

# **SuratUrban Development Authority**



**Name Of Work : Bid for Supply, Installation, Configuration and Integration of Networking Equipment at SUDA BHAVAN BUILDING AT T.P.S NO:-1 ,(VESU) F.P.No.174 PAIKEE SUB PLOT NO B AT VESU , TA:-CHORYASI ,DI:- SURAT (WITH 5 YEARS A.M.C)**

**Through online e-tendering process only**

**Last Date of Downloading & Online Submission of Bids  
13-04-2018 to 23-04-2018**

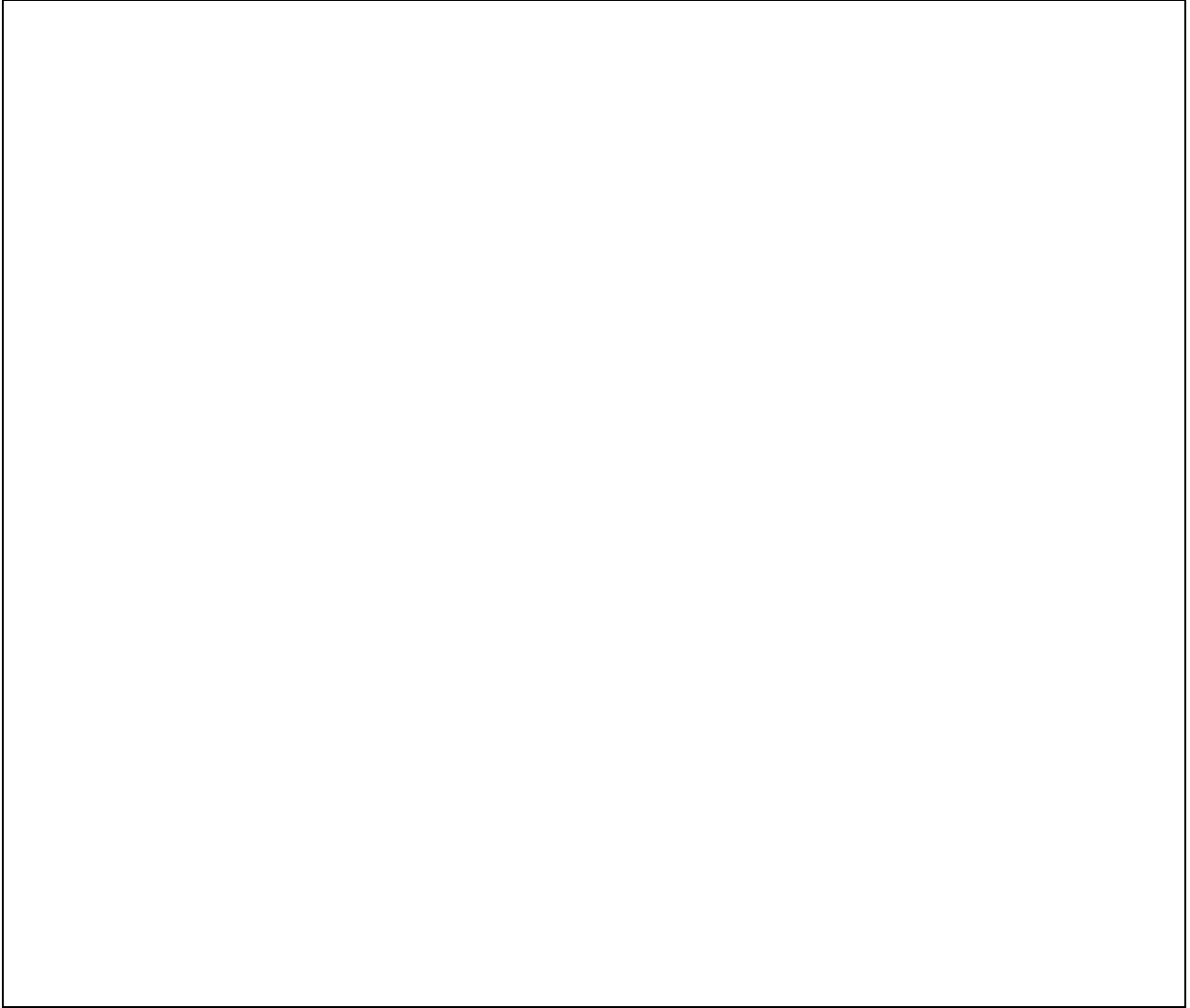
**Last Date of Physical Submission of  
EMD, Bid Fee & Supporting Document  
On or before 24-04-2018 to 30-04-2018**

## Surat Urban Development Authority

### Notice Inviting Bid

	<p>Surat Urban Development authority (SUDA )</p> <p><b>SUDA BHAVAN, B/H, OLD MULTISTORIED BUILDING NANPURA</b></p> <p><b>SURAT- 395 001.</b></p> <p><b>Bid for Supply, Installation, Configuration and Integration of Networking Equipments</b></p>
<p>Bid for Supply, Installation, Configuration and Integration of Networking Equipments is being published by Surat Urban Development Authority (SUDA) online on 13-04-2018 from the bidder meeting the basic eligibility criteria as stated in the bid document.</p> <p>Bid Fee (Non-refundable) • Rs 4,248.00 (by DD or Banker's Cheque only)</p> <p>EMD • Rs. 1,81,070.00 /- (by DD or Banker's Cheque only)</p> <p>Last date to submit the • Bidders shall have to post queries by email to Online Pre Bid Queries . 19-04-2018 on or before 16:00 hrs.</p> <p><b>Online Bid End Date</b> (Last • To be submitted online only on 13-04-2018 on Date of Online Submission to 23-04-2018 up to 18:00 hrs. of Bids with all necessary documents as per tender document requirement in soft copy)</p> <p>Submission (in Hard Copy) • In sealed envelope strictly by RPAD/Postal Speed Post on or of Bid Fee, EMD. before 24-04-2018 to 30-04-2018 up to 18:00 hrs. to the Chief Accounts,</p> <p>Surat Urban Development Authority, SUDA Bhavan, B/H O.M Bhavan, Nanpura, Surat – 395001 RFP Document Availability</p> <p>bid(s) received is reserved without assigning any reason thereof.</p> <p>(Sd/-)</p> <p>.....</p> <p>Surat Urban Development Authority</p>	

## Surat Urban Development Authority



Duly Sign & Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

# Surat Urban Development Authority

## **INDEX**

Notice Inviting Bid .....	2
Memorandum Of Work in Brief.....	9
<b>TECHNICAL BID .....</b>	
1. Key Events & Dates.....	11
2. Instructions for the Bidder .....	12
3. Eligibility Criteria.....	18
4. Indicative list of Documents to be submitted .....	20
5. General Terms and Conditions.....	23
6. Technical (minimum) Specification .....	28
7. Annexure For Technical Bid .....	88
<b>PRICE BID .....</b>	

## **Technical Bid**

CHIEF EXECUTIVE AUTHORITY'S OFFICE, SURAT URBAN DEVELOPMENT AUTHORITY (SUDA), SURAT					
<b>ONLINE E- TENDER NOTICE NO: SUDA / CB/02/2018-2019</b>					
Chief Executive Authority, Surat Urban Development Authority, "SUDA" Bhavan, behind old M.S building Nanpura, Surat-395001, invites on-line e-tender for works mentioned below from the eligible contractors as per tender clause, available on Website : <a href="https://suda.nprocure.com">https://suda.nprocure.com</a> and : <a href="https://www.nprocure.com">https://www.nprocure.com</a> during <b>Up To date:13-04-2018</b>					
<b>(A)</b>	<b>Details of Tender item:</b>				
<b>Sr. No.</b>	<b>Name of Work</b>	<b>Estimated Tender Value (Rs.)</b>	<b>EMD (Rs. In Rs.)</b>	<b>Tender fee In Rs.</b>	<b>Period of completion of Work</b>
1.	2.	3.	4.	5.	6.
<b>1</b>	<b>Bid for Supply, Installation, Configuration and Integration of Networking Equipments</b>	1,81,07,003.00	1,81,070.00	<b>4,248.00</b>	<b>3 Months</b>
<b>(B)</b>	<b>Schedule for e-tendering is fixed as under:</b>				
<b>(i)</b>	<b>Downloading of tender documents</b>	From 13-04-2018 To 23-04-2018			
<b>(ii)</b>	<b>On line submission of price-bid</b>	23-04-2018 up to 18.00 hrs			
<b>(iii)</b>	<b>Physical Submission of EMD, tender fee Technical Bid and other documents during office hours</b>	From <b>24-04-2018 To 30-04-2018</b> up to 17.00 hours in the office of Executive Engineer, Surat Urban Development Authority, Surat by RPAD / Speed Post only.			
<b>(iv)</b>	<b>Online opening of price Bid</b>	Will be intimated letter ( On-Line)			

<b>1.0</b>	<b>Bid for Supply, Installation, Configuration and Integration of Networking Equipments AT SUDA BHAVAN BUILDING AT T.P.S No:-1 ,(VESU) F.P.No.174 PAIKEE SUB PLOT NO B AT VESU , TA:-CHORYASI ,DI:- SURAT</b>		
<b>2.0</b>	<b>Down loading Tender Document:</b>		
<b>2.1</b>	Bid documents will be available on web site <a href="http://www.suda.nprocure.com">www.suda.nprocure.com</a> .		
<b>2.2</b>	Bidders wishes to participate in this tender will have to register on web site		
	<b>Sr No</b>	<b>Name of Certifying Agency</b>	<b>Website Address</b>
	1	(n)Code Solutions(GNFC)	<a href="http://www.gnvfc.com">www.gnvfc.com</a>
<b>3.0</b>	<b>Digital Certificate:</b>		
<b>3.1</b>	Bidders who wish to participate in online tenders will have to procure / should have legally valid Digital Certificate (Class III) as per Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any of the license certifying Authority of India or can contact (n)code solutions- a division of GNFC Ltd, who are licensed Certifying Authority by Govt. of India.		
<b>3.2</b>	All bids should be digitally signed, for details regarding digital signature certificate and related training involved the below mentioned address should be contacted:		
	<b>(n)Code solutions</b> <b>A division of GNFC</b> <b>301, GNFC Info tower, Bodakdev,</b> <b>Ahmedabad- 380 054 ( India )</b> <b>Tel : +91 26857316/17/18 Fax: +91 7926857321</b>		

	<b>E-mail: <a href="mailto:nprocure@gnvfc.net">nprocure@gnvfc.net</a></b> <b>Mobile: 9327084190, 9898589652</b>	
3.3	Bidders who already have a valid Digital certificate need not procure a new Digital certificate.	
4.0	<b>On line Submission of Price Bid.</b>	
4.1	Bidders can prepare & edit their offers number of times before tender submission date & time. After tender submission date & time, bidder cannot edit their submitted offer in any case. No written or online request in this regard shall be granted.	
4.2	Tenderer shall submit their offer i.e. technical bid as well as price bid in Electronic format on above mentioned website & Date shown above after Digitally signing the same.	
4.3.	Offers submitted without digitally signed will not be accepted.	
4.4	Offers in physical form will not be accepted in any case.	
5.0	<b>Submission of Tender Fees, Bid Security and other valid Documents:</b>	
5.1	<b>Tender Fee: Rs. 4,248.00</b> by Demand Draft in favour of "Chief Executive Authority, Surat Urban Development Authority, Surat", payable at Surat from any Nationalized/Scheduled Bank except Co-operative Bank. Demand draft got issued after the last date of submission of Bids will not be considered or accepted.	
5.2	Bid Security i.e. <b>EMD: Rs. 1,81,070.00</b> (Rupees One lakh Eighty One Thousand Seventy only) in the form of DD in favour of "Chief Executive Authority, Surat Urban Development Authority, Surat" from any Nationalized / Scheduled Bank except Co-operative Bank. DD issued after the last date of submission of tender will not be considered as valid or accepted in any case.	
5.3	<b>Other valid Documents required to be submitted by scanning:</b>	
	a	Experience Certificate of Approved Contractor as per tender clause.
	b	Class of contractor= Authorized Distributor
	c	Valid income tax returns filed with Income tax Department for last three years.
	d	Evidence of similar type of single completed work of at least value of 80% amount put to tender or two single work of 50% value each, or three similar works costing not less than 40% of the estimated cost within the last three years commencing from the year 2017-2018 .similar type of works means <b>Supply, Installation, Configuration and Integration of Networking Equipments</b> for semi government, government ,local government, pwd, LLP, PVT Ltd Companies etc.
	e	Valid Power of Attorney.
	f	Affidavit - Before the Notary Public
	g	Income Tax Returns of last 3 years – Attach true copy
	h	List of work on Hand
	i	Audited Financial Statement of last 3 years – Attach true copy
	j	Partnership Deed (if applicable)/PVT Ltd
	k	Please refer pre qualification Criteria
5.4	Bidder shall have to submit Technical Bid with DD for Tender Fee, DD against EMD and other Documents as mentioned above in 5.0 to 5.3 physical form so as to reach Executive Engineer, SUDA office as per Date shown in schedule during Office Hours at Chief Executive Authority, Surat Urban Development Authority, SUDA Bhavan, Nanpura, Surat - 395 001, by RPAD / Speed Post only. Tender fee, EMD and other documents received early or later than the time & date specified in schedule will not be accepted in	

	any case and the bid of that bidder shall be considered non-responsive.
5.5	Bidder has to submit the documents as said in 5.3 above and no other condition in any form shall be considered at all, at the time of evaluation of the tender i.e. The bidder shall have to submit unconditional offer without differing from any of the tender condition. If the documents as mentioned above in 5.3 are not submitted, Price Bid will not be opened.
6.0	<b>Opening of Tender:</b>
6.1	Opening of bid documents will be held on Date & time shown above in the office of Chief Executive Authority, Surat Urban Development Authority, SUDA Bhavan, B/h.Old Collector's Office, Surat - 395 001.
6.2	Intending bidders or their duly authorized representative who wish to remain present at SUDA premises at the time of tender opening can do so.
6.3	After successful completion of Technical Evaluation, price bid of only those bidders would be opened online who are found to be responsive.
7.0	<b>Contacting Officer:</b>
7.1	Further details/clarification if any required will be available from Executive Engineer, Surat Urban Development Authority, SUDA Bhavan, B/h.Old Collector's Office, Surat - 395 001.
8.0	<b>General instructions:</b>
8.1	The fees for on line tender document will not be refunded under any circumstances.
8.2	EMD in the form specified in tender document only shall be accepted.
8.3	Tenders without Tender fees, Earnest Money Deposit (EMD) and other required documents which do not ful-fill all or any of the condition or submitted incomplete in any respect will be rejected.
8.4	Conditional tender shall not be accepted.
8.5	This tender notice shall form a part of tender document.
8.6	The Internet site address for E-Tender is : <a href="https://www.suda.nprocure.com">https://www.suda.nprocure.com</a> and that of corporate web site is : <a href="https://www.nprocure.com">https://www.nprocure.com</a>
8.7	Free training camp for bidders is organized on every Saturday between 1.00 to 5.00 P.M. at (n)Code solutions, A division of GNFC, 301, GNFC Info tower, Bodakdev, Ahmadabad- 380 054 (India). Bidders are requested to take benefit of the same.
8.8	<b>SUDA/Consultant reserves the rights to reject any or all tenders without assigning any reason thereof.</b>
8.9	<ul style="list-style-type: none"> <li>contractor/successful bidder is bound to pay any amount of GST prescribed by the Govt of India as per the term of contract agreed upon during the course of execution of this contract.</li> <li>From last date of submission of tender and during the course of execution of contract if there is any change in rate of GST (Goods &amp; service tax) by the Government the same i.e. only the difference shall be reimbursed /recovered separately by SUDA subject to the submission of original receipt / proof for the amount actually remitted by the successful tenderer / contractor / successful bidder certifying that the amount of GST paid to the Government and the same shall be intimated / submitted / claimed within 30 (thirty) days from the date of payment remittance of GST within stipulated period shall be the sole responsibility of the successful bidder / contractor failing which SUDA may recover the amount due from any other payable dues with SUDA and decision of Chief executive authority shall be final and binding on the contractor /</li> </ul>



	<p>successful bidder in this regard further. The non-payment of GST to the Government may lead to the termination of contract and forfeiture of security deposit / performance guarantee amount.</p> <ul style="list-style-type: none"> <li>• Except GST . if imposition of any other new taxes /duties /levies / cess or any other incidentals etc. or any increase in he existing taxes/ duties / levies / cess or any other incidents etc. or any increase in he existing taxes / duties/levies/cess or any other Incidents etc.(Excluding GST ) are imposed during the course of the contract he same shall be borne by the contractor / successful bidder only in cash SUDA shall be liable for the same bidder /firm should have to produce attested copy of sale tax certified with proof of residence.</li> </ul>
--	---

**Chief Executive Authority,  
Surat Urban Development Authority,  
Surat.**

## MEMORANDUM OF WORKS IN BRIEF:

Online Tenders for **Supply, Installation, Configuration and Integration of Networking Equipments** AT **SUDA BHAVAN BUILDING AT T.P.S No:-1 ,(VESU) F.P.No.174 PAIKEE SUB PLOT NO B AT VESU , TA:-CHORYASI ,DI:- SURAT (WITH 5 YEARS A.M.C)**

[1]	Name of Work:			<b>Bid for Supply, Installation, Configuration and Integration of Networking Equipments AT SUDA BHAVAN BUILDING AT T.P.S No:-1 ,(VESU) F.P.No.174 PAIKEE SUB PLOT NO B AT VESU , TA:-CHORYASI ,DI:- SURAT (WITH 5 YEARS A.M.C)</b>
[2]	Estimated Cost	.....	Rs.	<b>1,81,07,003.00</b>
[3]	Earnest Money	.....	Rs.	<b>1,81,070.00</b>
[4]	Class of contractor			-----
[5]	Eligibility Criteria			Evidence of similar type of single completed work of at least value of 80% amount put to tender or two single work of 50% value each, or three similar works costing not less than 40% of the estimated cost within the last seven years commencing from the year 2017-2018
[6]	Tender Fee (Non-refundable)			<b>Rs. 4,248.00</b> in the form of Demand Draft in favour of Chief Executive Authority, SUDA, payable at Surat of any Nationalized/Scheduled Bank.
[7]	Validity period of tender offered	.....		<b>120</b> days from the stipulated date of receiving of the tender but no modification shall be allowed after on-line submission of tender
[8]	Security Deposit			Security deposit and Performance bond will be released after work completion satisfactory.(after final bill completed)
I	In the form of FDR of any Nationalized/Scheduled Bank in favour of Chief Executive Authority. SUDA or any valid Bank Guarantee.	..2.5% of Estimated Cost	Rs.	<b>4,52,675.07</b>
II	To be deducted from bills	..2.5%	Rs.	<b>(from each R.A.Bill)</b>

III	Performance Bond of Schedule Bank covering 12 months defect liability period. B.G. should be payable at Surat/FDR Of Nationalized Bank in favour of C.E.A. SUDA.	...5% Estimated Cost	Rs.	<b>9,05,350.15</b>
[9]	Time allowed for completion of the work from the date of written order to commence the work.			<b>3 (Three) Months</b>
[10]	Defect Liability Period			<b>12 months from the Date of work completion of the Work</b>
[11]	Maintenance period			<b>WITH 3 YEARS WARRENTY of all equipment's&amp;maintenance services FROM THE DATE OF COMMISSIONING.</b>
[12]	Other details			
I	Downloading of tender Documents			From <b>DT:13-04-2018 to DT:23-04-2018</b>
II	On-line Submission of Price Bid.			<b>date: 23-04-2018</b> Up to 18.00hrs.
III	Submission of EMD, Tender Fee and other document during office hours			From <b>24-04-2018 To 30-04-2018</b> During office hours up to 17.00hrs. in the office of Executive Engineer, Surat Urban Development Authority, Surat.
IV	Opening of Price Bid (Online)			Will be intimated (online)

**All rights to reject any or all the offers without assigning any reasons thereof are reserved by the authority.**

**Chief Executive Authority  
Surat Urban Development Authority  
Surat**

# TECHNICAL BID

## 1. Key Events & Dates

Event	Target Date
Notice Inviting Tender	<b>SUDA / CB/02/2018-2019</b>
Bid Fee (Non-refundable)	Rs 4,248.00 by DD or Banker's Cheque only)
EMD	Rs. 181070.00/- (by DD or Banker's Cheque only).
Last date to submit the Online Pre Bid Queries	Bidders shall have to post queries by email to 19-04-2018. on or before 16:00 hrs
Online Bid End Date (Last Date of Online Submission of Bids with all necessary documents as per tender document requirement in soft copy)	To be submitted online only on 13-04-2018 on or before 23-04-2018 up to 18:00 hrs.
Submission (in Hard Copy) of Bid Fee, EMD.	In sealed envelope strictly by RPAD/Postal Speed Post on or before 24-04-2018 to 30-04-2018 up to 18:00 hrs.
Opening of Technical Bids	To be decided and communicated later
Opening of Price Bids	To be decided and communicated later

and that of corporate web site is :<https://www.nprocure.com>

## Instructions for the Bidder

### Availing Bid Documents

Blank bid documents can be downloaded from the web site

<https://www.suda.nprocure.com&>:<https://www.nprocure.com> up to the date and time mentioned in the Online Bid Invitation Notice : **SUDA / CB/02/2018-2019**

### Addenda & Corrigenda

If required the Addenda and Corrigenda will be issued and the same will **form the part of the original bid documents** and shall override any contradicting effects in the original bid document.

### Submission of Price Bid and Technical BID

The price bid and the technical bid containing all the relevant supporting documents must be submitted online on or before the last date of submission of the bid. No documents except the Bid Fee, EMD to be accepted in hard copy. It is advised to keep the soft copy of the relevant documents ready and upload the same in advance with respect to this tender to avoid issues if any.

All the relevant soft copy should invariably follow the (n) Code portal's specific requirements pertaining to file types, file size, file name length, etc.

- **File Types:** Files with only .pdf, .doc, .txt, .xls, .ppt, .pps, .png, .gif, .jpg, .zip, .rar extension can be uploaded.
- **Filename:** It should not be more than 70 characters. Special Characters Like ('% @ < > : \* ? | & ~ ^) are not permitted.
- **File size:** Single file size should not be more than 3MB.

The bid document (duly signed and stamped) in hard copy shall be submitted by the successful bidder upon intimation from SUDA.

### Pre-bid Queries

A prospective Bidder requiring any clarification on the RFP Document may submit his queries, via email, to the following e-mail id on or before **19-04-2018 up to 16:00 hrs.**

Email Id for submission of queries: [sudaonline1978@gmail.com](mailto:sudaonline1978@gmail.com)

***The queries must be submitted in the following format:***

<b>Bidder's Request for Clarification</b>		
<b>Address of the Organization submitting request</b>	<b>Position of Person submitting request</b>	<b>Contact Details of the Organization / Authorized Representative</b>
		Tel: Mobile: Fax:

			Email:
<b>Sr. No</b>	<b>Bid Reference(s) (Section, Page)</b>	<b>Content of Bid requiring clarification</b>	<b>Points of clarification required</b>

#### **Bid Fee & Earnest Money Deposit(EMD)**

- The bidders should pay non-refundable **Bid Fee of Rs. and EMD of Rs. 1,81,070.00** - by separate Demand Draft or Banker's Cheque of any scheduled/nationalized bank payable at Surat in favour of Chief Executive Authority, Surat Urban Development Authority.
- Failure to submit Bid Fee, EMD as required shall lead to the bid being rejected summarily.  
The bid should be filled in legibly, clearly indicating the figures and its value in words too.

#### **Online Submission of the Technical Bid:**

The bidder will be required to upload the **duly signed, stamped and notarized colour scanned copy** of below mentioned documents in the same order of sequence online during e-tendering process.

