of firm or winding up of company. In this event, termination will be without compensation to the successful bidder, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to BMC.

23.4. In all the three cases termination shall be executed by giving written notice to the successful bidder. Upon termination of the contract, no payment will be made to the successful bidder except case of "Termination for convenience". No consequential damages shall be payable to the Successful Bidder in the event of termination except case of "Termination for convenience".

23.5. Upon termination of this Contract under "**Termination for Default**" and "**Termination for Insolvency, Dissolution, etc**", BMC shall have the right to enter into an agreement with any third party for the Project and Maintenance and shall in no way be answerable to the successful bidder for such acts. The Earnest Money Deposit and/or Security Deposit and/or Performance Guarantee given to the BMC by the Bidder shall be confiscated.

23.6. In case termination of this Contract under "**Termination for Default**" and "**Termination for Insolvency, Dissolution, etc**", it shall pay all the dues, if any, outstanding as at the end of the termination and facility will revert to BMC and BMC shall not be liable for payment of any compensation or damages of whatever nature and at the discretion of BMC and on such terms and conditions, may continue till its validity. In such case, the Bidder will also require to provide all passwords, hard wares, software details and their manual to the BMC.

24. Price shall be inclusive of all freight, forwarding, handling and transit insurance, installation, warranty for the five years from the date of installation.

25. Prices shall be exclusive of Excise Duties. The prices shall strictly be submitted in the given format. Quoted prices shall be exclusive of all taxes except CST / VAT / Service Tax/GST. The tax components like CST / VAT / Service Tax/GST as applicable shall be mentioned separately in the respective columns.

26. Late Bids: The bidder will not be able to submit the bid after final submission date and time.

27. Modification and Withdrawal of Bids

    27.1.    The Bidder may modify or withdraw its bid before the due date of bid submission.

    27.2.    No bid will be allowed to be modified subsequent to the final submission of bids.

    27.3.    No bid will be allowed to be withdrawn in the interval between the deadline for submission of bids and the expiry of the bid validity.  Withdrawal of a bid during this interval will result in the forfeiture of bidder's E.M.D.

28. Bids will be opened with the buyer's private digital key in the presence of Bidder's representatives, who choose to attend. The Bidder's representatives who are present shall sign a register/attendance sheet evidencing their attendance. The representative will be held responsible for all commitments made on behalf of the bidder and that will be considered valid for all further dealings related to this bid process. In the absence of the bidder(s), the Tender Committee may choose to open the bids as per the prescribed schedule.

29. The Bidder's names, Bid modifications or withdrawals, discounts and the presence or absence of relevant E.M.D. and such other details as GIL/GOG officer(s) at their discretion, may consider appropriate, will be announced at the opening.

30. **Evaluation of the Bids:** After the closing time of submission, GIL / BMC / GoG committee will verify the submission of Bid Processing Fees & EMD as per bid terms and conditions. The pre-qualification criteria evaluation will be carried out of the responsive bids. The Eligibility & technical bids of the bidders who are complying with the pre-qualification criteria will be opened and evaluated next. Technical evaluation will be carried out of the eligible bid with respect to technical evaluation of quoted product. GIL will seek clarifications if required on eligibility & technical section. GIL will declare technically qualified bidders based on technical evaluation of product who matches with bid specification. The financial bid of the technically qualified bidders will be opened and financially L1 bidder will be decided from the sum total of prices for all line items without tax with 5 year warranty and then called for further negotiations if required.

31. As per the provision in Electronics & IT/ITeS Start-up Policy Resolution No. ITS/10/2015/5284/IT dated 6th June, 2016 issued by Department of Science & Technology; in e-Governance project undertaken by Government Departments or its Boards, Corporations or parastatal bodies getting grants from the Government, the chosen solution provider or system integrator will pass on job work or will outsource part of the work of a value ranging between 5% to 10% of the contract value to the eligible start-ups and to students of shortlisted Technical Colleges in Gujarat. In such arrangements, the responsibility of meeting SLAs (Service Level Agreements) will continue to belong to the solution provider or the system integrator.

32. **Inspection/Testing:**

    **The bidder will have to offer the inspection in the manner as decided by GIL / BMC** before delivering to the respective site or at customer sites. The cost of the same has to be borne by the supplier. Any deviation found in the specification of the produced goods from the bid specification will lead to the cancellation of the order, forfeiture of EMD/PBG and prohibition in the participation in the future purchase of Government of Gujarat. GIL/GoG will not be responsible for any time delay which may arise due to any deviation from the bid technical specification found at the time of inspection and the bidder has to deliver and install the ordered goods within prescribed time limit. **At the time of inspection, bidder is required to produce OEM's confirmation on OEM's letter head for back to back warranty support as per tender terms & conditions.**

33. The Indenter's right to inspect, test and, where necessary, reject the Goods after the Goods arrival at Customer Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

34. **Project Timelines**:

| Sr. No. | Description | Completion Milestone (In Calendar Days) |
|---|---|---|
| 1 | Signing of Contract / Agreement | **15** |
| 2 | Supply of Equipments/Hardware and Software & Team Deployment | **60** |
| 3 | Completion of Data Centre Room at BMC Main Office | **70** |
| 4 | Completion of Hardware installation and establishment of new network at BMC Main Office | **85** |
| 5 | Configuration of hardware, network and software (as per Configuration Requirement) | **100** |
| 6 | Establishment of connectivity / configuration of Network (secure remote connectivity with main office server) and CCTV surveillance in Zonal office (East and West) | **110** |
| 7 | Set up of existing BMC's software/applications on new hardware/network | **120** |
| 8 | Testing of New Server, New Networking, Softwares, CCTV surveillance and Data centre in BMC Main office | **130** |
| 9 | Hardware/Software Setup Completion Certificate by BMC (Only for hardware, network, software, data centre and CCTV surveillance establishment) at Main office | **220\*** |

**Note:**

1) Above mentioned Project Deadline will start from the date of LOI ("Letter of Intent") / Work Order by BMC to the successful bidder.

2) **\* Means** refer to Implementation Completion Certificate

35. In case of successful bidder is found in breach of any condition(s) of bid or supply order/work order, at any stage during the course of supply / installation or warranty period, the legal action as per rules/laws, shall be initiated against the successful bidder and EMD/PBG/SD shall be forfeited, besides debarring and blacklisting the bidder concerned for the time period as decided by Govt., for further dealings with GoG.

36. Bid validity will be of **180 days after the date of financial bid opening**. A bid valid for shorter period shall be rejected as non-responsive. **If required, GIL may extend the bid validity for further period from the date of expiry of bid validity in consultation with the successful bidder.**

37. Bidders are required to quote all items including optional add-ons as well. Incomplete bids will be treated as non-responsive and will be rejected.

38. **Warranty for IT infrastructure and Services:**

38.1. **Warranty:** The Successful Bidder shall provide a Comprehensive warranty for a period 5 years which will starts from Hardware/Software Setup Completion Certificate issued by BMC to Successful Bidder as per Implementation Completion Certificates mentioned in Clause no. 42.

38.2. The bidder shall guarantee a 99.5% uptime of IT Infrastructure (measured quarterly).

38.3. All Components offered in the Bill of Material should be covered under OEM support to get backend support/benefits from Principles/OEM in terms of Free Software Update Support, 24x7 Support with 4 hours response time, Hardware Warranty Support and defective Part replacement during warranty period of 5 years. The Hardware shall have minimum 5 Years warranty period.

38.4. BMC shall promptly notify Successful bidder in writing or email of any claims arising under this warranty. Upon receipt of such notice, the Successful Bidder shall, within the warranty period and with all reasonable speed, repair or replace the defective Systems, software without any extra costs to BMC and within time specified and acceptable to BMC.

38.5. If the Successful bidder, having been notified, fails to remedy the defect(s) within the period specified in the contract/SLA, BMC may proceed to take such reasonable and remedial action as may be necessary, like imposition of penalties as per SLAs defined in this RFP on the Successful bidder's risk

and expense and without prejudice to any other rights which BMC may have against the Successful bidder under the Contract.

38.6. If any equipment gives continuous trouble, say 3 times in one month during the warranty period, the bidder shall replace the same with new equipments without any additional cost to the purchaser.

38.7. During the Warranty period, the Successful bidder will provide all updates, patches/ fixes, version upgrades and new versions if any within 15 days of their availability and should carry out installation and operationalization of the same at no additional cost to BMC.

38.8. If any manufacturing or other technical defects are found within the warranty period, the same will have to be replaced or rectified free of cost by the bidder.

38.9. The Successful bidder must pass-on the standard OEMs' warranty which comes bundled with the purchased equipment wherever it is superior to the warranty specified in this tender document.

38.10. The Successful bidder has to provide documentary evidence for back-to-back support agreement with the respective OEM along with the OEM.

38.11. The Successful bidder undertakes to ensure the maintenance of the acceptance criteria /standards in respect of the systems.

38.12. Maintenance service: Free maintenance services shall be provided by the Bidder during the period of warranty of 5 year.

38.13. It would be sole responsibility of the Successful Bidder to operate, maintain and support the New Server, New Networking, Softwares, CCTV surveillance and Data centre (with 5 year of Warranty) for entire period of 5 years by means of their 1 resident engineer.

38.14. The maximum response time for the infrastructure shall be as defined in the IT Infrastructure Service Level depending upon the severity level.

38.15. In case, bidder is not providing satisfactory support & doing unwarranted delay in providing warranty support, Government offices reserves right to repair the equipment at risk & cost of the bidder.

38.16. The successful bidder will be required to co-ordinate with software vendor and/or do liasioning with other service provider to achieve the end-to-end connectivity. This also includes Server OS configuration with respect to LAN/WAN technologies implementation. Its successful bidders responsibility to tie up with software agency of BMC for successful running of current software of respective agency which are developed on various platforms.

39. **Penalty Clause**

Penalty calculations shall be calculated on accumulated non-compliance for all of the SLAs mentioned under the Service Level Agreement.

40. **Payment:**  Payment for Goods and Services shall be made by Purchasing Department in Indian Rupees as follows:

**For IT Infrastructure including Hardware, Software, Network, CCTV & Other items:**

40.1. No advance payment will be made.

40.2. 80 % payment after successful inspection / physical verification & delivery of the ordered goods at specified locations. The inspection / physical verification will be done as decided by GIL/BMC.

40.3. Remaining 20 % payment will be made after completion of installation and Acceptance Test / Hardware and software setup Completion Certificate issued by BMC.

**For Operation & Management Services:**

40.4. The SI bidder shall be paid in 10 equated half yearly installments after completion of half year for manage, maintain and provide support services and Operation and Management Services as mentioned in the bid. Operation & Management will start after date of successful completion of installation and commissioning & Acceptance Test / Completion Certificate issued by BMC.

The half yearly payment will be released after verification of the SLA and adjustment for penalties, if any, immediately against the above invoice.

41. **Mode of Billing and Payments**

41.1. The Bidder shall submit the invoices in duplicate to the client on firms printed bill forms indicating the work done by him during the period for which payment is sought.

41.2. Partial bill payment is allowed with condition that minimum bill amount must be greater than or equal to 20 lacs.

41.3. Successful bidder has to submit following documents to process of payment:

41.3.1. Invoice copy in duplicate

41.3.2. Delivery Challan

41.3.3. Installation/Service Report

41.3.4. Proof of Warranty

42. **Implementation Completion Certificates:**

42.1. Hardware/Software Setup Completion Certificate by BMC (Certificate only for hardware, network, software, CCTV surveillance and data centre establishment) will be issued (for main office set up & both zonal office required set up) only after 3 months of successfully running from the date of Go Live of newly established Hardware, Software, Networking, CCTV surveillance, Data centre and existing software of BMC on this new IT infrastructure. It is successful bidder responsibility to collect the successful hardware/software setup completion certificate from EDP Department, BMC.

42.2. Final project completion certificate (comprising Hardware, Software, Networking, CCTV Surveillance, Data centre and 5 year support) will be given by EDP Department, Bhavnagar Municipal Corporation to successful bidder after completion of 5 years of successful work from the date of Hardware/Software Setup Completion Certificate issued by BMC.

42.3. Before Go Live, new IT infrastructure must have to pass the Third Party Inspection which will be carried out by GIL.

42.4. Go Live will not be allowed till new IT infrastructure get clearance from TPI agency.

43. GIL reserves the right to change any bid condition of any item even after inviting the bids, with/without prior notification.

44. GoG / GIL's Right to accept any Bid and to reject any or all Bids – GoG / GIL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to awarding the Contracts, 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 such decision.

45. The bid quantities are estimated based on the receipt of the requirement from Indenting Department. The quantities may decrease or increase at the time of finalization, depending upon the change in the requirements/grants available with the purchaser(s), which shall be binding to the bidder.

46. All correction/addition/deletion shall require authorized countersign.

47. Force Majeure Shall mean and be limited to the following:

a) Fire, explosion, cyclone, earthquake, flood, tempest, lightening or other natural physical disaster;

b) War / hostilities, revolution, acts of public enemies, blockage or embargo;

c) Any law, order, Riot or Civil commotion, proclamation, ordinance, demand or requirements of any Government or authority or representative of any such Government including restrictive trade practices or regulations;

d) Strikes, shutdowns or labor disputes which are not instigated for the purpose of avoiding obligations herein, or;

e) Restrictions imposed by the Government or other statutory bodies which prevents or delays the execution of the order;

f) Any other circumstances beyond the control of the party affected;

The BIDDER shall intimate Purchaser by a registered letter duly certified by the local statutory authorities, the beginning and end of the above causes of delay within seven (7) days of the occurrence and cessation of such Force Majeure Conditions. In the event of delay lasting over two months, if arising out of causes of Force Majeure, Purchaser reserves the right to cancel the order.

Delivery & Installation period may be extended due to circumstances relating to Force Majeure by the Purchaser. Bidder shall not claim any further extension for delivery & installation or completion of work. Purchase / GoG shall not be liable to pay extra costs under any circumstances.

The BIDDER shall categorically specify the extent of Force Majeure conditions prevalent in their works at the time of submitting their bid and whether the same have been taken in to consideration or not in their quotations. In the event of any Force Majeure cause, the BIDDER shall not be liable for delays in performing their obligations under this order and the delivery dates can be extended to the BIDDER without being subject to price reduction for delayed deliverables, as stated elsewhere.

It will be prerogative of Purchaser / GoG to take the decision on force major conditions and Purchaser decision will be binding to the bidder.

## 48. Project Management Review

The progress of project would be reviewed at regular intervals by the Bidder. Implementing Agency should send weekly progress reports & Monthly Status reports to BMC. Implementing agency has to obtain necessary concurrence from BMC if there are any slippages in the deliverables to be delivered by Bidder.

## 49. Exit Management

### Exit Management Purpose

This Schedule sets out the provisions, which will apply on expiry or termination of the contract. The Parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management Schedule.

### Confidential Information, Security and Data

Successful Bidder will promptly on the commencement of the exit management period, supply to the BMC or its nominated agencies the following:

- Information relating to the current services rendered and performance data relating to the performance of the services; Documentation relating to E-Governance Project, Project's Intellectual Property Rights; any other data and confidential information related to the Project;

- 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.

- All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable the BMC and its nominated agencies, or its Replacing Bidder to carry out due diligence in order to transition the provision of the Services to BMC or its nominated agencies, or its Replacing Bidder (as the case may be).

- At the successful completion of project Bidder has to submit the
    - All quoted products  licenses (that include all hardware and software)
    - User Manual of all procured equipments must be provided to BMC
    - Installation Manual
    - Escalation Mechanism
    - All Confidential details (like username, password and secure code )
    - Manufacturer's / Supplier's warranty certificate
    - Training Material: Training Material will include the presentations used for trainings and also the required relevant documents for the topics being covered.

Note: The successful bidder will ensure Upkeep & Updating of all documentation and manuals

### Hand holding and knowledge transfer support

- In case of project contract expiry (end of 5 years of O&M period), Bidder shall ensure that the identified officials of BMC (IT Cadre) are given proper handover and knowledge transfer at least 6 months prior to the completion of contract period and only on acceptance of the role by the identified officials of BMC and fulfilling all the terms, Acceptance Criteria, the contract completion certificate along with the last payment to the bidder will be released.

- Successful bidder would be required to provide Handholding support to the BMC at least 6 months prior to the completion of contract period. As part of handholding support the Successful bidder will provide one qualified and trained person exclusively for BMC for a specific period to handhold the BMC staff and ensure that the staffs of BMC are able to use the newly created infrastructure on their own by the end of the handholding period. Handholding support would be required only after the successful commissioning of project and the necessary infrastructure.

- As part of handholding the Successful bidder will be required to provide comprehensive training to the concerned staff members (IT Cadre) of BMC and other concerned officers regarding implemented solution on continuous basis for a specific period and help them to resolve their issues with the newly developed infrastructure on a day to day basis to meet the Service Levels mentioned for Handholding supporting in this RFP document. The training should be focused on providing knowledge transfer to the staff members of the BMC so as to increase their awareness and acceptability of the infrastructure and the new computerized system as a whole.

- The Successful bidder would bear the cost of providing the training; supply of course material, any consumables, and IT infrastructure required for training etc. along with the training.

- Along with the hand holding support to the BMC cadre, Bidder has to ensure proper and complete handover to the new vendor (in case of selection of new vendor at end of the project timelines).

- All the required functional training and handover along with required Knowledge transfer and required documentation should be completed by the bidder within 3 months timeframe prior to the completion of the contract. A formal handover report has to be submitted by the bidder duly signed by the new bidder.

**Continuity of operations:**

- As and when newer versions of system or application software are introduced within the period of handholding support, Bidder would provide required training documentation along with each release of patch / upgrade and would provide training to the concerned officers.

- In case of new additions to the staff members in BMC, the SI would be required to provide the aforementioned training to them as well, during the currency of handholding support for the project duration of 5 years.

**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 BMC 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, BMC or Replacing Bidder may make an offer of employment or 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 BMC or any Replacing Bidder.

**Exit Management Plan**

- Successful Bidder shall provide BMC with a recommended exit management plan ("Exit Management Plan") 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 detailed program of the transfer process that could be used in conjunction with a Replacement Bidder 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;

- 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 this project's operations as a result of undertaking the transfer;

- Plans for provision of contingent support to this Project and Replacement Bidder for a reasonable period (minimum three month) after transfer.
  - Each Exit Management Plan shall be presented by the Successful Bidder to and approved by BMC.
  - During the exit management period, the Successful Bidder shall use its best efforts to deliver the services.
  - Payments during the Exit Management period shall be made in accordance with the Terms of Payment Schedule.
  - This Exit Management plan shall be furnished in writing by Successful Bidder or its nominated agencies within 7 days from the receipt of notice of termination or three months prior to the expiry of Agreement.

50. The Clarifications if any should be submitted in writing to GIL at least 5 days before the pre-bid meeting date. Thereafter the clarifications received from the vendors will not be entertained.

51. The Testing of the implemented system shall be carried out by the agency appointed by BMC (as mentioned in the Section 2 – Scope of Work – Configuration Requirements) before Go-Live. Successful bidder is expected to co-operate in the process. Suggestions made by the agency shall be implemented by the successful bidder.

Your bid should be submitted on website **https://gil.nprocure.com** on or before **15:00 Hours, 04.08.2017.**

Proposals after due time period will not be accepted.

The Technical Bids will be opened on **05.08.2017 at 12:00 Hours at GIL, Block No. 1, 8th Floor, Udyog Bhavan,** in the presence of the committee members and representatives of the bidders, who have submitted valid bids. Only one representative from each bidder will be allowed to attend the tender opening. The representative will be held responsible for all commitments made on behalf of the bidder and that will be considered valid for all further dealings related to this tender process.

Please address all queries and correspondence to

**Vivek Upadhyay, DGM (Tech.),**
**Gujarat Informatics Limited**
Block No. 1, 8th Floor, Udyog Bhavan, Gandhinagar - 382010
Phone No. 079-23259239, Fax No. 079-23238925,
E-mail: viveku@gujarat.gov.in; vijayb@gujarat.gov.in

Fax / Email should be followed by post confirmation copy.

## Special Terms and Conditions

1. In case, there are few responses including a situation where only 1 bid is received or only one bid is technically qualified, GIL/BMC will decide whether to go ahead with procurement based on the single bid or not.

2. The successful bidder binds itself to (1) supply, install and maintain all the required hardware and software (2) provide Operation and Management services along with owning the SLA to provide all the services as mentioned in the bid.

3. The bidder has to provide operational policy and procedure of systems, architecture and security policy.

4. As the first step for the assignment, Purchaser will issue a Letter of Acceptance. This letter will refer to the proposal and confirm its acceptance of proposal –both technical and financial.

5. SI bidder will perform the Services (a) in a good professional manner commensurate with professional industry and technical standards which are generally in effect for similar standard (b) so as to comply with the applicable Service Levels if any in accordance with the terms of the applicable Project Engagement Definition and (c) in a manner adaptable to the Common Operating Environment.

6. The Parties shall each ensure that the range of the Services under the SLA shall not be varied, reduced or increased except by the prior written agreement of purchaser and SI BIDDER in accordance with the actual requirements of BMC.

7. No Party to the SLA will at any time perform, or omit to perform, any act which they are aware, at the time of performance, will place the other Party in default under any insurance policy, mortgage or lease governing activities at any location provided by the purchaser.

8. The SLA shall commence on the date on which it is fully executed by the Purchaser and SI bidder and shall, unless terminated earlier in accordance with its terms or unless otherwise agreed by the Parties, expire on the date on which this Agreement expires or terminates for any reason.

9. During the entire project period, SI BIDDER will ensure the integration of the software with hardware to be installed in order to ensure the smooth operations of the entire solution architecture (including all client location) to provide efficient services to all the Stakeholders of the Purchaser in an efficient and speedy manner.

10. The Purchaser will undertake and use the Services in accordance with any instructions or procedures as per the acceptance criteria as set out in the SLA that may be agreed by the Parties from time to time.