1. Scan copy of Tender (Bid) Fee
2. Scan copy of EMD
3. Scan copy of Solvency certificate
4. Scan copy of the all supporting documents clarifying compliance to the eligibility criteria as stated in Section-4 Indicative list of Documents to be submitted.
5. Scan copy of Bid Format given in Section – 7, Annexure to Technical Bid

- A. Bidder's Details (signed and stamped page no.27-28)
- B. Information of Authorized Signatory / Contact Person (signed and stamped page no. 29)
- C. Authorization Letter from OEM, **Form A** (on OEM's letterhead, Page No. 30) (For Item No 1 & Item no2).
- D. Performa of Compliance letter, **Form B** (on Bidder's letterhead, Page No 31) (for all items).
- 6. Scan copy of duly filled, signed and stamped Technical Specification given in Section – 6 (To be submitted on **OEM's letterhead**)
- 7. Scan copy of duly filled, signed and stamped Technical Specification given in Section – 6 (To be submitted on **Bidder's letterhead**)
- 8. Scan copy of PAN card
- 9. Scan copy of company registration with local body and state government/central government.**
- 10. Scan copy of GST Registration Certificate. ESI & PF Registration (For atleast 15 employees.)
- 11. Scan copy of duly signed addendum and Corrigendum, if any.
- 12. Scan copy of any other document not mentioned above but required to be attached as per the tender requirement (Optional).
- 13. Authorization Letter as per Clause-2.26
- 14. The bidder have office setup in south gujarat or 250 km area surrounding surat. Technical support should be provided from that place.  
(**mandatory in case tender signatory is other than Owner/Partner/MD/Director/Company Secretary**)(Optional)

***Demand Draft for E.M.D. & Tender (Bid) fee shall be submitted in electronic format through online mode (by scanning) while uploading the bid. This submission shall mean that E.M.D. & tender fee are received for purpose of opening of the bid. Accordingly offer of those shall be opened whose E.M.D. & tender (bid) fee is received electronically. However, for the purpose of realization of D.D. bidder shall send the D.D. in original through RPAD/Speed post as per Clause-2.11 below so as to reach to within 7 days from the last date of online submission of the bid as per tender notice. Penetrative action for not submitting D.D. in original to shall be initiated and action shall be taken for abeyance of registration and cancellation of E-tendering code for one year. Any documents in supporting of bid shall be in electronic format only through online (by scanning) & hard copy will not be accepted separately.***

***All documents must be coloured scanned to be seen as original. Scanning in black and white or grey shall not be acceptable.***

***All documents must be notarized with clearly-displaying stamp, number and name of the notary.***

**Sealing, marking and submission of the Bid Fee, EMD:**

Following documents shall only be submitted in Hard Copy to SUDA by the bidder:

- Earnest Money Deposit(EMD)
- TenderFee.

The "Bid Fee, EMD" shall be put in an envelope containing Bid Fee, Earnest Money Deposit (EMD) and shall be super scribed as "**Bid Fee, EMD**"

-

**After completion of the project the successful bidder should responsible to get approval for the delivery of the goods, Its configuration, Its Security , from consultant/SUDA authority. The final completion certificate issue by consultant.**

***The envelope must be sealed and super scribed and must be sent as under:***

Details to be mentioned exactly on sealed envelop	
<b>TENDER DETAILS</b> <ul style="list-style-type: none"><li>• Notice No.: <b>SUDA / CB/02/2018-2019</b></li><li>• Bid for Supply, Installation, Configuration and Integration of Networking Equipments.</li><li>• Last date of Online Submission: 23-04-2018 up to 18:00hrs.</li></ul>	To, <b>The Executive Engineer,</b> <b>Surat Urban developement Authority ,</b> Suda Bhavan, B/H old M.S Building . Nanpura, Surat, 395001
<ul style="list-style-type: none"><li>• Last date of Physical Submission: 30-04-2018 up to 18.:00 hrs.</li></ul>	

The envelope containing EMD, Bid Fee must be sent **strictly by Postal Speed Post or Registered Post AD** only so as to reach on or before **30-04-2018 up to 18:00 hrs.** **Bids received in any other manner or mode (like courier, by person, etc.) will not be considered. SUDA won't be responsible for postal delays.**

#### **TECHNICAL BID & PRICE BID**

The technical bid & price bid must be submitted online. It should not to be sent physically, if submitted physically the bid shall be rejected.

The bidder will be bound by the details furnished to SUDA, while submitting the bid or at subsequent stage. In case, any of such documents furnished by the bidder is found to be false at any stage, it would be deemed to be a breach of terms of contract making him/her liable to legal action besides termination of contract.

**Late Bids:** Bids not reaching on or before the specified time limit will not be accepted.

**Conditional Bids:** All the terms and conditions mentioned herein must be strictly adhered to by all bidders. Conditional tenders shall not be accepted on any ground and shall be subject to rejection without assigning any reason.

#### **Withdrawal of Bids**

Bid once filled in, submitted shall not be allowed to be withdrawn till the validity of the bid



remains in force or else the EMD shall be liable for forfeiture.

**Period of Validity**

The offer should be valid for acceptance for a minimum period of **120 days** from the date of opening of the Price Bid. If required, SUDA may request the bidder to have it extended for a further period.

**Language of Bids**

The bids prepared by the bidders shall be in the English language. The supporting documents in language other than English/Hindi/Gujarati must have its English translation (which is to be duly attested by the bidder), for purposes of interpretation of the bid, the English translation shall govern.

**Right To Accept or Reject Any Bid or All Bids**

SUDA reserves the right to accept or reject any bid and annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the ground for SUDA's action.

**Firm Prices & Bid Currency**

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

**Costs to be Borne by Bidder**

All costs and expenses (whether in terms of time or money) incurred by the bidder in any way associated with the development, preparation and submission of the bid, including but not limited to attendance at meetings, discussions, demonstrations, etc. and providing any additional information required by SUDA, will be borne entirely and exclusively by the bidder.

**Acceptance of Terms & Conditions**

The bidder will, by taking participation in the bidding process and submitting the bid documents, be deemed to have thoroughly read, studied and understood the bid documents including scope of work, the terms and conditions, instructions, etc. referred there in and the same are acceptable to the bidder.

All entries in the bid form should be legible and filled clearly. If the space for furnishing information is insufficient, a separate sheet duly signed by the authorized signatory may be attached. However, the interlineations, erasures or overwriting, if any, in the Technical Bid Application must be attested by the person authorized to sign the bids.

It is to be ensured that the complete information as required by this office may be furnished by the bidders in the prescribed format. Formats submitted with incomplete information and not conforming to the requirements are liable to be rejected.

The agency will be bound by the details furnished by him/her to SUDA while submitting the bid or at subsequent stage. In case, any of such documents furnished by the agency is found to be false at any stage, it would be deemed to be a breach of terms of contract making him/her liable to legal action besides termination of contract.

The participation in the online tendering process implies that the bidder have thoroughly read, studied and understood the instructions of the Bid documents, Scope of work, formats as well as the terms and conditions referred there in and the same are acceptable to the bidder.

**Authorized Signatory**

For the purpose of submission of the bid, the bidder may be represented by either the Principal Officer (Owner/MD/Director/Company Secretary) or his duly Authorized Representative, in which case he/she shall submit a certificate of authority along with the technical bid. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the authorized representative or the principal officer.

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

**Disqualifications:** A Bidder shall be disqualified and Bids will not be considered if

- a) Hardcopy envelop does not show on it the reference of bid number and description as denoted and thus gets opened before due date(s) of openings specified in Notice Inviting Bids.
- b) The Price Bid and Technical Bid is submitted physically which leads to revelation of prices before the due date of opening of the Price Bid.
- c) The Earnest Money Deposit (EMD) & Bid fee is not deposited in the manner specified above Clause 2.11.
- d) The Bid documents are not in a language as per Clause 2.17.
- e) The Bid documents are not signed affixing stamp by the authorized signatory.
- f) The Bid documents submitted are incomplete and/or ambiguous in any respect.
- g) Non-compliance of provisions and requirements of the Bid documents.
- h) Any or all correction(s) or pasted slip(s) is/are not initialled, authenticated by the Bidder.
- i) The Bid documents are not submitted in the manner specified in the bid document.
- j) Eligibility criteria are not met with.
- k) Any form of canvassing/lobbying/influence/query regarding shortlisting, status, etc. will result in a disqualification.

Executive Engineer  
Surat Urban Development Authority

## EligibilityCriteria

The bidder must possess the requisite experience, strength and capabilities in providing the equipments necessary to meet the broad requirements, as described in the bid document.

The bidder interested in being considered for this bid must meet the following eligibility criteria.

The bidder should have completed at least **10 years of experience/operation** in the field of supply, installation and Commissioning of Network Equipments (**like LAN Switches, Servers, Firewall, EPBAX System, CCTV Sysem, Data Centre**) from bid start date and should have local office inSurat.

Bidder should have a minimum average annual turnover not less than Rs. 20.0 Cr. for last three financial years i.e. FY 2016-17, FY 2015-16, FY2014-15.

**Positive Network of bidder should be equal to or above tender value for all 3 (Three) years (Financial).**

The bidder should have completed/ undertaken assignments of Supplying and Implementing Network range of products (Networks Devices like (**like LAN Switches, Servers, Firewall, EPBAX System, CCTV Sysem, Data Centre**) etc.) during last three years (for this purpose financial years would be FY 2016-17, FY 2015-16, FY2014-15:

**One similar** completed works costing not less than the amount equal to **80 % of the estimated cost. (i.e. 80% of Rs. 1,81,07,003.00 = 1,44,85,602.40 Lakhs) OR**

**Two similar** completed works costing not less than the amount equal to **50 % of the estimated cost. (i.e. 50% of Rs. 1,81,07,003.00 = 90,53,501.50 Lacks) OR**

**Three similar** completed works costing not less than the amount equal to **40 % of the estimates cost. (i.e. 40% of Rs. 1,81,07,003.00 = 72,42,801.20 Lacks)**

Thebiddershallbethemanufacturer/OEMoftheNetworkingequipmentsspecified.Incase the bidder is not manufacturer/OEM, the bidder should be duly authorized by the manufacturer/OEM to supply the goods/equipments by submitting Manufacturer's Authorization as per Section 7 Annexure C, FormA.

**Thebiddershouldnotbeblack-listed/debarredbyanyoftheGovernmentorPublicSector Units in India as on the date of the submission of thetender.**

The bidder should furnish Bid Fee and an Earnest Money Deposit (EMD) as per Clause No. 2.11.

**The bidder should furnish Solvency Certificate amounting 20% of the consideration of the Contract from a scheduled/nationalisedbank.**

**Similar projects those the bidder are completed visited by consultant/Authority if it requires . The visit plan including of all travelling expenses should be provided by the bidder for verification. All indicated products & its makes approved by Consultant & SUDA Authority.**

**Note:**

**Bidders who wish to participate in this bid will have to register on [www.nprocure.com](http://www.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.**

## Indicative list of Documents to be submitted

Following documents shall be submitted in soft copy online by the bidder so as to ascertain the claims made. Following is the indicative list of documents that are to be submitted.

#	Description of Requirement	Proof Required to be Submitted
1.	The bidder must have completed at least 10 years of experience/operation in the field of supply, installation and Commissioning of Network Equipments (like <b>(like LAN Switches, Servers, Firewall, EPBAX System, CCTV Sysem, DATA Centre)</b> ) from bid start date and should have local office in Surat.	Copy of work order / Completion certificate/ Contract certificate issued by client clearly specifying Bidders Name, details of Work, Date of issue of respective document.  Proof of address for local office in Surat.
2.	<b>Bidder should have a minimum average annual turnover not less than Rs.20.0 Cr for last three financial years i.e. FY 2016-17, FY 2015-16, FY2014-15.</b>	<b>Copy of Audited Balance sheet of Last 3 Financial Years.</b>
3.	<p><b>The bidder should have completed/ undertaken assignments of Supplying and Implementing Network range of products (Networks Devices like Routers, Switches, Firewall/UTMs, Access Points, Data Centre etc.) during last three years (for this purpose financial years would be FY 2016-17, FY 2015-16, FY 2014-15:</b></p> <p><b>One similar</b> completed works costing not less than the amount equal to <b>80 % of the estimated cost. (i.e. 80% of Rs. 1,81,07,003.00 = 1,44,85,602.40 Lakhs)</b></p> <p style="text-align: center;">OR</p> <p><b>Two similar</b> completed works costing not less than the amount equal to <b>50 % of the estimated cost. (i.e. 50% of Rs. 1,81,07,003.00 = 90,53,501.50 Lacks)</b></p> <p style="text-align: center;">OR</p> <p><b>Three similar</b> completed works costing not less than the amount equal to <b>40 % of the estimates cost. (i.e. 40% of Rs. 1,81,07,003.00 = 72,42,801.20 Lacks)</b></p>	Copy of work order / Completion certificate/ Contract / Performance certificate issued by client clearly specifying Bidders Name, details of Work, Date of issue, amount of contract/work order value.

4.	<b>The bidder shall be the manufacturer/OEM of the Networking equipments specified. In the case the bidder is not manufacturer/OEM, the bidder should be duly authorized by the manufacturer/OEM to supply the goods/equipments by submitting Manufacturer's Authorization as per Section 7 Annexure C, Form A.</b>	<b>Submit Authorization letter from OEM as per <b>format</b> at Section – 7, Part – C (Form – A: Authorization Letter from OEM).</b>
5.	Information of Authorized Signatory / Contact Person as per Section–5, Item No 3.	Self-Declaration in this regard by the
		authorized signatory of the bidder.
6.	<b>The bidder should not be black-listed / debarred by any of the Government or Public Sector Units in India as on the date of the submission of the tender.</b>	<b>Compliance letter/ Self- declaration / Undertaking by bidder as per Section – 7, Form–B.</b>
7.	EMD & Bid Fee.	As per Section 2, Item No 2.11.
8.	<b>Solvency Certificate amounting 20% of the consideration of the Contract from a scheduled/nationalised bank.</b>	<b>Solvency Certificate as per Section –5, Item No 5.11.</b>
9.	Compliance with technical specification as mentioned in Section – 6	Duly filled Section – 6 [Technical Specification] must be submitted separately on OEM's letter head as well as on Bidder's letter head. The same must be duly signed and stamped by authorized person.
10.	<b>Product literature</b>	<b>Technical details/brochures / specification sheet of bided products</b>
11.	<b>Goods &amp; Service Tax Registration Nos.</b>	<b>Copy of the Goods &amp; Service Tax (GST) Registration Certificate duly</b>

		<b>notarized</b>
* Note: Additional documents other than above if any, required for supporting the claims made by the bidder should be attached.		

## General Terms and Conditions

The prices/charges quoted should also include:

- a. **Cost of necessary power cables, signal cables, connectors, controllers and necessary device drivers.**
- b. **Warranty as specified in Technical Specification section for each item including service and parts. Warranty of particular Item will be start from the date of delivery/supply to SUDA upto 3 years.**
- c. **Delivery & Installation at Various SUDA offices located throughout the city or at any other office to be decided by the SUDA.**
- d. **Transit Insurance, Freight and loading, unloading charges up to SUDA's site location.**
- e. **Supplying, Installation, testing, commissioning and Configuration & Integration with existing/Proposed LAN & WAN of SUDA.**

### **OEM / Implementation Partner Participation Criteria**

- i. The bidder shall be the manufacturer or the authorized service provider or authorized **service partner** of the hardware quoted.
- ii. The bidder will be required to submit a manufacturer's authorization form from all the OEMs stating that the bidder in concern would be bidding for their products/solutions and have to provide "**Authorization Letter from OEM**" (as per **Form 'A'**) in soft copy online on <https://nprocure.com> on its letter head duly signed by the authorized signatory.
- iii. The OEM for all active components should mention in an authorization letter that products or technology quoted are neither **end of sale** nor **end of life** and are not **end of support** till the successful completion of warranty period mentioned in this tender.
- iv. Bidders are required to specify only one specific make and model of each item and provide the details in the Technical bid. Providing more than one option shall not be allowed.

The bidder has to submit the "**Self-Declaration**" as per the Performance of Compliance Letter (as per **Form 'B'**) in soft copy online on <https://SUDA.nprocure.com> on its letter head duly signed by the authorized signatory.

The offer should be valid for acceptance for a minimum period of **120 days** from the date of opening of the Price Bids. If desired by SUDA, it will have to be extended for a further period also.

### **Rate Contract:**

The above network equipments will be required for connecting various departments of SUDA. The work for establishing network connectivity with these offices has already been awarded. The requirement of these devices will come up as and when the connectivity to these locations is commissioned. Hence, the work order will be issued in a staggered manner over a period of time.



The approved rate of these selected bidders shall be considered as the rates under rate contract and the same will be valid for the period of One year from date of first work order. SUDA will use this rates for procurement in desired quantity during the rate validity period i.e. one year. The quantities shown in the tender are approximate and no claim shall be entertained for variation of quantities being less or more than those mentioned in the bid. The variations in the quantities shall not vitiate the contract. The selected bidder shall be bound to supply additional quantity up to 30% (thirty percent) of tender amount/quantity at the approved rate, in accordance to any instruction, which may be given to him in writing by SUDA. The rates quoted by the bidder will be applicable on full / partial / additional quantity also.

**The Bidder may participate in the bid by quoting for one, more or all the items depending on his techno-commercial capability to supply & support that range of products.**

The right to reject accepts any/all Bids(s) without assigning any reason thereof is reserved. In 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 SUDA. No "End of Life" products should be quoted to minimize such instance till the bid validity (Make & Model quoted by the bidders should be available till the bid validity, duly supported for spares/OEM support for 5 years).

**Security Deposit:**

**The successful agency will be required to place Security Deposit @ 5% of the consideration of the Contract by Demand Draft or Banker's Cheque Payable at Surat in favour of Chief Executive Authority, SUDA of any scheduled/nationalized bank within 10 working days from the date of notice of award of contract, failing which a penalty @ 0.065% of the amount of security deposit will be imposed for delay of each day.** The EMD placed may be considered for conversion towards the security deposit and amount falling short of the required amount shall be payable. No interest shall be paid on Earnest Money Deposit and/ or Security Deposit placed.

**Solvency Certificate**

**Along with the technical bid documents, the bidder should submit Solvency Certificate amounting 20% of the consideration of the Contract from a scheduled/nationalized bank. The Solvency Certificate should valid and should not be older than one year from the bid start date.**

In case, the awardee i.e. these selected agency fails to supply specified quantity and quality of goods in time or the performance of such supply/supplies is/are not found up to the mark or found of an inferior quality vis-à-vis specifications, the security deposit will be forfeited at once.

**Agreement & Undertaking:**

The Awardee i.e. the selected agency will have to enter into an Agreement and submit an Undertaking with SUDA for supply of goods and its/their installation, Commissioning etc. on a Rs.100/- stamp paper of Government of Gujarat at the agency's own cost within 10 (Ten) working days (of SUDA) period from the date of Notice of Award. No claims for payments will be entertained without completion of this process.

**TAX LIABILITY**

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

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

Further, the non-payment of GST to the Government may lead to the termination of contract and forfeiture of Security Deposit / Performance Guarantee Amount.

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

The contractor will submit the invoice to the SUDA having GSTIN of SUDA mentioned therein and the taxes shall be shown separately on the face of the invoice so as to claim by SUDA.

SUDA GST Provisional ID/ Registration Number

Technical details/Data sheet of goods to be supplied shall be submitted along with the Bid.

Manuals relating to Hardware/Peripherals shall be supplied.

It shall be noted that the lowest rate(s)/price(s) will not be the sole criterion for accepting Bid for any of the goods but emphasis will be given to the quality of the products and even the readiness to offer innovative technology thereof.

Any offer/Bid not meeting the terms and conditions mentioned herein above will be liable for rejection without assigning any reason thereof.

**Delivery schedule:**

**The successful agency shall deliver, install, configure and integrate the goods as detailed in this Bid within 90 calendar days from the date of the Work/Purchase order. A penalty of 0.2% of the consideration of contract for a particular item will be charged for delayed supply and installation for delay of each day thereafter.**

The agency shall extend all the benefits to the SUDA such as free samples of products, materials, goods, articles including any kind of discount, rebate, commission, incentives normally offered to any other buyer in the form of gift or otherwise as part of the sales promotion scheme(s). If any such sales promotion scheme(s) is /are already launched for the product and is/are in force while the Bid process is on, mention of details of such scheme(s) must be made explicitly in the offer.

The liability as to any damages and/or loss otherwise to any movable or immovable properties, assets during loading, unloading or otherwise during the period of supply, whether knowingly or unknowingly done or occurred shall be made good forthwith to the SUDA by the Awardee agency upon a communication made therefore.

The contract shall be governed by the Laws in India and shall be subject to the jurisdiction of Surat.

Bid once filled in, submitted shall not be allowed to be withdrawn till the validity of the bid remains in force or else the EMD shall be liable for forfeiture. The agency is expected to examine the Bid Document carefully. Failure to furnish all information required as per the Bid Document may result in the rejection of the bid.

The agency will be bound by the details furnished by him/herself to SUDA, while submitting the bid at subsequent stage. In case, any of such documents furnished by the agency is found to be false at any stage, it would be deemed to be a breach of terms of contract making him/her liable to legal action besides termination of contract.

On commissioning of the product, the successful agency shall ensure maximum uptime for the product/service during warranty period. The call must be attended within **4 working hours** and problem to be resolved within **8 working hours** of reporting by either repairing or replacing the Switch/Hardware with same or higher configuration in case of product replacement is required. Failing which a penalty as per below mentioned rate will be deducted from the amount payable and/or security deposit for each day of downtime

Delay > 8 Hrs. to 3 working days	Penalty at 0.5% of the product cost per day
Delay beyond 3 working days	Penalty at 1% of the product cost per day

If any component/equipment gives continuous trouble, the bidder shall replace the same with the new compatible component/equipment of the same or higher configuration without any additional cost to the purchaser

All goods to be supplied shall be of specified or higher speed/technology/version. The SUDA or its representative shall have the right (if it so desires) to test the goods to

ascertain their conformity to the specifications. The SUDA shall notify to the agency for this purpose & nature.

**Terms of Payment:** SUDA will not make any advance payment. Payment will be made once the ordered products are delivered and installed. The Security Deposit will be released only after the successful completion of the minimum warranty period of five years.

- **50% in 15 days of Full Supply.**
- **25% after installing and configuring of the equipments satisfactory in 15 days.**
- **15% after 90 days after submitting the satisfactory report by consultant/Suda Authority.**
- **2.5 % on completion of 1<sup>st</sup> year of warranty.**
- **2.5 % on completion of 2<sup>nd</sup> year of warranty.**
- **2.5 % on completion of 3<sup>rd</sup> year of warranty.**
- **2.5 % on completion of 4<sup>th</sup> year of warranty.**

The CEO, SUDA Authority reserves the right to reject, accept any/all bid(s) without assigning any reason thereof.

The participation in the online tendering process implies that the bidder have thoroughly read, studied and understood the instructions of the Bid documents, Scope of work, formats as well as the terms and conditions referred there in and the same are acceptable to the bidder.

The agency will be bound by the details furnished by him/her to SUDA, while submitting the tender or at subsequent stage. In case, any of such documents furnished by the agency is found to be false at any stage, it would be deemed to be a breach of terms of contract making him/her liable to legal action besides termination of contract.

The total penalty could be up to 10% of the Consideration of Contract and the decision of the SUDA shall be treated as final in such cases.

#### **Consortium or JV or Sub-contracting**

The Bidder is NOT allowed to form Consortium or Joint Venture for any specific service within the scope of the tender. Sub-contracting is also NOT be permitted.

If it is found that the same firm has submitted multiple bids under different names for the proposed contract, all such tender(s) shall stand rejected and bid deposit of each such firm/establishment shall be forfeited. In addition, such firms/establishments shall be liable, at the discretion of the SUDA for further penal action including blacklisting.

The bidders shall indemnify SUDA from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:

- any negligence or wrongful act or omission by the bidder or any third party associated with bidder in connection with or incidental to this Contract; or
- any breach of terms as stated in the bid document, the bidder's Bid and the Contract with the bidder

- Any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied goods and related services or any part thereof.

## Technical (minimum) Specification

- The Bidder may participate in the bid by quoting for all the items depending on his techno-commercial capability to supply & support that range of products. Bidders are required to mention make & Model of the product.
- The bidder must clearly specify the features of the offered product vis-à-vis specification and deviation if any in the Column-C and Column-D respectively.
- The exact make and model of the product offered must be specified in the Column-E.
- The technical spec sheet and the product brochure of the product offered should also be submitted along with technical bid.
- In case the space provided is not sufficient then a separate paper as per the format below can be annexed to the bid. The same must be duly signed and stamped.
- The Technical Specification Sheet must be submitted separately on OEM's letter head (for Said Items) as well as on Bidder's letter head (for all items). The same must be duly signed and stamped by authorized person of respective entity.