11. In the event of any increase or decrease of the rate of taxes, additional taxes/GST etc arising due to any statutory notification/s during the Term of the Agreement, the consequential effect will be adjusted as per actual and paid by the Purchaser accordingly.

12. In case of dispute, if the parties fail to decide upon a sole arbitrator, such a dispute shall be referred to a panel of three arbitrators wherein each party shall appoint one arbitrator and the two arbitrators shall appoint the third member. Arbitration and Conciliation Act, 1996 shall be the governing law for arbitration proceedings. Nothing contained in this Agreement shall prevent a party from approaching an appropriate court of law without exhausting the remedy of arbitration to bring in an action for specific relief or other equitable relief or interim relief however the Jurisdiction will be Bhavnagar (Gujarat) only.

13. Change Management Procedure: A change identified at any stage of the assignment which requires the deliverable to deviate from the current baseline or the approved deliverable of the previous baseline to be modified, will be conveyed by the Purchaser to SI BIDDER or vice-versa in the form of a Change Request document. The request for change will then be assessed by SI BIDDER to evaluate its impact on feasibility, time schedules, technical requirements in consequence of the proposed change and cost. SI BIDDER will present this assessment to the Purchaser for its approval within a reasonable time period. SI BIDDER will incorporate the change after receiving the Purchaser's written approval. In case of delay in approval by the Purchaser, the baseline itself may undergo a change; this will mean a reassessment of the charges.

14. Confidential Information: Each party and their respective personnel may, in the course of their business relationship with the other, acquire or be exposed to Confidential Information. "Confidential Information" means and includes all information relating to the disclosing party including but not limited to information,

knowledge or data of an intellectual, technical, scientific, financial, cost, pricing, commercial or marketing nature which is not in the public domain and in which the disclosing party has a business, proprietary or ownership interest or has a legal duty to protect, whether or not received from a third party in whatever form, including but not limited to technical data/know-how, drawings, photographs, specifications, standards, manuals, reports, formulae, algorithms, processes, information, lists, trade secrets, computer programs, computer software, computer data bases, computer software documentation, quotations and price lists, research products, inventions, development, processes, engineering techniques, strategies, customers (including any Personal Information and/or other non-public personal information about such customers and any list, description or other grouping of customers that is derived using any such Personal Information and/or other non-public personal information), internal procedures, employees, business opportunity which the disclosing party considers to be confidential and which is identified by the disclosing party as confidential, or which might fairly be considered to be of a confidential nature and which may be furnished by either party during the period of this Agreement. This clause will be applicable subject to RTI Act or any other law of the State/Central Govt.

15. The receiving party undertakes to (i) hold all such Confidential Information in strictest confidence, (ii) not to disclose such Confidential Information either in whole or in part to any person other than those of its officers, employees and agents who need to know such Confidential Information for the purpose authorized hereunder provided that each such officer, employee or agent has agreed in writing to maintain the confidentiality of the such Confidential Information in accordance with the terms hereof or (iii) not to use such Confidential Information for any purpose whatsoever save as may be strictly necessary in connection with the Services provided under this Agreement. This clause will be applicable subject to RTI Act or any other law of the State/Central Govt.

16. Notwithstanding the foregoing, nothing in this clause shall prevent a receiving party from treating a Confidential Information as non-confidential, if such information is: in the lawful possession of, or was known to, the receiving party prior to its receipt, without an obligation to maintain its confidentiality; is or becomes generally known to the public without violation of this provision; obtained by the receiving party from a third party (i) who does not require the receiving party to refrain from disclosing such information and (ii) who has the right to disclose it, without the obligation to keep such information confidential; independently developed by the receiving party or its employees without the use of Confidential Information; is required to be disclosed by the receiving party under the compulsion of law, or by order of any court or government or regulatory body to whose supervisory authority the receiving party is subject; provided that, in any such event, the receiving party shall give the disclosing party a notice in writing as soon as practicable (which shall be, subject to the applicable law, prior notice where possible and not later than 30 days after the disclosure) and the receiving party shall use its best effort to obtain assurance that the disclosed information will be accorded confidential treatment to the maximum extent possible under law. This clause will be applicable subject to RTI Act or any other law of the State/Central Govt.

17. **Limitation of Liability:** Successful Bidder's cumulative liability for its obligations under the contract shall not exceed the value of the charges payable by the BMC/GIL within the remaining duration of the contract term from the day claim is raised and selected agency shall not be liable for incidental, consequential, or indirect damages including loss of profit or saving

18. Non Solicitation: The parties agree that neither party shall solicit or employ the personnel of the other party who are involved in negotiations or rendering any services to the other party under this Agreement, for a period of one years from the date from which such personnel cease to be involved in such negotiations/rendering services, without obtaining the prior written consent of the other party.

## Service Level Agreement

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service to be provided by the successful bidder to BMC for the duration of this contract.

**Definitions**

- **"Scheduled Maintenance Time"** shall mean the time that the System is not in service due to a scheduled activity as defined in this SLA. The scheduled maintenance time would not be during "Business hours". Further, scheduled maintenance time is planned downtime with the prior permission of BMC.

- **"Scheduled Operation Time"** means the scheduled operating hours of System for the month. All scheduled maintenance time on the system would be deducted from the total operation time for the month to give the scheduled operation time. The total operation time for the systems and applications will be 24X7X365.

- **"System Downtime"** means accumulated time during which System is totally inoperable within the Scheduled Operation Time but outside the scheduled maintenance time and measured from the time BMC employees log a call with the successful bidder team of the failure or the failure is known to the successful bidder from the availability measurement tools to the time when the System is returned to proper operation.

- **"Availability"** means the time for which the services and facilities are available for conducting operations on the BMC system including application and associated infrastructure.

- **"Incident"** refers to any event/abnormalities in the functioning of the System Services that may lead to disruption in normal operations of the System.

- **"Response Time"** means Response time is the time interval between the instant at which BMC log issue via call/email and the instant at which successful bidder's qualified engineer become present at the BMC's premises to resolve the issue.

**Interpretations**

1) The business hours are 9:00 AM to 7:00 PM on all working days (Mon-Sat) excluding Public Holidays or any other Holidays observed by BMC. The successful bidder however recognizes the fact that the BMC offices will require to work beyond the business hours on need basis like tax rebate schemes, collection of tax schemes, etc.

2) "Non-Business Hours" shall mean hours excluding "Business Hours".

3) 24X7 shall mean hours between 00:01AM – 12:00PM on all days of the week.

4) Successful bidder has to strictly follow the service level agreement, if the bidder is not agreeing with any points under SLA, they need to discuss the same in pre-bid meeting.

5) Any changes in SLA can only be done with the permission of EDP Manager, Bhavnagar Municipal Corporation and Commissioner, Bhavnagar Municipal Corporation.

6) The SLA parameters shall be monitored on a monthly basis as per the individual SLA parameter requirements. However, if the performance of the system/services is degraded significantly at any given point in time during the contract and if the immediate measures are not implemented and issues are not rectified to the complete satisfaction of BMC or an agency designated by them, then the BMC will have the right to take appropriate disciplinary actions including termination of the contract.

7) A Service Level violation will occur if the successful bidder fails to meet Minimum Service Levels, to be measured on a monthly basis, for a particular Service Level. Overall Availability and Performance Measurements will be on a monthly basis for the purpose of Service Level reporting. An "Availability and Performance Report" shall be provided by the successful bidder on monthly basis in the format finalized in consultation with BMC.

8) The monthly Availability and Performance Report will be deemed to be accepted by the BMC upon review and signoff by the Nominated official from BMC, some of the Service Levels will be assessed through audits or reports; as appropriate to be provided by the successful bidder on a monthly basis, in the formats accepted by BMC. The tools to perform the audit will have to be provided by the successful bidder. Audits will normally be done on regular basis or as required by the BMC.

9) The Post Implementation SLAs will start from the Support and Maintenance Phase. However, SLAs will be subject to being redefined, to the extent necessitated by field experience at the BMC offices and the developments of technology practices globally. The SLAs may be reviewed on an annual/bi-annual basis as the BMC decides after taking the advice of the successful bidder and other agencies. All the changes would be made by the BMC in consultation with the successful bidder.

10) Minimum uptime for the entire IT infrastructure along with the software application and solutions is 99.5%. The uptime will be calculated based on the reports generated from call/issue logged by BMC on quarterly basis. And any deduction in terms of penalties will be deducted from the invoice submitted by the bidder.

**Penalty Clause:**

**Penalties for failure in Supply of Material or in implementation/installation**

- In case the successful vendor fails to execute the project as stipulated in the delivery schedule with the required quality, Commissioner, BMC, reserves the right to procure the similar services from alternate sources at the risk, cost and responsibility of the successful vendor.

- In case, the selected bidder does not supply the ordered items for any reason, the successful bidder will be liable to pay the difference amount to the purchaser, over and above the performance guarantee and security deposit, which indenter department has to pay to the next or other selected bidder for purpose of the said items.

- If the successful bidder does not install/implement the requisite hardware and software as per this RFP after the issue of the LOI ("Letter Of Intent"), then BMC will terminate the contract with the successful bidder and procure the similar services from alternate sources at the risk, cost and responsibility of the successful vendor.

- In above cases, BMC will terminate contract with successful bidder and the Security Deposit and Performance Bank Guarantee of the successful bidder will be forfeited and the bidder will be black listed for doing any business with BMC.

**Penalty for Delay in Supply of Material or in implementation/installation:**

- If the successful bidder do delay in supply OR implementation/installation of requisite hardware and software as per schedule mentioned in Section - Project Timeline after issue of the LOI ("Letter Of Intent"), then a sum equivalent to one percent (1 %) of the total contract value shall be deducted from the payment for each calendar week of delay or part thereof.

- The amount of penalty (liquidated damages) shall be subject to a maximum limit of 15% of the total contract value.

- Partial work will be considered as incomplete work for penalty calculation.

- Delay in excess of 10 weeks will be sufficient cause for termination of the contract. In this type of case, Commissioner, Bhavnagar Municipal Corporation, reserves the right to terminate the contract, Security Deposit and Performance Bank Guarantee of the successful bidder will be forfeited.

**Performance Penalties for Delay in Support/Maintenance during Operation & Management:**

- Penalty calculations shall be calculated on accumulated non-compliance for all of the SLAs mentioned in this bid beyond the allowed resolution time.

- During Support/Maintenance period, if the complaint is not resolved within 24 hrs in case of software/application error or any hardware failure the penalty of Rs. 2,000 per day per complaint will be

levied. However, if the complaints not resolved within 3 days then from 4th day to 10th day, penalty would be levied @ 150% and from 11th day onwards penalty @ 200% of the above rates would be levied. The amount of penalty will be recovered from the Performance bank guarantee during Support/Maintenance period.

- Any patch released by the OEM needs to be applied to the corresponding product within 15 working days. Any delay in applying the patch will attract penalty of Rs. 500/- per day.

- The amount of penalty will be recovered from the yearly payment during Support/Maintenance period.

- In case of failure of any of the items as specified in the tender, the successful bidder should make standby arrangement within 24 Hrs, else Commissioner, Bhavnagar Municipal Corporation, reserves the right to procure the similar services from alternate sources at the risk, cost and responsibility of the successful bidder, in place of penalising the successful vendor as per penalty clause of Support/Maintenance.

### Penalty calculation

- The Penalty shall be calculated on a quarterly basis.

- All penalties defined for O&M phase will be exclusive to each other and total penalty for any of the quarter will not exceed more than 25% of yearly payment. For Implementation phase penalties, the total penalties should not exceed 15% of the total Capex cost payable to successful bidder.

- Three consecutive yearly deductions totaling to more than 25% of the applicable payment for the corresponding year will be deemed to be a sufficient condition for termination.

- In the event of any of the above (two points) happening, BMC may at its discretion will have right to terminate the contract as per the terms and Conditions of this RFP.

- Planned Down-time (during non-working hours) is not considered for penalty calculation. Bidder will have to take at least 3 days prior permission from BMC for the planned down-time. Planned Down-time won't be allowed for more than two times in a month.

### SLA Responsibility of Successful Bidder

1) All plastic parts and consumable items should also be covered under 5 year warranty. Successful bidder has to provide and replace it as and when required without any extra.

2) **Documentation**: Successful Bidder must maintain records of all IT hardware calls that they attend either by their engineer or by other engineer with particular hardware model number and serial number with problem description and actions.

3) In all cases relating to training, travel, accommodation expenses will be borne by the Successful Bidder.

4) Successful Bidder will provide all the supports for all the required IT hardware and software plus windows OS and antivirus software and all other items mentioned in RFP.

5) **Warranty**: Successful Bidder will also take care for Warranty of whole new IT infrastructure proposed in this RFP plus windows OS and antivirus software and all other items mentioned in RFP. Successful Bidder will login the call to OEM for any software, hardware or component failure and make sure that the problem will be solved within the SLA timelines.

6) Successful Bidder will provide required escalation and coordination with OEMs for Replacement of the parts and for repairing from OEM.

7) Successful Bidder's engineer must take EDP department's authorized employee's signature on the service report to close the call and keep the record of down time.

8) Successful Bidder should strive to meet the minimum down time terms of BMC by providing fastest and reliable support.

9) **Down time** will be calculated from the time complain is logged to service in charge of Successful Bidder (via email/call/written letter) till the EDP department's authorized employee's acknowledge the repair / service completion.

10) Successful Bidder will ensure 99.5 % uptime for IT Setup & Infrastructure established under this RFP plus windows OS and antivirus software and all other items mentioned in RFP.

11) **Replacement & Stand by units**: Successful Bidder will provide Standby units within 24 Hr. of particular Hardware in case of failure or non-working condition. Successful Bidder will ensure that the supplied Standby units will be sufficient capable to run the work smoothly without downtime. (**Note**: Standby units will be provided for the hardware supplied by Successful Bidder only as per the WO, Successful Bidder will not supply any standby units for third party equipments)

12) Successful Bidder will replace/repair all the faulty parts for Hardware covered under warranty and Make them functional for the smooth operation.

**13) Call Closing time:**  Any complain/call reported by BMC should be attended and resolved immediately by the Service engineer of successful bidder within 24 Hrs (Except Sunday and Public Holidays).

14) **Call Closing time:**  Any complain/call reported by BMC which requires third party involvement like OEM or Third Party Software/Hardware expert, related to any equipment or particular product vendor's support will be supported by successful bidder's Engineer and He will communicate and take needful follow-ups with them to close the call as soon as possible.  IT person from BMC will also help them in such cases.

15)  **Engineer** of Successful Bidder will attend all kind of IT Setup related complains of all the items mentioned in the RFP plus windows OS and antivirus software and all other items mentioned in RFP. (Like Parts and non-parts call, virus Call, Maintenance call, installation call, DOA calls, connectivity related calls like Leased Line and Internet, LAN and UPS related calls concern to IT hardware setup at BMC's all three sites mentioned *Site address and details*.

**16) Working Time/Service Response Time:**  Working Time of Service engineer of Successful Bidder at BMC's all three sites will remain as per the standard time and in emergency engineer will provide support as and when required basis.

17)  Successful bidder will also provide support for services & troubleshooting for connectivity between BMC main office and both zonal offices for implementation of the circuit and smooth running of circuit with minimum down time as well as for lease line connection also.

## Evaluation of technical bid

The bidders are expected to provide all the required supporting document and compliances as mentioned in the Bid document. The bidder shall quote the solutions having full compliance and minimum specifications as mentioned in the Bid. Any deviation from the same will lead to the disqualification.

The bids will be evaluated for the pre-qualification/eligibility criteria and the technical bids of the bidder who comply with the pre-qualification/eligibility criteria will be opened. During the technical evaluation, GIL may seek the clarification in writing from the bidder, if required. If bidder will not submit the required clarification in due time, the technical evaluation will be done based on the submitted information in technical bid. The price bid will be opened of the bidders whose technical bids are fully complied. At any point of time, if GIL feels that the bidder is hiding any information which will affect the project cost in short or long run, GIL may reject his bid without assigning any reason or explanation.

The bidders must have to quote for all items as specified in this document for the quantities mentioned.  No deviation is acceptable at all. If bidder has not quoted for any of the items mentioned in this tender, bidder will be out right rejected.

The purchaser is at liberty to add /delete items in BoM and place order as per the requirement. However for comparison and selection of bidder, the total cost of ownership for all items quoted including Operation and Management and SI services for 5 years shall be considered.

# SECTION IV

## Bill of Material

| 1. | Central IT Infrastructure | |
|---|---|---|
| **Sr. No.** | **Item Description** | **Qty / Unit** |
| 1.1 | Blade Chassis | 1 Nos |
| 1.2 | Blade Servers | 5 Nos |
| 1.3 | Backup Server (Rack based Server) | 1 Nos |
| 1.4 | SAN Storage | 1 Nos |
| 1.5 | Tape Library | 1 Nos |
| 1.6 | Data Cartridge for Tape library | 10 Nos |
| 1.7 | 15 KVA online UPS (with Automatic Transfer Switch) with 4 hours backup on Full load | 2 Nos |
| 2. | Data Centre Infrastructure (Room size 12 X 12 = 144 Sqft) | |
| **2.1** | **Building Construction - Civil Work** | |
| 2.1.1 | Raised Flooring System - Data Center Grade | 144 Sqft |
| 2.1.2 | False Ceiling systems (Fine Fissured) Angled Tegular 15/16 IN 600mm X 600mm X 15mm Class A Fire Guard | 144 Sqft |
| 2.1.3 | Perforated Tiles | 3 Nos |
| 2.1.4 | Tile Lifter | 1 Nos |
| **2.2** | **Electrical Infrastructure** | |
| 2.2.1 | Electrical Cabling for PAC, Racks and Lightings. Complete cables & fittings with Installation. | 1 Lot |
| 2.2.2 | Ceiling Mount LED Lighting Systems using 2 ft x 2 ft panel | 8* Nos |
| 2.2.3 | 2*15 15 Amp. Plug With Switch,8 Modular frame & co box | 8* Nos |
| 2.2.4 | Chemical Earth with required rating from server room to Ground | 1 Nos |
| 2.2.5 | Separate Electrical circuit with individual MCB Per Rack With DB box In UPS Room | 6* Nos |
| 2.2.6 | Emergency LED Light for Data Center Area of 12 x 12 ft | 1 Nos |
| **2.3** | **Cooling Systems** | |
| 2.3.1 | Precision AC Systems<br>3.5TR X 1 No with SNMP Card of TEMP/Humidity On PC for record | 2 Nos |
| 2.3.2 | Ducting for PAC with Low Side Work | 1 Nos |
| **2.4** | **Security Surveillance Systems** | |
| **2.4.1** | **Access Control** | |
| 2.4.1.1 | Access Control Systems Bio metric + Pin<br>• System should be Fully TCP/IP base with Inbuilt controller & capable to Enroll minimum 25 Employees, Inbuilt Battery backup up to 4 Hrs<br>• Should be capable to provide access control & Time Attendance with TFT touch screen LCD / TFT screen with touch keypad. | 1 Nos |

| | | |
|---|---|---|
| | • Should include Time & Attendance Software for minimum 50 Employees & Data backup Facility on USB Drive/SD card/LAN/WiFi | |
| 2.4.1.2 | EM lock with Push button switch with complete cabling fitting & integration with Access device | 1 Nos |
| **2.4.2** | **Rodent Repellent System** | |
| 2.4.2.1 | Master Console without satellites for Rodent Repellent system | 1 Nos |
| 2.4.2.2 | Satellites to be installed with the Rodent Repellant System | 4* Nos |
| 2.4.2.3 | Supply and surface laying of 2 core x 1 Sq.mm PVC shethed cable in 20mm dia PVC conduit | 50* Mtr |
| **2.4.3** | **Fire Alarm System** | |
| 2.4.3.1 | **Conventional Fire Alarm System**<br>SITC of Conventional Fire Alarm system and components specified below that are listed and approved by UL/VDS<br><br>1) 4 Smoke Sensor<br>2) 1 Fire Control Panel<br>3) 2 Hooter with Flasher<br>4) 1 Emergency exit switch<br>5) 1 Calling Point<br>6) 2 Beam Detector<br><br>Vendor has to install and integrate the complete fire alarm system with required cabling. 1 Hooter with flasher should be provided at Security Chamber of BMC Main Office. | 1 Set |
| **2.4.4** | **Water Leak Detection System** | |
| 2.4.4.1 | SITC of Water Leak Cable with end connections & Hooter | 1 Set |
| **2.4.5** | **Fireproof Enclosure** | |
| 2.4.5.1 | Fireproof Enclosure for Media Storage having capacity of 90 ltr or above | 1 Nos |
| **3.** | **Software Requirements** | |
| **3.2.1** | VMware vSphere 6.5 or above Standard with 5 year Basic Support and Subscription | 10* Nos |
| **3.2.2** | VMware vCenter Server 6.5 or above Standard with 5 year Basic support and Subscription | 1 No |
| **3.2.3** | Team viewer License (Virtual Network Compatible) | 1 Nos |
| **3.2.4** | Backup Software (as per specifications mentioned in 3.1) with installation and 5 year support | 1 Nos |
| **3.2.5** | RHEL 7.X or latest Linux OS with installation and 5 year support | 4* Nos |
| **3.2.6** | Endpoint Anti-Virus (As per the specifications mentioned in 3.2) with installation and 5 year support | 300* Nos |
| **3.2.7** | Security Solution for Servers(Per Server) (As per the specifications mentioned in 3.3) with installation and 5 year support | 20* Nos |
| **4.** | **Networking Requirements** | |
| 4.1 | L3 Switch (Core Switch) | 2 Nos |
| 4.2 | L2 Switch (Access Switch) | 12* Nos |
| 4.3 | Cat 6 UTP Shuttered Patch Panel 24 Port-Loaded with Cable Manager | 16* Nos |

| | | |
|---|---|---|
| 4.4 | Cat 6 UTP Surface Dual Shutter outlet with I/O Module and back box | 300* Nos |
| 4.5 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 3 feet/1mtr | 250* Nos |
| 4.6 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 7 feet/2mtr | 25* Nos |
| 4.7 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 10 feet/3mtr | 250* Nos |
| 4.8 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 16 feet/5mtr | 25* Nos |
| 4.9 | Cat-6 UTP 4Pr UTP CMR Cable - 305 Meters Box | 70* Nos |
| 4.10 | 6 Core Multi Mode OM4 OFC Cable 10G and 40G Capable | 1000* Mtr |
| 4.11 | 12 port RM LIU - LIU Loaded with adapter plate (with Multi Mode Adapters) | 12* Nos |
| 4.12 | 24 port RM LIU - LIU Loaded with adapter plate (with Multi Mode Adapters) | 3* Nos |
| 4.13 | Fiber Patch Code MM LC to LC - 2 Mtr | 40* Nos |
| 4.14 | Fiber Patch Code MM LC to LC - 3 Mtr | 1* Nos |
| 4.15 | Fiber Patch Code MM LC to LC - 5 Mtr | 1* Nos |
| 4.16 | Fiber Patch Code MM SC to LC - 2 Mtr | 40* Nos |
| 4.17 | Fiber Patch Code MM SC to LC - 3 Mtr | 1* Nos |
| 4.18 | Fiber Patch Code MM SC to LC - 5 Mtr | 1* Nos |
| 4.19 | 1G SFP Module for CCTV central and POE access switch | 24* Nos |
| 4.20 | 10G SFP Module for Access switch and Core switch | 24* Nos |
| 4.21 | 40G QSFP Module for Core Switch | 4* Nos |
| 4.22 | 40G QSFP Module for Core Switch with splitted cable | 1* Nos |
| 4.23 | Rack 12U | 8* Nos |
| 4.24 | Rack 15U | 2* Nos |
| 4.25 | 42U Network Racks | 1 No |
| 4.26 | 42U Server Rack | 1 No |
| 4.27 | LAN/Fiber/Electric cable laying with complete fitting materials using High quality UPVC trunking of required size | 15000* Nos |
| 4.28 | 2.5 sq mm 3 core armed electrical cable | 1500* Nos |
| 4.29 | 2 x 5/15 amp plug with switch fixed in 8 moduler face place and co box | 12* Nos |
| 4.30 | Per node basis structure cabling charges (Which includes I/O termination, Faceplate fixing with back box, Jack panel fixing and mounting, Labelling and Ferrulling (Both End), Scanner Testing and Documentation, 12U/15U Wall Mount Rack Installation and Dressing, Site Certification etc. as per international structure cabling rules) | 300* Nos |
| 4.31 | Fiber cable slicing charges | 120* Fiber Core |
| **5.** | **CCTV Surveillance** | |
| 5.1 | 24 Port Central L2 Switch for CCTV | 1* Nos |
| 5.2 | Network Video Recorder(32-ch) | 4* Nos |

| 5.3 | Surveillance Hard Disk | 22* Nos |
|---|---|---|
| 5.4 | 8 Port POE Switch | 4* Nos |
| 5.5 | 24 Port POE Switch | 3* Nos |
| 5.6 | 2 MP IP IR Fixed WDR Dome Camera with minimum 30 Mtr IR Range | 31* Nos |
| 5.7 | 2 MP IP IR Fixed WDR Bullet Camera with minimum 30 Mtr IR Range | 20* Nos |
| 5.8 | 4 MP IP IR VF WDR Bullet Camera with minimum 30 Mtr IR Range | 15* Nos |
| 5.9 | 4 MP IP IR VF WDR Dome Camera with minimum 40 Mtr IR Range | 1* Nos |
| 5.10 | 2 MP IP IR PTZ Camera with minimum 100 Mtr IR Range, mounting stand, high POE supported with minimum IP 66 rated outdoor weather proof housing | 3* Nos |
| 5.11 | 42″ or higher LED Screen / IPS Professional Display Monitor | 2* Nos |
| 5.12 | Desktop/PC For Camera Monitoring | 1 Nos |
| **6.** | **Support and Maintenance (O&M)** | |
| 6.1 | Support and Maintenance for BMC Main office 1st year | 1 |
| 6.2 | Support and Maintenance for BMC Main office 2nd year | 1 |
| 6.3 | Support and Maintenance for BMC Main office 3rd year | 1 |
| 6.4 | Support and Maintenance for BMC Main office 4th year | 1 |
| 6.5 | Support and Maintenance for BMC Main office 5th year | 1 |
| 6.6 | Support and Maintenance for BMC Chitra Zonal office 1st year | 1 |
| 6.7 | Support and Maintenance for BMC Chitra Zonal office 2nd year | 1 |
| 6.8 | Support and Maintenance for BMC Chitra Zonal office 3rd year | 1 |
| 6.9 | Support and Maintenance for BMC Chitra Zonal office 4th year | 1 |
| 6.10 | Support and Maintenance for BMC Chitra Zonal office 5th year | 1 |
| 6.11 | Support and Maintenance for BMC Tarasamiya Zonal office 1st year | 1 |
| 6.12 | Support and Maintenance for BMC Tarasamiya Zonal office 2nd year | 1 |
| 6.13 | Support and Maintenance for BMC Tarasamiya Zonal office 3rd year | 1 |
| 6.14 | Support and Maintenance for BMC Tarasamiya Zonal office 4th year | 1 |
| 6.15 | Support and Maintenance for BMC Tarasamiya Zonal office 5th year | 1 |

**Note:**
1. SI may add additional material/hardware/software /services as may be required to be supplied to meet the solution requirement and bid objectives
2. * The above mentioned figures are estimated and for evaluation purpose only. However, at the time of implementation, the actual quantity would be ordered based on requirement.

# SECTION V

## Make & Model List

| Sr. No. | Item Description | Qty / Unit | Make | Model | Supporting Document uploaded? (Yes/No) |
|---|---|---|---|---|---|
| **1.** | **Central IT Infrastructure** | | | | |
| 1.1 | Blade Chassis | 1 Nos | | | |
| 1.2 | Blade Servers | 5 Nos | | | |
| 1.3 | Backup Server (Rack based Server) | 1 Nos | | | |
| 1.4 | SAN Storage | 1 Nos | | | |
| 1.5 | Tape Library | 1 Nos | | | |
| 1.6 | Data Cartridge for Tape library | 10 Nos | | | |
| 1.7 | 15 KVA online UPS (with Automatic Transfer Switch) with 4 hours backup on Full load | 2 Nos | | | |
| **2.** | **Data Centre Infrastructure (Room size 12 X 12 = 144 Sqft)** | | | | |
| **2.1** | **Building Construction – Civil Work** | | | | |
| 2.1.1 | Raised Flooring System – Data Center Grade | 144 Sqft | | | |
| 2.1.2 | False Ceiling systems (Fine Fissured) Angled Tegular 15/16 IN 600mm X 600mm X 15mm Class A Fire Guard | 144 Sqft | | | |
| 2.1.3 | Perforated Tiles | 3 Nos | | | |
| 2.1.4 | Tile Lifter | 1 Nos | | | |
| **2.2** | **Electrical Infrastructure** | | | | |
| 2.2.1 | Electrical Cabling for PAC, Racks and Lightings. Complete cables & fittings with Installation. | 1 Lot | | | |
| 2.2.2 | Ceiling Mount LED Lighting Systems using 2 ft x 2 ft panel | 8* Nos | | | |
| **2.3** | **Cooling Systems** | | | | |
| 2.3.1 | Precision AC Systems 3.5TR X 1 No with SNMP Card of TEMP/Humidity On PC for record | 2 Nos | | | |
| **2.4** | **Security Surveillance Systems** | | | | |
| **2.4.1** | **Access Control** | | | | |
| 2.4.1.1 | Access Control Systems Bio metric + Pin • System should be Fully TCP/IP base with Inbuilt controller & capable to Enroll minimum 25 Employees, Inbuilt Battery backup up to 4 Hrs • Should be capable to provide access control & Time Attendance with TFT touch screen LCD / TFT screen with touch keypad. • Should include Time & Attendance Software for minimum 50 Employees & Data backup Facility on USB Drive/SD card/LAN/WiFi | 1 Nos | | | |

| | | | | | |
|---|---|---|---|---|---|
| 2.4.1.2 | EM lock with Push button switch with complete cabling fitting & integration with Access device | 1 Nos | | | |
| **2.4.2** | **Rodent Repellent System** | | | | |
| 2.4.2.1 | Master Console without satellites for Rodent Repellent system | 1 Nos | | | |
| 2.4.2.2 | Satellites to be installed with the Rodent Repellent System | 4* Nos | | | |
| **2.4.3** | **Fire Alarm System** | | | | |
| 2.4.3.1 | **Conventional Fire Alarm System** <br> SITC of Conventional Fire Alarm system and components specified below that are listed and approved by UL/VDS <br><br> 7) 4 Smoke Sensor <br> 8) 1 Fire Control Panel <br> 9) 2 Hooter with Flasher <br> 10)　1 Emergency exit switch <br> 11)　1 Calling Point <br> 12)　2 Beam Detector <br><br> Vendor has to install and integrate the complete fire alarm system with required cabling. 1 Hooter with flasher should be provided at Security Chamber of BMC Main Office. | 1 Set | | | |
| **2.4.4** | **Water Leak Detection System** | | | | |
| 2.4.4.1 | SITC of Water Leak Cable with end connections & Hooter | 1 Set | | | |
| **2.4.5** | **Fireproof Enclosure** | | | | |
| 2.4.5.1 | Fireproof Enclosure for Media Storage having capacity of 90 ltr or above | 1 Nos | | | |
| **3.** | **Software Requirements** | | | | |
| **3.2.1** | VMware vSphere 6.5 or above Standard with 5 year Basic Support and Subscription | 10* Nos | | | |
| **3.2.2** | VMware vCenter Server 6.5 or above Standard with 5 year Basic support and Subscription | 1 No | | | |
| **3.2.3** | Team viewer License (Virtual Network Compatible) | 1 No | | | |
| **3.2.4** | Backup Software (as per specifications mentioned in 3.1) with installation and 5 year support | 1 Nos | | | |
| **3.2.5** | RHEL 7.X or latest Linux OS with installation and 5 year support | 4* Nos | | | |
| **3.2.6** | Endpoint Anti-Virus (As per the specifications mentioned in 3.2) with installation and 5 year support | 300* Nos | | | |
| **3.2.7** | Security Solution for Servers(Per Server) (As per the specifications mentioned in 3.3) with installation and 5 year support | 20* Nos | | | |
| **4.** | **Networking Requirements** | | | | |
| 4.1 | L3 Switch (Core Switch) | 2 Nos | | | |

| | | | | | |
|---|---|---|---|---|---|
| 4.2 | L2 Switch (Access Switch) | 12* Nos | | | |
| 4.3 | Cat 6 UTP Shuttered Patch Panel 24 Port-Loaded with Cable Manager | 16* Nos | | | |
| 4.4 | Cat 6 UTP Surface Dual Shutter outlet with I/O Module and back box | 300* Nos | | | |
| 4.5 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords – 3 feet/1mtr | 250* Nos | | | |
| 4.6 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords – 7 feet/2mtr | 25* Nos | | | |
| 4.7 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords – 10 feet/3mtr | 250* Nos | | | |
| 4.8 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords – 16 feet/5mtr | 25* Nos | | | |
| 4.9 | Cat-6 UTP 4Pr UTP CMR Cable – 305 Meters Box | 70* Nos | | | |
| 4.10 | 6 Core Multi Mode OM4 OFC Cable 10G and 40G Capable | 1000* Mtr | | | |
| 4.11 | 12 port RM LIU – LIU Loaded with adapter plate (with Multi Mode Adapters) | 12* Nos | | | |
| 4.12 | 24 port RM LIU – LIU Loaded with adapter plate (with Multi Mode Adapters) | 3* Nos | | | |
| 4.13 | Fiber Patch Code MM LC to LC – 2 Mtr | 40* Nos | | | |
| 4.14 | Fiber Patch Code MM LC to LC – 3 Mtr | 1* Nos | | | |
| 4.15 | Fiber Patch Code MM LC to LC – 5 Mtr | 1* Nos | | | |
| 4.16 | Fiber Patch Code MM SC to LC – 2 Mtr | 40* Nos | | | |
| 4.17 | Fiber Patch Code MM SC to LC – 3 Mtr | 1* Nos | | | |
| 4.18 | Fiber Patch Code MM SC to LC – 5 Mtr | 1* Nos | | | |
| 4.19 | 1G SFP Module for CCTV central and POE access switch | 24* Nos | | | |
| 4.20 | 10G SFP Module for Access switch and Core switch | 24* Nos | | | |
| 4.21 | 40G QSFP Module for Core Switch | 4* Nos | | | |
| 4.22 | 40G QSFP Module for Core Switch with splitted cable | 1* Nos | | | |
| 4.23 | Rack 12U | 8* Nos | | | |
| 4.24 | Rack 15U | 2* Nos | | | |
| 4.25 | 42U Network Racks | 1 No | | | |
| 4.26 | 42U Server Rack | 1 No | | | |
| 4.27 | LAN/Fiber/Electric cable laying with complete fitting materials using High quality UPVC trunking of required size | 15000* MTR | | | |
| 4.28 | 2.5 sq mm 3 core armed electrical cable | 1500* MTR | | | |
| **5.** | **CCTV Surveillance** | | | | |
| 5.1 | 24 Port Central L2 Switch for CCTV | 1* Nos | | | |

| | | | | | |
|---|---|---|---|---|---|
| 5.2 | Network Video Recorder(32-ch) | 4* Nos | | | |
| 5.**3** | Surveillance Hard Disk | 22* Nos | | | |
| 5.3 | 8 Port POE Switch | 4* Nos | | | |
| 5.4 | 24 Port POE Switch | 3* Nos | | | |
| 5.5 | 2 MP IP IR Fixed WDR Dome Camera with minimum 30 Mtr IR Range | 31* Nos | | | |
| 5.6 | 2 MP IP IR Fixed WDR Bullet Camera with minimum 30 Mtr IR Range | 20* Nos | | | |
| 5.7 | 4 MP IP IR VF WDR Bullet Camera with minimum 30 Mtr IR Range | 15* Nos | | | |
| 5.8 | 4 MP IP IR VF WDR Dome Camera with minimum 40 Mtr IR Range | 1* Nos | | | |
| 5.9 | 2 MP IP IR PTZ Camera with minimum 100 Mtr IR Range, mounting stand, high POE supported with minimum IP 66 rated outdoor weather proof housing | 3* Nos | | | |
| 5.10 | 42″ or higher LED Screen/ IPS Professional Display Monitor | 2* Nos | | | |
| 5.11 | Desktop/PC For Camera Monitoring | 1 Nos | | | |

**Note:**
1. The Bidder may quote only one option (i.e. only one product can be quoted) against each item. Bidders are required to mention make & model of the product.
2. All networking passive material (Section 5 Make & Model List → Point no 4 Networking Requirements → Item no 4.3 to Item no 4.18) must be from one OEM make only.
3. All Racks (Section 5 Make & Model List → Point no 4 Networking Requirements → Item no 4.23 to Item no 4.26) must be from one OEM make only.

# SECTION VI

## Minimum Technical Specification

### 1. Central IT Infrastructure

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **Item no. 1.1:    Blade Chassis** | | | |
| 1 | Blade Server Chassis/Enclosure must be quoted as required by OEM solution architecture at Primary Site | | |
| 2 | Blade Enclosure shall support Blade Servers with x86 based architecture | | |
| 3 | Blade Enclosure shall support Windows, Linux & VMware operating system | | |
| 4 | Up to 10U chassis | | |
| 5 | Must be configured for redundant power supplies, fans. Necessary PDUs to be provided. Power supplies, fans should be capable of reconfigure without manual intervention | | |
| 6 | Redundant 10Gbps L2/L3 Ethernet switching module to be provided to connect all the blades to the LAN and should be configured to minimize the no. of ports in the external switch as also to reduce the no. of cables coming out of the chassis. There should be minimum 2*40Gbps uplink ports using short range QSFP+ modules & 4*1Gbps RJ-45 ports to be provided from each 10Gbps switch to external LAN connectivity. | | |
| 7 | • Shall be capable of increasing the number of NICs per connection without adding extra Blade I/O modules, and reducing cabling uplinks to the data center network | | |
| 8 | • Shall be capable of providing min 16 x 10Gbps downlinks to Blade server NICs | | |
| 9 | • Shall be capable of providing flexibility in choosing between 10Gbps SR, LR, or LRM fiber and copper SFP+ uplinks | | |
| 10 | • Shall be capable of providing 10 x 10Gbps uplinks to connect to other Standard Data Center Ethernet switches | | |
| 11 | • Shall be capable of supporting up to 4 Physical NICs per 10Gbps server communication port, within the server Blade. | | |
| 12 | • Each of the tailoring NIC shall be capable of tailoring the network bandwidth with their own dedicated, optional customized bandwidth per 10Gb downlink connection, optional with customizable speeds from 100Mbps to 10Gbps. Vendor need to provide at least 4 or more Physical/logical LAN ports for Virtualization | | |
| 13 | Should be configured with redundant hot pluggable management module to manage the blades using GUI | | |
| 14 | Should support simultaneous remote access of different servers in the chassis | | |
| 15 | Redundant 20 or more port Fiber Channel (FC) SAN switches to be provided with 16*16G internal ports and 4*16G uplink ports (from each switch) to connect with external storage. | | |
| 16 | Each blade enclosure should have Cooling subsystem consisting of fully redundant hot pluggable fans or blowers.  In case of failure the balance fans/blower should ensure the smooth functioning of the blade system with all servers populated till the fan is replaced | | |
| 17 | Must have at least one DVD(R/W) drive per chassis (Internal /External through USB cable) | | |
| 18 | The blade chassis should have at least 4 I/O Modules or more | | |

| | | |
|---|---|---|
| 19 | Also should provide support for remote console management, Power on/off blades, monitoring the power status, temperature, cooling fans status, I/O status, system diagnostic programs etc. provided through the management software. | |
| 20 | The offered Blades chassis should support Infiniband and Ethernet/FC/FCOE switches in blade chassis. | |
| 21 | The enclosure should be populated fully with power supplies of the available capacity with the vendor to cater the power requirement of offered blades. Power Supplies should support N+N redundancy | |
| 22 | Chassis should be available in Market (should not be End of Life) at least for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | |
| 23 | Blade Chassis to accommodate minimum of 14 or more half blade and 7 or more Full Height Hot Pluggable Blade Servers. | |

| Sr. No. | Item Description | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 1.2:** | **Blade Server** | | | |
| 1 | CPU | 64 Bit, 2 x Intel® Xeon® Processor E5-2690 v4 (2.6GHz, 35M Cache, 14-core,) Processor or higher | | |
| 2 | No. of CPUs required currently | 28 cores using 2 processor sockets | | |
| 3 | Form Factor | Blade Format | | |
| 4 | Architecture | Intel | | |
| 5 | Chipset | Intel Chipset C600 or higher | | |
| 6 | Memory | 128 GB RAM (per processor socket) using DDR4-1866 MHz Registered (RDIMM) memory & upgradeable up to 512GB or more | | |
| 7 | SCSI Controllers | Integrated Hardware Raid Controller to supports Hardware Raid RAID 0 and 1 | | |
| 8 | Controller for internal Hard disk devices | SAS/SCSI/SSD | | |
| 9 | Total internal hard disk bays | Two Small Form Factor hot-plug SAS/SCSI/SSD drive bays | | |
| 10 | Disk Drives | 2 x 1 TB SSD drives must be loaded from day 1.<br><br>Blade should support 6Gbps/12Gbps SAS/SCSI Hard Disk Drive with 10K rpm or more. | | |
| 11 | Graphics Controller | Minimum 14 Mb or more Graphics memory | | |
| 12 | Ethernet Adapter | 2*Onboard 10Gbps ports or more | | |
| 13 | Fiber Channel/SAS HBA Connectivity | 1 x Dual Port 16Gbps or higher Fiber Channel Expansion Adapter | | |
| 14 | Management console Port | 100BaseT Management LAN with web console access (additional licenses need to be supplied) | | |
| 15 | I/O Expansions | minimum 2 PCI-E Slots or more | | |
| 16 | Power Supply | Blade server must be protected via Redundant power supply. | | |
| 17 | Failure Alerting Mechanism | The server should be able to alert impending failures on maximum number of components. The components | | |

| | | | | |
|---|---|---|---|---|
| | | covered under alerting mechanism should at least include Processor, memory and HDDs. | | |
| 18 | Systems / Server management capabilities | Server should support systems management capabilities like<br>• Web-based out-of-band control<br>• SSL Support<br>• Serial Over LAN<br>• Windows "blue screen" capture<br>• Should support remote CD and Virtual floppy<br>• Automatic Service Restart<br>• Highly secure remote power on/off<br>• System reset control<br>• Support Event notification to system console<br>• Remote connection to LAN console port via SSH and web browser with SSL encryption | | |
| 19 | Server Management Software | Server should be supplied with OEM Server Management software free of cost with features like<br>• Should be able to discover systems and other resources in a heterogeneous environment and Collect inventory data about hardware and software that is currently installed on systems.<br>• Should be able to view and manage the status, problems and events for discovered systems.<br>• Should be able to determine the health, compliance, and performance of managed systems by viewing detailed information about the problems by inspecting the event log. | | |
| 20 | OS Support | Latest Windows Server Operating System i.e. 2008 R2, 2012 and 2016 Ent/DataCenter/Std, Red Hat Enterprise Linux Server Version 6.7 or above, SUSE Linux Enterprise Server 11 or above and VMware | | |
| 21 | USB | 1 or More external. 1 or More internal for embedded hypervisor | | |
| 22 | Security | Should support Integrated Trusted Platform Module (TPM) to enable advanced cryptographic functionality, such as digital signatures and remote attestation | | |
| 23 | RAID features (support h/w or s/w RAID 0 & 1) | Mandatory. RAID controller for RAID 0, Raid 1 configurations with 512 MB cache memory | | |
| 24 | Miscellaneous | • Server should have LCD/LED indicators to identify System Health & failed components.<br>• System management should be through dedicated ports and should not use the adapters provided for the application<br>• All servers shall be booted through Internal SAS drives with HW RAID.<br>• Virtualization is required.<br>• Blade Server should be available in Market (should not be End of Life) for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | | |
| 25 | Remote Management | • Vendor should provide embedded features that help to manage Servers in physical, local and remote environments, operating in-band or out-of-band, with or without a systems management software agent. | | |