Item No.	Description and Minimum Specification	Matched/ [Yes/No]	Deviation from Specification /Remarks if Any	Specify Make and Model
A	B	C	D	E

Sr. No.		Particulars of item and details of work	Unit	Qty.
1	MR	<b>LAN Switch 24 x 10/100/1000 plus 2 x 1000Mbps SFP Make: CISCO/ HP /Juniper Supplying, Installing, Configuring with security &amp; VLAN</b>	No's	24
		<ul style="list-style-type: none"> <li>24 x RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, and IEEE 802.3ab Type 1000BASE-T).</li> </ul>		
		<ul style="list-style-type: none"> <li>Minimum 2 x 1000 BASE-X SFP Fiber ports combination.</li> </ul>		
		<ul style="list-style-type: none"> <li>Auto-negotiation for speed, duplex mode and flow control &amp; Manual for 10M Half/Full/100M Half/Full.</li> </ul>		
		<ul style="list-style-type: none"> <li>Auto-MDI/MDIX.</li> </ul>		
		<ul style="list-style-type: none"> <li>IEEE 802.3X flow control.</li> </ul>		
		<ul style="list-style-type: none"> <li>Integrated LEDs for improved visual monitoring and analysis.</li> </ul>		
		<ul style="list-style-type: none"> <li>Warranty : Minimum 5 Years OEM Comprehensive Warranty with parts .</li> </ul>		
		<ul style="list-style-type: none"> <li>Chassis: 1U, rack-mounting kit included</li> </ul>		
		<ul style="list-style-type: none"> <li>Power: Power supply AC 230 V ( 50/60 Hz )</li> </ul>		
2	MR	<b>POE LAN Switch 24x 10/100/1000 plus 2x 1000Mbps SFP Maximum Power above 30 Watts .Make: Cisco / HP make /Juniper Supplying, Installing, Configuring with security &amp; VLAN</b>	No's	8
		<ul style="list-style-type: none"> <li>24 x RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, and IEEE 802.3ab Type 1000BASE-T).</li> </ul>		
		<ul style="list-style-type: none"> <li>Minimum 2 x 1000 BASE-X SFP Fiber ports combination.</li> </ul>		
		<ul style="list-style-type: none"> <li>Auto-negotiation for speed, duplex mode and flow control &amp; Manual for 10M Half/Full/100M Half/Full.</li> </ul>		
		<ul style="list-style-type: none"> <li>Auto-MDI/MDIX.</li> </ul>		
		<ul style="list-style-type: none"> <li>IEEE 802.3X flow control.</li> </ul>		
		<ul style="list-style-type: none"> <li>Integrated LEDs for improved visual monitoring and analysis.</li> </ul>		
		<ul style="list-style-type: none"> <li>Warranty : Minimum 5 Years OEM Comprehensive Warranty with parts .</li> </ul>		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		<ul style="list-style-type: none"> <li>Chassis: 1U, rack-mounting kit included</li> </ul>		
		<ul style="list-style-type: none"> <li>Power: Power supply AC 230 V ( 50/60 Hz )</li> </ul>		
<b>3</b>	<b>MR</b>	<b>All SFP Switch L3 24x 10/100/1000 plus 4x 1000Mbps LAN RJ45 Manageable Switch Supplying, Installing, Configuring with security &amp; VLAN .(Make: Cisco / HP make /Juniper )</b>	<b>No's</b>	<b>2</b>
		Interfaces: Product Shoulds Have a 26 x 10Base-T/100Base-TX/1000Base-T - SFP, 4 x RJ-45		
		Voltage Required: Product Shoulds Have a Require Voltage AC 120/230 V ( 50/60 Hz )		
		Device Type and Managibility :- Switch - 28 ports - L3 - managed-Stackable		
		Maximum Operating Temperature: Product Shoulds Have a Maximum Operating Temperature 104 F		
		Rack-Mount Specification:- Product Should Have a Rack Mount 23 in. (58.4 cm) EIA		
		Rack-Mount Kit : Product Should Have a Rack Mount Kit Inbuilt		
		Routing Protocol: Product Should Have a Support Static IPv4 routing		
		Performance: Product Should Have a Switching Capacity 72Gbps and forwarding Capacity 41.67		
		Cables Included: Product Should Have a 1x Serial Cable		
		Jumbo Frame Support:- Product Should Have a Support Jumbo Frame Support of 10 KB		
		Authentication Method: Product Should Have a Authentication Method like Secure Shell (SSH), RADIUS and TACACS+		
		Flash Memory: Product Should Have a 32 MB Flash Memory		
		Ram: Product Should Have a 256 MB RAM		
		Status Indicators: Product Should Have a Status Indicator of Link activity, port transmission speed, system		
		MAC Address Table Size: Product Should Have a MAC Adress Table Size of 16k entries		
		Capacity: Product Should Have a capacity to 4K Active VLANs		
		Ports - Product Should Have a 24 x 10/100/1000 + 2 x combo Gigabit SFP + 2 x SFP		
<b>4</b>		<b>8F 8T 16 PORT 10 G Switch10 gb switch</b>	<b>Nos</b>	<b>1</b>

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		<b>8x 10 Gigabit Ethernet 10GBase-T copper port</b>		
		<b>8x 10 Gigabit Ethernet SFP+ (dedicated)</b>		
		<b>1 x Gigabit Ethernet management port</b>		
<b>5</b>		<b>SFP 1 GB Module (Make: Cisco / HP make /Juniper or )</b>	<b>Nos</b>	<b>70</b>
<b>6</b>		<b>SFP 10 GB Module (Make: Cisco / HP make /Juniper or )</b>	<b>Nos</b>	<b>8</b>
<b>7</b>		<b>10 G Copper Patch Cord (5 Mts) Make:- Molex,/ Amp-Tyco/DGLink Suppling &amp; Installing .</b>	<b>Nos</b>	<b>8</b>
<b>8</b>	<b>MR</b>	<b>Wall Mounted 15U Rack for Switch. with all Accessories, 12 No's Of Power sockets and exhaust fans Make: Val rack / Spider or Supplying And Installing.</b>	<b>Nos</b>	<b>20</b>
		Height available : 15U		
		Width : 550mm ( Internal 19" )		
		Depth Available : 600mm		
		Standard Accessories : Cantilever Tray, Fix Shelf, Cooling Fans, Power Distribution Unit, Equipment Mounting Hardware, Cable Managers, Blank Panels		
		Usability : Computer Networking, DVR equipments, Audio Visual Equipments, TV Radio Broadcasting Equipments and other 19" electronic, telecom .		
		Rack Standard : Conforms to DIN 41494 or equivalent standard		
		Construction : Welded		
		Front Door : Lockable Toughened Glass Door		
		Basic Frame : Steel		
		Equipment Mounting : DIN Standard Slots		
		Mounting Angle : 19" Mounting angles made of formed steel		
		Standard Finish : Powder Coated		
		Top and Bottom Cover : Welded to Frame, Vented and Field Cable entry exit cut outs		
		Standard Color : Grey or Black		
		Static Load : 40 kgs.		
<b>9</b>	<b>MR</b>	<b>DATACENTRE RACKS WITH METER PDU ( Make: Emerson /Rittal</b>	<b>Nos</b>	<b>1</b>
		<b>Automatic Regulatory Apparatus for IT Systems, SC 26 (SMART CABINET)</b>		<b>1</b>

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments



		<b>Main Option Class, Automatic Regulatory Apparatus for IT Systems, SC 210 AC</b>		
		<b>Cooling Option Class, Smart Cabinet Solution</b>		
		RCU, 1.0TR, 230 Vac, 50 Hz, R410A, Rotary with Coated Condenser Coil, Air Conditioning Machine		<b>2</b>
		Low side work for PAC upto 20mtr piping	MTR	<b>20</b>
		<b>Rack Accessories Option Class, Smart Cabinet Solution</b>		
		Subassembly, Rack & Accessories, SC-2-3-RC /SC-2-7-RC		<b>1</b>
		Assembly, 42 U Server/Network Rack 800(W) x 1000(D); Front Glass Door & Rear Plain Door, with side panels for Smart Cabinet		<b>1</b>
		Assembly, 42 U Server/Network Rack 800(W) x 1000(D); Front Glass Door & Rear Plain Door, without side panels for Smart Cabinet		<b>1</b>
		Keyboard Tray For Server Rack with Brackets for 500mm Depth for 1000D panel (RAL 7021), PNR HD rack		<b>1</b>
		Kit, Sheet metal, Smart Cabinet, SC-26-AC		<b>1</b>
		Insulation Kit for Smart Cabinet SC-13-AC & SC-26-AC		<b>1</b>
		Sticker, Smart Solutions		<b>2</b>
		RCU Air Deflector Assembly		<b>2</b>
		Panel, Blanking, 1U, Tool Less, Universal		<b>50</b>
		Vertical Socket strip with 12 nos of IEC C13 Sockets & 4 nos of IEC C19 Socket with 2.5 mtr power chord with 32A MCB. RAL 9005		<b>4</b>
		<b>Monitoring Option Class, Smart Cabinet Solution-RDU-A</b>		
		Subassembly, RDU & Monitoring of SC-2-3 /SC-2-7	<b>1</b>	<b>1</b>
		RDU-A G2	<b>1</b>	<b>1</b>
		<b>Serial Temp &amp; Hum Sensor IRMS02TH- — RDU-A-S02TH</b>	<b>4</b>	<b>4</b>
		Functional modules-IRMS04DIF-four digital signal acquisition (IRM-S04DIF) - RDU-A-4DI-RJ45	<b>2</b>	<b>2</b>
		Water sensor-12V~24VDC/NORMAO LOW--10~60°C -RDU-A-S01W(5m length)	<b>1</b>	<b>1</b>
		Sound and Flash LED Alarm-12Vdc/70Ma/Rj45--10~60°C	<b>1</b>	<b>1</b>
		Smoke Detective Sensor	<b>2</b>	<b>2</b>
		Door status sensor-black-normal close-RJ45-500mA/40~70mm--10~51°C	<b>2</b>	<b>2</b>
		USB camera for RDU-A w/o recording only live monitoring	<b>1</b>	<b>1</b>
		Transit Cable, of Smoke Detector, CAT5 with TE Jack		<b>2</b>
		Subassembly, Electrical Accesories of SC-2-3-RC U6 2N/SC-2-3-RC/SC-2-7/SC-2-7 U6 2N/SC-2-7 RC /SC-2-7 RC-DS		<b>1</b>
		POD Device, 3kVA / 6kVA Smart Cabinet		<b>1</b>

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Subassembly, Packaging of SC-2-3-RC2 U6 2N/SC-2-3-RC2/SC-2-7-C2/SC-2-7-C2-U6 2N/SC-2-7 RC2/SC-27 RC2-DS		<b>1</b>
		<b>FM (Fire Systems)</b>		
		Kit, Fire Detection and Suppression System, 3U, 19 Inch Rack Mount,		<b>1</b>
		<b>LIGHT FIXER (LED)</b>		<b>2</b>
		Super Switch (power Network switch- 6kva)		<b>1</b>
		TVSS 50KA		<b>1</b>
		Emerson make 2nos. 10kva UPS		<b>2</b>
		SMF Battery 12v-42ah,16nos.(EACH UPS) 30minutes Battery backup		<b>32</b>
		Battery rack & Links	2	<b>2</b>
		Supply and Installation of False flooring 600mm * 600mm, should have min 1000kg distributed load barring capacity	PER (sq.feet)	<b>1</b>
		Supply and installation of Modular Metal False ceiling 600mm * 600mm complete with all hardware and accessories	PER (sq.feet)	<b>1</b>
<b>13</b>		Supply of Tile Lifter	1	<b>1</b>
		Cable Tray (GI)	PER(RUNING FEET)	<b>1</b>
		Supply & Fixing of 19mm Thick Nitrile rubber thermal insulation for under false ceiling	PER (sq.feet)	<b>1</b>
<b>14</b>		<b>Installation &amp; Commissioning Works</b>	<b>1</b>	
		Installation Commissioning & Project Management Charges		
<b>16</b>		<b>Rodent Repellant</b>	<b>1</b>	
<b>17</b>	<b>MR</b>	<b>24 Port Jack Panel for Cat 6 Lan Cable Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>	<b>Nos</b>	<b>24</b>
<b>18</b>		<b>RJ45 I/O WITH FACE PLATE &amp; SURFACE MOUNT Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>	<b>Nos</b>	<b>576</b>

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Characteristic : Min. Required Specification		
		Features :- Single Gang square plate, 86mmx86mmWrite on labels in transparent plastic window – supplied with plate Screw hole covers – to be supplied with plate Plug in Icons – Icon tree – to be supplied with plate Should be able to support variety of jacks – UTP, STP, Fiber, Coax etc.		
		INFORMATION OUTLET		
		Characteristic:-Min. Required Specification		
		Category 6, TIA568B.2-1 – 250MHz		
		All information outlets for 100 W, 22-24 AWG copper cable shall:		
		Use insulation displacement connectors (IDC). Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits. Be constructed of high impact, flame-retardant thermoplastic with color and icon options for better visual identification. Jack should be With spring loaded shutter with in-out effect. With Terminator cap.IDC posts should be pointed		
		Mechanical Characteristics Jack Connector		
		Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent Operating Life: Minimum 750 insertion cycles Contact Material: Copper Alloy Contact Plating: 50μ” Gold/100μ” Nickel Contact Force: 100g minimum Plug Retention Force: 15 lb.		
		IDC Connector Plastic Housing: Polycarbonate, UL94V-0 rated or		
		Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent Operating Life: Minimum 200 reterminations Contact Material: Copper Alloy IDC Contact Plating: Tin/Lead Plate Contact Force: 100g minimum Wire Accommodation: 22-24 AWG solid		

	<p>Electrical Characteristics</p> <p>Interface Resistance: 20 milliohms</p> <p>Initial Contact Resistance: 2.5 milliohms</p> <p>Insulation Resistance: &gt;100 Megaohms</p> <p>Dimensions (mm): 23.5(H) x 17.9(W) x 30.53(D)</p> <p>Weight: approx 27 gm</p> <p>Standards: TIA/EIA-568-C.2 Component Compliant, FCC Subpart F 68.5 Compliant, IEC-603-7 Compliant, ISO 11801 Class E Compliant, ETL Verified for Category 6 Component Compliance &amp; UL listed.</p>		
	24 PORT JACK PANEL		
	Characteristic		
	Be made of powder coated steel, in 24 port configurations.		
	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit. Have port identification numbers on the front of the panel. Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons. Should be upgradeable as Intelligent Patch Panel without changing the existing Patch Panel hardware and by simple retro fitting of intelligent sensors as and when required.		
	Each port / jack on the panel should be individually removable on field from the panel. Should have integrated rear cable management shelf. Should be covered by ETL verification program for compliance with TIA 568B.2-1.		
	<p>Patch Panel Characteristics</p> <p>Material: CRS (cold rolled steel)</p> <p>Thickness: .060" (1.52mm)</p> <p>Coating: Graphite Grey Powdercoat.</p>		
	<p>Mechanical Characteristics</p> <p>Jack Connector</p> <p>Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent</p> <p>Operating Life: Minimum 750 insertion cycles</p> <p>Contact Material: Copper Alloy</p> <p>Contact Plating: 50μ" Gold/100μ" Nickel</p> <p>Contact Force: 100g minimum</p> <p>Plug Retention Force: 15 lb.</p>		
	IDC Connector		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent		
		Operating Life: Minimum 200 reterminations		
		Contact Material: Copper Alloy		
		IDC Contact Plating: Tin/Lead Plate		
		Contact Force: 100g minimum		
		Wire Accommodation: 22-24 AWG solid		
		Dimensions: 24 Port with trays 44mm H x 483mm W x 98mm Weight : 1.2kg		
		Standards: TIA/EIA-568-C.2 Component Compliant, FCC Subpart F 68.5 Compliant, IEC-603-7 Compliant, ISO 11801 Class E Compliant, ETL Verified for Category 6 Component Compliance & UL Listed.		
		CAT 6 Patch cord		
		Characteristic :- Min. Required Specification		
		Cat 6 U/UTP patch cord for data networks for		
		10/100BASE-T and 1000BASE-T applications.		
		The patch cable should be made from high quality four pair 24 AWG stranded copper wire. It should be available in a range preterminated with RJ45 plugs and feature anti-snap slim strain relief slip on boots. 4 pair 24 AWG stranded copper wire Pre-terminated with WE8W plugs		
		Slim clear anti-snap slip on boots Suitable for EIA 568A or 568B wiring with LS0H sheath and RoHS Compliant		
		Mechanical Characteristics - Cable Conductor size: 24 AWG stranded copper wire Nom. O.D.: 5.9mm Sheath: LS0H Bend radius: 4X O.D. Operating temperature range: -20°C to 60°C		

		Mechanical Characteristics - Plug MIN operating life: 750 insertion cycles RJ45 plug and boot material: Clear polycarbonate Contact material: 0.35mm thick copper alloy Contact plating: Selective gold RJ45 plug dimensions compliant with: ISO/IEC 60603-7-4 and FCC 47 Part 68		
		Electrical Characteristics		
		Max voltage: 150 VAC (max)		
		Max current: 1.5A @ 25°C		
		Fire Propagation Tests:		
		LSOH Sheath: CSA FT1, IEC 60332-1, IEC 61034		
		Standards:		
		ISO/IEC 11801:2002/Amd 2:2010 Cat 6-, TIA-568-C.2 Cat 6, ETL Verified		
19	MR	<b>RJ 45 Jack Patch Cord 1 Mtr. Approved Make : Molex / Amp Tyco. Supplying, Installing And Punching With Tagging.</b>	<b>Nos</b>	<b>576</b>
20	MR	<b>RJ 45 Jack Patch Cord 2 Mtr. Approved Make : Molex / Amp Tyco. Supplying, Installing</b>	<b>Nos</b>	<b>576</b>
		Technical Specification		
		Type : Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system		
		Network support Supports ultrahigh speed data		
		networks such as Gigabit Ethernet		
		(1000 Base-T and 1000 Base-TX)		
		and beyond.		
		TIA / EIA 568-B.1 ETL Verified, UL Listed and UL channel verified- All three Certificates are mandatory		
		IEEE 802.3ab :- Zero-bit Error, ETL verified		
		Warranty :-25-year systems warranty; Warranty to cover Bandwidth of the specified and installed cabling system, and the installation costs. Site certificate must be issued by OEM		
		Performance characteristics to be provided along with bid : Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Manufacturer :All passive cabling must be from same OEM		
		Conductors : 23 AWG solid bare copper		
		Insulation : Polyethylene		
		Jacket PVC		
		Filler: PE		
		UL Listed and UL Channel verified		
		Approvals :ETL verified to TIA / EIA Cat 6		
		Frequency tested up to :- 600 MHz minimum		
		Outer dia :-6.2 mm		
		Packing :- Box of 305 meters		
		shipping weight : 305m reel in a box 24kg		
		Impedance :- 100 Ohms + / - 15 ohms		
		Performance characteristics to be provided along with bid :- Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR		
		Delay Skew: 45ns Max		
		Impedance: 100 ± 15 Ohms		
		Current Rating: 1.5 A Max		
		Conductor DC Resistance: 66.5Ω/km		
		Voltage: 150VAC		
		NVP : 67%		
		Propagation delay: 535ns/100m @250MHz		
		Mutual Capacitance: 5.6nF/100m Nominal		
		Insulation Resistance: 500 MΩ Minimum		
		Dielectric Strength: 1000 V RMS		
		Contact Resistance: 10 mΩ Max		
		Fire Propagation Test : UL 1581 VW1, IEC 60332.1, EN0256-2-1		
21	MR	<b>Firewall supporting / Makes sophos , Fortinet Supplying, Installing, Configuring with security , VLAN , Internet Security Policies.</b>	<b>Nos</b>	<b>1</b>
		<b>BasicCriteria</b>		
		The quoted OEM for UTM should have presence in India from more than last five years.		
		OEM should have support Centre in India.		
		Appliance should have ICASA certification for Firewall.		
		<b>ApplianceThroughput</b>		
		Firewall through put of 30 Gbps or higher		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		6 Gbps of Antivirus Throughput or higher		
		17,000,000 Concurrent sessions or higher		
		10 Gbps of IPS throughput or higher		
		200,000 New Sessions/second or higher		
		3 Gbps of IPsec VPN throughput or higher		
		<b>General Features</b>		
		Unrestricted Users Creation		
<b>22</b>	<b>MR</b>	<b>Wireless Access Point with Central console manageable from the firewall . Make: Makes sophos , Fortinet / Supplying, Installing, Configuring Wi-Fi Zones with security &amp; VLAN</b>	<b>No's</b>	<b>20</b>
		The Access Point should support IEEE 802.11a/b/g/n/ac standards		
		Frequency of Radio 1 shall be 2.4 GHz b/g/n or 5 GHz a/n (Selectable)		
		Should have 4 Internal Antennas		
		Should have 1 x 10/100/1000 interface		
		Should support Power over Ethernet (PoE) 802.3af		
		Radio 1 Throughput: 300Mbps		
		Radio 2 Throughput: 800Mbps		
		Support 2x2 MIMO dual stream		
		Mobility		
		Should support L2 and L3 wireless controller discovery		
		WME Multimedia Extensions support 4 priority queues for voice, video, data and background traffic		
		Should support 14 Simultaneous SSIDs		
		Support EAP-TLS EAP-TTLS/MSCHAPv2 EAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC EAP-SIM EAP-AKA EAP-FAST		
		Should support Tx power of 20dBm		
		Solution should have support for Captive portal for guest authentication		
		Management		
		Solution should have support for RTLS integration		
		Should be centrally managed through the wireless controller & not standalone		
		Should support web-based secured management interface		
		Support Wall mounting & ceiling mount options		
		Environment		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments



		Operating Temperature 32 – 104 °F (0 – 40 °C)		
		Low Voltage Directive , RoHS complaint		
		Warranty		
		Should have Hardware warranty of atleast 5 years from day 1		
		Centrally Management		
		It should be managed by asked wireless controller & must be of same OEM for easy integration		
23	MR	<b>SC-LC 5 Mtr Fiber Optic Cable Splicing Patch Cord Supplying &amp; Installing. Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>	No's	65
24	MR	<b>LC-LC 5 Mtr Fiber Optic Cable Splicing Patch Cord Supplying &amp; Installing. Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>	No's	50
		Optical Fibre Patch Cords Min. Required Specification		
		Optical Fibre Patch Cords should be with LSZH jacket as standard. Patch cords should be offer factory –controlled performance in a variety of connector, ISO performance standards and lengths. It has taken specific attention to the end-face geometry and fibre core alignment to ensure reliability and optimised performance		
		<p>Features and Benefits:</p> <p>100% Factory Tested – Guaranteed performance</p> <p>LSOH Jacket Standard – Reduces toxic/corrosive gasses emitted during combustion. Plenun and PVC also available</p> <p>Multiple Formats available - Available in Simplex, Duplex, Single Mode, Multi Mode and a variety of connector options</p>		

		<p>Mechanical Characteristics</p> <p>Cordage O.D.: 2.0mm +/- 0.1mm x 4.1mm +/- 0.2mm</p> <p>Buffer Diameter: 900μ</p> <p>Primary Coating : 245μ</p> <p>Strength Member: Aramid Yarn</p> <p>Jacket Material: LSOH IEC 61034-1 &amp; 2, IEC-60332-1, IEC-60754-1 &amp; 2</p> <p>Minimum Bend Radius: Install: 3.0cm.</p> <p>Long Term Bend Radius: 2.0cm</p> <p>Operating Temperature: -40°C to +85°C</p>		
		<p>Standards:</p> <p>ISO/IEC 1108:2008, ANSI/TIA/EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-596</p> <p>OS2 -STD ITU-T-652D</p>		
25	MR	<p><b>24 Port LIU Fully Loaded</b></p> <p><b>Male: Supplying , Installing &amp; Splicing Make: Molex/Tyco amp/D Link</b></p>	No's	16
26	MR	<p><b>12 Port LIU Fully Loaded</b> <b>Supplying , Installing &amp; Splicing with tagging</b></p>	No's	19
		Fiber LIU :		
		12 & 24 port LIU Features		
		Configurable Fibre drawer should be 1U rack mount unit for storing and terminating incoming fibre cable. It should be able to configure fibre system to suit all fibre applications.		
		It should be with management rings within system to accommodate excess fibre cordage behind the trough adapters and maintain fibre bend radius		
		It should be able to accommodates single mode and multi mode fibres		
		Properties: Adhesive labelling for port identification, Sliding drawer for ease of reconfiguring fibres, Rugged steel construction finished in attractive, Graphite finish to complement all rack mount equipment, Accommodates 2 x 12 fibre Splice Trays		
		Material: Powder coated Cold Rolled Steel		
		Accommodation: 12 & 24 Port according to application		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Fibre Termination - Direct Termination		
		Options: Fusion Splice , Mechanical Splice		
		Dimensions: 1U		
		Mounting: Rack mount		
		SC adapter :- Item specifications		
		Singlemode and Multimode Duplex SC adapters should have feature either a snap or flange mount and are designed to support the TIA/EIA commercial building & telecommunication wiring standards. Adapters should be available with snap-on shutter providing a barrier against harmful light emissions.		
		It should be with utilises standard NTT-SC and Bellcore 326 compliant, connectors, RoHS Compliant, Meets TIA/EIA 568-B.3 and IEC 874-109 standards,		
		Unique shuttered feature fpr protects from harmful light emissions		
		Shuttered should be available as an option		
		It should be available in single mode / multimode		
		Colours - Singlemode (Blue), Multimode (Beige)		
		SC Singlemode Pigtail :- Min. Required Specification		
		Characteristics Cable: 900um Buffered Outside Diameter: 900um Buffer Diameter: 900um tight buffer Minimum bend radius: install: 30 mm Operating Temperature: -20°C to 75°C Retention Strength: 100N Cable Sheath: LSOH		
		Features and Benefits: Standard or custom assemblies Precision ferrule endface geometry Controlled fibre protrusion Factory polished, tested and serialized.		