| | | Item Description | | |
|---|---|---|---|---|
| • Should include Power Management, necessary licenses should be included. | | | | |
| • Power Management should give historical data for at least 24 hours. | | | | |
| • Should also support IPv6 | | | | |
| • Should support remote scripted reconfiguration tools. | | | | |

| Sr. No. | | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 1.3:** | | **Backup Server (Rack based Server)** | | |
| 1 | Chassis | 2U Rack Mountable | | |
| 2 | CPU | Intel® Xeon® Processor E5-2620 v4 (8 core, 20M Cache, 2.10 GHz) or higher | | |
| 3 | Motherboard | Intel Chipset C600 or better | | |
| 4 | Processor upgradeability | Scalable to 2 Processors | | |
| 5 | Graphics | On Board Graphics with 8 MB RAM or higher | | |
| 6 | Slots | Total 3 PCI slots offering option of PCI-X/PCI-e combination (For Single Processor) | | |
| 7 | | Total four PCI slots offering option of PCI-X/PCI-e combination (For dual Processor) | | |
| 8 | Memory | 32 GB DDR4 Registered (RDIMM) memory upgradeable up to 256 GB or more | | |
| 9 | Bays | 8 or more Hot Plug SAS hard disk bays | | |
| 10 | HDD | 2 * 300GB 10K rpm hot plug SAS drives | | |
| 11 | RAID Support | RAID controller for RAID 0, Raid 1, and RAID 5 configurations with 1 GB or higher cache memory | | |
| 12 | Keyboard | 104 keys Keyboard | | |
| 13 | Mouse | 2 Keys Optical scroll mouse | | |
| 14 | Networking Features | Embedded dual port 40G Ethernet Controller | | |
| 15 | Fiber HBA | 1 x 16 Gbps FC HBA (dual port) | | |
| 16 | Ports | Minimum 1 Front and 2 Rear USB ports (with Min 1 USB 3.0 port), 2 RJ-45 port | | |
| 17 | | 1 Remote Management Port (TCP\IP based): (it is used for GUI interface to monitor & manage the server performance remotely.) | | |
| 18 | Management hardware System Management Software | Integrated System Management Processor or Integrated BMC Controller | | |
| 19 | | Pre-failure alerts for processor, memory and hard disks, Unattended and selectable remote boot and remote diagnostics, ECC with error reporting (Please Specify name of the System Management Software and upload the supporting document) | | |
| 20 | DVD Drive | Slim Line DVD Writer (Internal / External through USB connectivity) | | |

| 21 | Rack rails | Rack rails needs to be supply along with server | | |
| 22 | Power Supply | Redundant Hot swap power supply | | |
| 23 | Certifications | RoHS, UL, CE/FCC or equivalent third party certification from reputed Agency, Windows Logo Certification | | |

| Sr. No. | Item Description | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 1.4:** | **SAN Storage** | | | |
| 1 | Operating System & Clustering Support | The storage array should support industry-leading (64 bit) Operating System platforms including: Windows OS, Vmware and Linux. | | |
| 2 | | Offered Storage Shall support all above operating systems in Clustering. | | |
| 3 | Capacity & Scalability | The Storage Array shall be offered with 15TB usable capacity using 1.2TB or more 10K drives in RAID 6 | | |
| 4 | | For effective power saving, Storage subsystem shall be supplied with 2.5" Small form factor SFF drives | | |
| 5 | | Storage shall be scalable to minimum of 200 or more numbers of drives | | |
| 6 | Front-end Ports | • Offered Storage system shall be supplied with 8*16Gbps FC host ports across dual controllers.<br>• Offered storage shall also support additional Quad 10Gbps IP ports for file services operations.<br>• Offered storage shall have FCOE ports for providing FCOE connectivity | | |
| 7 | | Offered Storage system shall also support 16Gbps FC, 10Gbps iSCSI and FCOE connectivity. | | |
| 8 | Back-end | Offered Storage subsystem back-end engine shall be running on latest SAS (12Gbps) lane speed with minimum 16 lanes. | | |
| 9 | Architecture | Controllers shall be active-active so that a single logical unit can be shared across all offered controllers in symmetrical manner, while supporting all the major functionalities like Thin Provisioning, Data tiering. | | |
| 10 | No Single point of Failure | Offered Storage Array shall be configurable in a No Single Point of configuration including Array Controller card, Cache memory, FAN, Power supply etc. | | |
| 11 | Disk Drive Support | 1. For SFF drives, Offered Storage Array shall support minimum 600/900/1200 GB hot pluggable Enterprise SFF SAS hard drives, 400/800GB SSD along with SAS/NL-SAS 1TB drives. | | |
| 12 | | 2. For LFF drives, offered Storage Array shall support minimum of 1/2/3/4TB SAS/NL-SAS drives. | | |
| 13 | | 3. Offered storage array shall also have support for self-encrypted SAS and NL-SAS drives." | | |
| 14 | Cache | 1. Offered Storage Array shall be given with Minimum of 128GB or more DRAM cache per controller in a single unit. Even in the event of failure of one of the two Storage Controllers, there should be no performance degradation, no latency, no increase in Storage resources utilization. The Storage Array should be able to deliver the same performance with one Controller (in the event of failure of | | |

| | | | | |
|---|---|---|---|---|
| | | one Storage Controller), as it was performing with both True Active-Active Controllers working together. | | |
| 15 | | 2. Cache shall be backed up in case of power failure for indefinite time either using batteries or capacitors or any other equivalent technology. | | |
| 16 | Flash Cache | Offered Storage array shall also have additional support for Flash Cache using SSD / Flash drives. Both File services as well as Block operations shall be able to utilize flash cache. Minimum of 500GB Flash cache shall be supported. | | |
| 17 | | If Flash cache is not supported inside the storage array then vendor shall ensure that offered storage array shall be scalable to minimum of 256 GB DRAM cache without any replacement or upgrade of controllers. | | |
| 18 | Automated Tiering | "The storage array shall support Automated tiering of data with minimum 2 tiers with SSD & SAS or NLSAS disks. | | |
| 19 | Wide Striping | The storage array shall support wide striping to distribute data across many disks. | | |
| 20 | Raid Support | Offered Storage Subsystem shall support Raid 1+0 , 5 and Raid 6 with Dual Parity Protection" | | |
| 21 | Point in time and clone copy | 1. Offered Storage array shall be configured with array based Snapshot and clone functionality. | | |
| 22 | | 2. Offered Storage array shall support at-least 255 point in time of single volume. | | |
| 23 | Quality of Service | The array shall have support for controlling host performance by IOPs & MB/s | | |
| 24 | Replication | Offered storage subsystem shall support storage based replication to DR location. It shall have native replication support of DC and DR Site. | | |
| 25 | Global and dedicated Hot Spare Logical Volume & Performance | 1. Offered Storage Array shall support Global hot Spare for offered Disk drives. | | |
| 26 | | 2. At least 2 Global hot spare drive shall be configured for every 24 drives. | | |
| 27 | | (Bidder need to consider minimum 2 Global hot spare drives for offered drives.) | | |
| 28 | | 1. Storage Subsystem shall support minimum of 512 Logical Units. Storage Array shall also support creation of at least 16TB volume at controller level. | | |
| 29 | | 2. Offered storage array shall have in-built performance monitoring engine. | | |
| 30 | Load Balancing & Multi-path | Multi-path and load balancing software shall be provided, if vendor does not support MPIO functionality of Operating system. | | |
| 31 | Licensing | 1) Licenses for software (Storage Array Management, Volume Copy, multipathing software for host) should be provided as part of the solution. 2) System should be configured with necessary multipathing components for high availability. 3) Licenses for snapshots. | | |
| 32 | Management | The storage system shall be configured with GUI based management software as below: 1) Monitor and manage the storage array 2) Configuring PIT's | | |

| | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| | 3) LUN management<br>4) Storage Component replacement, etc. | | |
| 33 | Storage should be available in Market (should not be End of Life) at least for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | | |

**Note: Connectivity between Blade Servers, Blade Chassis & L3 (Core) Switch must be 40G using OFC only from day 1.**

| Sr. No. | Item Description | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 1.5:** | **Tape Library** | | | |
| 1 | Capacity | • Shall support Native data capacity of 288 TB (uncompressed-native) expandable to 720 TB (Compressed). Cartridge physical capacity Up to 15 TB compressed and 6 TB Uncompressed with LTO 7.<br>• Shall be offered with ONE LTO 7 FC tape drive and should have support for 2 x LTO7 Drives. | | |
| 2 | Cartridge slots | Shall be offered with 48 or higher Cartridge slots. | | |
| 3 | Tape Drive Architecture e | Offered LTO7 drive in the Library shall conform to the Continuous and Data rate matching technique for higher reliability. | | |
| 4 | Speed | Offered LTO7 drive shall support 300 MB/sec or more in Native mode. | | |
| 5 | Connectivity | Offered Tape Library shall provide 16 Gbps or more native FC connectivity to SAN switches. | | |
| 6 | Partitioning | Offered Tape Library should have partitioning support so that each drive can be configured in a separate partition. | | |
| 7 | Management | Tape Library shall provide web based remote management. | | |
| 8 | Barcode Reader and Mail slots | Tape library should support Barcode reader and mail slot. | | |
| 9 | Other Features | Tape Library shall have GUI Panel<br>Shall be rack mountable. | | |
| 10 | Media | Vendor should provide 02 nos. of cleaning cartridges from day one. | | |
| 11 | Data transfer rate (per drive) | Up to 300 Mbps native with LTO-7 tape drive | | |
| 12 | Miscellaneous | Tape library should be available in Market (should not be End of Life) for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | | |

| Sr. No. | Item Description | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 1.5:** | **Data Cartridge for Tape library** | | | |
| 1 | Data capacity | 6 TB native. Up to 15 TB with 2.5:1 data compression | | |
| 2 | Cartridge Models | LTO Ultrium 7 6TB rewritable data cartridge | | |
| | **Special Note** | Data Cartridge should be of same brand as Tape Library | | |

| Sr. No. | | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 1.6:** | | **15 KVA online UPS (with Automatic Transfer Switch) with 4 hours backup on Full load** | | |
| 1 | | Online UPS with PWM Technology suitable for Three Phase and Single Phase AC input voltage | | |
| | | UPS shall be housed in rugged enclosure made of M.S. Sheet 1.2 mm (minimum) thick, aesthetically finished, duly pre-treated and powder coated. | | |
| | | UPS shall be free from workmanship defects, sharp edges, nicks, scratches, burs etc. All fasteners shall be fixed properly. The equipment shall be complete with all parts and all parts shall be functional | | |
| | | Enclosures shall conform to protection requirement of IP2L1 to ISI:3947 (Part 1)/1993 (reaffirmed 1998) | | |
| 2 | **Certifications** | UPS should meet CE and ROHS standards (Please submit certificates along with bid) | | |
| 3 | **Bypass Switch** | Manual and Static by-pass switch shall be provided for maintenance of UPS with provision for Enable/Disable of Bypass mode | | |
| | | UPS shall supply output power and charging current at the same time | | |
| 4 | **Switching Device** | Switching Device shall be IGBT | | |
| | | Switching frequency shall be 19 KHz or above | | |
| | | UPS shall be provided with USB & serial communication port RS 232 for computer interface for data exchange of electrical parameters of UPS like voltage, current, frequency, charging status, mode of operation etc. | | |
| 5 | **Rating** | The rating specified is a unity power factor | | |
| 6 | **INPUT** | | | |
| | **Voltage Range** | 320 - 480 Vac L-L @ 100% load, Three Phase, 5-Wire 185 - 277 Vac L-N @ 100% load, Single Phase, 3-Wire | | |
| | **Frequency Range** | 50 Hz +/- 10% Hz | | |
| | **Phase** | Three Phase AC / Single Phase AC | | |
| 7 | **OUTPUT** | | | |
| | **Voltage Regulation** | 230 V +/-2% (with alternative setting for 220V +/- 2%) | | |
| | **Output Frequency** | 50 Hz +/- 1 Hz Single Phase (In inverter mode) | | |
| 8 | **Voltage regulation** | From on load to full load Should be within +/-1% in both the cases, UPS shall also have facility for operation in synchronous mode in which output frequency shall be same as that of mains frequency | | |
| 9 | **Harmonic Distortion** | 3% max. for 15 KVA UPS on resistive load. | | |
| 10 | **Communication** | Fully functional SNMP card required; | | |
| | | RS 232 & USB port with software for UPS status monitoring | | |
| 11 | **Efficiency** | At rated Output voltage and Frequency | | |

| | | | | |
|---|---|---|---|---|
| | **Inverter** | 90% (min) | | |
| | **Overall** | 85% (min) | | |
| 12 | **Power Factor** | | | |
| | **Load Power Factor** | Better than 0.65 lagging | | |
| | **UPS power factor** | Better than 0.9 lagging | | |
| 13 | **Over load** | UPS shall withstand 20% overload for 1 minutes and 50% overload for 30 second | | |
| 14 | **ENVIRONMENT** | Noise Level – less than 55 dB at a distance of 1 meter | | |
| 15 | **Protection** | Over voltage, short circuit and overload at UPS output terminal, Under voltage at battery terminal, Overshoot and undershoot shall not be greater than 4% of rated voltage for duration of 60 msec.<br>Inherent protection should be provided for Input Fault, Reverse Phase Sequence, Cold Start, Battery Discharge timer, Battery self-test feature, Over Temperature, etc | | |
| 16 | **Indicators** | Mains Presence, Battery Charging and Discharging, Low battery voltage | | |
| 17 | **Digital meters** | "Input AC Voltage, Output AC Voltage, I/o Frequency, O/p Frequency, Output Current, Battery Voltage, Load Percentage, Battery Backup available in percentage, (with LED \ LCD display)" | | |
| 18 | **Misc** | ECO Mode Operation with Enable/Disable function | | |
| | | Emergency Power Off (EPO) | | |
| | | UPS to be compatible with DG supply | | |
| | | UPS should be suitable to connect 2 units in parallel | | |
| | | Cables : With all necessary cables and plug and Battery links | | |
| | | Rack: Suitable Metallic Rack for housing of SMF Batteries to be provided | | |
| 19 | **Battery Detail** | Min 64000 VAH for 15 KVA - 240 min | | |
| 20 | **Battery Type** | Sealed Maintenance Free ( VRLA) | | |
| 21 | **Battery Make** | Exide/Quanta/CSB/Panasonic/Yuasa/Emersion (Battery Sr. No on OEM Letter Head with Warranty Assurance of 2 or more year) | | |
| | | UPS must have facility to run in Hot-Standby Mode with other UPS of same type either by internal or external Automatic Transfer Switch. | | |
| 22 | **ACDB** | 15KVA Output ACDB panel with following description: | | |
| | | Incomer Breaker : min 63A TPN, MCB-1 No's | | |
| | | Outgoing breaker: min 100A SPN, MCB-1 No's | | |
| | | All MCBs shall conform to IS/IEC-60898. MCBs used in ACDB shall be of minimum curve B characteristics. The ACDB shall be coordinated with existing Distribution of loads of computers and lighting. | | |

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| | | The Vendor shall be responsible for supplying, installing, and terminating all cables and associated hardware (lugs, glands, etc.), required to mechanically and electrically complete the installation of UPS. | | | |
| 23 | **Automatic transfer switch** | Internal/External Automatic transfer switch should of the same brand of UPS | | | |
| 24 | | UPS should be available in Market (should not be End of Life) at least for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | | | |

## 2. Data Centre Infrastructure (Room size of Approximately 12 X 12 = 144 Sqft)

| Sr. No. | Item Description / Features | Qty | Unit | Matched/ Not Matched | Deviation/ Remarks (If any) |
|---|---|---|---|---|---|
| 2.1 | **Building Construction - Civil Work** | | | | |
| 2.1.1 | **Raised Flooring System - Data Centre Grade** Supply, laying and fixation of false Flooring for Datacenter. For cut tiles measurement shall be considered as one full 2'x2' tile with more than 12″ as full tile and 2 Nos. of tiles with less than 12″ to be considered as 2'x2' full tile. Understructure for false flooring giving ample height for false floor on IPS. Price to include material labour, alignment, tile cutting for equipment including at corners and partial tiles and final alignment after equipment are placed. | 144 | Sqft | | |
| 2.1.2 | False Ceiling systems (Fine Fissured) Angled Tegular 15/16 IN 600mmX600mmX15mm Class A Fire Guard | 144 | Sqft | | |
| 2.1.3 | Perforated Tiles | 3 | Nos | | |
| 2.1.4 | Tile Lifter | 1 | Nos | | |
| 2.2 | **Electrical Infrastructure** | | | | |
| 2.2.1 | Electrical Cabling for PAC, Racks and Lightings. Complete cables & fittings with Installation. | 1 | Lot | | |
| 2.2.2 | Lighting Systems Ceiling Mount LED Lighting Systems using 2 ft x 2 ft panel | 8 * | Nos | | |
| 2.2.3 | 2*15 15 Amp. Plug With Switch, 8 Modular frame & co box | 8 * | Nos | | |
| 2.2.4 | Chemical Earth with required rating from server room to Ground | 1 | Nos | | |
| 2.2.5 | Separate Electrical circuit with individual MCB Per Rack With DB box In UPS Room | 6 * | Nos | | |
| 2.2.6 | Emergency LED Light for Data Center Area of 12 x 12 ft | 1 | Nos | | |
| 2.3 | **Cooling Systems** | | | | |
| 2.3.1 | Precision AC Systems 3.5TR X 1 No with SNMP Card of TEMP/Humidity On PC for record (as per specification given in 2.3.1 below) | 2 | Nos | | |
| 2.3.2 | Ducting for PAC with Low Side Work | 1 | Lot | | |

| 2.4 | Security Surveillance Systems | | | | |
|---|---|---|---|---|---|
| **2.4.1** | **Access Control** | | | | |
| 2.4.1.1 | Access Control Systems Bio metric + Pin<br><br>• System should be Fully TCP/IP base with Inbuilt controller & capable to Enroll minimum 25 Employees, Inbuilt Battery backup up to 4 Hrs<br>• Should be capable to provide access control & Time Attendance with TFT touch screen LCD / TFT screen with touch keypad.<br>• Should include Time & Attendance Software for minimum 50 Employees & Data backup Facility on USB Drive/SD card/LAN/WiFi | 1 | Nos | | |
| 2.4.1.2 | EM lock with Push button switch with complete cabling fitting & integration with Access device | 1 | Nos | | |
| **2.4.2** | **Rodent Repellent System** | | | | |
| 2.4.2.1 | Master Console without satellites for Rodent Repellent System | 1 | Nos | | |
| 2.4.2.2 | Satellites to be installed with the Rodent Repellant System | 4 * | Nos | | |
| 2.4.2.3 | Supply and surface laying of 2 core x 1 Sq.mm PVC shethed cable in 20mm dia PVC conduit | 50 * | Mtr | | |
| **2.4.3** | **Fire Alarm System** | | | | |
| 2.4.3.1 | **Conventional Fire Alarm System**<br>SITC of Conventional Fire Alarm system and components specified below that are listed and approved by UL/VDS<br><br>13)    4 Smoke Sensor<br>14)    1 Fire Control Panel<br>15)    2 Hooter with Flasher<br>16)    1 Emergency exit switch<br>17)    1 Calling Point<br>18)    2 Beam Detector<br><br>Vendor has to install and integrate the complete fire alarm system with required cabling. 1 Hooter with flasher should be provided at Security Chamber of BMC Main Office. | 1 | Set | | |
| **2.4.4** | **Water Leak Detection System** | | | | |
| 2.4.4.1 | SITC of Water Leak Cable with end connections & Hooter | 1 | Set | | |
| **2.4.5** | **Fireproof Enclosure** | | | | |
| 2.4.5.1 | Fireproof Enclosure for Media Storage having capacity of 90 ltr or above | 1 | Nos | | |
| **Special Note** | | | | | |

➢   Bidder has to quote all the above items which requires to establish the data centre with labour charges. No extra cost will be paid for labour charge in any of the above items.