		Standards: ISO/IEC 1108:2008. ANSI/TIA/EIA-568-C.3, EIA 492, Telecordia GR-409, ICEA-596, OS2-STD ITU-T-G652 D LSOH* IEC 61034-1&2, IEC-60332-1 IEC 60754-1&2 standards		
		Optical Fibre Patch Cords Min. Required Specification		
		Optical Fibre Patch Cords should be with LSZH jacket as standard. Patch cords should be offer factory –controlled performance in a variety of connector, ISO performance standards and lengths. It has taken specific attention to the end-face geometry and fibre core alignment to ensure reliability and optimised performance		
		Features and Benefits:  100% Factory Tested – Guaranteed performance LSOH Jacket Standard – Reduces toxic/corrosive gasses emitted during combustion. Plenum and PVC also available Multiple Formats available - Available in Simplex, Duplex, Single Mode, Multi Mode and a variety of connector options		
		Mechanical Characteristics Cordage O.D.: 2.0mm +/- 0.1mm x 4.1mm +/- 0.2mm Buffer Diameter: 900µ Primary Coating : 245µ Strength Member: Aramid Yarn Jacket Material: LSOH IEC 61034-1 & 2, IEC-60332-1, IEC-60754-1 & 2 Minimum Bend Radius: Install: 3.0cm. Long Term Bend Radius: 2.0cm Operating Temperature: -40°C to +85°C		
		Standards: ISO/IEC 1108:2008, ANSI/TIA/EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-596 OS2 -STD ITU-T-652D		

27	MR	All-in-one VMS server WITH all licenses, 4 TB - 16 nos Hard Drive for camera recording storage Suppling, Installation & Configuring as per security requirements. Make: Hikvision/Pelco/Bosch .	No	1
		VIDEO AUDIO INPUT :_ IP video input :- 32-ch & 64 -ch Up to 12 MP resolution		
		Two-way audio :- 1-ch, RCA (2.0 Vp-p, 1kΩ)		
		NETWORK:_ Incoming bandwidth :- 320 Mbps, or 200 Mbps (when RAID is enabled)		
		Outgoing bandwidth :-256 Mbps, or 200 Mbps (when RAID is enabled)		
		Remote connection : 128		
		VIDEO AUDIO OUTPUT :_		
		VGA1 /HDMI1 output resolution HDMI1: 4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080p/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz VGA1: 2K (2560 × 1440)/60Hz, 1920 × 1080p/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz VGA2 /HDMI2 output resolution:- 1920 × 1080p/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz Audio output :- DECODING :- Decoding format :- H.265/H.264/MPEG4 Live view / Playback resolution :- 12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF. Synchronous playback :- 16-ch Capability:-4-ch @ 8 MP, or 16-ch @ 1080p HARD DISK : eSATA:-1 eSATA interface Capacity:- Up to 6TB capacity for each HDD DISK ARRAY: Array type :- RAID0, RAID1, RAID5, RAID10 Number of arrays:- 4 External interface:- Network interface :-2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface Serial interface :-RS-232; RS-485; Keyboard  Alarm in/out		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		USB interface :- Front panel: 2 × USB 2.0; Rear panel: 1 × USB 3.0 Alarm in/out.:-16/4		

		<p>GENERAL:- Power supply:-100 to 240 VAC, 50 to 60 Hz (Dual Power, Redundant )</p> <p>Max. Power:-200 W</p> <p>Consumption:-≤30 W (Without Hard disk.)</p> <p>Working temperature :--10 to +55°C (14 to 131°F) Working humidity:-10 to 90 %</p> <p>Chassis:- 19-inch rack-mounted 2U chassis</p> <p>Dimensions(W × D × H):- 442 × 560.5 × 93 mm</p> <p>Weight(without harddisk):-≤ 10 Kg (22 lb)</p>		
28		<p><b>2 MP 4 mm IP Cam. IR Dome With Night Vision Low lux. Make: HIKVISION/Dahua or equivalent</b></p>	No	54
		Camera:		
		Image Sensor:-1/2.8" Progressive Scan CMOS		
		Min. Illumination :Color: 0.005 lux @(F1.2, AGC ON), 0 lux with IR		
		Shutter Speed:-1/3 s to 1/100,000 s		
		Slow Shutter:-Support		
		<p>Lens:2.8 mm, horizontal field of view: 108°</p> <p>4 mm, horizontal field of view: 86.4°</p> <p>6 mm, horizontal field of view: 52°</p> <p>8 mm, horizontal field of view: 40°</p> <p>12 mm, horizontal field of view: 25°</p>		
		Lens Mount:- M12		
		Iris F1.6		
		Day & Night IR cut filter		
		DNR 3D DNR		
		Wide Dynamic Range 120dB		
		3-Axis Adjustment (bracket) Pan: 0° to 360°, tilt: 0° to 100°, rotate: 0° to 360°		
		Compression Standard		
		<p>Video Compression:-Main stream: H.265/H.264</p> <p>Sub stream: H.265/H.264/MJPEG</p> <p>Third stream: H.265/H.264</p>		
		H.264 Type: Main Profile/High Profile		
		H.264+ Support		
		H.265 Type Main Profile		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		H.265+ Support		
		Video Bit Rate :32 Kbps to 16 Mbps		
		Image		
		Max. Resolution :- 1920 × 1080		
		Main Stream:-50Hz: 50fps (1920 × 1080, 1280 × 960, 1280×720)60Hz: 60fps (1920 × 1080, 1280 × 960, 1280×720)		
		Sub Stream 50Hz: 25fps (640 × 360, 352 × 288) 60Hz: 30fps (640 × 360, 352 × 240)		
		Third Stream50Hz: 25fps (1920 × 1080, 1280 ×720, 640 × 360, 352 × 288)60Hz: 30fps (1920 × 1080, 1280 ×720, 640 × 360, 352 × 240)		
		Image Enhancement BLC/3D DNR:- Support rotate mode. Brightness, contrast, saturation, and sharpness are adjustable via web browser and client software		
		ROI (Region of Interest): Support 1 fixed region for mainstream and sub stream separately		
		Day/Night Switch::-Auto/Scheduled		
		Network:-		
		Network Storage:Support microSD/SDHC/SDXC card (128G) local storage, NAS (NFS,SMB/CIFS), ANR		
		Alarm Trigger:Motion Detection, Tampering Alarm, Network Disconnected, IP Address Conflict, Illegal Login, HDD full, HDD error		
		Protocols:TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6		
		Standard:ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI		
		General Function:		
		One-key Reset, Anti-Flicker, Heartbeat, Mirror, Password Protection, Privacy Mask, Watermark, IP Address Filter		
		Interface		
		Communication Interface: 1 RJ45 10M/100M self-adaptive Ethernet port		



		On-board Storage: Built-in microSD/SDHC/SDXC slot, up to 128 GB		
		Smart Feature-set:		
		Behavior Analysis: Line crossing detection, intrusion detection, unattended baggage detection, object removal detection		
		Line Crossing Detection: Cross a pre-defined virtual line, up to 1 pre-defined virtual lines supported		
		Intrusion Detection: Enter and loiter in a pre-defined virtual region, up to 1 pre-defined virtual regions supported		
		Object Removal Detection: Objects removed from the pre-defined region, such as the exhibits on display.		
		Unattended Baggage Detection: Objects left over in the pre-defined region such as the baggage, purse, dangerous materials		
		Face Detection: Human face appears in the image can be detected and trigger linkage method		
		General:		
		Operating Conditions: -30 °C to +60 °C (-22 °F to +140 °F), Humidity 95% or less (non-condensing)		
		Power Supply: 12 VDC ± 25%, PoE (802.3af 42.5 – 57 V, class 3)		
		Power Consumption: -I5: 12 VDC ± 25%, 7 W; PoE, 9 W -I8: 12 VDC ± 25%, 10 W; PoE, 12.5 W		
		IR Range: -I5: up to 50 m -I8: up to 80 m		
		Protection Level: IP67		
		Dimensions: Camera: Φ105 × 299.7 mm (Φ4.13" × 11.80") Package: 386 × 156 × 155 mm (15.2" × 6.14" × 6.1")		
		Weight: 1200 g (2.65 lb.)		
		Batteries Required: No		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

29		<b>2 MP 6 mm IP Cam - IR Dome With Night Vision Low lux. Make: HIKVISION/Dahua</b>	<b>No</b>	<b>29</b>
		Camera:		
		Image Sensor:-1/2.8" Progressive Scan CMOS		
		Min. Illumination :Color: 0.005 lux @(F1.2, AGC ON), 0 lux with IR		
		Shutter Speed:-1/3 s to 1/100,000 s		
		Slow Shutter:-Support		
		Lens:2.8 mm, horizontal field of view: 108° 4 mm, horizontal field of view: 86.4° 6 mm, horizontal field of view: 52° 8 mm, horizontal field of view: 40° 12 mm, horizontal field of view: 25°		
		Lens Mount:- M12		
		Iris F1.6		
		Day &Night: IR cut filter		
		DNR :3D DNR		
		Wide Dynamic Range : 120dB		
		3-Axis Adjustment (bracket) Pan: 0° to 360°, tilt: 0° to 100°, rotate: 0° to 360°		
		Compression Standard		
		Video Compression:-Main stream: H.265/H.264 Sub stream: H.265/H.264/MJPEG Third stream: H.265/H.264		
		H.264 Type: Main Profile/High Profile		
		H.264+ :Support		
		H.265 :Type Main Profile		
		H.265+ :Support		
		Video Bit Rate :32 Kbps to 16 Mbps		
		Image		
		Max. Resolution :- 1920 × 1080		
		Main Stream:-50Hz: 50fps (1920 × 1080, 1280 × 960, 1280×720)60Hz: 60fps (1920 × 1080, 1280 × 960, 1280×720)		
		Sub Stream 50Hz: 25fps (640 × 360, 352 × 288) 60Hz: 30fps (640 × 360, 352 × 240)		
		Third Stream50Hz: 25fps (1920 × 1080, 1280 × 720, 640 × 360, 352 × 288)60Hz: 30fps (1920 × 1080, 1280 × 720, 640 × 360, 352 × 240)		
		Image Enhancement: BLC/3D DNR		
		Image settings:Support rotate mode. Brightness, contrast, saturation, and sharpness are adjustable via web browser and client software		
		ROI (Region of Interest): Support 1 fixed region for mainstream and sub stream separately		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Day/Night Switch::-Auto/Scheduled		
		Network:-		
		Network Storage:Support microSD/SDHC/SDXC card (128G) local storage, NAS (NFS,SMB/CIFS), ANR		
		Alarm Trigger:Motion Detection, Tampering Alarm, Network Disconnected, IP Address Conflict, Illegal Login, HDD full, HDD error		
		Protocols:TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6		
		Standard:ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI		
		General Function:		
		One-key Reset, Anti-Flicker, Heartbeat, Mirror, Password Protection, Privacy Mask, Watermark, IP Address Filter		
		Interface		
		Communication Interface: 1 RJ45 10M/100M self-adaptive Ethernet port		
		On-board Storage: Built-in microSD/SDHC/SDXC slot, up to 128 GB		
		Smart Feature-set:		
		Behavior Analysis: Line crossing detection, intrusion detection, unattended baggage detection, object removal detection		
		Line Crossing Detection: Cross a pre-defined virtual line, up to 1 pre-defined virtual lines supported		
		Intrusion Detection: Enter and loiter in a pre-defined virtual region, up to 1 pre-defined virtual regions supported		
		Object Removal Detection: Objects removed from the pre-defined region, such as the exhibits on display.		
		Unattended Baggage Detection: Objects left over in the pre-defined region such as the baggage, purse, dangerous materials		
		Face Detection: Human face appears in the image can be detected and trigger linkage method		
		General:		
		Operating Conditions: -30 °C to +60 °C (-22 °F to +140 °F), Humidity 95% or less (non-condensing)		
		Power Supply:12 VDC ± 25%, PoE(802.3af 42.5 – 57 V, class 3)		
		Power Consumption:-12 VDC ± 25%, 6W PoE(802.3af, 42.5 – 57V, class 3), 7W		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		IR Range: up to 30 m		
		Protection Level: IP67		
		Dimensions: Camera: $\Phi$ 127.3 × 95.9 mm (5.01" × 3.78") Package: 150 × 150 × 141 mm (5.91" × 5.91" × 5.55")		
		Weight: Camera: 620 g (1.37 lb.)		
<b>30</b>	<b>MR</b>	<b>IP PBX System make: Matrix/equivalent Supplying, Installing &amp; Commissioning as per the requirement. (Make: Matrix /Panasonic )</b>	<b>No</b>	<b>1</b>
		<b>IP Extension 100 Users License expandable up tp 500 users</b>		
		<b>(A) FXS Gateway System 16 Channle</b>	<b>No</b>	<b>11</b>
		<b>(B) ) FXS Gateway System 24 Channle</b>	<b>No</b>	<b>5</b>
		<b>(C) ) FXS Gateway System 32 Channle</b>	<b>No</b>	<b>5</b>
		<u>Technical Specifications of EPABX</u>		

	<p>1. It shall employ IP at its core with IP switching technology and 100% non-blocking.</p> <p>2. It shall have distributed processing architecture, SLIC and SMT Design.</p> <p>3. The system should have VOIP and VMS at its core .i.e. VOIP and VMS Daughter-board modules should be on CPU.</p> <p>4. The VOIP module should have 64 channels per module and such two modules shall be used to increase the number of VOIP channels.</p> <p>5. The VMS module should support 64 channel expansion, VMS shall support features like call queuing, multi-language support, multiple MOH</p> <p>6. The system shall provide IP functionality at its core to support SIP/IP extensions and trunks over SIP protocol. It should be possible to support SIP Trunks and SIP/IP Extension with the single VOIP module. It should support 99SIP trunks and 999 SIP/IP users (SIP/IP Phone, Mobile softphones, UC Client) on single VOIP module.</p> <p>7. It should support 128 IP-TDM calls and 500 IP-IP calls (non-transcoding).</p> <p>7. The system shall integrate in-skin voice mail module on CPU with 2170 hours of storage capacity and dedicated mailbox for each extension.</p> <p>8. It should support SIP over TLS and SRTP. It should be IPv6 ready.</p>		
--	---	--	--

	<p>9. System should have 2 USB port with storage capacity up to 64 gb</p> <p>10. System should have Gigabit Ethernet ports and there should be provision to have LAN and WAN port separated out to create two different networks.</p> <p>§ It should have built-in multi-party conferencing. It should have minimum 15 conference possible of 3-party. The maximum number of participants required in single conference would be 21 minimum</p> <p>11. The system shall have the inbuilt auto attendant facility and shall be able to answer minimum 9 calls simultaneously and should support dial-by-name.</p> <p>12. The system should be built on a universal slot architecture and modular in design to enable seamless growth, by adding the desired necessary cards as and when required. Any peripheral card can be inserted in any slot of the platform, whereby it is possible to increase or decrease the trunk lines or subscriber lines of the system as per the requirement in future as per mentioned maximum requirement.</p> <p>13. The architecture of the System shall be capable of seamless migration to its maximum capacity by simply adding peripherals cards in the same chassis without compromising function/features of the system. The architecture should be non-stackable eliminating individual power supply for each chassis.</p>		
	<p>14. The system shall have multiple port interfaces such as analog extension lines, digital key phone, IP Extension, C.O. Line, GSM/3G, E &amp; M Line, PRI/E1 and VoIP. All interfaces shall be in the form of expansion cards and can be plugged into the universal slots of the system as and when require in the future. VoIP and Voice mail Daughter-board module should be on CPU.</p> <p>§ The system should retain traditional networks (CO, ISDN, and E&amp;M &amp; Radio) along with access GSM networks in single platform just by adding expansion cards.</p>		

		<p>15. It should be suitable for DTMF as well as the FSK type of telephone instrument. It should be possible to reach the maximum capacity of main system up to 240 extensions, 8 PRI and 96 digital extensions, 64 CO lines, 99 SIP trunks, 1000 IP extension, 16 radio ports &amp; 32 E&amp;M, 32 BRI and 40 GSM trunk on the same platform without adding any cabinet and with single power supply. 16.n</p> <p>The system memory should be based on Flash EPROM for higher reliability and faster rebooting minimum storage capacity of 256 MB ROM, 2GB RAM &amp; 900 MHZ clock speed</p> <p>System power supply should be inbuilt and SMPS type, It shall also work on 230 VAC supply or 48 V DC +/- 20%</p> <p>§ The system should support 19" Rack mount with 4U enclosure, wall mount &amp; table top mount</p> <p>§ System shall support E &amp; M Port to connect E &amp; M Lines</p> <p>§ System shall support Magneto ports to connect Magneto phone</p> <p>§ The system shall have an ISDN Digital platform and shall be compatible with ISDN PRI line of Local Service Provider.</p>		
--	--	--	--	--

		<p>§ SYSTEM should support networking over PRI with fiber optic connectivity. External media converter should not be required.</p> <p>§ Multiple systems at different locations should be able to connect with each other without any link licenses.</p> <p>§ The system should have inbuilt Power failure transfer functionality on card. No external devices for Power failure required. The system should have built-in Power Failure Transfer for minimum 4 ports of PSTN Trunks.</p> <p>§ The system should have set of hybrid cards such as 4 PSTN+16 Extensions, 4 DKP+16 Extensions, 2 PSTN+2 DKP+16 Extensions, 4 PSTN+2 DKP+12 Extensions, 4 PSTN+2 DKP+8 Extensions to save on the resources of universal slots and investment only on the required number of ports.</p> <p>§ The system should have in-skin GSM card so that the multiple SIMs can be inserted on the GSM card plugged on to the PBX platform. Hence, the calls on GSM mobile can be routed through this SIMs and contribute in reduction of overall telecom bill. No requirement of external device for GSM connectivity.</p> <p>§ System should support HF/VHF/UHF radio from a single card.</p>		
--	--	--	--	--



		<p>§ The System should support Radio Connectivity with the in-skin card. It should have minimum 4 radio interface port per card. It should support HF/VHF/UHF with the same RIC card. It should be interoperable with following make of Radios:</p> <ul style="list-style-type: none"> <li>• MOTOROLA GM338</li> <li>• TADIRAN RT 6001/PRC 6020 (HF)</li> <li>• TADIRAN RT - 7330M VHF</li> <li>• STARS V MKII 25 W</li> <li>• LUP 322(V/VHF trans receiver)</li> <li>• HYT TM -610</li> <li>• CODAN HF Radio</li> <li>• Motorola XIR M8268 UHF</li> <li>• ICOM IC-F 110</li> </ul> <p>§ The offered exchange should be an ISDN ready switch. The system platform should always be ready for ISDN and only the necessary in skin ISDN cards need to be added for functionality.</p> <p>§ The system should support SMPP protocol to send/receive SMS using in-skin GSM SIMs within System. Any software required to send/receive SMS shall also to quote separately.</p> <p>§ The system shall have at least 1 RS232 ports for SMDR/PMS/CAS Interface.</p> <p>§ The system can be programmed through Analog telephone, Digital key phone, and Ethernet without any external devices.</p>		
--	--	--	--	--

	<p>§ The system shall have a built-in remote maintenance facility. The system can be programmed remotely over the internet without any modem required on the PBX side.</p> <p>§ The call ringing sequence would be programmable and have options such as simultaneous, hunting off, round robin and delayed simultaneous.</p> <p>§ Caller line identification (CLI) on Analog and digital/PRI trunks shall be built-in for both DTMF and FSK telephone instrument.</p> <p>§ Detail reports of all system parameters should be generated through the SMDR port of System. External third party Billing software shall not be required for basic report generation. Reports shall be directly saved in PDF format.</p> <p>§ The offered system should be QSIG ready (for PRI) for Networking and Feature Transparency between two or more exchanges.</p> <p>§ Each port of the system shall be programmable. It shall have programmable features port-wise/extension-wise.</p> <p>§ The system shall support flexible numbering for extensions such as it may have extensions with 1 digit, 2 digits and up to 6 digits numbers as well as in combination of all.</p> <p>ming and internal call reports shall be generated on SMDR port of the system. It shall also be available online through Ethernet Port.</p> <p>§ The system should have built-in outgoing Call Log buffer of 6000 calls, incoming call log buffer of 5000 and call log buffer of 1000 internal calls.</p> <p>§ Voice guided auto-attendant shall be preferably built-in.</p> <p>§ System should support dial form the directory. There shall be minimum 900numbers possible and shall also possible to dial it as an abbreviated number.</p> <p>§ Features given to an extension shall be accessed from any other extension by dialing the secret codes.</p> <p>§ System features shall have class of service, night service, conference, auto diagnostic etc. Class of service shall be unrestricted. STD restricted and semi restricted</p> <p>§ System shall support SMS to Email and Email to SMS Feature without use of any additional software</p> <p>§ System shall support SMS on NO reply</p> <p>§ System shall support 128 VMS extensions over QSIG</p> <p>§ SNTP client should be inbuilt in System</p> <p>§ The system shall have features as CLI based routing, call duration control, least cost routing i.e. time, number or combination of both.</p> <p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ The system shall have a conversational recording in the mail</p>		
--	---	--	--

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

	<p>box should be available with voice mail system card of System.  Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).</p> <p>§ System's UC Client should support up to 1000 DSS, 600 BLF and drag &amp; drop conference</p> <p>§ The system must support following features of IP telephony: Dynamic DNS, Registrar Server, Proxy Server, Presence Server, NAT and STUN, VoIP codec G.711u, G.711a, G.723, G.729.</p> <p>§ Varied type of open SIP IP Terminals such as IP Phone, SIP soft phone and Mobile SIP Client shall be supported.</p> <p>§ The manufacturer should also have an application for Android and iPhone so that the enterprise mobility can be extended for the Smartphone users.</p> <p>§ Supplied IP Phones and PC based soft phones should be of the same manufacturer.</p> <p>§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).</p> <p>§ IP phone operational functionality should be same as Digital Extension of PBX</p> <p>§ system shall support SNMP</p> <p>§ System shall support video conferencing over ISDN PRI/BRI</p> <p>§ System should have capability to support Video call Over IP</p> <p>§ System shall support Direct termination of E1 over Fiber without using any external media convertor</p> <p>§ System shall support in skin Data card for data transfer over E1 copper &amp; E1 fiber</p> <p>§ System should be Fully operational between Temperature 0°C to +45°C</p> <p>§ System should be certified for EMI/EMC, CE, FCC15B,</p> <p>System should have in-skin Voice Mail System with following features:</p> <p>§ Attend as much as 64 calls simultaneously with flexibility of routing callers to desired extension or delivering information depend upon the selection</p> <p>§ Dial-by-Name to reach the intended user directly without knowing/remembering extension number</p> <p>§ Selectively allocate voicemails to users with the flexibility of customizable mailbox size and greetings for All/Selective users</p> <p>§ Group mailbox to share messages between departmental groups</p> <p>§ Anywhere access to voice mail with just a phone call</p> <p>§ Password protected secured voice mail access</p> <p>§ Record important conversations for future reference and record maintenance</p> <p>§ Redirection of voice mails to another extension in case of non-</p>		
--	---	--	--

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		<p>availability</p> <p>§ Tag voice mails while Forwarding Messages to Another Mailbox</p> <p>§ Broadcast voice message to a group of personnel, at a go</p> <p>§ Distribution lists for delivery of voice mails to different set of users or groups</p> <p>§ Message wait indication via ring, change in dial-tone, voice message or message wait lamp</p> <p>§ Notification of a new voice mail via email alert or a phone call</p> <p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ Operator features shall have the assistance to extension, attended call transfer, call intercept, indication of call waiting, night service control etc.</p>		
--	--	---	--	--

		<p>§ The system shall have built-in web based software programming tool for system administration.</p> <p>§ Access codes, system timers and access to features shall be programmable. § Storage of outgoing, incoming and internal call reports shall be generated on SMDR port of the system. It shall also be available online through Ethernet Port.</p> <p>§ The system should have built-in outgoing Call Log buffer of 6000 calls, incoming call log buffer of 5000 and call log buffer of 1000 internal calls.</p> <p>§ Voice guided auto-attendant shall be preferably built-in.</p> <p>§ System should support dial form the directory. There shall be minimum 900numbers possible and shall also possible to dial it as an abbreviated number.</p> <p>§ Features given to an extension shall be accessed from any other extension by dialing the secret codes.</p> <p>§ System features shall have class of service, night service, conference, auto diagnostic etc. Class of service shall be unrestricted. STD restricted and semi restricted</p> <p>§ System shall support SMS to Email and Email to SMS Feature without use of any additional software</p>		
--	--	--	--	--

	<p>§ System shall support SMS on NO reply</p> <p>§ System shall support 128 VMS extensions over QSIG</p> <p>§ SNTP client should be inbuilt in System</p> <p>§ The system shall have features as CLI based routing, call duration control, least cost routing i.e. time, number or combination of both.</p> <p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).</p> <p>§ System's UC Client should support up to 1000 DSS, 600 BLF and drag &amp; drop conference</p> <p>§ The system must support following features of IP telephony: Dynamic DNS, Registrar Server, Proxy Server, Presence Server, NAT and STUN, VoIP codec G.711u, G.711a, G.723, G.729.</p> <p>§ Varied type of open SIP IP Terminals such as IP Phone, SIP soft phone and Mobile SIP Client shall be supported.</p>		
--	---	--	--

		<p>§ Supplied IP Phones and PC based soft phones should be of the same manufacturer.</p> <p>§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).</p> <p>§ IP phone operational functionality should be same as Digital Extension of PBX</p> <p>§ system shall support SNMP</p> <p>§ System shall support video conferencing over ISDN PRI/BRI</p> <p>§ System should have capability to support Video call Over IP</p> <p>§ System shall support Direct termination of E1 over Fiber without using any external media convertor</p> <p>§ System shall support in skin Data card for data transfer over E1 copper &amp; E1 fiber</p> <p>§ System should be Fully operational between Temperature 0°C to +45°C</p> <p>§ System should be certified for EMI/EMC, CE, FCC15B,</p>		
--	--	---	--	--

		<p>System should have in-skin Voice Mail System with following features:</p> <p>§ Attend as much as 64 calls simultaneously with flexibility of routing callers to desired extension or delivering information depend upon the selection</p> <p>§ Dial-by-Name to reach the intended user directly without knowing/remembering extension number</p> <p>§ Selectively allocate voicemails to users with the flexibility of customizable mailbox size and greetings for All/Selective users</p> <p>§ Group mailbox to share messages between departmental groups</p> <p>§ Anywhere access to voice mail with just a phone call</p> <p>§ Password protected secured voice mail access</p> <p>§ Record important conversations for future reference and record maintenance</p> <p>§ Redirection of voice mails to another extension in case of non-availability</p> <p>§ Tag voice mails while Forwarding Messages to Another Mailbox</p> <p>§ Broadcast voice message to a group of personnel, at a go</p> <p>§ Distribution lists for delivery of voice mails to different set of users or groups</p> <p>§ Message wait indication via ring, change in dial-tone, voice message or message wait lamp</p>		
		<p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ Operator features shall have the assistance to extension, attended call transfer, call intercept, indication of call waiting, night service control etc.</p>		



		<ul style="list-style-type: none"> <li>• Abbreviated Dialing (Global &amp; Personal)</li> <li>• Access Codes (Programmable)</li> <li>• Account Codes (Forced)</li> <li>• Alarm-Multiple</li> <li>• Alarms</li> <li>• Alarm-Snooze</li> <li>• Allowed and Denied Lists</li> <li>• Alternate Number Dialing</li> <li>• Anonymous Call Rejection (SIP)</li> <li>• Auto Call Back (Busy, No Reply)</li> <li>• Auto Redial</li> <li>• Auto-Attendant</li> <li>• Background Music</li> <li>• Backup SMDR</li> <li>• Backup-System Configuration</li> <li>• Backup-System Software</li> <li>• Barge-in</li> <li>• Boss Ring</li> <li>• Call Budget on Extensions</li> <li>• Call Budget on Trunks</li> <li>• Call Chaining</li> <li>• Call Cost Calculation</li> <li>• Call Duration Control</li> <li>• Call Follow Me</li> <li>• Call Forward (Busy, No Reply , Dual Ring and to External Number)</li> <li>• Call Park (General and Personal Orbit)</li> <li>•</li> </ul>		
		<ul style="list-style-type: none"> <li>• Call Pick Up (Group and Selective)</li> <li>• Call Progress Tones (Programmable)</li> <li>• Call Splitting</li> <li>• Call Taping</li> <li>• Call Transfer (Screened, On Busy , While Ringing, Trunk to Trunk)</li> <li>• Calling Line Identification &amp; Presentation (CLIP)</li> <li>• Calling Line Identity Restriction (CLIR)</li> <li>• Cancel All Station Features</li> <li>• Class of Service (COS)</li> <li>• CLI based Routing</li> <li>• Closed User Group (With/Without Exchange ID)</li> <li>• Computer Telephony Integration (CTI)</li> <li>• Conference Dial-in</li> </ul>		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		<ul style="list-style-type: none"> <li>• Conference – Multiple Participants</li> <li>• Conflict Dialing</li> <li>• Continued Dialing</li> <li>• Conversation Recording</li> <li>• Date and Time Format</li> <li>• Daylight Saving Time (DST)</li> <li>• Direct Inward Dialing (DID)</li> <li>• Day-Night Mode</li> <li>• Department Call</li> <li>• Digest Authentication (on SIP)</li> <li>• Direct Dialing-In (DDI on T1/E1/PRI)</li> <li>• Direct Inward System Access (DISA)</li> <li>• Direct Outward System Access (DOSA)</li> <li>• Direct Station Selection Console</li> <li>• (DSS Console)</li> <li>• Distinctive Rings</li> <li>• Do-Not-Disturb (DND)</li> <li>• Do-Not-Disturb (Remote)</li> <li>• Dual Ring</li> <li>• Dynamic DNS (DDNS)</li> <li>• Dynamic Lock (Manual)</li> <li>• E-mail Notification (VMS)</li> <li>• Embedded Registrar and Proxy Servers (SIP Server)</li> <li>•</li> </ul>		
--	--	--	--	--

		<p>Emergency Calls Detection and Reporting</p> <ul style="list-style-type: none"> <li>• Emergency Conference</li> <li>• Emergency Number Dialing</li> <li>• External Call</li> <li>• External Call Forward (ECF)</li> <li>• Fax over IP (T .38 Relay and Pass-Through)</li> <li>• File Transfer Protocol</li> <li>• Flexible Numbers (Up to 6 Digits)</li> <li>• Forced Answer</li> <li>• Help Desk</li> <li>• Hold</li> <li>• Hot Desking</li> <li>• Hot Outward Dialing (With/Without Number &amp; Delay)</li> <li>• Hotline (Immediate and With Delay)</li> <li>• Hunting/User Group</li> <li>• Incoming Call Management</li> <li>• Installation Wizard</li> <li>• Internal Call</li> <li>• Internal Call Restriction</li> <li>• Interrupt Request</li> <li>• Last Caller Recall</li> <li>• Last Number Redial</li> <li>• Least Cost Routing (Number , Time and Service • Provider to Service Provider , Carrier Pre-Selection)</li> <li>• Live Call Screening (VMS)</li> <li>• Live Call Supervision</li> <li>• Logical Partitioning</li> <li>•</li> </ul>		
--	--	--	--	--

	<p>Maturity (Polarity Reversal, Delay , CPD)</p> <ul style="list-style-type: none"> <li>• Menu based Command (DKP)</li> <li>• Message Wait Indication</li> <li>• Missed Calls</li> <li>• Music-On-Hold</li> <li>• Mobile Port (GSM/3G Port)</li> <li>• Multi-Stage Dialing</li> <li>• Mute</li> <li>• Name Programming (Station, Trunk)</li> <li>• NAT and STUN (VoIP)</li> <li>• Network Selection (GSM)</li> <li>• Off-Hook Alert (DKP)</li> <li>• Online SMDR</li> <li>• Operator (Single, Multiple)</li> <li>• Override</li> <li>• Paging (Internal )</li> <li>• Peer-to-Peer Calling</li> <li>• Priority (Intercom and Trunk)</li> <li>• Privacy</li> <li>• Programming the System</li> <li>• (Using SLT , DKP , Ethernet Port)</li> <li>• Quick Dial</li> <li>• Raid</li> <li>• Real Time Clock</li> <li>• Region Selection</li> <li>• Remote Alarm</li> <li>• Remote Call Forward</li> <li>• Remote Programming</li> <li>• Routing Group</li> <li>• Return Call to Original Caller (RCOC)</li> <li>• Room Monitor</li> <li>• RS232C Port</li> <li>• SMDR Posting (Call Accounting System Interface)</li> <li>• SMS Gateway</li> <li>• SMS Server</li> <li>• Self-Ring Test</li> <li>• Selective Trunk Access</li> <li>• SIP and RTP QoS (VoIP)</li> <li>• Station Groups</li> <li>• Station Message Detail Record - 12000 Records)</li> <li>• Station Name</li> <li>• System Activity Log and Display</li> <li>• System Administrator (SA) Mode</li> </ul>		
--	---	--	--

		<ul style="list-style-type: none"> <li>• Remote Programming</li> <li>• Routing Group</li> <li>• Return Call to Original Caller (RCOC)</li> <li>• Room Monitor</li> <li>• RS232C Port</li> <li>• SMDR Posting (Call Accounting System Interface)</li> <li>• SMS Gateway</li> <li>• SMS Server</li> <li>• Self-Ring Test</li> <li>• Selective Trunk Access</li> <li>• SIP and RTP QoS (VoIP)</li> <li>• Station Groups</li> <li>• Station Message Detail Record - 12000 Records)</li> <li>• Station Name</li> <li>• System Activity Log and Display</li> <li>• System Administrator (SA) Mode</li> </ul>		
--	--	--	--	--

		<ul style="list-style-type: none"> <li>• System Engineer (SE) Mode</li> <li>• System Fault Log</li> <li>• System Security (Password)</li> <li>• Time Tables</li> <li>• Time Zone Display</li> <li>• Toll Control</li> <li>• Trunk Access Group</li> <li>• Trunk Auto Answer</li> <li>• Trunk Connectivity (BRI)</li> <li>• Trunk Connectivity (GSM/3G)</li> <li>• Trunk Connectivity (T1/E1/ISDN PRI)</li> <li>• Trunk Connectivity (TWT or CO)</li> <li>• Trunk Connectivity (VoIP)</li> <li>• Trunk Reservation</li> <li>• Upgrading the Software</li> <li>• User Absent/Present</li> <li>• Virtual Stations</li> <li>• Voice Message Applications</li> <li>• Voice Prompts for Tones</li> <li>• Walk-In Class of Service (Single/Multiple calls)</li> <li>• Web based Programming</li> <li>• GSM Trunk Connectivity</li> <li>• Automatic Call to Missed (Predefined) Calls on Trunks</li> <li>• Routing of calls to only permissible legal networks (Logical Partitioning)</li> <li>• SMDR through Ethernet Port</li> </ul>		
		Technical Specification of Digital Key phone:-		
		<ul style="list-style-type: none"> <li>• 240*64 Pixels Graphical LCD with Backlit</li> <li>• LED for Incoming/Ongoing Call, Mute, Hold</li> <li>• Add on 32 key module support, maximum 4 key modules shall be supported</li> <li>• Intuitive User Interface with Icons</li> <li>• Multiple Languages Caller ID with Name, Number</li> <li>• 49 keys including 4 Context Sensitive Hard Keys</li> <li>• 1 x RJ9 Handset Port</li> <li>• 1 x RJ9 Headset Port</li> <li>• 1 x 3.5 mm Headset Port</li> <li>• Installation: Wall Mount, Table-top,</li> <li>• CE, FCC-15. RoHS certified</li> </ul>		

		<ul style="list-style-type: none"> <li>• Mute</li> <li>• Call Hold</li> <li>• Do Not Disturb</li> <li>• Speed Dial</li> <li>• Hotline</li> <li>• Redial</li> <li>• Call Back</li> <li>• Auto Answer</li> <li>• Call Forward</li> <li>• Call Waiting</li> <li>• Call Transfer</li> <li>• Room Monitoring</li> <li>• Conference</li> <li>• Directory</li> <li>• Call Logs</li> <li>• Dial-by-Name</li> <li>• Message wait Lamp</li> <li>• Ringer Lamp</li> <li>• Voice Mail</li> <li>• Call Pickup – Group and Selective</li> </ul>		
		<p><u>Technical Specification of Type-1 IP Phone:</u></p> <ul style="list-style-type: none"> <li>• <u>132 x 64 Pixel Graphical Display</u></li> <li>• <u>Context Sensitive and Fixed Function Keys</u></li> <li>• <u>Full Duplex Speakerphone with AEC, VAD, CNG</u></li> <li>• <u>TLS/SRTP for Voice Security</u></li> <li>• <u>Integrated PoE (802.3af)</u></li> <li>• <u>Auto Provision, TR069</u></li> <li>• <u>IPv6 Ready, PC and LAN Ports</u></li> <li>• <u>132x64-pixel Graphical LCD</u></li> <li>• <u>LED for Incoming/Ongoing Call, MWI, Mute, Hold</u></li> <li>• <u>Intuitive User Interface with Icons and Soft keys</u></li> <li>• <u>Multiple Languages</u></li> <li>• <u>Caller ID with Name, Number</u></li> <li>• <u>2 x 10/100 Mbps LAN &amp; PC Ports</u></li> <li>• <u>29 keys including 4 Soft Keys</u></li> <li>• <u>1 x RJ9 Handset Port</u></li> <li>• <u>1 x RJ9 Headset Port</u></li> <li>• <u>Installation: Wall Mount, Table-top</u></li> <li>• <u>CE, FCC-15 (Class-B), RoHS</u></li> </ul>		

		<p>Phone Book</p> <ul style="list-style-type: none"> <li>• Local Phonebook up to 1000 entries Black List</li> <li>• XML Remote Phonebook</li> <li>• Intelligent Search Method</li> <li>• Phonebook Search/Import/Export</li> <li>• Call History: Dialed/Received/Missed/Forwarded</li> </ul>		
		<p>Phone Features</p> <ul style="list-style-type: none"> <li>• Full-duplex Hands-free Speakerphone with AEC</li> <li>• Codecs: G.711(A/μ), G.722, G.723, G.729, G.726, iLBC</li> <li>• DTMF: In-band, Out-of-band (RFC 2833) and SIP INFO</li> <li>• VAD, CNG, AEC, PLC, AJB, AGC</li> <li>• 1 VoIP Account</li> <li>• Call Hold, Mute, DND</li> <li>• One-touch Speed Dial, Hotline</li> <li>• Redial, Call Return, Auto Answer</li> <li>• Call Forward, Call Waiting, Call Transfer</li> <li>• Local 3-way Conferencing</li> <li>• Direct IP Call without SIP Proxy</li> <li>• Ringtone Selection/Import/Delete</li> <li>• Keypad Lock, Emergency Call</li> <li>• Set Date &amp; Time Manually or Automatically</li> <li>• Dial Plan, XML Browser, Action URL/URI</li> <li>• Instant Messaging (Web UI and Phone)</li> </ul> <p>Call Management</p> <ul style="list-style-type: none"> <li>• Anonymous Call (CLIR)</li> <li>• Anonymous Call Rejection</li> <li>• Message Waiting Indicator (MWI)</li> <li>• Voicemail, Call Pickup</li> <li>• Intercom, Music on Hold</li> <li>• Call Completion, Hot-desking</li> <li>• Dial out Number from Web UI</li> </ul>		



		<p>Networking and Security</p> <ul style="list-style-type: none"> <li>• SIP v1 (RFC2543), v2 (RFC3261)</li> <li>• IPv6</li> <li>• NAT Transverse: STUN Mode</li> <li>• Proxy Mode and Peer-to-Peer SIP Link Mode</li> <li>• IP Assignment: Static/DHCP/PPPoE</li> <li>• HTTP/HTTPS Web Server</li> <li>• Time and Date Synchronization using SNTP</li> <li>• UDP/TCP/DNS-SRV (RFC 3263)</li> <li>• QoS: 802.1p/Q Tagging (VLAN), Layer 3 ToS, DSCP</li> <li>• SRTP for Voice</li> <li>• Transport Layer Security (TLS)</li> <li>• HTTPS Certificate Manager</li> <li>• AES Encryption for Configuration File</li> <li>• Digest Authentication using MD5/MD5-sess</li> <li>• IEEE802.1X</li> <li>• SNMP v1/v2</li> </ul>		
		<p>Management</p> <ul style="list-style-type: none"> <li>• Configuration: Browser/Phone/Auto Provision</li> <li>• Auto Provision via FTP/TFTP/HTTP/HTTPS for Mass Deploy</li> <li>• Server Redundancy</li> <li>• Factory Reset</li> <li>• Soft Reboot</li> <li>• Package Tracing</li> <li>• System Log</li> </ul>		
		<p>Power Supply</p> <ul style="list-style-type: none"> <li>• Power Adapter: 5VDC/600mA (Included in the Box)</li> <li>• Power over Ethernet (IEEE 802.3af)</li> <li>• Power Consumption: 5W (Typical)</li> <li>• Connector: DC Power Jack</li> </ul>		
		Technical Specification for Type-2 IP Phone		

		<ul style="list-style-type: none"> <li>• 240*64 Pixels Graphical LCD with Backlit</li> <li>• LED for Incoming/Ongoing Call, Mute, Hold</li> <li>• Add on 32 key module support, maximum key modules shall be supported</li> <li>• Intuitive User Interface with Icons</li> <li>• Multiple Languages Caller ID with Name, Number</li> <li>• 49 keys including 4 Context Sensitive Hard Keys</li> <li>• 1 x RJ9 Handset Port</li> <li>• 1 x RJ9 Headset Port</li> <li>• 1 x 3.5 mm Headset Port</li> <li>• Installation: Wall Mount, Table-top</li> <li>• CE,FCC-15,RoHS</li> <li>• Power over Ethernet (IEEE 802.3af)</li> <li>• Power Consumption: 5W (Typical)</li> <li>• Connector: DC Power Jack, 5VDC/600mA</li> <li>• Operating Temperature Range =0 to 45°C</li> <li>• Storage Temperature = 0 to 55°C</li> <li>• Message wait Lamp</li> <li>• Ringer Lamp</li> <li>• Voice Mail</li> <li>• Call Pickup – Group and Selective</li> <li>• Paging</li> </ul>		
		Phone Features		
		<ul style="list-style-type: none"> <li>• Mute</li> <li>• Call Hold</li> <li>• Do Not Disturb</li> <li>• Speed Dial</li> <li>• Hotline</li> <li>• Redial</li> <li>• Call Back</li> <li>• Auto Answer</li> <li>• Call Forward</li> <li>• Call Waiting</li> <li>• Call Transfer</li> <li>• Room Monitoring</li> <li>• Conference • Directory</li> <li>• Call Logs</li> <li>• Paging</li> <li>• Dial-by-Name</li> </ul>		

		Technical Specification of Mobile UC client for Android/iPhone:		
		<ul style="list-style-type: none"> <li>• Shall be installed on android OS 2.2 or later</li> <li>• Shall be installed on IOS 7 or later</li> <li>• Comprehensive Call Management</li> <li>• One-Touch Access to PBX Features</li> <li>• Corporate Directory Integration</li> <li>• Video Calling</li> <li>• Favorites</li> <li>• Presence Sharing and Instant Messaging</li> <li>• Voice Mail Access</li> <li>• Conversation Recording</li> <li>• Call management – call hold, transfer, forward, DND and intercom</li> <li>• Multiparty audio conferencing</li> <li>• Blind transfer</li> <li>• Menu options - Call Pickup, Paging, Message wait, Call Retrieve, Alarm and Reminder, Dynamic Lock, Dial-In Conference, CLIR, Room monitoring &amp; Call supervision</li> <li>• Dial by extension</li> <li>• Call Screening - ACB, Forced Answer, Global Hold, General Call Park, Call Chaining,IR&amp; Barge-IN</li> <li>• Multiple call support</li> <li>• SMS over IP</li> <li>• One touch transfer</li> <li>• Wi-Fi to cellular handover</li> <li>• Multiple language support</li> <li>• Call toggle</li> <li>• Auto call back</li> <li>• Auto redial</li> <li>• Forced answer</li> <li>• Open a door</li> <li>• Call logs</li> <li>• Missed calls notification</li> <li>• DND override</li> </ul>		
		Technical Specification of Windows Desktop based UC Soft client:		

	<ul style="list-style-type: none"> <li>• Windows Desktop based UC Client for Seamless Collaboration, shall support installation on windows 7 service pack 1 or higher</li> <li>• Corporate Directory Integration</li> <li>• 1000 DSS &amp; 600 BLF keys for Monitoring</li> <li>• Popup Window for Incoming Message and Call</li> <li>• Presence Sharing and Instant Messaging</li> <li>• Video Calling</li> <li>• Drag and Drop Conference</li> <li>• Contact Grouping</li> <li>• Video call</li> <li>• Voicemail</li> <li>• Favorites</li> <li>• Call management – call hold, transfer, forward, DND and intercom</li> <li>• Multiparty audio conferencing</li> <li>• Blind transfer</li> <li>• Menu options - Call Pickup, Paging, Message wait, Call Retrieve, Alarm and Reminder, Dynamic Lock, Dial-In Conference, CLIR, Room monitoring &amp; Call supervision</li> <li>• Handover to external number</li> <li>• Smart directory access</li> <li>• Dial by extension</li> <li>• Call Screening - ACB, Forced Answer, Global Hold, General Call Park, Call Chaining, Call Recording, IR &amp; Barge-IN</li> <li>• Multiple call support</li> <li>• SMS over IP</li> <li>• One touch transfer</li> <li>• Call toggle</li> <li>• Auto call back</li> <li>• Auto redial</li> <li>• Forced answer</li> <li>• Open a door</li> <li>• Call logs</li> <li>• Missed calls notification</li> <li>• DND override</li> <li>• Click to Call</li> <li>• Outlook Integration</li> <li>• Calendar Integration</li> <li>• Keyboard Integration</li> </ul>		
31	<b>4 MP Speed Doom PTZ 25X Zoom Make : HIKVISION/Dahau or equivalent Suppling, Installation &amp; Configuring as per security requirements.</b>	<b>No</b>	<b>3</b>
	Camera Module: DS-2DE7430IW-AE E Series 4MP 30x IR Network Speed Dome		

		Image Sensor:1/1.9" progressive scan CMOS		
		Min. Illumination: Color: 0.005 Lux @(F1.5, AGC ON) B/W: 0.002 Lux @(F1.5, AGC ON) 0 Lux with IR		
		Shutter Time: 50Hz: 1/1 s to 1/30,000 s 60Hz: 1/1 s to 1/30,000 s		
		White Balance: Auto/Manual/ATW (Auto-tracking White Balance)/Indoor/Outdoor/Fluorescent Lamp/Sodium Lamp		
		AGC: Auto/Manual		
		Day & Night: IR cut filter		
		Digital Zoom: 16×		
		Privacy Mask: 8 programmable privacy masks		
		Focus Mode: Auto/Semi-automatic/Manual		
		3D DNR: Support		
		BLC: Support		
		HLC: Support		
		Digital WDR:Support		
		Defog: Support		
		EIS:Support		
		Regional Exposure: Support		
		Regional Focus : Support		
		Lens:		
		Focal Length: 5.9 mm to 177 mm, 30× Optical Zoom		
		Zoom Speed: Approx. 4.8 s (Optical Lens, Wide-Tele)		
		Horizontal FOV:48.8° to 2.3° (Wide-Tele)		
		Working Distance:10 mm to 1500 mm (Wide-Tele)		
		Aperture Range:F1.5 to F3.4		
		PTZ:		
		Movement Range (Pan):360° endless		
		Pan Speed: Configurable, from 0.1°/s to 160°/s, Preset Speed: 240°/s		
		Movement Range (Tilt): From -15° to 90° (Auto Flip)		
		Tilt Speed: Configurable, from 0.1°/s to 120°/s, Preset Speed: 200°/s		
		Proportional Zoom: Support		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		Presets:300		
		Patrol Scan:8 patrols, up to 32 presets for each patrol		
		Pattern Scan: 4 pattern scans, record time over 10 minutes for each scan		
		Power-off Memory: Support		
		Park Action:Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan		
		PTZ Status Display:Support		
		Preset Freezing: Support		
		Scheduled Task: Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan/Dome Reboot/Dome Adjust/Aux Output		
		Smart Features:		
		Basic Event Detection: Motion Detection, Video Tampering, Alarm Input, Alarm Output, Exception		
		Smart Event Detection: Audio Exception Detection, Face Detection, Intrusion Detection, Line Crossing Detection, Region Entrance Detection, Region Exiting Detection		
		Smart Record: ANR (Automatic Network Replenishment), Dual-VCA		
		Infrared:		
		IR Distance:150 m		
		Smart IR: Support		
		IR Control: IR brightness and angle are intelligently adjustable according to the scenes.		
		Network:		
		Max. Resolution: 2560 × 1536		
		Main Stream: 50Hz: 25fps (2560 × 1536, 2048 × 1536, 1920 × 1080, 1280 × 960, 1280 × 720) 50fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (2560 × 1536, 2048 × 1536, 1920 × 1080, 1280 × 960, 1280 × 720) 60fps (1920 × 1080, 1280 × 960, 1280 × 720)		
		Sub-Stream: 50Hz: 25fps (704 × 576, 640 × 480, 352 × 288) 60Hz:		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		30fps (704 × 480, 640 × 480, 352 × 240)		
		Third Stream: 50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)		
		ROI: Main stream, sub-stream and third stream respectively support four fixed areas		
		Video Compression: Main Stream: H.265+/H.265/H.264+/H.264 Sub-Stream: H.265/H.264/MJPEG Third Stream: H.265/H.264/MJPEG  H.264 with Baseline/Main/High Profile		
		Audio Compression: G.711alaw/G.711ulaw/G.722.1/G.726/MP2L2/PCM		
		Protocols: IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, Bonjour		
		Simultaneous Live View: Up to 20 channels		
		User/Host: Up to 32 users, 3 levels: Administrator, Operator and User		
		Security Measures: User Authentication (User ID and Password), Host Authentication (MAC address), HTTPS Encryption, IEEE 802.1x Port-Based Network Access control, IP address Filtering		
		System Integration:		
		Alarm Input: 2-ch alarm input		
		Alarm Output: 1-ch alarm output		
		Alarm Linkage: Preset, Patrol Scan, Pattern Scan, Memory Card Video Recording, Trigger Recording, E-Map, VCA Capture, Upload to FTP, Send Email, etc.		
		Audio Input: 1-ch audio input		
		Audio Output: 1-ch audio output		
		Network Interface: 1 RJ45 10 M/100 M Ethernet Interface, Hi-PoE		