➢   * Indicates that the mentioned quantity of this item is estimated and for evaluation purpose only. However, at the time of implementation, the actual quantity will be considered for billing based on requirement.

| Sr. No. | Item Description | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no.2.3.1: Precision AC Systems** | | | | |
| 1 | **Design parameters** | Room temperature & Relative Humidity: 22 (+/-10C) / 55% RH | | |
| | | Unit airflow: 1800 CFM | | |
| | | Ambient temp: 350C | | |
| 2 | **Compressor** | Latest-generation high COP Hermetic Scroll Compressors | | |
| | | Refrigerant shall be R-407C / R410A | | |
| | | Compressor shall be isolated from the conditioned air flow. | | |
| 3 | **Sequential Controlling for Auto Changeover** | Sequencing design to work for equal number of run hours | | |
| | | Auto Changeover in case of fault | | |
| 4 | Remote air-cooled condenser suitable for 24 × 7 operations | | | |
| 5 | Microprocessor based control systems | | | |
| 6 | High sensible cooling capacity and high SHR | | | |
| 7 | SITC of complete Low-side work for PAC including (but not limited to) Copper Refrigerant piping, drain piping, water inlet piping, power cabling, indoor / outdoor floor stands and brackets, Refrigerant gas fill etc. | | | |

## 3. Software

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **Item no. 3.1: Backup Software** | | | |
| 1 | The software shall be primarily used to backup the data from the servers onto SAN and backup tapes (when required) | | |
| 2 | Scheduled unattended backup using policy-based management for proposed Server and OS platforms | | |
| 3 | The software should support on-line backup and restore of various applications and Databases | | |
| 4 | The backup software should support different types of backup such as Full back up, Incremental back up, Differential back up, Selective back up, Point in Time back up and Progressive Incremental back up | | |
| 5 | The backup software should support different types of user interface such as GUI, Web-based interface | | |
| 6 | Backup Solution must be supplied with required agent to take backup of virtual machines in supplied server. | | |
| 7 | The proposed Backup Solution should be available on various OS platforms such as Windows, Linux and UNIX platforms | | |
| 8 | The proposed Backup Solution should support tape Mirroring running concurrently with primary backup. e.g. With the primary volume Backup 4 additional tape copies can be created simultaneously without the need to duplicate 4 copies after the main backup. | | |
| 9 | The proposed backup solution should allow creation of additional backup copies, run concurrently with primary backup, within the same Library or over the network to another tape library/standalone drive of different format medium (e.g. Ultrium to SDLT etc..) to allow easy valuating operation. | | |

| | | | |
|---|---|---|---|
| 10 | The proposed Backup Solution supports the capability to write up to 32 or more data streams to a single tape device or multiple tape devices in parallel from multiple clients to leverage the throughput of the Drives using Multiplexing technology. | | |
| 11 | The proposed backup solution should allow creating tape clone facility after the backup process. | | |
| 12 | The backup software must use an open format (TAR) for writing backup data to tapes, so that native OS tools can also be used to recover in case the backup application is not available. It will also allow the data backup from one Unix platform to be restored on another platform. | | |
| 13 | The proposed Backup Solution has in-built media management and supports cross platform Device & Media sharing in SAN environment. It provides a centralized scratched pool thus ensuring backups never fail for media. | | |
| 14 | Backup Software is able to rebuild the Backup Database/Catalog from tapes in the event of catalog loss/corruption. | | |
| 15 | The proposed Backup Solution should support online backup for different type of databases such as Informix, DB2, Oracle, MS SQL, Sybase etc | | |
| 16 | The backup solution must provide Bare Metal restore, deduplication, encryption, database online backup, dedupe data replication etc with single backup agent. Multiple agents/clients should not be installed in server to achieve above features. | | |
| 17 | The Proposed backup solution shall provide granularity of single file restore. | | |
| 18 | Backup solution should support LAN free backups of clients, by using the client footprint on the servers itself. There should not be any need of installing Media servers/ Storage Server on the client which takes more server resources for backups. | | |
| 19 | Backup solution should support block level incremental backup for VMware host without requiring proxy server. This feature should be available through Linux media server also; without the need of windows environment for VMware backup. | | |
| 20 | Backup solution must have immediate recovery/restoration of Virtual machine directly from backed up disk to bring the machine online immediate. | | |
| 21 | Backup solution must have integration with vCentre for virtual machine backup reporting. | | |
| 22 | Backup software must support single pass backup in vSphere; it means single backup should be sufficient to restore the whole image or single file. | | |

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **Item no. 3.2: Endpoint Anti Virus** | | | |
| 1 | Antivirus software must be enterprise version of proposed software | | |
| 2 | Must offer comprehensive client/server security by protecting enterprise networks from viruses, Trojans, worms, hackers, bots, Root Kit and network viruses, plus spyware and mixed threat attacks | | |
| 3 | Must clean computers of file-based and network viruses plus virus and worm remnants (Trojans, registry entries, viral files)—through a fully-automated process | | |
| 4 | Must be capable of cleaning viruses/malware even without the availability of virus cleanup components. Using a detected file as basis, it should be able to determine if the detected file has a corresponding process/service in memory and a registry entry, and then remove them altogether. | | |
| 5 | Must have behavior monitoring to restrict system behavior, keeping security-related processes always up and running. | | |

| | | | |
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| 6 | Must have capability of virtually shielding vulnerabilities of operating system and application which should include legacy operating system like windows XP, Windows 7 and also the latest windows operating system | | |
| 7 | Should have a manual outbreak prevention feature that allows administrators to configure port blocking, block shared folder, and deny writes to files and folders manually | | |
| 8 | Must provide Web threat protection by blocking access to and from malicious sites based on the URL's reputation ratings | | |
| 9 | Must have the flexibility to roll back the Virus Pattern and Virus Scan Engine if required via the web console | | |
| 10 | Ability to prevent ransom ware malware like crypto locker using updates and built-in features like behavior monitoring, web reputation | | |
| 11 | Should monitor the behavior of malicious processes and scans them once they decloak in the memory | | |
| 12 | Should be light on computer resources consuming minimum memory | | |
| 13 | The antivirus should provide protection of all VMs to provide high performance security | | |
| 14 | Should support the mix platform of windows (x86, x64) | | |
| 15 | Should have a feature to identify vulnerable systems in the network | | |
| 16 | Should effectively filters out spam and scans all incoming emails for malware | | |
| 17 | Should have HIPS protection for processes, should scan all POP3, MAPI, IMAP, HTTP traffic and able to scan incoming POP and IMAP based mail traffic | | |
| | **Special Note:** Security Solution for Servers should be of same brand as Endpoint Anti-Virus. | | |

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **Item no. 3.3:** | **Security Solution for Servers** | | |
| 1 | Solution should support Anti Malware, Host Firewall, Deep Packet Inspection (HIPS/HIDS), Integrity Monitoring and Log Inspection in a single Agent | | |
| 2 | Firewall should have the capability to define different rules to different network interfaces | | |
| 3 | Firewall rules should filter traffic based on source and destination IP address, port, MAC address, etc. and should detect reconnaissance activities such as port scans | | |
| 4 | Solution should have the ability to lock down a computer (prevent all communication) except with management server. | | |
| 5 | The solution should protect against Distributed DoS attacks | | |
| 6 | Host based IDS/IPS should support virtual patching both known and unknown vulnerabilities until the next scheduled maintenance window. | | |
| 7 | Detailed events data to provide valuable information, including the source of the attack, the time, and what the potential intruder was attempting to exploit, should be logged | | |
| 8 | Solution should have Security Profiles allows rules to be configured for groups of systems, or individual systems. For example, all Windows 2003 servers use the same operating system rules which are configured in a single Security Profile which is used by several servers | | |
| 9 | Antivirus should support both Real Time and Schedule scan Solution should also support restoration of quarantined files. | | |

| | | | |
|---|---|---|---|
| 10 | Solution should support any pre-defined lists of critical system files for various operating systems and/or applications (web servers, dns, etc..) and support custom rules as well | | |
| 11 | Solution should have single centralized web based management console. | | |
| 12 | The solution should have comprehensive Role Based Access Control features including controlling who has access to what areas of the solution and who can do what within the application. | | |
| 13 | Solution should provide predefined out of the box rules for log collection from standard applications like OS, Database, Web Servers etc. and allow creation of custom log inspection rules as well. | | |
| 14 | Capable of support windows and linux server OS. i.e. Windows Server 2008 R2, Windows Server 2012 R2, Windows Server 2016, RHEL Linux OS (latest available version), etc. | | |
| 15 | Should have web dashboard console and compatible to all browsers | | |
| 16 | Shall be able to remotely uninstall the antivirus software | | |
| 17 | Should be capable of integration with provided domain based central management – organize and manage computers in logical domains | | |
| 18 | Should support the mix platform of windows (x86, x64) | | |
| 19 | Should have a feature to identify vulnerable systems in the network | | |
| 20 | Should have HIPS protection for processes, should scan all POP3, MAPI, IMAP, HTTP traffic and able to scan incoming POP and IMAP based mail traffic | | |
| 21 | Should support scanning of Active Directory database | | |
| 22 | Should have the ability to detect and remove unwanted joke programs, toolbars, adware, spyware, dialers etc | | |
| 23 | Support automated virus outbreak prevention with attack-specific policy recommendations from the enterprise management console and distributes the policy to the other managed hosts/servers | | |
| | **Special Note:** Security Solution for Servers should be of same brand as Endpoint Anti-Virus. | | |

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **3.2 List of Software to purchase** | | | |
| 3.2.1 | VMware vSphere 6.5 or above Standard with 5 year Basic Support and Subscription (10 * Nos) | | |
| 3.2.2 | VMware vCenter Server 6.5 or above Standard with 5 year Basic support and Subscription | | |
| 3.2.3 | Team viewer License (Virtual Network Compatible) | | |
| 3.2.4 | Backup Software (as per above specifications mentioned in 3.1) with installation and 5 year support | | |
| 3.2.5 | RHEL 7.X or latest Linux OS with installation and 5 year support | | |
| 3.2.6 | Endpoint Anti Virus (As per the specifications mentioned in 3.2) with installation and 5 year support | | |
| 3.2.7 | Security Solution for Servers (20 nos of Servers) (As per the specifications mentioned in 3.3) with installation and 5 year support | | |

## 4. Networking Requirements

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **Item no. 4.1:** | **L3 Switch (Core Switch)** | | |
| | **Architecture** | | |
| 1 | Shall be 1U 19" Rack Mountable, configured with dual, hot-swappable power supplies and configured with dual, fan tray slots which shall support front-to-back airflow. | | |
| 2 | 48 X 10Gb Ethernet SFP+ ports & 6 X fixed 40-Gigabit QSFP+ slots. 1 RJ-45 serial console port and 1 RJ-45 out-of-band management port. SFP modules must be of the same brand of switch. | | |
| 3 | 4 GB SDRAM & 1GB Flash with packet buffer size of 12MB. Shall provide Latency of < 1 µs (64-byte packets) | | |
| 4 | Shall have switching capacity of 2 or more Tbps for non-blocking performance on all 10G/40G ports | | |
| 5 | Shall have up to 1.5K or more Mpps switching throughput delivering wire speed forwarding on all 10G/40G ports | | |
| | **Resiliency** | | |
| 6 | Shall have the capability to extend the control plane across multiple active switches making it a virtual switching fabric, enabling interconnected switches to perform as single Layer-2 switch and Layer-3 router | | |
| 7 | Shall support virtual switching fabric creation across multiple switches using 10G or 40G Ethernet Links. Bidder must provide 2*40Gbps ports cables (if any) to create virtual switching fabric across switches. | | |
| 8 | IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol | | |
| 9 | IEEE 802.3ad Link Aggregation Control Protocol (LACP). Graceful restart for routing protocol | | |
| 10 | Virtual Router Redundancy Protocol (VRRP) to allow a group of routers to dynamically back each other up to create highly available routed environments | | |
| | **Layer 2 and Convergence Features (any additional licenses required shall be included)** | | |
| 11 | Shall support up to 4,000 port or IEEE 802.1Q-based VLANs | | |
| 12 | MAC address table size of minimum 128000 entries | | |
| 13 | Shall have the capability to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops | | |
| 14 | Shall support Jumbo frames on GbE and 10-GbE ports | | |
| 15 | Internet Group Management Protocol (IGMP), IEEE 802.1AB Link Layer Discovery Protocol (LLDP) | | |
| 16 | Multicast VLAN to allow multiple VLANs to receive the same IPv4 or IPv6 multicast traffic | | |
| 17 | Data Center Bridging (DCB) protocols support including IEEE 802.1Qbb Priority Flow Control (PFC), Data Center Bridging Exchange (DCBX), and IEEE 802.1Qaz Enhanced Transmission Selection (ETS) for converged applications | | |

| | | | |
|---|---|---|---|
| 18 | FCoE support on all 10G SFP+ ports including expansion, fabric, trunk VF and N ports, aggregation of E-port, N-port virtualization | | |
| 19 | EVB/VEPA support to provide connectivity into the virtual environment for a data center-ready environment | | |
| | **Layer 3 Features (any additional licenses required shall be included)** | | |
| 20 | Static Routing for IPv4 and IPv6, RIP for IPv4 (RIPv1/v2) and IPv6 (RIPng), OSPF for IPv4 (OSPFv2) and IPv6 (OSPFv3), IS-IS for IPv4 and IPv6 (IS-ISv6), Border Gateway Protocol 4 with support for IPv6 addressing, Policy-based routing, Multiprotocol Extensions for BGP-4. | | |
| | **QoS and Security Features** | | |
| 21 | Access Control Lists for filtering traffic to prevent unauthorized users from accessing the network | | |
| 22 | Congestion avoidance using Weighted Random Early Detection (WRED) | | |
| 23 | Powerful QoS feature supporting Strict Priority Queuing (SP), Weighted Fair Queuing (WFQ), Weighted Deficit Round Robin (WDRR), SP+WDRR, Ingress Rate Limiting | | |
| 24 | IEEE 802.1X Port Based Network Access Control, DHCP Snooping support including Option 82, Port security, Directed Broadcast Control. | | |
| | **Management Features** | | |
| 25 | Configuration through secure command-line interface (CLI) over Telnet and SSH, SNMPv1, v2, and v3, sFlow (RFC 3176) or equivalent for traffic analysis, FTP and TFTP support | | |
| 26 | Port mirroring to enable traffic on a port to be simultaneously sent to a network analyzer for monitoring | | |
| 27 | RADIUS or TACACS+ for switch security access administration, Network Time Protocol (NTP) or equivalent support | | |
| 28 | Shall support OpenFlow protocol capability to enable software-defined networking (SDN) from Day 1 | | |
| 29 | Shall allow the separation of data (packet forwarding) and control (routing decision) paths, to be controlled by an external SDN Controller, utilizing Openflow protocol | | |
| 30 | Switch should be available in Market (should not be End of Life) at least for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | | |

| Sr. No. | Item Description | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| **Item no. 4.2:** | **L2 Switch (Access Switch)** | | |
| 1 | 24 RJ-45 autosensing 10/100/1000 ports | | |
| 2 | 1 X RJ45 console port + minimum 2 dedicated stacking ports | | |
| 3 | 2 or more SFP+ 10GbE ports for Uplinks populated with 10GBASE-SR/LR fiber module. SFP modules of the same brand of switch. | | |
| 4 | Should support Switching Capacity of 128 Gbps or more | | |
| 5 | Should support Throughput of 90 Mpps or more | | |
| 6 | Support STP, RSTP, MSTP | | |

| 7 | Switch Should Supports 16K MAC Address auto Learning and auto aging | | |
|---|---|---|---|
| 8 | Shall support GARP VLAN Registration Protocol allowing automatic learning and dynamic assignment of VLANs | | |
| 9 | IGMP snooping v1/v2/v3 | | |
| 10 | Static or dynamic Link aggregation | | |
| 11 | Supports IP based | | |
| 12 | IEEE 802.1x, IEEE 802.3 | | |
| 13 | RADIUS, TACACS+, Rapid Per-VLAN Spanning Tree (RPVST+), OSPF | | |
| 14 | Multiple User level privilege management and password protection | | |
| 15 | Should support Port mirroring, LLDP | | |
| 16 | Secure Web-management sessions with HTTPS / SSL | | |
| 17 | DHCP Snooping, Option 82 | | |
| 18 | Should support Address Resolution Protocol (ARP), DHCP relay, Static IPv4/IPv6 routing, Link Aggregation Control Protocol (LACP), ease of configuring link redundancy of active and standby links, Virtual Switching | | |
| 19 | CLI, Web / Telnet Facility for management | | |
| 20 | SNMPv1/v2c/v3 through IPv4 and IPv6 | | |
| 21 | IPv6 ready from Day 1 | | |
| 22 | CE / EN / IEC, FCC, ROHS | | |
| 23 | The Switch should be 19" Rack mountable & the switch should be supplied with Indian standard AC (5Amp) power cord. | | |
| 24 | Switch should be available in Market (should not be End of Life) at least for next 2 Years and support should be available (should not be End of Support for Next 5 Years after End of Life). | | |

| **Item No. 4.3 - Cat 6 UTP Shuttered Patch Panel 24 Port-Loaded with Cable Manager** | | | |
|---|---|---|---|
| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
| 1 | Port Patch Panel With Rack Mount: 24 Ports Cat6, all 24 ports Fully loaded I/Os Individually replaceable, Built-in Shutter | | |
| 2 | Compatible with 23 - 24 AWG solid Conductor UTP cable. | | |
| 3 | Should conform or exceed the EIA/TIA 568 B.2-1 standards for CAT6 | | |
| 4 | Fully Compatible with Gigabit Ethernet. | | |
| 5 | Metallic high strength and 1RU height, Should have routing rings, ties, labeling strips for identification | | |
| 6 | Should have protection on each port to protect from dust ingress and such particles by having shutter or cap. | | |
| 7 | UL / ETL Verified | | |

| **Item No. 4.4 - Cat 6 UTP Surface Dual Shutter outlet with I/O Module and back box** | | | |
|---|---|---|---|
| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
| 1 | Dual Cat-6 I/o with Angular Shuttered Flush mount face plate and Surface Mount Box / Back Box. | | |
| 2 | UL / ETL Verified | | |

| Item No. 4.5 to 4.8  - Cat-6 UTP 4Pr. Factory Crimped Patch Cords | | | |
|---|---|---|---|
| **Sr. No.** | **Item** | **Matched/ Not Matched** | **Deviation /Remarks (If any)** |
| 1 | Should conform or exceed the EIA/TIA 568 B standards for CAT 6, 23-24 AWG, Factory molded boots on RJ 45 plugs at both ends | | |
| 2 | Length - 3 feet/1mtr & 7 feet/2mtr & 10 feet/3mtr & 16 feet/5mtr | | |
| 3 | UL / ETL Verified | | |

| Item No. 4.9 - Cat-6 UTP 4Pr UTP CMR Cable - 305 Meters Box | | | |
|---|---|---|---|
| **Sr. No.** | **Item** | **Matched/ Not Matched** | **Deviation /Remarks (If any)** |
| 1 | Category Cat 6 Cable, 23-24 AWG, Solid Bare Electrolytic Grade Copper, Outer Sheath FRPVC Insulation, HDPE Splitter X-Shaped Spine separator, Tested Frequency 250Mhz, | | |
| 2 | UL / ETL Verified | | |

| Sr. No. | Item Description | | Matched / Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| **Item no. 4.10:  6 Core Multi Mode OM4 OFC Cable 10G and 40G Capable** | | | | |
| 1 | No Of Core | 6 | | |
| 2 | Mode | Multi-Mode | | |
| 3 | Fiber Construction | Suitable for Outdoor/Indoor (Duct) Local Area Network Systems, Loose tube gel-filled, TIA/EIA 598 B, Rodent-resistant construction, Dry Water Block cable core for ease of handling | | |
| 4 | Central Strength Member | Epoxy/glass rod | | |
| 5 | Armor | Corrugated coated steel tape | | |
| 6 | Outer Jacket | Black UV- and moisture-resistant polyethylene (PE) Sequential footage markings | | |
| 7 | Wavelength | 850 nm to 1350 nm | | |
| 8 | | It should be water blocking E-Glassing Strength member | | |
| 9 | Minimum Installation Bend Radius | 200 mm or more | | |
| 10 | Minimum Service Bend Radius | 160 mm or more | | |
| 11 | Maximum Crush Resistance | 3000 N or more | | |

**Item No. 4.11 & 4.12: - 12 / 24 port RM LIU - LIU Loaded with adapter plate & (with Multi Mode Adapters)**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | Mode availability 12 / 24 Port Fiber Patch Panel | | |
| 2 | Rack mount with 1RU height | | |
| 3 | Made of powder coated steel. | | |
| 4 | Have slots on front panel to accommodate SC / LC adapters | | |
| 5 | Should have two connector panels, each with 3 / 6 MM - SC / LC adaptors – Loaded | | |
| 6 | Should have fiber management provision inside | | |
| 7 | Should have earthling lugs, splicing tray with sleeves, two set of moon cable routing and other accessories. | | |
| 8 | Panel cover Should be slide out for easy maintenance | | |
| 9 | Fiber Optic Simplex Pigtail SC / LC with 1 Meter Length or higher Connector Type: SC / LC | | |
| 10 | Fiber SC / LC Adaptors To be fitted in the Supplied LIU with Accessories Duplex SC / LC Adaptor with Zirconia Sleeve Dust caps for protection | | |

**Item No. 4.13 & 4.18: - Fiber Patch Cord SC-LC & LC-LC Type 50/125 Multi Mode Fiber - 2/3/5 Mtr**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | MM SC / LC Fiber Patch Cord, Duplex, 50/125um | | |
| 2 | Connector Type:- SC-LC & LC-LC | | |
| 3 | Ferrules:- Pre-radiused Ceramic Ferrules | | |
| 4 | Length: 2/3/5 mtr | | |

**Item No. 4.19: - 1G SFP Module for CCTV central and POE switch**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 1G SFP Module (Single Mode / Multi Mode) | | |
| 2 | Should be of Same Brand of Switch | | |

**Item No. 4.20: - 10G SFP Module for Access switch and Core switch**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 10G SFP+ Module (Single Mode / Multi Mode) | | |
| 2 | Should be of Same Brand of Switch | | |

**Item No. 4.21: - 40G QSFP Module for Core Switch**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 40G QSFP+ Module (Single Mode / Multi Mode) | | |
| 2 | Should be of Same Brand of Switch | | |

**Item No. 4.22: - 40G QSFP Module for Core Switch with splitted cable**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 40G QSFP+ Module (Single Mode / Multi Mode) | | |
| 2 | Should be of Same Brand of Switch | | |

**Item No. 4.23 & 4.24: - 12U & 15U Racks**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 12 U & 15U wall mounting rack – Rigid frame that can be fixed to the wall | | |
| 2 | 19″ Adjustable rails in the front and rear | | |
| 3 | Front section with glass door and lock | | |
| 4 | Top and bottom cable entry facility | | |
| 5 | 600mm wide * 600 mm deep | | |
| 6 | 2 x Cable managers | | |
| 7 | Earth continuity kit | | |
| 8 | Steel powder coated cabinet | | |
| 9 | PDU and 2 x Fan | | |
| 10 | Rack manufacturer must be ISO 9001 and 14001 certified for manufacturing | | |
| 11 | Double section unit | | |

**Item No. 4.25 & 4.26: - 42U Network Racks & Server Rack (intelligent Rack) (with all accessories)**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 42U Rack (Network Rack Size: 800W *1200D) and (Server Rack Size: 600W *1200D) | | |
| 2 | Door Steel Ful Prf 800W / 600W x 42U, Dual front, Dual rear | | |
| 3 | Fan housing unit 4 fan position | | |
| 4 | 4 x Fan 230 Vac 90 CFM | | |
| 5 | Castor with ft break (2+2) | | |
| 6 | Captive Mounting Hardware of 20 | | |

| | | | |
|---|---|---|---|
| 7 | 3 x Shelf Stationery 725mmD | | |
| 8 | Sliding Tray | | |
| 9 | Should have sufficient perforation for ventilation of air | | |
| 10 | 5 x Cable Manager | | |
| 11 | IPDU : 2 nos of 32 Ampere IP Switched PDU along with required industrial sockets | | |
| **Note:** | **IPDU and Rack must be of the same OEM make** | | |

## 5. CCTV Surveillance

| Item No. 5.1: -  24 port Central Layer 2 Switch for CCTV | | | |
|---|---|---|---|
| **Sr. No.** | **Item** | **Matched/ Not Matched** | **Deviation /Remarks (If any)** |
| 1 | Number of Ports should be 24 10/100/1000Mbps based SFP ports and 2 or more combo 10G SFP+ Ports, 1 integrated PSU | | |
| 2 | 1 X RJ45 console port | | |
| 3 | Should support Switching Capacity of 128 Gbps or more | | |
| 4 | Should support Throughput of 90 Mpps or more | | |
| 5 | Support STP, RSTP, MSTP | | |
| 6 | Switch Should Supports 16K MAC Address auto Learning and auto aging | | |
| 7 | Shall support GARP VLAN Registration Protocol allowing automatic learning and dynamic assignment of VLANs | | |
| 8 | IGMP snooping v1/v2/v3 | | |
| 9 | Static or dynamic Link aggregation | | |
| 10 | Supports IP based | | |
| 11 | IEEE 802.1x, IEEE 802.3 | | |
| 12 | RADIUS, TACACS+, Rapid Per-VLAN Spanning Tree (RPVST+), OSPF | | |
| 13 | Multiple User level privilege management and password protection | | |
| 14 | Should support Port mirroring, LLDP | | |
| 15 | Secure Web-management sessions with HTTPS / SSL | | |
| 16 | DHCP Snooping, Option 82 | | |
| 17 | Should support Address Resolution Protocol (ARP), DHCP relay, Static IPv4/IPv6 routing, Link Aggregation Control Protocol (LACP), ease of configuring link redundancy of active and standby links, Virtual Switching | | |
| 18 | CLI, Web / Telnet Facility for management | | |
| 19 | SNMPv1/v2c/v3 through IPv4 and IPv6 | | |
| 20 | IPv6 ready from Day 1 | | |
| 21 | CE / EN / IEC, FCC, ROHS | | |
| 22 | The Switch should be 19" Rack mountable & the switch should be supplied with Indian standard AC (5Amp) power cord. | | |
| 23 | All necessary interfaces, connectors & license must be delivered along with the switch from day one | | |

**Item No. 5.2: - Network Video Recorder (32- Ch)**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 32 Channels or more, H.265/H.264+, Rack mount | | |
| 2 | Support 4K streaming, Support 2 Channel up to (3840*2160) Resolution Support 300 Mbps of incoming Bandwidth | | |
| 3 | 8 or more hard disk bay and each support up to 6TB or mores Support RAID 0, Raid 1 and RAID 5 | | |
| 4 | Dual Gigabit LAN port 4 Channel alarm input and 1 channels alarm output | | |
| 5 | Support ONVIF 2.0 and above cameras, Should support Remote live view and remote playback, | | |
| 6 | VGA D-sub and HDMI, 2 nos. of USB port USD DVD –RW Support / USB for  backup, Network storage and backup | | |
| 7 | Support 32nos of H.265 and H.264  cameras up to 5MP 32 Channels streaming in Single screen 16 Channels synchronous Playback | | |
| 8 | CE/IS/IEC/EN, FCC, UL The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing OEM Should be ONVIF listed NVR and IP CCTV camera should be same make | | |
| 9 | Necessary Viewing / Monitoring Software to be considered including facility of Viewing / Monitoring of remote location at central location. | | |
| 10 | Two-way audio input 1-ch, RCA (2.0 Vp-p, 1KΩ) | | |
| 11 | NVR should be capable of keeping records up to 30 days at minimum 2 megapixel resolution with 15 FPS and 2064 frame rate | | |
| 12 | All channel should support audio recording. | | |
| 13 | NVR should support basic analytics. | | |

**Item No. 5.3: - Surveillance Hard Disk**

| Sr. No. | | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| 1 | 4 TB Surveillance Hard Disk. Must be compatible with the proposed NVR. | | | |
| 2 | Description | 4 TB Surveillance Harddisk Drive with required SATA and Power Cable | | |
| 3 | Interface | SATA 6Gb/sec | | |
| 4 | Storage Capacity | 4 TB | | |
| 5 | Transfer Rate | Max transfer rate 190Mb/Sec or more | | |
| 6 | RPM | 7200 rpm or more | | |

**Item No. 5.4: - 8 Port POE Switch**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 8 X RJ-45 autosensing 10/100/1000 PoE+ ports | | |
| 2 | 1 X RJ45 console port | | |
| 3 | 2 X SFP/SFP+ ports for Uplinks | | |
| 4 | Should support Switching Capacity of 18 Gbps or more | | |
| 5 | Should support Throughput of 13 Mpps or more | | |
| 6 | Support STP, RSTP, MSTP | | |
| 7 | Switch Should Supports 8K or more MAC Address auto Learning and auto aging | | |
| 8 | Shall support GARP VLAN Registration Protocol allowing automatic learning and dynamic assignment of VLANs | | |
| 9 | IGMP snooping v1/v2/v3 | | |
| 10 | Static or dynamic Link aggregation | | |
| 11 | Supports IP based | | |
| 12 | IEEE 802.1x, IEEE 802.3 | | |
| 13 | RADIUS, TACACS+, Rapid Per-VLAN Spanning Tree (RPVST+), OSPF | | |
| 14 | Multiple User level privilege management and password protection | | |
| 15 | Should support Port mirroring, LLDP | | |
| 16 | Secure Web-management sessions with HTTPS / SSL | | |
| 17 | DHCP Snooping, Option 82 | | |
| 18 | Should support Address Resolution Protocol (ARP), DHCP relay, Static IPv4/IPv6 routing, Link Aggregation Control Protocol (LACP), ease of configuring link redundancy of active and standby links, Virtual Switching | | |
| 19 | CLI, Web / Telnet Facility for management | | |
| 20 | SNMPv1/v2c/v3 through IPv4 and IPv6 | | |
| 21 | IPv6 ready from Day 1 | | |
| 22 | CE / EN / IEC, FCC, ROHS | | |
| 23 | The Switch should be 19" Rack mountable & the switch should be supplied with Indian standard AC (5Amp) power cord. | | |

**Item No. 5.5: - 24 Port POE Switch**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | 24 X RJ-45 autosensing 10/100/1000 PoE+ ports | | |
| 2 | 1 X RJ45 console port | | |
| 3 | 2 X SFP/SFP+ ports for Uplinks | | |

| 4 | Should support Switching Capacity of 56 Gbps or more | | |
|---|---|---|---|
| 5 | Should support Throughput of 40 Mpps or more | | |
| 6 | Support STP, RSTP, MSTP | | |
| 7 | Switch Should Supports 16K or more MAC Address auto Learning and auto aging | | |
| 8 | Shall support GARP VLAN Registration Protocol allowing automatic learning and dynamic assignment of VLANs | | |
| 9 | IGMP snooping v1/v2/v3 | | |
| 10 | Static or dynamic Link aggregation | | |
| 11 | Supports IP based | | |
| 12 | IEEE 802.1x, IEEE 802.3 | | |
| 13 | RADIUS, TACACS+, Rapid Per-VLAN Spanning Tree (RPVST+), OSPF | | |
| 14 | Multiple User level privilege management and password protection | | |
| 15 | Should support Port mirroring, LLDP | | |
| 16 | Secure Web-management sessions with HTTPS / SSL | | |
| 17 | DHCP Snooping, Option 82 | | |
| 18 | Should support Address Resolution Protocol (ARP), DHCP relay, Static IPv4/IPv6 routing, Link Aggregation Control Protocol (LACP), ease of configuring link redundancy of active and standby links, Virtual Switching | | |
| 19 | CLI, Web / Telnet Facility for management | | |
| 20 | SNMPv1/v2c/v3 through IPv4 and IPv6 | | |
| 21 | IPv6 ready from Day 1 | | |
| 22 | CE / EN / IEC, FCC, ROHS | | |
| 23 | The Switch should be 19" Rack mountable & the switch should be supplied with Indian standard AC (5Amp) power cord. | | |

| Item No. 5.6: -  2 MP IP IR Fixed WDR Dome Camera with minimum 30 Mtr IR Range | | | |
|---|---|---|---|
| **Sr. No.** | **Item** | **Matched/ Not Matched** | **Deviation /Remarks (If any)** |
| | **Indoor Vandal Dome IP CCTV Camera  (PoE, 2 MP or better, Verifocal Lens, night vision)** | | |
| | **Features** | **Description** | |
| 1 | **Imaging** | Indoor Dome 2 Mega Pixel  IP Camera, 30 Meter IR | |
| 2 | **Lens** | Focal length of 2.8mm~12mm or better | |
| 3 | **Video formats** | H.265 | |
| 4 | **Video resolution** | Video resolution: Primary – 1920x1080@25FPS | |
| 5 | **Video and Image settings** | Video motion detection with minimum 4 # configurable area, WDR | |

| 6 | Network protocols | HTTP, TCP/IP, UDP, DNS, DDNS, DHCP, FTP, PPPOE | | |
|---|---|---|---|---|
| 7 | Security | Should have at least 8 user accounts with selectable privilege of configuration save /modify, firmware upgrade, camera reboot. | | |
| 8 | Local Storage | Micro SD/SD/SDXC/SDHC Card slot (should support up to 64 GB) | | |
| 9 | Interface | 10/100BaseT RJ45 Port with 802.3af POE Support audio in and out, Built-in Mic/ external Mic, Alarm In and Out | | |
| 10 | Configuration and management | Features including Snapshot, Live view, Video recording, Re-play, two way audio, intelligent alarm, digital zoom, manual focus, full screen view, and bandwidth control, digital I/O control etc should be accessible via web. Live video streaming on mobile devices ONVIF Support | | |
| 11 | Application and environmental | IK10 Vandal Dome Operating temperature 0°c to 50°c | | |
| 12 | Regulatory compliance | CE/IS/IEC/EN, FCC, UL The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing OEM Should be ONVIF listed Dome IP camera, Bullet IP camera & NVR should be same make | | |

| Item No. 5.7: - 2 MP IP IR Fixed WDR Bullet Camera with minimum 30 Mtr IR Range | | | | |
|---|---|---|---|---|
| Sr. No. | Item | | Matched/ Not Matched | Deviation /Remarks (If any) |
| | Outdoor Bullet IP CCTV Camera (PoE, 2 MP or better, Verifocal Lens, night vision) | | | |
| | Features | Description | | |
| 1 | Imaging | Outdoor Bullet 2 Mega Pixel IP Camera, 30Meter IR | | |
| 2 | Lens | Focal length of 2.8mm~12mm or better | | |
| 3 | Video Formats | H.265 | | |
| 4 | Video resolution | Video resolution: Primary – 1920x1080@25FPS | | |
| 5 | Video and Image settings | Video motion detection with minimum 4 # configurable area, WDR | | |
| 6 | Network protocols | HTTP, TCP/IP, UDP, DNS, DDNS, DHCP, FTP, PPPOE | | |
| 7 | Security | Should have at least 8 user accounts with selectable privilege of configuration save /modify, firmware upgrade, camera reboot. | | |
| 8 | Local Storage | Micro SD/SD/SDXC/SDHC Card slot (should support up to 64 GB) | | |
| 9 | Interface | 10/100BaseT RJ45 Port with 802.3af POE Support audio in and out, Built-in Mic/ external Mic, Alarm In and Out | | |

| 10 | Configuration and management | Features including Snapshot, Live view, Video recording, Re-play, two way audio, intelligent alarm, digital zoom, manual focus, full screen view, and bandwidth control, digital I/O control etc should be accessible via web. <br> Live video streaming on mobile devices <br> ONVIF Support | | |
| 11 | Application and environmental | IP66 weather proof outdoor housing <br> Should have detachable Sun shield on top of the camera enclosure <br> Operating temperature  0°c to 50°c | | |
| 12 | Regulatory compliance | CE/IS/IEC/EN, FCC, UL <br> The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing <br> OEM Should be ONVIF listed <br> Dome IP camera, Bullet IP camera & NVR should be same make | | |

| Item No. 5.8: -  4 MP IP IR VF WDR Bullet Camera with minimum 30 Mtr IR Range | | | | |
|---|---|---|---|---|
| Sr. No. | Item | | Matched/ Not Matched | Deviation /Remarks (If any) |
| | Outdoor Bullet IP CCTV Camera (PoE, 4 MP or better, Verifocal Lens, night vision) | | | |
| | Features | Description | | |
| 1 | Imaging | Outdoor Bullet 4 Mega Pixel IP Camera, 30Meter IR | | |
| 2 | Lens | Focal length of 2.8mm~12mm or better, Motorized | | |
| 3 | Video Formats | H.265 | | |
| 4 | Video resolution | Video resolution: Primary - 2560 x 1440 or better @ 25 FPS | | |
| 5 | Video and Image settings | Video motion detection with minimum 4 # configurable area, WDR | | |
| 6 | Network protocols | HTTP, TCP/IP, UDP,  DNS, DDNS, DHCP, FTP, PPPOE | | |
| 7 | Security | Should have at least 8 user accounts with selectable privilege of configuration save /modify, firmware upgrade, camera reboot. | | |
| 8 | Local Storage | Micro SD/SD/SDXC/SDHC Card slot (should support up to 64 GB) | | |
| 9 | Interface | 10/100BaseT RJ45 Port with 802.3af POE Support audio in and out, Built-in Mic/ external Mic, Alarm In and Out | | |
| 10 | Configuration and management | Features including Snapshot, Live view, Video recording, Re-play, two way audio, intelligent alarm, digital zoom, manual focus, full screen view, and bandwidth control, digital I/O control etc should be accessible via web. <br> Live video streaming on mobile devices <br> ONVIF Support | | |
| 11 | Application and environmental | IP66 weather proof outdoor housing <br> Should have detachable Sun shield on top of the camera enclosure <br> Operating temperature  0°c to 50°c | | |

| Sr. No. | Features | Description | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| 12 | **Regulatory compliance** | CE/IS/IEC/EN, FCC, UL The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing OEM Should be ONVIF listed Dome IP camera, Bullet IP camera & NVR should be same make | | |

| | | | | |
|---|---|---|---|---|
| **Item No. 5.9: - 4 MP IP IR VF WDR Dome Camera with minimum 30 Mtr IR Range** | | | | |
| Sr. No. | Item | | Matched/ Not Matched | Deviation /Remarks (If any) |
| | **Outdoor Bullet IP CCTV Camera (PoE, 4 MP or better, Verifocal Lens, night vision)** | | | |
| | **Features** | **Description** | | |
| 1 | **Imaging** | Outdoor Bullet 4 Mega Pixel IP Camera, 30 Meter IR | | |
| 2 | **Lens** | Focal length of 2.8mm~12mm or better, Motorized | | |
| 3 | **Video Formats** | H.265 | | |
| 4 | **Video resolution** | Video resolution: Primary - 2560 x 1440 or better @ 25 FPS | | |
| 5 | **Video and Image settings** | Video motion detection with minimum 4 # configurable area, WDR | | |
| 6 | **Network protocols** | HTTP, TCP/IP, UDP, DNS, DDNS, DHCP, FTP, PPPOE | | |
| 7 | **Security** | Should have at least 8 user accounts with selectable privilege of configuration save /modify, firmware upgrade, camera reboot. | | |
| 8 | **Local Storage** | Micro SD/SD/SDXC/SDHC Card slot (should support up to 64 GB) | | |
| 9 | **Interface** | 10/100BaseT RJ45 Port with 802.3af POE Support audio in and out, Built-in Mic/ external Mic, Alarm In and Out | | |
| 10 | **Configuration and management** | Features including Snapshot, Live view, Video recording, Re-play, two way audio, intelligent alarm, digital zoom, manual focus, full screen view, and bandwidth control, digital I/O control etc should be accessible via web. Live video streaming on mobile devices ONVIF Support | | |
| 11 | **Application and environmental** | IP66 weather proof outdoor housing Should have detachable Sun shield on top of the camera enclosure Operating temperature 0°c to 50°c | | |
| 12 | **Regulatory compliance** | CE/IS/IEC/EN, FCC, UL The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing OEM Should be ONVIF listed Dome IP camera, Bullet IP camera & NVR should be same make | | |

**Item No. 5.10: - 2 MP IP IR PTZ Camera with minimum 100 Mtr IR Range, mounting stand, high POE supported with minimum IP 66 rated outdoor weather proof housing**

| Sr. No. | Item | | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| | IP Outdoor PTZ Dome CCTV camera (PoE, 2 MP or better, Verifocal Lens, night vision) | | | |
| | **Features** | **Description** | | |
| 1 | **Imaging Device** | 2 Megapixel or better, 100 Meter IR | | |
| 2 | **Lens** | Focal Length: 30x Optical zoom or better and 12x digital zoom or better<br>Min illumination of 0.5 lux @ color and 0.05 lux @ B/W<br>Should have 100M IR vision or better using internal/External IR illuminators | | |
| 3 | **PTZ** | Pan: 0° ~ 360°endless;Tilt: 0° ~ 90°<br>Manual Control Speed -<br>Pan: 0.01° ~300° /s; Tilt: 0.01° ~120° /s<br>Preset Speed - Pan:300°/s; Tilt: 120° /s<br>Should support 256 preset points and 8 groups | | |
| 4 | **Video resolution** | H.265, MJPEG or better<br>Video resolution H.265: Primary – 1920*1080@25fps, 1280*960@25fps<br>Secondary - 704*576, 704*480, 352*288, 352*240, 176*144 | | |
| 5 | **Video and Image settings** | Video motion detection with minimum 4# configurable areas,<br>Should support manual configuration of 3D noise reduction, Video Gain, Wide dynamic range and IRIS | | |
| 6 | **Network protocols** | HTTP, TCP/IP, UDP, RTP, RTSP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP, ICMP, IGMP, NAS recording | | |
| 7 | **Security** | Should have at least 8 user accounts with selectable privilege of configuration save /modify, firmware upgrade, camera reboot. | | |
| 8 | **Audio** | Two way audio support<br>G.711U or G.711A or G.726 | | |
| 9 | **Interface** | 10/100BaseT RJ45 Port with 802.3at POE+ Support | | |
| 10 | **Power input** | 24VAC/12VDC, 802.3at POE+ | | |
| 11 | **Alarm** | One sensor input and one alarm output<br>Alarm Reaction including Snapshot/video to FTP | | |
| 12 | **Configuration and management** | Features including Snapshot, Live view, Video recording, Re-play, two way audio, intelligent alarm, digital zoom, manual focus, full screen view, and bandwidth control, digital I/O control etc should be accessible via web. ONVIF Support<br>Live video streaming on mobile devices | | |
| 13 | **Application and environmental** | IP66 weather proof outdoor housing<br>Operating temperature 0°c to 50°c | | |
| | **Certifications / Regulatory compliance** | UL 60950-1,<br>CE, FCC, ROHS<br>The OEM should have ISO 9001:2008 and ISO 14001:2004 certificate for Manufacturing<br>OEM Should be ONVIF listed | | |

**Item No. 5.11: - 42" or higher LED / IPS Professional Display Monitor**

| Sr. No. | Item | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|
| 1 | Diagonal Screen Size : 42" or higher | | |
| 2 | Panel Type : LED / IPS | | |
| 3 | Resolution : 1920 x 1080 or higher | | |
| 4 | Brightness : 300 nit or better | | |
| 5 | Contrast Ratio : 1200:1 or higher | | |
| 6 | Input & Output : PC input (D-sub), 2 or more HDMI, Audio in & out, 2 or more USB, RS 232/RJ 45 | | |
| 7 | Power cable, VGA cable, HDMI Cable, Audio Video cable of required length | | |
| 9 | Power Supply : AC 100-240V, 50/60 Hz | | |
| 10 | Remote Control with Batteries | | |
| 11 | Should be certified for Energy Star 6.0 (Preferred), BIS | | |
| 12 | Aspect Ratio:  4:3 and 16:9 | | |
| 13 | Professional display should run 16*7 without any problem | | |
| 14 | **Note : The said Professional Display Monitor shall be supplied with wall mount/floor stand & setup the same as per the requirement of Department** | | |