		Storage: Built-in memory card slot, support Micro SD/SDHC/SDXC, up to 128 GB, NAS (NPS, SMB/CIFS), ANR		
		API: Open-ended, support ONVIF, PSIA and CGI, support HIKVISION SDK and Third-Party Management Platform		
		Client: iVMS-4200, iVMS-4500, iVMS-5200		
		Web Browser: IE 8+, Chrome 31+, Firefox 30+, Safari 8.0+ web browser		
		General:		
		Power: 24 VAC & Hi-PoE Max.: 40 W Supplement Light: 19 W		
		Working Temperature: Outdoor: -30°C to 65°C (-22°F to 149°F)		
		Working Humidity: ≤ 90%		
		Protection Level: IP66 Standard, TVS 4000V Lightning Protection, Surge Protection and Voltage Transient Protection		
		Dimensions: Φ 220 mm × 353.4 mm (Φ 8.66" × 13.91")		
		Weight: Approx. 4.5 kg (9.92 lb)		
<b>32</b>		<b>Raised Flooring For Server room With Installation (Make:- Unifloor/Unifloor/ztfloor or equivalent)</b>	<b>SFT</b>	<b>350</b>
		Concentrated Loads : 360 Kgs (800 lbf ) with a top-surface deflection under load and a permanent set not to exceed 2.54 & 0.25 mm (0.10 & 0.010 inch) respectively according to CISC A/F, Section I " Concentrated Loads"		
		Ultimate Concentrated Load: 900 kgs (2000 lbf) without failing according to CISC A/F, Section II " Ultimate Loading"		
		Rolling Loads : 180 kgs ( 400 lbf) of the following magnitude, with a combination of local and overall deformation not to exceed 1.02 mm (0.040 inch) according to CISC A/F, Section III " Rolling Loads" CISC AF Rolling Load: 10000 Passes		



		Stringer Load Testing : 102 Kgs (225 lbf) at the centre of the span with a permanent set not to exceed 0.25mm ( 0.010 inch) as determined by CISCA A/F, Section IV, " Stringer Load Testing"		
		Pedestal Axial Load Test : 22 kN axial Load per pedestal, according to CISCA A/F, Section V, "Pedestal Axial Load Test "		
		Pedestal Over Turning Moment Test : 113 N x meters ,according to CISCA A/F, Section VI, "Pedestal Overturning Moment Test"		
		Uniformly Distributed Load (UDL): 1080 kg/m <sup>2</sup> with a maximum permissible deflection of not more than 1.52 mm as per definition of "Uniform load" of CISCA tested over an area of 1 ft x 1 ft for 220 lbf/ft <sup>2</sup> load. Note: The uniform load rating of an access floor panel as specified here in should not be confused with the "uniform live load" as specified in seismic zone application.		
		Soft body impact test on the system shall be with a load of 40 kgs dropped from a height of 1000 mm and shall comply to all the performance as specified in the test method (T12.03) of MOB PF2 PS Standards.		
		Hard body impact test on the system shall be with 4.5 kgs dropped from a height of 600 mm and shall comply to all the performance as specified in the test method (T13.03) of MOB PF2 PS Standards.		
		Fire Rating : The Panels shall confirm to Class O & Class 1 Fire Ratings tested as per BS 476 Part 6 (Fire Propagation) & 7 (Surface spread of flame) as also ASTM E84 1998 (Flammability) and ASTM E136 (Combustibility)		

		<p>Electrical Resistivity :</p> <p>As per ASTM F150/ NFPA 99 / ANSI S7.1 / CEI 61340 but modified for surface to ground. To place one electrode on the Access floor Panel surface and to attach the other electrode on the pedestal.</p> <p>Resistance to be tested at 100/500 volts</p> <ol style="list-style-type: none"> <li>1. Conductive range : 2.5x10<sup>4</sup> – 1x 10<sup>6</sup> Ohms (surface to ground)</li> <li>2. Static dissipative range : 1x10<sup>6</sup> – 1x10<sup>9</sup> Ohms (surface to ground)</li> <li>3. Anti static range : 1x10<sup>9</sup> – 2x10<sup>10</sup> Ohms (surface to surface)</li> </ol>		
		<p>Fabrication Tolerance</p> <ol style="list-style-type: none"> <li>A. Floor panel flatness : ± 0.75 mm in any direction</li> <li>B. Floor panel width or length from specified size : ± 0.50mm</li> <li>C. Floor panel squareness : ± 0.38 mm</li> </ol>		
		<p>Installation Tolerance</p> <ol style="list-style-type: none"> <li>A. Overall level before application of any load : ± 1.5 mm over any 5.00 Sqmt ± 6 mm over any size of basic space</li> <li>B. Panel level : + 0.75 mm before the application of any load</li> <li>C. Panel Interchangeability installation and removal : shall be interchangeable (except for field cut panels) and replaceable in any of the four directions at 90° increments</li> </ol>		
33		<p><b>SAN BOX with OFC connectivity with ( 10X 10TB ) Loaded Suppling, Installation, Configuration, Virtualization Make: Dell /Linovo/HP or equivalent ( SAN box and server should be in same make.)</b></p>	Nos	1
		<p><b>PowerVault MD3800f, 16G Fibre Channel, 2U-12 drive Components.</b></p>		
		1 Bezel Assembly, MD3800f		
		2 Hard Drive Blank Filler 3.5		
		10 10TB 7.2K RPM NLSAS 512e 3.5in Hot-plug Hard Drive		
		2 Controller, 16G FC, 2U MD38xxF, 8G Cache		
		2 2X SFP, FC16, 16GB		
		1 Power Supply, AC 600W, Redundant		

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		2 Jumper Cord,10A,2M,C13/C14 (India BIS)		
		4 Multi-Mode Fibre Channel Cable LC-LC 2 Meters		
		1 ReadyRails II Static Rails for 4-post Racks		
		<b>Software</b>		
		1 No Software		
		<b>Service</b>		
		1 ProDeploy Dell Storage MD Series 3XXX 2U SAN up to 8 hosts - Deployment		
		1 ProDeploy Dell Storage MD Series 3XXX 2U SAN - Deployment Verification		
		1 Technical Support		
		1 ProSupport: 7x24 Technical Support & Assistance: 3Yr		
		1 Next Business Day Onsite Service Year 1-3 (NBD)		
		1 # Limited Warranty: Year 1-3 (POW)		
		1 3Yr ProSupport: Next Business Day Service (Parts+Labor)		
		1 No Remote Advisory Services Purchased		
<b>34</b>		<b>PowerEdge R740 Server R740 2 U Rack server with Raid 5 + RPS +64GB RAM Suppling, Installation, Configuration, Virtualization Make: Dell /Linovo/HP .( SAN box and server should be in same make.)</b>	<b>Nos</b>	<b>2</b>

	<p>1 PowerEdge R740/R740XD Motherboard</p> <p>1 Intel Xeon Silver 4108 1.8G, 8C/16T, 9.6GT/s , 11M Cache, Turbo, HT (85W) DDR4-2400</p> <p>1 Chassis with up to 8 x 2.5" SAS/SATA Hard Drives for 1CPU Configuration</p> <p>1 PowerEdge 2U Standard Bezel</p> <p>1 Riser Config 1, 4 x8 slots</p> <p>1 PowerEdge R740 Shipping Material</p> <p>1 Quick Sync 2 (At-the-box mgmt)</p> <p>1 Dell EMC Luggage Tag</p> <p>1 2666MT/s RDIMMs</p> <p>1 Performance Optimized</p> <p>1 Blank for 1CPU Configuration</p> <p>2 32GB RDIMM 2666MT/s Dual Rank</p> <p>1 No Additional Processor</p> <p>1 iDRAC9,Enterprise</p> <p>3 600GB 15K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive</p> <p>1 PERC H740P RAID Controller, 8GB NV Cache, Mini card</p> <p>1 Standard 1U Heatsink</p> <p>1 No Internal Optical Drive</p> <p>1 Dual, Hot-plug, Redundant Power Supply (1+1), 750W</p> <p>2 Jumper Cord,10A,4M,C13/C14 (India BIS)</p> <p>1 No Trusted Platform Module</p> <p>1 Broadcom 5720 QP 1Gb Network Daughter Card</p> <p>1 No Operating System</p>		
--	--	--	--

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

		1 Power Saving Dell Active Power Controller  1 ReadyRails Sliding Rails With Cable Management Arm  1 RAID 5  1 OME Server Configuration Management  Software  1 4 Standard Fans for R740/740XD  1 No Systems Documentation, No OpenManage DVD Kit  Service  1 ProDeploy Dell Server R Series 1U/2U - Deployment  1 ProDeploy Dell Server R Series 1U/2U - Deployment Verification  1 Technical Support  1 Limited Warranty:Yr1-3 (Labor)  1 Limited Warranty:Yr1-3 (Parts)  1 3Yr ProSupport & Mission Critical: (7x24) 4-hour Onsite Service  1 Yr1-3 Mission Critical:(7x24) 4-hour Onsite Service  1 3Yr ProSupport & Mission Critical:(7x24) Technical Support & Assistance  1 No Remote Advisory Services Purchased		
35		<b>Windows Server STD Core 2016 SNGL OLP Lic NL CoreLic (Minimum 8Core)</b>	<b>Nos</b>	<b>2</b>
36		<b>Windows Server CAL 2016 SNGL OLP NL DvcCAL</b>	<b>Nos</b>	<b>100</b>
37		<b>Biometric Attendance system with face recognition with Software.</b>	<b>Nos</b>	<b>10</b>

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments

38		All the Equipment Installation and Configuration necessary Security implementation as per the IT consultant Planning to executed.		
39		VMWare Licences	Nos	2
		VMware vSphere 6 Essentials Plus Kit for 3 hosts (Max 2 processors per host		
		VMware vSphere Essentials Plus includes vCenter Server Essentials and ESXi for 3 hosts, plus the following features: vCenter agents, Update Manager, Data Protection and High Availability. vSphere Essentials Plus is limited for use on up to 3 hosts and on servers with up to two processors only. The server hosts must be managed by the vCenter Server Essentials edition that is provided with this bundle, and that same vCenter Server Essentials edition cannot be used to manage other server hosts not included with this edition. VS6-ESP-KIT-C		
40		( NAS Storage/ Make:Netgear/ QNAP /Thecus as make.	Nos	1
		256GB mSATA SSD for Caching	Nos	1
		HGST 6TB Ultrastar Enterprise SATA III HDD (Warranty : 5 Years)	Nos	12
41		Providing onsite L1 Manpower Support (For 3 year) (Rate contract will be renewed quartly after completion period of project.).	Per year	3
		Eligible Criteria:-		
		Comprehensive AMC for hardware &system maintenance for after 3 (three) year.	Per Month	1

	<b>ELIGIBLE CRITERIA FOR L1 SUPPORT ENGINEER</b>	
--	--	--

- |  |   |  |
|--|---|--|
|  | <ul style="list-style-type: none"><li>- First level of troubleshooting on systems, applications, networks etc.</li><li>- Candidates would be trained and will work in a front end client facing role and would be the first point of contact for any IT related issues like laptop/desktop, Operating systems, network connectivity etc.</li><li>- The candidates should have excellent communication skills.</li><li>- Decent knowledge related to operating system, hardware, networking, etc.</li><li>- Fundamental Technical knowhow on system trouble shooting, few prominent knowledge areas are:-<br/>The eligible bidder who having experience of managing and supporting of 300 + computers &amp; network infrastructure .<br/>Certificate should be provided.</li><li>• Microsoft Windows Operating Systems (9X, NT, 2000, XP)</li><li>• Microsoft Office</li><li>• Network Connectivity</li><li>• Printers and print Services</li><li>• E-Mail and Internet mail</li><li>• Familiar with MS Outlook email clients.</li><li>- Excellent communication skills, with neutral accent. (Voice based Support)</li><li>- Excellent written communication skills with email etiquettes.</li><li>- Comfortable with rotational shifts</li></ul> |  |
|--|---|--|

		<b>skills :</b> <ul style="list-style-type: none"> <li>• Design and implement functional networks</li> <li>• Configure, manage, and maintain essential network devices</li> <li>• Use devices such as switches and routers to segment network traffic and create resilient networks</li> <li>• Identify benefits and drawbacks of existing network configurations</li> <li>• Implement network security, standards, and protocols</li> <li>• Troubleshoot network problems</li> <li>• Support the creation of virtualized networks</li> </ul> <b>Education:</b> Graduate / B.Tech/B.E., BCA, BCM, M.Sc., MCA, MCM Having CCNP & MCSE Certified. <b>Work Experience:</b> 10 Years Industry  IT		
42		Comprehensive AMC for hardware & system maintenance for after 3 (three) year.		
		Note:- The AMC amount will be paid quarterly after submitting the satisfactory service support of last three years. If the services are not satisfied by authority the AMC contract will be terminated.		
		<b>TOTAL ESTIMATED COST</b>		

Place :

Signature of Authorized Person :

Date :

Designation :

Company stamp :

Name :

Duly Sign &  
Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments



## **ANNEXURES FOR TECHNICAL BID**

# Surat Urban Development Authority

## **7. ANNEXURES TO TECHNICAL BID**

All the documents listed below shall be annexed to the bid in the prescribed formats along with the necessary supporting documents to ascertain the claims made by the bidder.

### **A Bidder's Details**

<b>1</b>	<b>Details of responding firm/company</b>		
a.	Name of the Bidder/Supplier		
b.	Address		
c.	Telephone	Fax:	
d.	Website		
e.	Are you a Manufacturer / Authorized dealer / Sub dealer / Any other		
f.	Income Tax Number [PAN]		
g.	Goods & Service Tax (GST) No.		
<b>2</b>	<b>Information about responding firm / Company</b>		
a.	Address of Head Quarter/Head Office		
b.	Address of Registered Office		
c.	Main Office in Gujarat		
d.	Office in Surat		
e.	No. of years of operation in India		
f.	Turnover (figures as per last three audited balance sheets are to be provided)	Yr.-1 (20-)	
		Yr.-2 (20-)	
		Yr.-3 (20-)	
<b>3</b>	<b>Details of Contact Person</b>		
a.	Name		
b.	Designation		
c.	Address		
d.	Telephone No.		

Duly Sign & Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipment

# Surat Urban Development Authority

e.	Mobile No.			
f.	Fax No.			
g.	E-mail			
<b>4</b>	<b>Details of Authorized Signatory</b>			
a.	Name			
b.	Designation			
c.	Address			
d.	Telephone No.			
e.	Mobile No.			
f.	Fax No.			
g.	E-mail			
<b>5</b>	<b>Forum of Business (Select appropriate option and provide the Registration Details along with attested copies of certificates)</b>			
<b>#</b>	<b>Forum of Business</b>	<b>Yes/ No</b>	<b>Registration Details (submit attested copies of certificates)</b>	<b>Validity Date</b>
h.	Sole Proprietor? (Registration Number under Shops and Establishment Act.)			
i.	Hindu Undivided Family?			
j.	Partnership Firm?			
k.	Public Limited Company under The Companies Act?			
l.	Private Limited Company under The Companies Act?			
m.	State Govt. owned Undertaking/ Corporation / Enterprise?			
n.	Central Govt. owned Undertaking/ Corporation / Enterprise?			
o.	Co-operative Society?			
p.	Association of Persons?			

# Surat Urban Development Authority

## **B. Information of Authorized Signatory / Contact Person**

Name		Recent Passport Size Photograph
Address		
Phone No.		
Fax No.		Signature
Mobile No.		
Email		Capacity/Designation
Web Address		

Name		Recent Passport Size Photograph
Address		
Phone No.		
Fax No.		Signature
Mobile No.		
Email		Capacity/Designation
Web Address		

# Surat Urban Development Authority

## C. Authorization Letter from OEM

### FORM – A

(To be submitted on OEM's letterhead duly signed by its Authorized signatory)

Date:

To  
The Executive Engineer,  
Surat Urban Development  
Authority, , Surat- 395 001.

**Sub : Bid for Supply, Installation, Configuration and Integration of Networking Equipments**

Authorization Letter from OEMs

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

Dear Sir/Madam,

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

Sr. No.		Particulars of item and details of work
1	MR	<b>LAN Switch 24 x 10/100/1000 plus 2 x 1000Mbps SFP Make: CISCO/ HP /Juniper Supplying, Installing, Configuring with security &amp; VLAN</b> <ul style="list-style-type: none"><li>• 24 x RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, and IEEE 802.3ab Type 1000BASE-T).</li><li>• Minimum 2 x 1000 BASE-X SFP Fiber ports combination.</li><li>• Auto-negotiation for speed, duplex mode and flow control &amp; Manual for 10M Half/Full/100M Half/Full.</li><li>• Auto-MDI/MDIX.</li><li>• IEEE 802.3X flow control.</li><li>• Integrated LEDs for improved visual monitoring and analysis.</li><li>• Warranty : Minimum 5 Years OEM Comprehensive Warranty with parts .</li><li>• Chassis: 1U, rack-mounting kit included</li><li>• Power: Power supply AC 230 V ( 50/60 Hz )</li></ul>
2	MR	<b>POE LAN Switch 24x 10/100/1000 plus 2x 1000Mbps SFP Maximum Power above 30 Watts .Make: Cisco / HP make /Juniper Supplying, Installing, Configuring with security &amp; VLAN</b> <ul style="list-style-type: none"><li>• 24 x RJ-45 auto-negotiating 10/100/1000 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX, and IEEE 802.3ab Type 1000BASE-T).</li><li>• Minimum 2 x 1000 BASE-X SFP Fiber ports combination.</li><li>• Auto-negotiation for speed, duplex mode and flow control &amp; Manual for 10M</li></ul>

## Surat Urban Development Authority

		Half/Full/100M Half/Full.
		<ul style="list-style-type: none"> <li>• Auto-MDI/MDIX.</li> </ul>
		<ul style="list-style-type: none"> <li>• IEEE 802.3X flow control.</li> </ul>
		<ul style="list-style-type: none"> <li>• Integrated LEDs for improved visual monitoring and analysis.</li> </ul>
		<ul style="list-style-type: none"> <li>• Warranty : Minimum 5 Years OEM Comprehensive Warranty with parts .</li> </ul>
		<ul style="list-style-type: none"> <li>• Chassis: 1U, rack-mounting kit included</li> </ul>
		<ul style="list-style-type: none"> <li>• Power: Power supply AC 230 V ( 50/60 Hz )</li> </ul>
<b>3</b>	<b>MR</b>	<b>All SFP Switch L3 24x 10/100/1000 plus 4x 1000Mbps LAN RJ45 Manageable Switch Supplying, Installing, Configuring with security &amp; VLAN .(Make: Cisco / HP make /Juniper )</b>
		Interfaces: Product Shouls Have a 26 x 10Base-T/100Base-TX/1000Base-T - SFP, 4 x RJ-45
		Voltage Required: Product Shouls Have a Require Voltage AC 120/230 V ( 50/60 Hz )
		Device Type and Managibility :- Switch - 28 ports - L3 - managed- Stackable
		Maximum Operating Temperature: Product Shouls Have a Maximum Operating Temperature 104 F
		Rack-Mount Specification:- Product Should Have a Rack Mount 23 in. (58.4 cm) EIA
		Rack-Mount Kit : Product Should Have a Rack Mount Kit Inbuilt
		Routing Protocol: Product Should Have a Support Static IPv4 routing
		Performance: Product Should Have a Switching Capacity 72Gbps and forwarding Capacity 41.67
		Cables Included: Product Should Have a 1x Serial Cable
		Jumbo Frame Support:- Product Should Have a Support Jumbo Frame Support of 10 KB
		Authentication Method: Product Should Have a Authentication Method like Secure Shell (SSH), RADIUS and TACACS+
		Flash Memory: Product Should Have a 32 MB Flash Memory
		Ram: Product Should Have a 256 MB RAM
		Status Indicators: Product Should Have a Status Indicator of Link activity, port transmission speed, system
		MAC Address Table Size: Product Should Have a MAC Adress Table Size of 16k entries
		Capacity: Product Should Have a capacity to 4K Active VLANs
		Ports - Product Should Have a 24 x 10/100/1000 + 2 x combo Gigabit SFP + 2 x SFP
<b>4</b>		<b>8F 8T 16 PORT 10 G Switch10 gb switch</b>
		<b>8x 10 Gigabit Ethernet 10GBase-T copper port</b>
		<b>8x 10 Gigabit Ethernet SFP+ (dedicated)</b>
		<b>1 x Gigabit Ethernet management port</b>
<b>5</b>		<b>SFP 1 GB Module (Make: Cisco / HP make /Juniper or )</b>
<b>6</b>		<b>SFP 10 GB Module (Make: Cisco / HP make /Juniper or )</b>
<b>7</b>		<b>10 G Copper Patch Cord (5 Mts) Make:- Molex,/ Amp-Tyco/DGLink Suppling &amp; Installing .</b>
<b>8</b>	<b>MR</b>	<b>Wall Mounted 15U Rack for Switch. with all Accessories, 12 No's Of Power sockets and exhaust fans Make: Val rack / Spider or Supplying And Installing.</b>
		Height available : 15U
		Width : 550mm ( Internal 19" )
		Depth Available : 600mm

## Surat Urban Development Authority

		Standard Accessories : Cantilever Tray, Fix Shelf, Cooling Fans, Power Distribution Unit, Equipment Mounting Hardware, Cable Managers, Blank Panels
		Usability : Computer Networking, DVR equipments, Audio Visual Equipments, TV Radio Broadcasting Equipments and other 19" electronic, telecom .
		Rack Standard : Conforms to DIN 41494 or equivalent standard
		Construction : Welded
		Front Door : Lockable Toughened Glass Door
		Basic Frame : Steel
		Equipment Mounting : DIN Standard Slots
		Mounting Angle : 19" Mounting angles made of formed steel
		Standard Finish : Powder Coated
		Top and Bottom Cover : Welded to Frame, Vented and Field Cable entry exit cut outs
		Standard Color : Grey or Black
		Static Load : 40 kgs.
<b>9</b>	<b>MR</b>	<b>DATA CENTRE RACKS WITH METER PDU ( Make: Emerson /Rittal</b>
		Automatic Regulatory Apparatus for IT Systems, SC 26 (SMART CABINET)
		<b>Main Option Class, Automatic Regulatory Apparatus for IT Systems, SC 210 AC</b>
		<b>Cooling Option Class, Smart Cabinet Solution</b>
		RCU, 1.0TR, 230 Vac, 50 Hz, R410A, Rotary with Coated Condenser Coil, Air Conditioning Machine
		Low side work for PAC upto 20mtr piping
		<b>Rack Accessories Option Class, Smart Cabinet Solution</b>
		Subassembly, Rack & Accessories, SC-2-3-RC /SC-2-7-RC
		Assembly, 42 U Server/Network Rack 800(W) x 1000(D); Front Glass Door & Rear Plain Door, with side panels for Smart Cabinet
		Assembly, 42 U Server/Network Rack 800(W) x 1000(D); Front Glass Door & Rear Plain Door, without side panels for Smart Cabinet
		Keyboard Tray For Server Rack with Brackets for 500mm Depth for 1000D panel (RAL 7021), PNR HD rack
		Kit, Sheet metal, Smart Cabinet, SC-26-AC
		Insulation Kit for Smart Cabinet SC-13-AC & SC-26-AC
		Sticker, Smart Solutions
		RCU Air Deflector Assembly
		Panel, Blanking, 1U, Tool Less, Universal
		Vertical Socket strip with 12 nos of IEC C13 Sockets & 4 nos of IEC C19 Socket with 2.5 mtr power chord with 32A MCB. RAL 9005
		<b>Monitoring Option Class, Smart Cabinet Solution-RDU-A</b>
		Subassembly, RDU & Monitoring of SC-2-3 /SC-2-7
		RDU-A G2
		<b>Serial Temp &amp; Hum Sensor IRMS02TH- — RDU-A-S02TH</b>
		Functional modules-IRMS04DIF-four digital signal acquisition (IRM-S04DIF) - RDU-A-4DI-RJ45
		Water sensor-12V~24VDC/NORMAO LOW--10~60°C -RDU-A-S01W(5m length)
		Sound and Flash LED Alarm-12Vdc/70Ma/Rj45--10~60°C
		Smoke Detective Sensor
		Door status sensor-black-normal close-RJ45-500mA/40~70mm--10~51°C
		USB camera for RDU-A w/o recording only live monitoring
		Transit Cable, of Smoke Detector, CAT5 with TE Jack