**Item No. 5.12: -  Desktop/PC For Camera Monitoring**

| Sr. No. | Item | | Matched/ Not Matched | Deviation /Remarks (If any) |
|---|---|---|---|---|
| 1 | CPU | 6th or Latest Generation Intel Core i7 Processor | | |
| 2 | Mother Board | Intel Chipset mother Board. | | |
| 3 | Memory | 16 Gb (2 x 8 GB) expandable up to 32GB or more | | |
| 4 | Hard Drives | 1 TB 7200 rpm or higher SATA HDD | | |
| 5 | Keyboards | USB/PS2 Keyboard Mechanical | | |
| 6 | Mouse | USB/PS2 Optical Mouse | | |
| 7 | Video Card | nVIDIA / Gforce Quadro 4GB DDR5 memory or higher | | |
| 8 | Networking Feature | Integrated 10/100/1000 Base-T | | |
| 9 | Sound Card | In-Built | | |
| 10 | DVD writer | 8x or better | | |
| 11 | Monitor | 24'' or Higher LED HD monitor with HDMI in/out | | |
| 12 | Ports | Back: 2 Nos USB 3.0, 4 Nos USB 2.0, HDMI, VGA, RJ-45 (10/100/1000 Ethernet), 3-stack audio jacks<br>Front: (2) USB 2.0, MCR 8:1, Mic and Headphone Jacks | | |
| 13 | Operating system | Pre loaded Microsoft Windows 10 Professional licensed software with latest updates and Restore/ Recovery CD/ Self Mechanism (support proposed NVR &VMS client)-64 | | |
| 14 | Certifications | RoHS, UL/CE/FCC or equivalent third party certification from reputed Agency,<br>Windows 10/ Windows 8.1 Certification | | |

# SECTION VII

## FINANCIAL BID FORMAT

| Sr. No. | ITEM | Qty. (In Nos.) | Unit Price with 5 Year Warranty (In Rs. Without tax) | Total Price with 5 Year Warranty (In Rs. Without tax) | Rate of VAT/ GST/ Service Tax (%) |
|---|---|---|---|---|---|
| A | B | C | D | E = C*D | F |
| **1. Central IT Infrastructure** | | | | | |
| 1.1 | Blade Chassis | 1 | | | |
| 1.2 | Blade Servers | 5 | | | |
| 1.3 | Backup Server (Rack based Server) | 1 | | | |
| 1.4 | SAN Storage | 1 | | | |
| 1.5 | Tape Library | 1 | | | |
| 1.6 | Data Cartridge for Tape library | 10 | | | |
| 1.7 | 15 KVA online UPS (with Automatic Transfer Switch) with 4 hours backup on Full load | 2 | | | |
| **2. Data Centre Infrastructure (Room size 12 X 12 = 144 Sqft)** | | | | | |
| **2.1** | **Building Construction - Civil Work** | | | | |
| 2.1.1 | Raised Flooring System - Data Center Grade (in Sqft) | 144* | | | |
| 2.1.2 | False Ceiling systems (Fine Fissured) Angled Tegular 15/16 IN 600mm X 600mm X 15mm Class A Fire Guard (in Sqft) | 144* | | | |
| 2.1.3 | Perforated Tiles | 3 | | | |
| 2.1.4 | Tile Lifter | 1 | | | |
| **2.2** | **Electrical Infrastructure** | | | | |
| 2.2.1 | Electrical Cabling for PAC, Racks and Lightings. Complete cables & fittings with Installation (Lot) | 1 | | | |
| 2.2.2 | Ceiling Mount LED Lighting Systems using 2 ft x 2 ft panel | 8* | | | |
| 2.2.3 | 2*15 15 Amp. Plug With Switch,8 Modular frame & co box | 8* | | | |
| 2.2.4 | Chemical Earth with required rating from server room to Ground | 1 | | | |
| 2.2.5 | Separate Electrical circuit with individual MCB Per Rack With DB box In UPS Room | 6* | | | |
| 2.2.6 | Emergency LED Light for Data Center Area of 12 x 12 ft | 1 | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **2.3** | **Cooling Systems** | | | | | |
| 2.3.1 | Precision AC Systems 3.5TR X 1 No with SNMP Card of TEMP/Humidity On PC for record *(As per provided specification)* | 2 | | | | |
| 2.3.2 | Ducting for PAC with Low Side Work | 1 | | | | |
| **2.4** | **Security Surveillance Systems** | | | | | |
| **2.4.1** | **Access Control** | | | | | |
| 2.4.1.1 | Access Control Systems Bio metric + Pin • System should be Fully TCP/IP base with Inbuilt controller & capable to Enroll minimum 25 Employees, Inbuilt Battery backup up to 4 Hrs • Should be capable to provide access control & Time Attendance with TFT touch screen LCD / TFT screen with touch keypad. • Should include Time & Attendance Software for minimum 50 Employees & Data backup Facility on USB Drive/SD card/LAN/WiFi | 1 | | | | |
| 2.4.1.2 | EM lock with Push button switch with complete cabling fitting & integration with Access device | 1 | | | | |
| **2.4.2** | **Rodent Repellent System** | | | | | |
| 2.4.2.1 | Master Console without satellites for Rodent Repellent system | 1 | | | | |
| 2.4.2.2 | Satellites to be installed with the Rodent Repellant System | 4* | | | | |
| 2.4.2.3 | Supply and surface laying of 2 core x 1 Sq.mm PVC shethed cable in 20mm dia PVC conduit (In Mtr) | 50* | | | | |
| **2.4.3** | **Fire Alarm System** | | | | | |
| 2.4.3.1 | **Conventional Fire Alarm System (Set)** SITC of Conventional Fire Alarm system and components specified below that are listed and approved by UL/VDS  1) 4 Smoke Sensor 2) 1 Fire Control Panel 3) 2 Hooter with Flasher 4) 1 Emergency exit switch 5) 1 Calling Point 6) 2 Beam Detector  Vendor has to install and integrate the complete fire alarm system with required cabling. 1 Hooter with flasher should be provided at Security Chamber of BMC Main Office. | 1 | | | | |
| **2.4.4** | **Water Leak Detection System** | | | | | |
| 2.4.4.1 | SITC of Water Leak Cable with end connections & Hooter (Set) | 1 | | | | |
| **2.4.5** | **Fireproof Enclosure** | | | | | |
| 2.4.5.1 | Fireproof Enclosure for Media Storage having capacity of 90 ltr or above | 1 | | | | |

| | 3. **Software Requirements** | | | | | |
|---|---|---|---|---|---|---|
| **3.2.1** | VMware vSphere 6.x or above Standard with 5 year Basic Support and Subscription | 10* Nos | | | | |
| **3.2.2** | VMware vCenter Server 6.x or above Standard with 5 year Basic support and Subscription | 1 No | | | | |
| **3.2.3** | Team viewer License (Virtual Network Compatible) | 1 Nos | | | | |
| **3.2.4** | Backup Software (as per specifications) | 1 Nos | | | | |
| **3.2.5** | RHEL Linux OS (latest available version) with installation and 5 support | 4* Nos | | | | |
| **3.2.6** | Endpoint Anti-Virus with installation and 5 support | 300* Nos | | | | |
| **3.2.7** | Security Solution for Servers (per Server for 20 nos of Servers) | 20* Nos | | | | |
| | 4. **Networking Requirements** | | | | | |
| 4.1 | L3 Switch (Core Switch) | 2 | | | | |
| 4.2 | L2 Switch (Access Switch) | 12* | | | | |
| 4.3 | Cat 6 UTP Shuttered Patch Panel 24 Port-Loaded with Cable Manager | 16* | | | | |
| 4.4 | Cat 6 UTP Surface Dual Shutter outlet with I/O Module and back box | 300* | | | | |
| 4.5 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 3 feet/1mtr | 250* | | | | |
| 4.6 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 7 feet/2mtr | 25* | | | | |
| 4.7 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 10 feet/3mtr | 250* | | | | |
| 4.8 | Cat-6 UTP 4Pr. Factory Crimped Patch Cords - 16 feet/5mtr | 25* | | | | |
| 4.9 | Cat-6 UTP 4Pr UTP CMR Cable - 305 Meters Box | 70* | | | | |
| 4.10 | 6 Core Multi Mode OM4 OFC Cable 10G and 40G Capable (In Mtr) | 1000* | | | | |
| 4.11 | 12 port RM LIU - LIU Loaded with adapter plate (with Multi Mode Adapters) | 12* | | | | |
| 4.12 | 24 port RM LIU - LIU Loaded with adapter plate (with Multi Mode Adapters) | 3* | | | | |
| 4.13 | Fiber Patch Code MM LC to LC - 2 Mtr | 40* | | | | |
| 4.14 | Fiber Patch Code MM LC to LC - 3 Mtr | 1* | | | | |
| 4.15 | Fiber Patch Code MM LC to LC - 5 Mtr | 1* | | | | |
| 4.16 | Fiber Patch Code MM SC to LC - 2 Mtr | 40* | | | | |
| 4.17 | Fiber Patch Code MM SC to LC - 3 Mtr | 1* | | | | |
| 4.18 | Fiber Patch Code MM SC to LC - 5 Mtr | 1* | | | | |
| 4.19 | 1G SFP Module for CCTV central and POE access switch | 24* | | | | |
| 4.20 | 10G SFP Module for Access switch and Core switch | 24* | | | | |
| 4.21 | 40G QSFP Module for Core Switch | 4* | | | | |

| 4.22 | 40G QSFP Module for Core Switch with splitted cable | 1* | | | | |
|---|---|---|---|---|---|---|
| 4.23 | Rack 12U | 8* | | | | |
| 4.24 | Rack 15U | 2* | | | | |
| 4.25 | 42U Network Racks | 1 | | | | |
| 4.26 | 42U Server Rack | 1 | | | | |
| 4.27 | LAN/Fiber/Electric cable laying with complete fitting materials using High quality UPVC trunking of required size (In Mtr) | 15000* | | | | |
| 4.28 | 2.5 sq mm 3 core armed electrical cable (In Mtr) | 1500* | | | | |
| 4.29 | 2 x 5/15 amp plug with switch fixed in 8 moduler face place and co box | 12* | | | | |
| 4.30 | Per node basis structure cabling charges (Which includes I/O termination, Faceplate fixing with back box, Jack panel fixing and mounting, Labelling and Ferrulling (Both End), Scanner Testing and Documentation, 12U/15U Wall Mount Rack Installation and Dressing, Site Certification etc. as per international structure cabling rules) | 300* | | | | |
| 4.31 | Fiber cable slicing charges | 120* Fiber Core | | | | |
| **5.** | **CCTV Surveillance** | | | | | |
| 5.1 | 24 port Central Layer 2 Switch for CCTV | 1* | | | | |
| 5.2 | Network Video Recorder (32-ch) | 4* | | | | |
| 5.3 | Surveillance hard disk 4TB capacity | 15* | | | | |
| 5.4 | 8 Port POE Switch | 4* | | | | |
| 5.5 | 24 Port POE Switch | 3* | | | | |
| 5.6 | 2 MP IP IR Fixed WDR Dome Camera with minimum 30 Mtr IR Range | 31* | | | | |
| 5.7 | 2 MP IP IR Fixed WDR Bullet Camera with minimum 30 Mtr IR Range | 20* | | | | |
| 5.8 | 4 MP IP IR VF WDR Bullet Camera with minimum 30 Mtr IR Range | 15* | | | | |
| 5.9 | 4 MP IP IR VF WDR Dome Camera with minimum 40 Mtr IR Range | 1* | | | | |
| 5.10 | 2 MP IP IR PTZ Camera with minimum 100 Mtr IR Range, mounting stand, high POE supported with minimum IP 66 rated outdoor weather proof housing | 3* | | | | |
| 5.11 | 42″ or higher LED / IPS Professional Display Monitor | 2* | | | | |
| 5.12 | Desktop/PC For Camera Monitoring | 1 | | | | |
| **6.** | **Support and Maintenance (O&M)** | | | | | |
| 6.1 | Support and Maintenance for BMC Main office 1st year | 1 | | | | |
| 6.2 | Support and Maintenance for BMC Main office 2nd year | 1 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 6.3 | Support and Maintenance for BMC Main office 3rd year | 1 | | | |
| 6.4 | Support and Maintenance for BMC Main office 4th year | 1 | | | |
| 6.5 | Support and Maintenance for BMC Main office 5th year | 1 | | | |
| 6.6 | Support and Maintenance for BMC Chitra Zonal office 1st year | 1 | | | |
| 6.7 | Support and Maintenance for BMC Chitra Zonal office 2nd year | 1 | | | |
| 6.8 | Support and Maintenance for BMC Chitra Zonal office 3rd year | 1 | | | |
| 6.9 | Support and Maintenance for BMC Chitra Zonal office 4th year | 1 | | | |
| 6.10 | Support and Maintenance for BMC Chitra Zonal office 5th year | 1 | | | |
| 6.11 | Support and Maintenance for BMC Tarasamiya Zonal office 1st year | 1 | | | |
| 6.12 | Support and Maintenance for BMC Tarasamiya Zonal office 2nd year | 1 | | | |
| 6.13 | Support and Maintenance for BMC Tarasamiya Zonal office 3rd year | 1 | | | |
| 6.14 | Support and Maintenance for BMC Tarasamiya Zonal office 4th year | 1 | | | |
| 6.15 | Support and Maintenance for BMC Tarasamiya Zonal office 5th year | 1 | | | |
| **GRAND TOTAL** | | | | | |

**Note:**

➢ **L1 will be the lowest sum total of rate without tax with 5 Year Warranty.**

➢ **The Bidder shall explicitly mention the applicable rate of tax.**

➢ **\* The above mentioned quantity of the item is estimated and for evaluation purpose only. However, at the time of issue of order, the actual quantity will be considered based on the requirements.**

➢ **BMC reserves the rights to increase or decrease the quantity of any item, at the time of placing purchase order, without increasing the quoted/accepted rates.**

**SI bidder should include the following in their price bids:**

➢ **All costs must be provided for each unit, with applicable taxes as applicable separately and an aggregate cost of each item for the required quantity and a grand total as per the financial bid format provided herein as on date of bidding. Taxes shall be shown separately as on date of bidding and shall be paid as per actual. Variations in rates and structure, introduction of new levies shall be payable separately.**

➢ **The costs must be valid for a period of 180 days from the date of financial bid opening. It should be quoted in Indian rupees only.**

➢ **Costs must include cost of delivery at designated locations for site and designated locations across the State of Gujarat.**

➢ **SI Bidder to include cost of all services including installation, integration, testing, support and incidental expenditure as may be required under implementation services.**

➢ SI bidder to include costs of all /any additional hardware/software that may be required for implementing PKI component and digital signatures and its support costs for 5 years.

➢ SI bidder shall include the cost of onsite spares to be maintained during the project period and not quote separately.

➢ The bidder shall submit written confirmation from the respective OEMs that the OEM binds itself jointly with the SI bidder for the 5 years warranty and support services of their component as mentioned in the RFP.

➢ All networking passive material (Section 7 Financial Bid Format → Point no 4 Networking Requirements → Item no 4.3 to Item no 4.18) must be from one OEM make only.

➢ All Racks (Section 7 Financial Bid Format → Point no 4 Networking Requirements → Item no 4.23 to Item no 4.26) must be from one OEM make only.

# SECTION VIII

**Bid Processing Fees & Earnest Money Deposit Details**

| Sr. No. | Item | Amount (In Rs.) | Name of the Bank & Branch | Demand Draft No. |
|---------|------|-----------------|---------------------------|------------------|
| 1 | Bid Processing Fees | | | |
| 2 | Earnest Money Deposit (E.M.D.) | | | |

# ELIGIBILITY CRITERIA

**Form No. E1:  Company registered under Indian Companies Act, 1956**

| Company Name | Address | Copy of Certificate of Incorporation uploaded? (Yes/No) |
|--------------|---------|--------------------------------------------------------|
| | | |

**Note:    Please fill this form and upload the supporting documents.**

**Form No. E2:  Financial strength of the bidder**

| Financial Year | Turnover (Rs. In Crores) | Audited Accounts uploaded? (Yes/No) |
|----------------|--------------------------|-------------------------------------|
| Year 1 | | |
| Year 2 | | |
| Year 3 | | |
| Grand Total | | |

**Note:    Please fill this form and upload the Audited Annual Accounts / Balance Sheet along with Profit & Loss Account for the last three financial years.**

**Form No. E3:  Office in GUJARAT**

| Sr. No. | Address | Contact Person | Contact Nos. | Type of supporting document attached |
|---------|---------|----------------|--------------|--------------------------------------|
| 1 | | | | |
| 2 | | | | |

**Note:    You may mention more than one office (if applicable) by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".**

**If bidder is not having any Office in Gujarat then bidder should give undertaking to open office in Bhavnagar within 45 days from the date of purchase order, if the order is placed with it.**

**Form No. E4:  Experience Details (Customer References)**

**5 no. of System Integrator Project of Rs. 1 Crore or more; Out of 5, at least 2 projects must be executed for State/Central Govt./ Public Sector undertaking in India**

| Sr. No. | Name of the Organization | Contact Person Name | Contact Details | Date of PO | Value of Order | Description of Works Carried Out | Type of Supporting Document Attached |
|---------|--------------------------|---------------------|-----------------|------------|----------------|----------------------------------|--------------------------------------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| . | | | | | | | |

**Note:** Please fill this form and submit the supporting documents for each customer reference in scanned format. Failing the same may lead to the rejection of the bid. You may add the customer references by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".

**Form No. E5: Experience Details for Servers, Storage, Switches, Backup device etc. (Customer References)**

**TWO project of supply & installation of Servers, Storage, Switches, Backup device etc.**

| Sr. No. | Name of the Organization | Contact Person Name | Contact Details | Date of PO | Value of Order | Description of Works Carried Out | Type of Supporting Document Attached |
|---------|--------------------------|---------------------|-----------------|------------|----------------|----------------------------------|--------------------------------------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| . | | | | | | | |

**Note:** Please fill this form and submit the supporting documents for each customer reference in scanned format. Failing the same may lead to the rejection of the bid. You may add the customer references by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".

**Form No. E6: Experience Details for Data Centre (Customer References)**

**ONE project of setting-up (establishment) of Data Centre in India during the last five years**

| Sr. No. | Name of the Organization | Contact Person Name | Contact Details | Date of PO | Value of Order | Description of Works Carried Out | Type of Supporting Document Attached |
|---------|--------------------------|---------------------|-----------------|------------|----------------|----------------------------------|--------------------------------------|
| 1 | | | | | | | |
| 2 | | | | | | | |
| . | | | | | | | |

**Note:** Please fill this form and submit the supporting documents for each customer reference in scanned format. Failing the same may lead to the rejection of the bid. You may add the customer references by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".

**Form No. E7: Experience Details for CCTV (Customer References)**

**ONE project CCTV Surveillance & Networking components in India during the last five years** as on bid submission date.

| Sr. No. | Name of the Organization | Address of installation | P.O/ W.O. Date | No. of Cameras Installed | Value of the project in Rupees | Document attached or not? |
|---------|--------------------------|-------------------------|----------------|--------------------------|--------------------------------|---------------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| . | | | | | | |

**Note:** Please fill this form and submit the supporting documents for each customer reference in scanned format. Failing the same may lead to the rejection of the bid. You may add the customer references by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".

**Form no. E8:    Experience of OEM / IP Camera Product Company:**

| Sr. No. | Name of the Organization | Address of installation | P.O/ W.O. Date | No. of IP Cameras Installed | Value of the project in Rupees | Document attached or not? |
|---------|--------------------------|-------------------------|----------------|-----------------------------|--------------------------------|---------------------------|

| 1 | | | | | | |
|---|---|---|---|---|---|---|
| . | | | | | | |

**Note:** Please fill this form and upload necessary supporting documents like copies of purchase order / contract agreement and completion certificate for each of project details mentioned, as a proofs in the eligibility section. You may add the customer references by adding multiple rows which may be added by "NUMBER OF ROWS TO ADD".

### Form No. E9: OEM Authorization

| Sr. No. | Item | Make & Model | Name of OEM | OEM Authorization Submitted? (Yes/No) |
|---|---|---|---|---|
| 1 | Blade Chassis | | | |
| 2 | Blade Servers | | | |
| 3 | Backup Server (Rack based Server) | | | |
| 4 | SAN Storage | | | |
| 5 | Tape Library | | | |
| 6 | Data Cartridge for Tape library | | | |
| 7 | 15 KVA online UPS (with Automatic Transfer Switch) with 4 hours backup on Full load | | | |
| 8 | Precision AC Systems | | | |
| 9 | Access Control | | | |
| 10 | Rodent Repellent System | | | |
| 11 | Fire Alarm System | | | |
| 12 | Virtualization Software - VMware | | | |
| 13 | Backup Software | | | |
| 14 | Endpoint Anti Virus | | | |
| 15 | Security Solution for Servers | | | |
| 16 | L3 Switch (Core Switch) | | | |
| 17 | L2 Switch (Access Switch) | | | |
| 18 | Networking Passive Cabling Components | | | |
| 19 | Fiber Components | | | |
| 20 | Rack 12U | | | |
| 21 | Rack 15U | | | |
| 22 | 42U Network Racks | | | |
| 23 | 42U Server Rack | | | |
| 24 | 24 Port Central L2 Switch for CCTV | | | |
| 25 | Network Video Recorder(32-ch) | | | |
| 26 | 4TB Surveillance Hard Disk | | | |
| 27 | 8 Port POE Switch | | | |
| 28 | 24 Port POE Switch | | | |
| 29 | 2 MP IP IR Fixed WDR Dome Camera with minimum 30 Mtr IR Range | | | |

| Sr. No. | Item | | | |
|---|---|---|---|---|
| 30 | 2 MP IP IR Fixed WDR Bullet Camera with minimum 30 Mtr IR Range | | | |
| 31 | 4 MP IP IR VF WDR Bullet Camera with minimum 30 Mtr IR Range | | | |
| 32 | 4 MP IP IR VF WDR Dome Camera with minimum 30 Mtr IR Range | | | |
| 33 | 2 MP IP IR PTZ Camera with minimum 100 Mtr IR Range, mounting stand, high POE supported with minimum IP 66 rated outdoor weather proof housing | | | |
| 34 | 42″ or higher LED / IPS Professional Display Monitor | | | |
| 35 | Desktop/PC For Camera Monitoring | | | |

**Form No. E10: ISO 9001:2008 Certification for Manufacturing**

| Sr. No. | Item | Make & Model | Name of OEM | ISO Certificate Submitted? (Yes/No) |
|---|---|---|---|---|
| 1 | Blade Chassis | | | |
| 2 | Blade Servers | | | |
| 3 | Backup Server (Rack based Server) | | | |
| 4 | SAN Storage | | | |
| 5 | Tape Library | | | |
| 6 | 15 KVA online UPS | | | |
| 7 | Precision AC Systems | | | |
| 8 | L3 Switch (Core Switch) | | | |
| 9 | L2 Switch (Access Switch) | | | |
| 10 | 24 Port Central L2 Switch for CCTV | | | |
| 11 | Network Video Recorder(32-ch) | | | |
| 12 | 8 Port POE Switch | | | |
| 13 | 24 Port POE Switch | | | |
| 14 | 2 MP IP IR Fixed WDR Dome Camera with minimum 30 Mtr IR Range | | | |
| 15 | 2 MP IP IR Fixed WDR Bullet Camera with minimum 30 Mtr IR Range | | | |
| 16 | 4 MP IP IR VF WDR Bullet Camera with minimum 30 Mtr IR Range | | | |
| 17 | 4 MP IP IR VF WDR Dome Camera with minimum 30 Mtr IR Range | | | |
| 18 | 2 MP IP IR PTZ Camera with minimum 100 Mtr IR Range, mounting stand, high POE supported with minimum IP 66 rated outdoor weather proof housing | | | |
| 19 | 42″ or higher LED / IPS Professional Display Monitor | | | |
| 20 | Desktop/PC For Camera Monitoring | | | |

**Note:**   **Please fill this form and upload the ISO Certificates in scanned format.**

# SECTION IX

**Annexure A**

## Performa of Compliance letter/Authenticity of Information Provided

**(On Non judicial Stamp paper of Rs. 100/- duly attested by the First class Magistrate/Notary Public)**

Date:

**To,**
**DGM (Tech.)**
**Gujarat Informatics Ltd.**
Block-1, 8th Floor, Udyog Bhavan,
Gandhinagar

**Sub: Compliance with the tender terms and conditions, specifications and Eligibility Criteria**

**Ref:     Bid for Selection of Agency for Supply, Installation, and 5 years Warranty support/services of IT Infrastructure and Operation & Management Services for 5 years on behalf of Bhavnagar Municipal Corporation, Bhavnagar (Tender no. HWT230617440).**

Dear Sir,

With reference to above referred tender, I, undersigned <<Name of Signatory>>, in the capacity of <<Designation of Signatory>>, is authorized to give the undertaking on behalf of <<Name of the bidder>>.