## Surat Urban Development Authority

		Subassembly, Electrical Accessories of SC-2-3-RC U6 2N/SC-2-3-RC/SC-2-7/SC-2-7 U6 2N/SC-2-7 RC /SC-2-7 RC-DS
		POD Device, 3kVA / 6kVA Smart Cabinet
		Subassembly, Packaging of SC-2-3-RC2 U6 2N/SC-2-3-RC2/SC-2-7-C2/SC-2-7-C2-U6 2N/SC-2-7 RC2/SC-2-7 RC2-DS
		<b>FM (Fire Systems)</b>
		Kit, Fire Detection and Suppression System, 3U, 19 Inch Rack Mount,
		<b>LIGHT FIXER (LED)</b>
		Super Switch (power Network switch- 6kva)
		TVSS 50KA
		Emerson make 2nos. 10kva UPS
		SMF Battery 12v-42ah,16nos.(EACH UPS) 30minutes Battery backup
		Battery rack & Links
		Supply and Installation of False flooring 600mm * 600mm, should have min 1000kg distributed load bearing capacity
		Supply and installation of Modular Metal False ceiling 600mm * 600mm complete with all hardware and accessories
<b>13</b>		Supply of Tile Lifter
		Cable Tray (GI)
		Supply & Fixing of 19mm Thick Nitrile rubber thermal insulation for under false ceiling
<b>14</b>		<b>Installation &amp; Commissioning Works</b>
		Installation Commissioning & Project Management Charges
<b>16</b>		<b>Rodent Repellant</b>
<b>17</b>	<b>MR</b>	<b>24 Port Jack Panel for Cat 6 Lan Cable</b> <b>Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>
<b>18</b>		<b>RJ45 I/O WITH FACE PLATE &amp; SURFACE MOUNT Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>
		Characteristic : Min. Required Specification
		Features :- Single Gang square plate, 86mmx86mmWrite on labels in transparent plastic window – supplied with plate Screw hole covers – to be supplied with plate Plug in Icons – Icon tree – to be supplied with plate Should be able to support variety of jacks – UTP, STP, Fiber, Coax etc.
		<b>INFORMATION OUTLET</b>
		Characteristic:-Min. Required Specification
		Category 6, TIA568B.2-1 – 250MHz
		All information outlets for 100 W, 22-24 AWG copper cable shall:
		Use insulation displacement connectors (IDC). Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits. Be constructed of high impact, flame-retardant thermoplastic with color and icon options for better visual identification. Jack should be With spring loaded shutter with in-out effect. With Terminator cap.IDC posts should be pointed
		<b>Mechanical Characteristics</b> <b>Jack Connector</b>



## Surat Urban Development Authority

	Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent Operating Life: Minimum 750 insertion cycles Contact Material: Copper Alloy Contact Plating: 50μ" Gold/100μ" Nickel Contact Force: 100g minimum Plug Retention Force: 15 lb.
	IDC Connector Plastic Housing: Polycarbonate, UL94V-0 rated or
	Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent Operating Life: Minimum 200 reterminations Contact Material: Copper Alloy IDC Contact Plating: Tin/Lead Plate Contact Force: 100g minimum Wire Accommodation: 22-24 AWG solid
	Electrical Characteristics Interface Resistance: 20 milliohms Initial Contact Resistance: 2.5 milliohms Insulation Resistance: >100 Megaohms Dimensions (mm): 23.5(H) x 17.9(W) x 30.53(D)                      Weight: approx 27 gm Standards: TIA/EIA-568-C.2 Component Compliant, FCC Subpart F 68.5 Compliant, IEC-603-7 Compliant, ISO 11801 Class E Compliant, ETL Verified for Category 6 Component Compliance & UL listed.
	24 PORT JACK PANEL
	Characteristic
	Be made of powder coated steel, in 24 port configurations.
	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit. Have port identification numbers on the front of the panel. Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons. Should be upgradeable as Intelligent Patch Panel without changing the existing Patch Panel hardware and by simple retro fitting of intelligent sensors as and when required.
	Each port / jack on the panel should be individually removable on field from the panel. Should have integrated rear cable management shelf. Should be covered by ETL verification program for compliance with TIA 568B.2-1.
	Patch Panel Characteristics Material: CRS (cold rolled steel) Thickness: .060" (1.52mm) Coating: Graphite Grey Powdercoat.
	Mechanical Characteristics Jack Connector Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent Operating Life: Minimum 750 insertion cycles Contact Material: Copper Alloy Contact Plating: 50μ" Gold/100μ" Nickel Contact Force: 100g minimum Plug Retention Force: 15 lb.
	IDC Connector
	Plastic Housing: Polycarbonate, UL94V-0 rated or
	equivalent
	Operating Life: Minimum 200 reterminations
	Contact Material: Copper Alloy
	IDC Contact Plating: Tin/Lead Plate
	Contact Force: 100g minimum
	Wire Accommodation: 22-24 AWG solid

## Surat Urban Development Authority

		Dimensions: 24 Port with trays 44mm H x 483mm W x 98mm Weight : 1.2kg
		Standards: TIA/EIA-568-C.2 Component Compliant, FCC Subpart F 68.5 Compliant, IEC-603-7 Compliant, ISO 11801 Class E Compliant, ETL Verified for Category 6 Component Compliance & UL Listed.
		CAT 6 Patch cord
		Characteristic :- Min. Required Specification
		Cat 6 U/UTP patch cord for data networks for
		10/100BASE-T and 1000BASE-T applications.
		The patch cable should be made from high quality four pair 24 AWG stranded copper wire. It should be available in a range preterminated with RJ45 plugs and feature anti-snag slim strain relief slip on boots. 4 pair 24 AWG stranded copper wire Pre-terminated with WE8W plugs
		Slim clear anti-snag slip on boots Suitable for EIA 568A or 568B wiring with LSOH sheath and RoHS Compliant
		Mechanical Characteristics - Cable Conductor size: 24 AWG stranded copper wire Nom. O.D.: 5.9mm Sheath: LSOH Bend radius: 4X O.D. Operating temperature range: -20°C to 60°C
		Mechanical Characteristics - Plug MIN operating life: 750 insertion cycles RJ45 plug and boot material: Clear polycarbonate Contact material: 0.35mm thick copper alloy Contact plating: Selective gold RJ45 plug dimensions compliant with: ISO/IEC 60603-7-4 and FCC 47 Part 68
		Electrical Characteristics
		Max voltage: 150 VAC (max)
		Max current: 1.5A @ 25°C
		Fire Propagation Tests:
		LSOH Sheath: CSA FT1, IEC 60332-1, IEC 61034
		Standards:
		ISO/IEC 11801:2002/Amd 2:2010 Cat 6-, TIA-568-C.2 Cat 6, ETL Verified
19	MR	<b>RJ 45 Jack Patch Cord 1 Mtr. Approved Make : Molex / Amp Tyco. Supplying, Installing And Punching With Tagging.</b>
20	MR	<b>RJ 45 Jack Patch Cord 2 Mtr. Approved Make : Molex / Amp Tyco. Supplying, Installing</b>
		Technical Specification
		Type : Unshielded twisted pair cabling system, TIA / EIA 568-C.2 Category 6 Cabling system
		Network support Supports ultrahigh speed data networks such as Gigabit Ethernet
		(1000 Base-T and 1000 Base-TX)
		and beyond.

## Surat Urban Development Authority

		TIA / EIA 568-B.1 ETL Verified, UL Listed and UL channel verified- All three Certificates are mandatory
		IEEE 802.3ab :- Zero-bit Error, ETL verified
		Warranty :-25-year systems warranty; Warranty to cover Bandwidth of the specified and installed cabling system, and the installation costs. Site certificate must be issued by OEM
		Performance characteristics to be provided along with bid : Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR for 4-connector channel
		Manufacturer :All passive cabling must be from same OEM
		Conductors : 23 AWG solid bare copper
		Insulation : Polyethylene
		Jacket PVC
		Filler: PE
		UL Listed and UL Channel verified
		Approvals :ETL verified to TIA / EIA Cat 6
		Frequency tested up to :- 600 MHz minimum
		Outer dia :-6.2 mm
		Packing :- Box of 305 meters
		shipping weight : 305m reel in a box 24kg
		Impedance :- 100 Ohms + / - 15 ohms
		Performance characteristics to be provided along with bid :- Attenuation, Pair-to-pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR
		Delay Skew: 45ns Max
		Impedance: 100 ± 15 Ohms
		Current Rating: 1.5 A Max
		Conductor DC Resistance: 66.5Ω/km
		Voltage: 150VAC
		NVP : 67%
		Propagation delay: 535ns/100m @250MHz
		Mutual Capacitance: 5.6nF/100m Nominal
		Insulation Resistance: 500 MΩ Minimum
		Dielectric Strength: 1000 V RMS
		Contact Resistance: 10 mΩ Max
		Fire Propagation Test : UL 1581 VW1, IEC 60332.1, EN0256-2-1
21	MR	<b>Firewall supporting / Makes sophos , Fortinet Supplying, Installing, Configuring with security , VLAN , Internet Security Policies.</b>
		<b>BasicCriteria</b>
		The quoted OEM for UTM should have presence in India from more than last five years.
		OEM should have support Centre in India.
		Appliance should have ICSCA certification for Firewall.
		<b>ApplianceThroughput</b>
		Firewall through put of 30 Gbps or higher
		6 Gbps of Antivirus Throughput or higher
		17,000,000 Concurrent sessions or higher
		10 Gbps of IPS throughput or higher
		200,000 New Sessions/second or higher
		3 Gbps of IPsec VPN throughput or higher

# Surat Urban Development Authority

		<b>General Features</b>
		Unrestricted Users Creation
<b>22</b>	<b>MR</b>	<b>Wireless Access Point with Central console manageable from the firewall . Make: Makes sophos , Fortinet / Supplying, Installing, Configuring Wi-Fi Zones with security &amp; VLAN</b>
		The Access Point should support IEEE 802.11a/b/g/n/ac standards
		Frequency of Radio 1 shall be 2.4 GHz b/g/n or 5 GHz a/n (Selectable)
		Should have 4 Internal Antennas
		Should have 1 x 10/100/1000 interface
		Should support Power over Ethernet (PoE) 802.3af
		Radio 1 Throughput: 300Mbps
		Radio 2 Throughput: 800Mbps
		Support 2x2 MIMO dual stream
		Mobility
		Should support L2 and L3 wireless controller discovery
		WME Multimedia Extensions support 4 priority queues for voice, video, data and background traffic
		Should support 14 Simultaneous SSIDs
		Support EAP-TLS EAP-TTLS/MSCHAPv2 EAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC EAP-SIM EAP-AKA EAP-FAST
		Should support Tx power of 20dBm
		Solution should have support for Captive portal for guest authentication
		Management
		Solution should have support for RTLS integration
		Should be centrally managed through the wireless controller & not standalone
		Should support web-based secured management interface
		Support Wall mounting & ceiling mount options
		Environment
		Operating Temperature 32 – 104 °F (0 – 40 °C)
		Low Voltage Directive , RoHS complaint
		Warranty
		Should have Hardware warranty of atleast 5 years from day 1
		Centrally Management
		It should be managed by asked wireless controller & must be of same OEM for easy integration
<b>23</b>	<b>MR</b>	<b>SC-LC 5 Mtr Fiber Optic Cable Splicing Patch Cord Supplying &amp; Installing. Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>
<b>24</b>	<b>MR</b>	<b>LC-LC 5 Mtr Fiber Optic Cable Splicing Patch Cord Supplying &amp; Installing. Make: Molex/Tyco amp/D Link Supplying, Installing And Punching With Tagging.</b>
		Optical Fibre Patch Cords Min. Required Specification
		Optical Fibre Patch Cords should be with LSZH jacket as standard. Patch cords should be offer factory –controlled performance in a variety of connector, ISO performance standards and lengths. It has taken specific attention to the end-face geometry and fibre core alignment to ensure reliability and optimised performance
		Features and Benefits:

## Surat Urban Development Authority

		<p>100% Factory Tested – Guaranteed performance</p> <p>LSOH Jacket Standard – Reduces toxic/corrosive gasses emitted during combustion.</p> <p>Plenun and PVC</p> <p>also available</p> <p>Multiple Formats available - Available in Simplex, Duplex, Single Mode, Multi Mode and a variety of connector options</p>
		<p>Mechanical Characteristics</p> <p>Cordage O.D.: 2.0mm +/- 0.1mm x 4.1mm +/- 0.2mm</p> <p>Buffer Diameter: 900μ</p> <p>Primary Coating : 245μ</p> <p>Strength Member: Aramid Yarn</p> <p>Jacket Material: LSOH IEC 61034-1 &amp; 2, IEC-60332-1, IEC-60754-1 &amp; 2</p> <p>Minimum Bend Radius: Install: 3.0cm.</p> <p>Long Term Bend Radius: 2.0cm</p> <p>Operating Temperature: -40°C to +85°C</p>
		<p>Standards:</p> <p>ISO/IEC 1108:2008, ANSI/TIA/EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-596</p> <p>OS2 -STD ITU-T-652D</p>
<b>25</b>	<b>MR</b>	<b>24 Port LIU Fully Loaded</b>
		<b>Male: Supplying , Installing &amp; Splicing Make: Molex/Tyco amp/D Link</b>
<b>26</b>	<b>MR</b>	<b>12 Port LIU Fully Loaded</b>
		<b>Supplying , Installing &amp; Splicing with tagging</b>
		Fiber LIU :
		12 & 24 port LIU Features
		Configurable Fibre drawer should be 1U rack mount unit for storing and terminating incoming fibre cable. It should be able to configure fibre system to suit all fibre applications.
		It should be with management rings within system to accommodate excess fibre cordage behind the trough adapters and maintain fibre bend radius
		It should be able to accommodates single mode and multi mode fibres
		Properties: Adhesive labelling for port identification, Sliding drawer for ease of reconfiguring fibres, Rugged steel construction finished in attractive, Graphite finish to complement all rack mount equipment, Accommodates 2 x 12 fibre Splice Trays
		Material: Powder coated Cold Rolled Steel
		Accommodation: 12 & 24 Port according to application
		Fibre Termination - Direct Termination
		Options: Fusion Splice , Mechanical Splice
		Dimensions: 1U
		Mounting: Rack mount
		SC adapter :- Item specifications
		Singlemode and Multimode Duplex SC adapters should have feature either a snap or flange mount and are designed to support the TIA/EIA commercial building & telecommunication wiring standards. Adapters should be available with snap-on shutter providing a barrier against harmful light emissions.

## Surat Urban Development Authority

		It should be with utilises standard NTT-SC and Bellcore 326 compliant, connectors, RoHS Compliant, Meets TIA/EIA 568-B.3 and IEC 874-109 standards,
		Unique shuttered feature fpr protects from harmful light emissions
		Shuttered should be available as an option
		It should be available in single mode / multimode
		Colours - Singlemode (Blue), Multimode (Beige)
		SC Singlemode Pigtail :- Min. Required Specification
		<p>Characteristics</p> <p>Cable: 900um Buffered</p> <p>Outside Diameter: 900um</p> <p>Buffer Diameter: 900um tight buffer</p> <p>Minimum bend radius: install: 30 mm</p> <p>Operating Temperature: -20°C to 75°C</p> <p>Retention Strength: 100N</p> <p>Cable Sheath: LS0H</p>
		<p>Features and Benefits:</p> <p>Standard or custom assemblies</p> <p>Precision ferrule endface geometry</p> <p>Controlled fibre protrusion</p> <p>Factory polished, tested and serialized.</p>
		<p>Standards:</p> <p>ISO/IEC 1108:2008. ANSI/TIA/EIA-568-C.3, EIA 492, Telecordia GR-409, ICEA-596, OS2-STD ITU-T-G652 D</p> <p>LS0H* IEC 61034-1&amp;2, IEC-60332-1</p> <p>IEC 60754-1&amp;2 standards</p>
		Optical Fibre Patch Cords Min. Required Specification
		Optical Fibre Patch Cords should be with LSZH jacket as standard. Patch cords should be offer factory –controlled performance in a variety of connector, ISO performance standards and lengths. It has taken specific attention to the end-face geometry and fibre core alignment to ensure reliability and optimised performance
		<p>Features and Benefits:</p> <p>100% Factory Tested – Guaranteed performance</p> <p>LS0H Jacket Standard – Reduces toxic/corrosive gasses emitted during combustion.</p> <p>Plenun and PVC</p> <p>also available</p> <p>Multiple Formats available - Available in Simplex, Duplex, Single Mode, Multi Mode and a variety of connector options</p>
		<p>Mechanical Characteristics</p> <p>Cordage O.D.: 2.0mm +/- 0.1mm x 4.1mm +/- 0.2mm</p> <p>Buffer Diameter: 900μ</p> <p>Primary Coating : 245μ</p> <p>Strength Member: Aramid Yarn</p> <p>Jacket Material: LS0H IEC 61034-1 &amp; 2, IEC-60332-1, IEC-60754-1 &amp; 2</p> <p>Minimum Bend Radius: Install: 3.0cm.</p> <p>Long Term Bend Radius: 2.0cm</p> <p>Operating Temperature: -40°C to +85°C</p>

# Surat Urban Development Authority

		Standards: ISO/IEC 1108:2008, ANSI/TIA/EIA 568.C.3, ANSI/TIA/ EIA-492, TELECORDIA GR-409, ICEA-596 OS2 -STD ITU-T-652D
27	MR	<b>All-in-one VMS server WITH all licenses, 4 TB - 16 nos Hard Drive for camera recording storage Suppling, Installation &amp; Configuring as per security requirements. Make: Hikvision/Pelco/Bosch .</b>
		VIDEO AUDIO INPUT :_ IP video input :- 32-ch & 64 -ch Up to 12 MP resolution
		Two-way audio :- 1-ch, RCA (2.0 Vp-p, 1kΩ)
		NETWORK:_ Incoming bandwidth :- 320 Mbps, or 200 Mbps (when RAID is enabled)
		Outgoing bandwidth :-256 Mbps, or 200 Mbps (when RAID is enabled)
		Remote connection : 128
		VIDEO AUDIO OUTPUT :_
		VGA1 /HDMI1 output resolution HDMI1: 4K (3840 × 2160)/60Hz, 4K (3840 × 2160)/30Hz, 2K (2560 × 1440)/60Hz, 1920 × 1080p/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz VGA1: 2K (2560 × 1440)/60Hz, 1920 × 1080p/60Hz, 1600 × 1200/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz VGA2 /HDMI2 output resolution:- 1920 × 1080p/60Hz, 1280 × 1024/60Hz, 1280 × 720/60Hz, 1024 × 768/60Hz Audio output :- DECODING :- Decoding format :- H.265/H.264/MPEG4 Live view / Playback resolution :- 12 MP/8 MP/6 MP/5 MP/4 MP/3 MP/1080p/UXGA/720p/VGA/4CIF/DCIF/2CIF/CIF/QCIF. Synchronous playback :- 16-ch Capability:-4-ch @ 8 MP, or 16-ch @ 1080p HARD DISK : eSATA:-1 eSATA interface Capacity:- Up to 6TB capacity for each HDD DISK ARRAY: Array type :- RAID0, RAID1, RAID5, RAID10 Number of arrays:- 4 External interface:- Network interface :-2, RJ-45 10/100/1000 Mbps self-adaptive Ethernet interface Serial interface :-RS-232; RS-485; Keyboard  Alarm in/out

## Surat Urban Development Authority

		USB interface :- Front panel: 2 × USB 2.0; Rear panel: 1 × USB 3.0 Alarm in/out.:-16/4
		GENERAL:- Power supply:-100 to 240 VAC, 50 to 60 Hz (Dual Power, Redundant ) Max. Power:-200 W Consumption:-≤30 W (Without Hard disk.) Working temperature :- -10 to +55°C (14 to 131°F) Working humidity:-10 to 90 % Chassis:- 19-inch rack-mounted 2U chassis Dimensions(W × D × H):- 442 × 560.5 × 93 mm Weight(without harddisk):-≤ 10 Kg (22 lb)
<b>28</b>		<b>2 MP 4 mm IP Cam. IR Dome With Night Vision Low lux. Make: HIKVISION/Dahua or equivalent</b>
		Camera:
		Image Sensor:-1/2.8" Progressive Scan CMOS
		Min. Illumination :Color: 0.005 lux @(F1.2, AGC ON), 0 lux with IR
		Shutter Speed:-1/3 s to 1/100,000 s
		Slow Shutter:-Support
		Lens:2.8 mm, horizontal field of view: 108° 4 mm, horizontal field of view: 86.4° 6 mm, horizontal field of view: 52° 8 mm, horizontal field of view: 40° 12 mm, horizontal field of view: 25°
		Lens Mount:- M12
		Iris F1.6
		Day & Night IR cut filter
		DNR 3D DNR
		Wide Dynamic Range 120dB
		3-Axis Adjustment (bracket) Pan: 0° to 360°, tilt: 0° to 100°, rotate: 0° to 360°
		Compression Standard
		Video Compression:-Main stream: H.265/H.264 Sub stream: H.265/H.264/MJPEG Third stream: H.265/H.264
		H.264 Type: Main Profile/High Profile



## Surat Urban Development Authority

	H.264+ Support
	H.265 Type Main Profile
	H.265+ Support
	Video Bit Rate :32 Kbps to 16 Mbps
	Image
	Max. Resolution :- 1920 × 1080
	Main Stream:-50Hz: 50fps (1920 × 1080, 1280 × 960, 1280×720)60Hz: 60fps (1920 × 1080, 1280 × 960, 1280×720)
	Sub Stream 50Hz: 25fps (640 × 360, 352 × 288) 60Hz: 30fps (640 × 360, 352 × 240)
	Third Stream50Hz: 25fps (1920 × 1080, 1280 ×720, 640 × 360, 352 × 288)60Hz: 30fps (1920 × 1080, 1280 ×720, 640 × 360, 352 × 240)
	Image Enhancement BLC/3D DNR:- Support rotate mode. Brightness, contrast, saturation, and sharpness are adjustable via web browser and client software
	ROI (Region of Interest): Support 1 fixed region for mainstream and sub stream separately
	Day/Night Switch::-Auto/Scheduled
	Network:-
	Network Storage:Support microSD/SDHC/SDXC card (128G) local storage, NAS (NFS,SMB/CIFS), ANR
	Alarm Trigger:Motion Detection, Tampering Alarm, Network Disconnected, IP Address Conflict, Illegal Login, HDD full, HDD error
	Protocols:TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6
	Standard:ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
	General Function:
	One-key Reset, Anti-Flicker, Heartbeat, Mirror, Password Protection, Privacy Mask, Watermark, IP Address Filter
	Interface
	Communication Interface: 1 RJ45 10M/100M self-adaptive Ethernet port
	On-board Storage: Built-in microSD/SDHC/SDXC slot, up to 128 GB
	Smart Feature-set:
	Behavior Analysis: Line crossing detection, intrusion detection, unattended baggage detection, object removal detection
	Line Crossing Detection: Cross a pre-defined virtual line, up to 1 pre-defined virtual lines supported
	Intrusion Detection: Enter and loiter in a pre-defined virtual region, up to 1 pre-defined virtual regions supported
	Object Removal Detection: Objects removed from the pre-defined region, such as the exhibits on display.
	Unattended Baggage Detection: Objects left over in the pre-defined region such as the baggage, purse, dangerous materials

## Surat Urban Development Authority

		Face Detection: Human face appears in the image can be detected and trigger linkage method
		General:
		Operating Conditions: -30 °C to +60 °C (-22 °F to +140 °F), Humidity 95% or less (non-condensing)
		Power Supply:12 VDC ± 25%, PoE(802.3af 42.5 – 57 V, class 3)
		Power Consumption:-I5: 12 VDC ± 25%, 7 W; PoE, 9 W -I8: 12 VDC ± 25%, 10 W; PoE, 12.5 W
		IR Range:-I5: up to 50 m -I8: up to 80 m
		Protection Level: IP67
		Dimensions:Camera: Φ105 × 299.7 mm (Φ4.13" × 11.80") Package: 386 × 156 × 155 mm (15.2" × 6.14" × 6.1")
		Weight: 1200 g (2.65 lb.)
		Batteries Required:No
<b>29</b>		<b>2 MP 6 mm IP Cam - IR Dome With Night Vision Low lux. Make: HIKVISION/Dahua</b>
		Camera:
		Image Sensor:-1/2.8" Progressive Scan CMOS
		Min. Illumination :Color: 0.005 lux @(F1.2, AGC ON), 0 lux with IR
		Shutter Speed:-1/3 s to 1/100,000 s
		Slow Shutter:-Support
		Lens:2.8 mm, horizontal field of view: 108° 4 mm, horizontal field of view: 86.4° 6 mm, horizontal field of view: 52° 8 mm, horizontal field of view: 40° 12 mm, horizontal field of view: 25°
		Lens Mount:- M12
		Iris F1.6
		Day &Night: IR cut filter
		DNR :3D DNR
		Wide Dynamic Range : 120dB
		3-Axis Adjustment (bracket) Pan: 0° to 360°, tilt: 0° to 100°, rotate: 0° to 360°
		Compression Standard
		Video Compression:-Main stream: H.265/H.264 Sub stream: H.265/H.264/MJPEG Third stream: H.265/H.264
		H.264 Type: Main Profile/High Profile
		H.264+ :Support
		H.265 :Type Main Profile
		H.265+ :Support
		Video Bit Rate :32 Kbps to 16 Mbps
		Image
		Max. Resolution :- 1920 × 1080
		Main Stream:-50Hz: 50fps (1920 × 1080, 1280 × 960, 1280×720)60Hz: 60fps (1920 × 1080, 1280 × 960, 1280×720)