We wish to inform you that we have read and understood the technical specification and total requirement of the above mentioned bid submitted by us on **DD.MM.YYYY.**

We hereby confirm that all our quoted items meet or exceed the requirement and are absolutely compliant with specifications mentioned in the bid document.

We also explicitly understand  that all quoted items meet  technical specification of the bid & that such technical specification overrides the brochures/standard literature  if  the same contradicts or is absent in brochures.

In case of breach of any tender terms and conditions or deviation from bid specification other than already specified as mentioned above, the decision of GIL Tender Committee for disqualification will be accepted by us.

The Information provided in our submitted bid is correct. In case any information provided by us are found to be false or incorrect, you have right to reject our bid at any stage including forfeiture of our EMD/ PBG/cancel the award of contract. In this event, GIL reserves the right to take legal action on us.

Thanking you,

Dated this _____ day of_____YYYY

Signature: _____
(In the Capacity of) :_____
Duly authorized to sign bid for and on behalf of
_____

**Note: This form should be signed by authorized signatory of bidder**

**Annexure B**

## Anti-Blacklisting Certificate

### (On Non judicial Stamp paper of Rs. 100/- duly attested by the First class Magistrate/Notary Public)

I M/s._____ (Bidder), _____(the names and address of the registered office) hereby certify and confirm that we or any of our promoter/s /director/s are not barred by Government of Gujarat (GoG) / any other entity of GoG or blacklisted by any state government or central government / department / agency in India from participating in Project/s, either individually or as member of a sub-contractor as on the _____ (Bid submission Date), rejection in case any material misrepresentation is made or discovered with regard to the requirements.

We further confirm that we are aware that our Application for the captioned Project would be liable for of this Tender at any stage of the Bidding Process or thereafter during the agreement period.

Dated this _____Day of _____ 2017.

Name of the Bidder
Signature of the Authorized person
Name of the Authorized Person

**Annexure C**

## EXCHANGE OF PROPRIETARY INFORMATION AND NON-DISCLOSURE AGREEMENT

This Agreement is entered into by and between:

Bidder Name
( hereinafter Referred as _____ )
Bidder Address

AND

Bhavnagar Municipal Corporation, (hereinafter referred as "Corporation""), a body established under the B.P.M.C Act 1949,herein referred as "BMC "

Bidder and BMC both are hereinafter referred to as "PARTY" or "PARTIES" as per the context.

WITNESSETH

WHEREAS, Bidder Name and Bhavnagar Municipal Corporation wish to pursue discussions concerning Work of supply, implementation and post Implementation support for New Server, New Networking, Softwares, CCTV Surveillance and Data Centre (With 5 year of Warranty)

WHEREAS, during the course of discussions it may become desirable or necessary for the PARTIES hereto to disclose to each other certain technical or business information of a proprietary or confidential nature, hereinafter referred to as Proprietary Information; and

WHEREAS, the PARTIES hereto are willing to provide for the conditions of such disclosure of Proprietary Information and the rules governing the use and the protection thereof.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1.  As used in this Agreement the term "Proprietary Information" shall mean any information or data disclosed by either PARTY to the other, pursuant to this Agreement, either in writing or orally, subject to the conditions set forth hereinafter, and including without limitation any written, electronic or printed documents or any means of disclosing such Proprietary Information that the PARTIES may elect to use during the life of this Agreement.

2.  Nothing in this Agreement may be construed as compelling either PARTY hereto to disclose any Proprietary Information to the others, or to enter into any further contractual relationships.

3.  Each PARTY, to the extent of its right to do so, shall disclose to the other PARTY only such Proprietary Information which the disclosing PARTY deems appropriate to fulfil the objectives of this Agreement as set up in the recitals. The PARTIES hereby represent that the disclosure of Proprietary Information by and between themselves is not contrary to the laws and regulations of their respective countries.

4.  Any information or data in whatever form disclosed by either PARTY to the other and which is designated as proprietary to the disclosing PARTY by an appropriate stamp, legend or any other notice in writing, or when disclosed orally, has been identified as proprietary at the time of disclosure and has been promptly (thirty (30) days at the latest) confirmed and designated in writing as Proprietary Information of the disclosing PARTY, shall be subject to the conditions set out in this Agreement.

5.  The receiving PARTY hereby covenants that, for a period of five (5) years from the effective date of this Agreement, the Proprietary Information received from the disclosing PARTY shall:

a. be protected and kept in strict confidence by the receiving PARTY which must use the same degree of precaution and safeguards as it uses to protect its own Proprietary Information of like importance, but in no case any less than reasonable care;

b. be only disclosed to and used by those persons who have a need to know and solely for the purpose specified in the recitals, within the receiving PARTY's organisation;

c. not be used in whole or in part for any purpose other than the purpose specified in the recitals without the prior written consent of the disclosing PARTY;

d. neither be disclosed nor caused to be disclosed whether directly or indirectly to any third party or persons other than those mentioned in subparagraph(b) above;

e. neither be copied, nor otherwise reproduced nor duplicated in whole or in part where such copying, reproduction or duplication have not been specifically authorized in writing by the disclosing PARTY.

6. Any Proprietary Information and copies thereof disclosed by either PARTY to the other shall remain the property of the disclosing PARTY and shall be returned by the receiving PARTY immediately upon request retaining one set for archival purposes.

7. Except as aforementioned, the receiving PARTY shall have no obligations or restrictions with respect to any Proprietary Information which the receiving PARTY can prove:

a) has come into the public domain prior to, or after the disclosure thereof and in such case through no wrongful act of the receiving PARTY; or

b) is already known to the receiving PARTY, as evidenced by written documentation in the files of the receiving PARTY; or

c) has been lawfully received from a third party without restrictions or breach of this Agreement; or

d) has been or is published without violation of this Agreement; or

e) is independently developed in good faith by employees of the receiving PARTY who did not have access to the Proprietary Information; or

f) is approved for release or use by written authorization of the disclosing PARTY; or

g) is not designated or confirmed as proprietary in accordance with paragraph 4 of this Agreement.

8. With respect to any exchange of Proprietary Information which may occur pursuant to this Agreement, it is expressly understood and agreed that the below listed employees shall, on behalf of the respective PARTIES, be the exclusive individuals authorized to receive and/or transmit Proprietary Information under this Agreement:

| | |
|---|---|
| **Bidder Name** | **DMC (General)** |
| **Authorized Officer Name** | **Bhavnagar Municipal Corporation** |
| **Bidder Address** | **Sir Mangalsinhji Road,** |
| | **Near Kalanala, Bhavnagar - 364001** |

9. As regards the individuals identified in Paragraph 8 above, each PARTY shall have the right and power to redesignate such persons within their organizations as are authorized to receive and/or transmit Proprietary Information exchanged under this Agreement. Any such redesignations which are made by either PARTY shall be effected by rendering written notice of such change to the other PARTY.

10. Any Proprietary Information disclosed by the PARTIES under this Agreement which is Classified Information shall be identified by the disclosing PARTY as Classified Information at the time of disclosure and the disclosure protection use and handling of such information shall be in accordance with security procedures prescribed by the appropriate Government.

11. It is expressly understood and agreed by the PARTIES hereto that the disclosure and provision of Proprietary Information under this Agreement by either PARTY to the other shall not be construed as granting to the receiving PARTY any rights whether expressed or implied by licence or otherwise on the matters, inventions or discoveries to which such Proprietary Information pertains or any copyright,

trademark or trade secret rights.The property in all information and/or data disclosed by either PARTY to the other pursuant to this Agreement and which is designated as proprietary in accordance with paragraph 4 of this Agreement shall subject to any right of' any other owner, rest with ,the disclosing PARTY.

12. The execution, existence and performance of this Agreement shall be kept confidential by the PARTIES hereto and shall not be disclosed to any third party by either PARTY without the prior written consent of the other.

13. This Agreement including all rights and obligations of the PARTIES hereto except the obligations specified in paragraph 15 below may be terminated by operation of law and without demand by either PARTY at any time on 30 (thirty) days prior written notice to the other.

14. Unless earlier terminated as aforesaid in paragraph 13 hereof, this Agreement shall expire in ten years from the effective date.

15. The end or termination of this Agreement shall not relieve the receiving PARTY of complying with the obligations imposed by paragraph 5 thereof with respect to the use and protection of the Proprietary Information received prior to the date of the termination or end of this Agreement. Such obligations shall continue for the period applicable as set forth in said paragraph.

16. This Agreement shall be governed by and shall be interpreted in accordance with the laws of India.

17. All disputes arising out of or in connection with this Agreement shall be finally settled by arbitration in India in English language, under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.

18. The foregoing constitutes the entire agreement between the PARTIES with respect to the exchange of Proprietary Information and supersedes and cancels all prior representations, negotiations, commitments, undertakings, communications whether oral or written, acceptances, understandings and agreements between the PARTIES with respect to such exchange of Proprietary Information.

19. The effective date of this Agreement shall be the latest date on which it is executed by both PARTIES hereto.

**IN WITNESS WHEREOF**, each of the PARTIES hereto has caused this Agreement to be executed by its duly authorized officers or representatives.

**Bidder Name**        **DMC (General)**
**Authorized Officer Name**    **Bhavnagar Municipal Corporation**
**Bidder Address**       **Sir Mangalsinhji Road,**
               **Near Kalanala, Bhavnagar - 364001**

**Annexure D**

**Format of Earnest Money Deposit in the form of Bank Guarantee**

Ref:                                                          Bank Guarantee No.
                                                               Date:

**To,**
**DGM (Technical)**
Gujarat Informatics Limited
8th Floor, Block -1, Udyog Bhavan,
Sector - 11, Gandhinagar - 382010
Gujarat, India

Whereas -------------------------------------------------------- (here in after called "the Bidder") has submitted its bid dated ---------------- in response to the Tender no: HWT230617440 for for Selection of Agency for Supply, Installation, and 5 years Warranty support/services of IT Infrastructure and Operation & Management Services for 5 years on behalf of Bhavnagar Municipal Corporation, Bhavnagar KNOW ALL MEN by these presents that WE ---------------------------------------------------- ------------------------------------------------ having our registered office at ------------ ---------------------- --------------------------- (hereinafter called "the Bank") are bound unto the Gujarat Informatics Limited in the sum of ---------------------- for which payment well and truly to be made to Gujarat Informatics Limited, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this -------------day of ----------------------- ----YYYY.

**THE CONDITIONS of this obligation are:**

1.  The E.M.D. may be forfeited:

    a.  if a Bidder withdraws its bid during the period of bid validity

    b.  Does not accept the correction of errors made in the tender document;

    c.  In case of a successful Bidder, if the Bidder fails:

        (i) To sign the Contract as mentioned above within the time limit stipulated by purchaser or

        (ii) To furnish performance bank guarantee as mentioned above or

        (iii) If the bidder is found to be involved in fraudulent practices.

        (iv) If the bidder fails to submit the copy of purchase order & acceptance thereof.

        (v) If the successful bidder fails to submit the Performance Bank Guarantee & sign the Contract Form within prescribed time limit, the EMD of the successful bidder will be forfeited. GIL also reserves the right to blacklist such bidder from participating in future tenders if sufficient cause exists.

We undertake to pay to the GIL/Purchaser up to the above amount upon receipt of its first written demand, without GIL/ Purchaser having to substantiate its demand, provided that in its demand GIL/ Purchaser will specify that the amount claimed by it is due to it owing to the occurrence of any of the abovementioned conditions, specifying the occurred condition or conditions.

This guarantee will remain valid up to 6 months from the last date of bid submission. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that if this guarantee is extended for a period as mutually agreed between bidder & owner/purchaser, the guarantee shall be valid for a period so extended provided that a written request for such extension is received before the expiry of validity of guarantee.

The Bank shall not be released of its obligations under these presents by any exercise by the OWNER / PURCHAER of its liability with reference to the matters aforesaid or any of them or by reason or any other acts of omission or commission on the part of the OWNER/PURCHASER or any other indulgence shown by the OWNER/PURCHASER or by any other matter or things.

The Bank also agree that the OWNER/PUCHASER at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor, in the first instance without proceeding against the SELLER and not withstanding any security or other guarantee that the OWNER/PURCHASER may have in relation to the SELLER's liabilities.

Dated at _____ on this _____ day of _____YYYY.

_____

Signed and delivered by
_____

 For & on Behalf of

Name of the Bank & Branch &
Its official Address

**Approved Bank: All Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative & Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time.**

# SECTION X

**Annexure E**

### Performa of Contract-cum-Equipment
### Performance Bank Guarantee
(To be stamped in accordance with Stamp Act)

Ref:                                                                Bank Guarantee No.
                                                                     Date:

To
Name & Address of the Purchaser/Indenter
_____

_____

Dear Sir,

In consideration of Name & Address of the Purchaser/Indenter, Government of Gujarat, Gandhinagar (hereinafter referred to as the OWNER/PURCHASER which expression shall unless repugnant to the context or meaning thereof include successors, administrators and assigns) having awarded to M/s ......................................................................................................... having Principal Office at ........................................................................ (Hereinafter referred to as the "SELLER" which expression shall unless repugnant to the context or meaning thereof include their respective successors, administrators, executors and assigns) the supply of _____by issue of Purchase Order No................... Dated ............ issued by <<GoG Department>> for and on behalf of the OWNER/PURCHASER and the same having been accepted by the SELLER resulting into CONTRACT for  supplies of materials/equipments as mentioned in the said purchase order and the SELLER having agreed to provide a Contract Performance and Warranty Guarantee for faithful performance of the aforementioned contract and warranty quality to the OWNER/PURCHASER, _____having Head Office at (hereinafter referred to as the 'Bank' which expressly shall, unless repugnant to the context or meaning thereof include successors, administrators, executors and assigns) do hereby guarantee to undertake to pay the sum of Rs._____(Rupees_____) to the OWNER/PURCHASER on demand at any time up to_____ without a reference to the SELLER.  Any such demand made by the OWNER/PURCHASER on the Bank shall be conclusive and binding notwithstanding any difference between Tribunals, Arbitrator or any other authority.

The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that the guarantee herein contained shall continue to be enforceable till the OWNER/PURCHASER discharges this guarantee.  OWNER/PURCHASER shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance by the SELLER of the aforementioned CONTRACT.  The OWNER/ PURCHASER shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the SELLER, and to exercise the same at any time in any manner, and either to enforce to forebear to enforce any covenants contained or implied, in the aforementioned CONTRACT between the OWNER/PURCHASER and the SELLER or any other course of or remedy or security available to the OWNER/PURCHASER.

The Bank shall not be released of its obligations under these presents by any exercise by the OWNER/PURCHAER of its liability with reference to the matters aforesaid or any of them or by reason or any

other acts of omission or commission on the part of the OWNER/PURCHASER or any other indulgence shown by the OWNER/PURCHASER or by any other matter or things.

The Bank also agree that the OWNER/PUCHASER at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor, in the first instance without proceeding against the SELLER and not withstanding any security or other guarantee that the OWNER/PURCHASER may have in relation to the Seller's liabilities.

Notwithstanding anything contained herein above our liability under this Guarantee is restricted to Rs. _____ (Rupees _____) and it shall remain in force up to and including _____ and shall be extended from time to time for such period as may be desired by the SELLER on whose behalf this guarantee has been given.

Dated at _____ on this _____ day of _____YYYY.


_____
Signed and delivered by


_____

For & on Behalf of


Name of the Bank & Branch &
Its official Address


List of approved Banks

**Approved Bank: All Nationalized Bank including the public sector bank or Private Sector Banks or Commercial Banks or Co-Operative & Rural Banks (operating in India having branch at Ahmedabad/ Gandhinagar) as per the G.R. no. EMD/10/2016/328/DMO dated 01.05.2017 issued by Finance Department or further instruction issued by Finance department time to time.**

**Annexure F**

## CONTRACT FORM

THIS AGREEMENT made the _____ day of _____, YYYY ____ Between _____ *(Name of purchaser)* of _____ *(Country of Purchaser)* hereinafter "the Purchaser" of the one part and _____ *(Name of Supplier)* of _____ *(City and Country of Supplier)* hereinafter called "the Supplier" of the other part :

WHEREAS the Purchaser is desirous that certain Goods and ancillary services viz., _____ *(Brief Description of Goods and Services)* and has accepted a bid by the Supplier for the supply of those goods and services in the sum of _____ *(Contract Price in Words and Figures)* hereinafter called "the Contract Price in Words and Figures" hereinafter called "the Contract Price."

NOW THIS AGREEMENT WITHNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

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

    2.1 the Bid Form and the Price Schedule submitted by the Bidder;

    2.2 terms and conditions of the bid

    2.3 the Purchaser's Notification of Award

3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

5. Particulars of the goods and services which shall be supplied / provided by the Supplier are as enlisted in the enclosed annexure:

TOTAL VALUE:

DELIVERY SCHEDULE:

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the
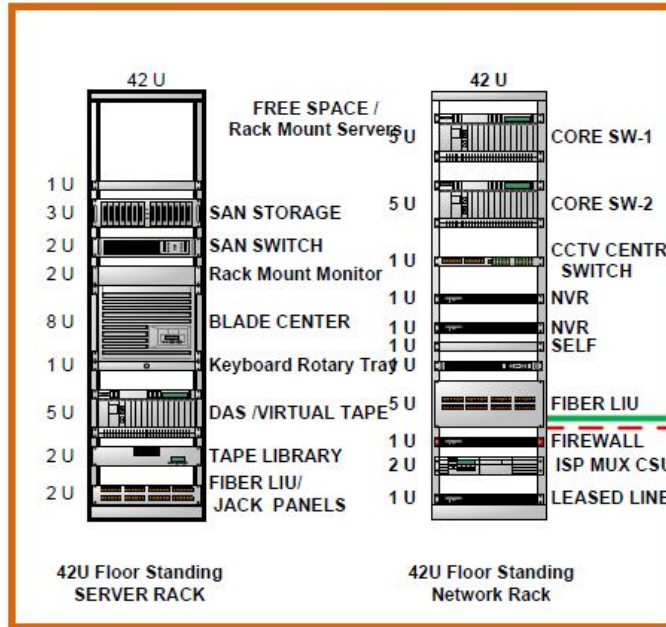
Said _____ (For the Purchaser)

In the presence of _____

Signed, Sealed and Delivered by the

Said _____ (For the Supplier)

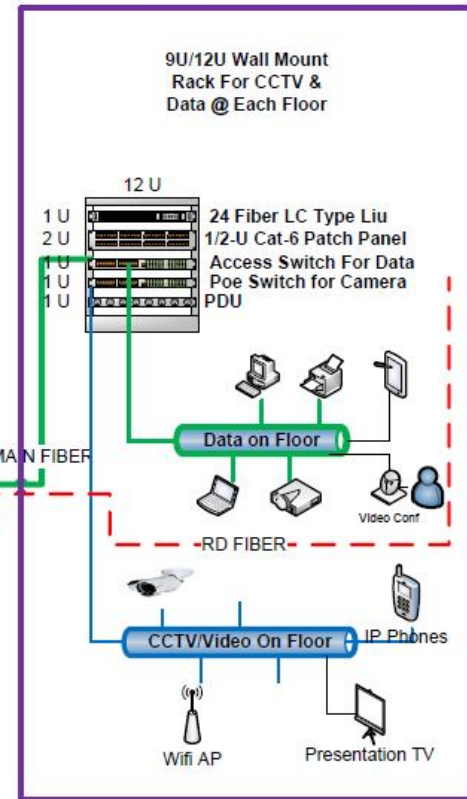In the presence of _____

## Proposed Data Center Diagram

## Proposed Network Diagram



BMC - ROUGH NETWORK CONNECTIVITY DIAGRAM