## Surat Urban Development Authority

		Sub Stream 50Hz: 25fps (640 × 360, 352 × 288) 60Hz: 30fps (640 × 360, 352 × 240)
		Third Stream 50Hz: 25fps (1920 × 1080, 1280 × 720, 640 × 360, 352 × 288) 60Hz: 30fps (1920 × 1080, 1280 × 720, 640 × 360, 352 × 240)
		Image Enhancement: BLC/3D DNR
		Image settings: Support rotate mode. Brightness, contrast, saturation, and sharpness are adjustable via web browser and client software
		ROI (Region of Interest): Support 1 fixed region for mainstream and sub stream separately
		Day/Night Switch: -Auto/Scheduled
		Network:-
		Network Storage: Support microSD/SDHC/SDXC card (128G) local storage, NAS (NFS, SMB/CIFS), ANR
		Alarm Trigger: Motion Detection, Tampering Alarm, Network Disconnected, IP Address Conflict, Illegal Login, HDD full, HDD error
		Protocols: TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6
		Standard: ONVIF (PROFILE S, PROFILE G), PSIA, CGI, ISAPI
		General Function:
		One-key Reset, Anti-Flicker, Heartbeat, Mirror, Password Protection, Privacy Mask, Watermark, IP Address Filter
		Interface
		Communication Interface: 1 RJ45 10M/100M self-adaptive Ethernet port
		On-board Storage: Built-in microSD/SDHC/SDXC slot, up to 128 GB
		Smart Feature-set:
		Behavior Analysis: Line crossing detection, intrusion detection, unattended baggage detection, object removal detection
		Line Crossing Detection: Cross a pre-defined virtual line, up to 1 pre-defined virtual lines supported
		Intrusion Detection: Enter and loiter in a pre-defined virtual region, up to 1 pre-defined virtual regions supported
		Object Removal Detection: Objects removed from the pre-defined region, such as the exhibits on display.
		Unattended Baggage Detection: Objects left over in the pre-defined region such as the baggage, purse, dangerous materials
		Face Detection: Human face appears in the image can be detected and trigger linkage method
		General:
		Operating Conditions: -30 °C to +60 °C (-22 °F to +140 °F), Humidity 95% or less (non-condensing)
		Power Supply: 12 VDC ± 25%, PoE (802.3af 42.5 – 57 V, class 3)

## Surat Urban Development Authority

		Power Consumption:-12 VDC ± 25%, 6W PoE(802.3af, 42.5 – 57V, class 3), 7W
		IR Range: up to 30 m
		Protection Level: IP67
		Dimensions: Camera: Φ 127.3 × 95.9 mm (5.01" × 3.78") Package: 150 × 150 × 141 mm (5.91" × 5.91" × 5.55")
		Weight: Camera: 620 g (1.37 lb.)
<b>30</b>	<b>MR</b>	<b>IP PBX System make: Matrix/equivalent Supplying, Installing &amp; Commissioning as per the requirement. (Make: Matrix /Panasonic )</b>
		<b>IP Extension 100 Users License expandable up tp 500 users</b>
		<b>(A) FXS Gateway System 16 Channle</b>
		<b>(B ) FXS Gateway System 24 Channle</b>
		<b>(C ) FXS Gateway System 32 Channle</b>
		<u>Technical Specifications of EPABX</u>
		<ol style="list-style-type: none"> <li>1. It shall employ IP at its core with IP switching technology and 100% non-blocking.</li> <li>2. It shall have distributed processing architecture, SLIC and SMT Design.</li> <li>3. The system should have VOIP and VMS at its core .i.e. VOIP and VMS Daughter-board modules should be on CPU.</li> <li>4. The VOIP module should have 64 channels per module and such two modules shall be used to increase the number of VOIP channels.</li> <li>5. The VMS module should support 64 channel expansion, VMS shall support features like call queuing, multi-language support, multiple MOH</li> <li>6. The system shall provide IP functionality at its core to support SIP/IP extensions and trunks over SIP protocol. It should be possible to support SIP Trunks and SIP/IP Extension with the single VOIP module. It should support 99SIP trunks and 999 SIP/IP users (SIP/IP Phone, Mobile softphones, UC Client) on single VOIP module.</li> <li>7. It should support 128 IP-TDM calls and 500 IP-IP calls (non-transcoding).</li> <li>7. The system shall integrate in-skin voice mail module on CPU with 2170 hours of storage capacity and dedicated mailbox for each extension.</li> <li>8. It should support SIP over TLS and SRTP. It should be IPv6 ready.</li> </ol>

## Surat Urban Development Authority

	<p>9. System should have 2 USB port with storage capacity up to 64 gb</p> <p>10. System should have Gigabit Ethernet ports and there should be provision to have LAN and WAN port separated out to create two different networks.</p> <p>§ It should have built-in multi-party conferencing. It should have minimum 15 conference possible of 3-party. The maximum number of participants required in single conference would be 21 minimum</p> <p>11. The system shall have the inbuilt auto attendant facility and shall be able to answer minimum 9 calls simultaneously and should support dial-by-name.</p> <p>12. The system should be built on a universal slot architecture and modular in design to enable seamless growth, by adding the desired necessary cards as and when required. Any peripheral card can be inserted in any slot of the platform, whereby it is possible to increase or decrease the trunk lines or subscriber lines of the system as per the requirement in future as per mentioned maximum requirement.</p> <p>13. The architecture of the System shall be capable of seamless migration to its maximum capacity by simply adding peripherals cards in the same chassis without compromising function/features of the system. The architecture should be non-stackable eliminating individual power supply for each chassis.</p>
	<p>14. The system shall have multiple port interfaces such as analog extension lines, digital key phone, IP Extension, C.O. Line, GSM/3G, E &amp; M Line, PRI/E1 and VoIP. All interfaces shall be in the form of expansion cards and can be plugged into the universal slots of the system as and when require in the future.VoIP and Voice mail Daughter-board module should be on CPU.</p> <p>§ The system should retain traditional networks (CO, ISDN, and E&amp;M &amp; Radio) along with access GSM networks in single platform just by adding expansion cards.</p>
	<p>15. It should be suitable for DTMF as well as the FSK type of telephone instrumen It should be possible to reach the maximum capacity of main system up to 240 extensions, 8 PRI and 96 digital extensions, 64 CO lines,99 SIP trunks,1000 IP extension,16 radio ports &amp; 32 E&amp;M ,32 BRI and 40 GSM trunk on the same platform without adding any cabinet and with single power supply. 16.n The system memory should be based on Flash EPROM for higher reliability and faster rebooting minimum storage capacity of 256 MB ROM,2GB RAM &amp; 900 MHZ clock speed</p> <p>System power supply should be inbuilt and SMPS type ,It shall also work on 230 VAC supply or 48 V DC +/- 20%</p> <p>§ The system should support 19" Rack mount with 4U enclosure, wall mount &amp;table top mount</p> <p>§ System shall support E &amp; M Port to connect E &amp; M Lines</p> <p>§ System shall support Magneto ports to connect Magneto phone</p> <p>§ The system shall have an ISDN Digital platform and shall be compatible with ISDN PRI line of Local Service Provider.</p>
	<p>§ SYSTEM should support networking over PRI with fiber optic connectivity. External media converter should not be required.</p> <p>§ Multiple systems at different locations should be able to connect with each other without any link licenses.</p> <p>§ The system should have inbuilt Power failure transfer functionality on card. No external devices for Power failure required. The system should have built-in Power Failure Transfer for minimum 4 ports of PSTN Trunks.</p> <p>§ The system should have set of hybrid cards such as 4 PSTN+16 Extensions, 4 DKP+16 Extensions, 2 PSTN+2 DKP+16 Extensions, 4 PSTN+2 DKP+12 Extensions, 4 PSTN+2 DKP+8 Extensions to save on the resources of universal slots and investment only on the required number of ports.</p> <p>§ The system should have in-skin GSM card so that the multiple SIMs can be inserted on the GSM card plugged on to the PBX platform. Hence, the calls on GSM mobile can be</p>

## Surat Urban Development Authority

		<p>routed through this SIMs and contribute in reduction of overall telecom bill. No requirement of external device for GSM connectivity.</p> <p>§ System should support HF/VHF/UHF radio from a single card.</p>
		<p>§ The System should support Radio Connectivity with the in-skin card. It should have minimum 4 radio interface port per card. It should support HF/VHF/UHF with the same RIC card. It should be interoperable with following make of Radios:</p> <ul style="list-style-type: none"> <li>• MOTOROLA GM338</li> <li>• TADIRAN RT 6001/PRC 6020 (HF)</li> <li>• TADIRAN RT - 7330M VHF</li> <li>• STARS V MKII 25 W</li> <li>• LUP 322(V/VHF trans receiver)</li> <li>• HYT TM -610</li> <li>• CODAN HF Radio</li> <li>• Motorola XIR M8268 UHF</li> <li>• ICOM IC-F 110</li> </ul> <p>§ The offered exchange should be an ISDN ready switch. The system platform should always be ready for ISDN and only the necessary in skin ISDN cards need to be added for functionality.</p> <p>§ The system should support SMPP protocol to send/receive SMS using in-skin GSM SIMs within System. Any software required to send/receive SMS shall also to quote separately.</p> <p>§ The system shall have at least 1 RS232 ports for SMDR/PMS/CAS Interface.</p> <p>§ The system can be programmed through Analog telephone, Digital key phone, and Ethernet without any external devices.</p>
		<p>§ The system shall have a built-in remote maintenance facility. The system can be programmed remotely over the internet without any modem required on the PBX side.</p> <p>§ The call ringing sequence would be programmable and have options such as simultaneous, hunting off, round robin and delayed simultaneous.</p> <p>§ Caller line identification (CLI) on Analog and digital/PRI trunks shall be built-in for both DTMF and FSK telephone instrument.</p> <p>§ Detail reports of all system parameters should be generated through the SMDR port of System. External third party Billing software shall not be required for basic report generation. Reports shall be directly saved in PDF format.</p> <p>§ The offered system should be QSIG ready (for PRI) for Networking and Feature Transparency between two or more exchanges.</p> <p>§ Each port of the system shall be programmable. It shall have programmable features port-wise/extension-wise.</p> <p>§ The system shall support flexible numbering for extensions such as it may have extensions with 1 digit, 2 digits and up to 6 digits numbers as well as in combination of all.</p> <p>ming and internal call reports shall be generated on SMDR port of the system. It shall also be available online through Ethernet Port.</p> <p>§ The system should have built-in outgoing Call Log buffer of 6000 calls, incoming call log buffer of 5000 and call log buffer of 1000 internal calls.</p>

# Surat Urban Development Authority

§ Voice guided auto-attendant shall be preferably built-in.

§ System should support dial form the directory. There shall be minimum 900 numbers possible and shall also possible to dial it as an abbreviated number.

§ Features given to an extension shall be accessed from any other extension by dialing the secret codes.

§ System features shall have class of service, night service, conference, auto diagnostic etc. Class of service shall be unrestricted. STD restricted and semi restricted

§ System shall support SMS to Email and Email to SMS Feature without use of any additional software

§ System shall support SMS on NO reply

§ System shall support 128 VMS extensions over QSIG

§ SNTP client should be inbuilt in System

§ The system shall have features as CLI based routing, call duration control, least cost routing i.e. time, number or combination of both.

§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.

§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).

§ System's UC Client should support up to 1000 DSS, 600 BLF and drag & drop conference

§ The system must support following features of IP telephony: Dynamic DNS, Registrar Server, Proxy Server, Presence Server, NAT and STUN, VoIP codec G.711u, G.711a, G.723, G.729.

§ Varied type of open SIP IP Terminals such as IP Phone, SIP soft phone and Mobile SIP Client shall be supported.

§ The manufacturer should also have an application for Android and iPhone so that the enterprise mobility can be extended for the Smartphone users.

§ Supplied IP Phones and PC based soft phones should be of the same manufacturer.

§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).

§ IP phone operational functionality should be same as Digital Extension of PBX

§ system shall support SNMP

§ System shall support video conferencing over ISDN PRI/BRI

§ System should have capability to support Video call Over IP

§ System shall support Direct termination of E1 over Fiber without using any external media convertor

§ System shall support in skin Data card for data transfer over E1 copper & E1 fiber

§ System should be Fully operational between Temperature 0°C to +45°C

§ System should be certified for EMI/EMC, CE, FCC15B,

System should have in-skin Voice Mail System with following features:

§ Attend as much as 64 calls simultaneously with flexibility of routing callers to desired extension or delivering information depend upon the selection

§ Dial-by-Name to reach the intended user directly without knowing/remembering extension number

§ Selectively allocate voicemails to users with the flexibility of customizable mailbox size and greetings for All/Selective users

§ Group mailbox to share messages between departmental groups

## Surat Urban Development Authority

	<p>§ Anywhere access to voice mail with just a phone call</p> <p>§ Password protected secured voice mail access</p> <p>§ Record important conversations for future reference and record maintenance</p> <p>§ Redirection of voice mails to another extension in case of non-availability</p> <p>§ Tag voice mails while Forwarding Messages to Another Mailbox</p> <p>§ Broadcast voice message to a group of personnel, at a go</p> <p>§ Distribution lists for delivery of voice mails to different set of users or groups</p> <p>§ Message wait indication via ring, change in dial-tone, voice message or message wait lamp</p> <p>§ Notification of a new voice mail via email alert or a phone call</p> <p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ Operator features shall have the assistance to extension, attended call transfer, call intercept, indication of call waiting, night service control etc.</p>
	<p>§ The system shall have built-in web based software programming tool for system administration.</p> <p>§ Access codes, system timers and access to features shall be programmable. §</p> <p>Storage of outgoing, incoming and internal call reports shall be generated on SMDR port of the system. It shall also be available online through Ethernet Port.</p> <p>§ The system should have built-in outgoing Call Log buffer of 6000 calls, incoming call log buffer of 5000 and call log buffer of 1000 internal calls.</p> <p>§ Voice guided auto-attendant shall be preferably built-in.</p> <p>§ System should support dial form the directory. There shall be minimum 900numbers possible and shall also possible to dial it as an abbreviated number.</p> <p>§ Features given to an extension shall be accessed from any other extension by dialing the secret codes.</p> <p>§ System features shall have class of service, night service, conference, auto diagnostic etc. Class of service shall be unrestricted. STD restricted and semi restricted</p> <p>§ System shall support SMS to Email and Email to SMS Feature without use of any additional software</p>



## Surat Urban Development Authority

	<p>§ System shall support SMS on NO reply</p> <p>§ System shall support 128 VMS extensions over QSIG</p> <p>§ SNTP client should be inbuilt in System</p> <p>§ The system shall have features as CLI based routing, call duration control, least cost routing i.e. time, number or combination of both.</p> <p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).</p> <p>§ System's UC Client should support up to 1000 DSS, 600 BLF and drag &amp; drop conference</p> <p>§ The system must support following features of IP telephony: Dynamic DNS, Registrar Server, Proxy Server, Presence Server, NAT and STUN, VoIP codec G.711u, G.711a, G.723, G.729.</p> <p>§ Varied type of open SIP IP Terminals such as IP Phone, SIP soft phone and Mobile SIP Client shall be supported.</p>
	<p>§ Supplied IP Phones and PC based soft phones should be of the same manufacturer.</p> <p>§ The system shall have a conversational recording in the mail box should be available with voice mail system card of System. Conversation recording should be possible on Analog/Digital/IP as well as Mobile SIP Smartphones (Android/iPhone).</p> <p>§ IP phone operational functionality should be same as Digital Extension of PBX</p> <p>§ system shall support SNMP</p> <p>§ System shall support video conferencing over ISDN PRI/BRI</p> <p>§ System should have capability to support Video call Over IP</p> <p>§ System shall support Direct termination of E1 over Fiber without using any external media convertor</p> <p>§ System shall support in skin Data card for data transfer over E1 copper &amp; E1 fiber</p> <p>§ System should be Fully operational between Temperature 0°C to +45°C</p> <p>§ System should be certified for EMI/EMC, CE, FCC15B,</p>
	<p>System should have in-skin Voice Mail System with following features:</p> <p>§ Attend as much as 64 calls simultaneously with flexibility of routing callers to desired extension or delivering information depend upon the selection</p> <p>§ Dial-by-Name to reach the intended user directly without knowing/remembering extension number</p> <p>§ Selectively allocate voicemails to users with the flexibility of customizable mailbox size and greetings for All/Selective users</p> <p>§ Group mailbox to share messages between departmental groups</p> <p>§ Anywhere access to voice mail with just a phone call</p> <p>§ Password protected secured voice mail access</p> <p>§ Record important conversations for future reference and record maintenance</p> <p>§ Redirection of voice mails to another extension in case of non-availability</p> <p>§ Tag voice mails while Forwarding Messages to Another Mailbox</p> <p>§ Broadcast voice message to a group of personnel, at a go</p> <p>§ Distribution lists for delivery of voice mails to different set of users or groups</p> <p>§ Message wait indication via ring, change in dial-tone, voice message or message wait lamp</p>

## Surat Urban Development Authority

	<p>§ Extension features shall have an extension to extension call, extension to central office, extension to operator, automatic call back, call transfer, call forward, follow me, executive/secretary, do not disturb, barge-in, raid, Boss ring, Priority, emergency reporting etc.</p> <p>§ Operator features shall have the assistance to extension, attended call transfer, call intercept, indication of call waiting, night service control etc.</p>
	<ul style="list-style-type: none"> <li>• Abbreviated Dialing (Global &amp; Personal)</li> <li>• Access Codes (Programmable)</li> <li>• Account Codes (Forced)</li> <li>• Alarm-Multiple</li> <li>• Alarms</li> <li>• Alarm-Snooze</li> <li>• Allowed and Denied Lists</li> <li>• Alternate Number Dialing</li> <li>• Anonymous Call Rejection (SIP)</li> <li>• Auto Call Back (Busy, No Reply)</li> <li>• Auto Redial</li> <li>• Auto-Attendant</li> <li>• Background Music</li> <li>• Backup SMDR</li> <li>• Backup-System Configuration</li> <li>• Backup-System Software</li> <li>• Barge-in</li> <li>• Boss Ring</li> <li>• Call Budget on Extensions</li> <li>• Call Budget on Trunks</li> <li>• Call Chaining</li> <li>• Call Cost Calculation</li> <li>• Call Duration Control</li> <li>• Call Follow Me</li> <li>• Call Forward (Busy, No Reply , Dual Ring and to External Number)</li> <li>• Call Park (General and Personal Orbit)</li> <li>•</li> </ul>
	<p>Call Pick Up (Group and Selective)</p> <ul style="list-style-type: none"> <li>• Call Progress Tones (Programmable)</li> <li>• Call Splitting</li> <li>• Call Taping</li> <li>• Call Transfer (Screened, On Busy , While Ringing, Trunk to Trunk)</li> <li>• Calling Line Identification &amp; Presentation (CLIP)</li> <li>• Calling Line Identity Restriction (CLIR)</li> <li>• Cancel All Station Features</li> <li>• Class of Service (COS)</li> <li>• CLI based Routing</li> <li>• Closed User Group (With/Without Exchange ID)</li> <li>• Computer Telephony Integration (CTI)</li> <li>• Conference Dial-in</li> </ul>

# Surat Urban Development Authority

	<ul style="list-style-type: none"> <li>• Conference – Multiple Participants</li> <li>• Conflict Dialing</li> <li>• Continued Dialing</li> <li>• Conversation Recording</li> <li>• Date and Time Format</li> <li>• Daylight Saving Time (DST)</li> <li>• Direct Inward Dialing (DID)</li> <li>• Day-Night Mode</li> <li>• Department Call</li> <li>• Digest Authentication (on SIP)</li> <li>• Direct Dialing-In (DDI on T1/E1/PRI)</li> <li>• Direct Inward System Access (DISA)</li> <li>• Direct Outward System Access (DOSA)</li> <li>• Direct Station Selection Console</li> <li>• (DSS Console)</li> <li>• Distinctive Rings</li> <li>• Do-Not-Disturb (DND)</li> <li>• Do-Not-Disturb (Remote)</li> <li>• Dual Ring</li> <li>• Dynamic DNS (DDNS)</li> <li>• Dynamic Lock (Manual)</li> <li>• E-mail Notification (VMS)</li> <li>• Embedded Registrar and Proxy Servers (SIP Server)</li> <li>•</li> </ul>
	<p>Emergency Calls Detection and Reporting</p> <ul style="list-style-type: none"> <li>• Emergency Conference</li> <li>• Emergency Number Dialing</li> <li>• External Call</li> <li>• External Call Forward (ECF)</li> <li>• Fax over IP (T .38 Relay and Pass-Through)</li> <li>• File Transfer Protocol</li> <li>• Flexible Numbers (Up to 6 Digits)</li> <li>• Forced Answer</li> <li>• Help Desk</li> <li>• Hold</li> <li>• Hot Desking</li> <li>• Hot Outward Dialing (With/Without Number &amp; Delay)</li> <li>• Hotline (Immediate and With Delay)</li> <li>• Hunting/User Group</li> <li>• Incoming Call Management</li> <li>• Installation Wizard</li> <li>• Internal Call</li> <li>• Internal Call Restriction</li> <li>• Interrupt Request</li> <li>• Last Caller Recall</li> <li>• Last Number Redial</li> <li>• Least Cost Routing (Number , Time and Service • Provider to Service Provider , Carrier Pre-Selection)</li> <li>• Live Call Screening (VMS)</li> <li>• Live Call Supervision</li> <li>• Logical Partitioning</li> <li>•</li> </ul>

## Surat Urban Development Authority

	<p>Maturity (Polarity Reversal, Delay , CPD)</p> <ul style="list-style-type: none"> <li>• Menu based Command (DKP)</li> <li>• Message Wait Indication</li> <li>• Missed Calls</li> <li>• Music-On-Hold</li> <li>• Mobile Port (GSM/3G Port)</li> <li>• Multi-Stage Dialing</li> <li>• Mute</li> <li>• Name Programming (Station, Trunk)</li> <li>• NAT and STUN (VoIP)</li> <li>• Network Selection (GSM)</li> <li>• Off-Hook Alert (DKP)</li> <li>• Online SMDR</li> <li>• Operator (Single, Multiple)</li> <li>• Override</li> <li>• Paging (Internal )</li> <li>• Peer-to-Peer Calling</li> <li>• Priority (Intercom and Trunk)</li> <li>• Privacy</li> <li>• Programming the System</li> <li>• (Using SLT , DKP , Ethernet Port)</li> <li>• Quick Dial</li> <li>• Raid</li> <li>• Real Time Clock</li> <li>• Region Selection</li> <li>• Remote Alarm</li> <li>• Remote Call Forward</li> <li>• Remote Programming</li> <li>• Routing Group</li> <li>• Return Call to Original Caller (RCOC)</li> <li>• Room Monitor</li> <li>• RS232C Port</li> <li>• SMDR Posting (Call Accounting System Interface)</li> <li>• SMS Gateway</li> <li>• SMS Server</li> <li>• Self-Ring Test</li> <li>• Selective Trunk Access</li> <li>• SIP and RTP QoS (VoIP)</li> <li>• Station Groups</li> <li>• Station Message Detail Record - 12000 Records)</li> <li>• Station Name</li> <li>• System Activity Log and Display</li> <li>• System Administrator (SA) Mode</li> </ul>
	<ul style="list-style-type: none"> <li>• Remote Programming</li> <li>• Routing Group</li> <li>• Return Call to Original Caller (RCOC)</li> <li>• Room Monitor</li> <li>• RS232C Port</li> <li>• SMDR Posting (Call Accounting System Interface)</li> <li>• SMS Gateway</li> <li>• SMS Server</li> <li>• Self-Ring Test</li> </ul>

## Surat Urban Development Authority

		<ul style="list-style-type: none"> <li>• Selective Trunk Access</li> <li>• SIP and RTP QoS (VoIP)</li> <li>• Station Groups</li> <li>• Station Message Detail Record - 12000 Records)</li> <li>• Station Name</li> <li>• System Activity Log and Display</li> <li>• System Administrator (SA) Mode</li> </ul>
		<ul style="list-style-type: none"> <li>• System Engineer (SE) Mode</li> <li>• System Fault Log</li> <li>• System Security (Password)</li> <li>• Time Tables</li> <li>• Time Zone Display</li> <li>• Toll Control</li> <li>• Trunk Access Group</li> <li>• Trunk Auto Answer</li> <li>• Trunk Connectivity (BRI)</li> <li>• Trunk Connectivity (GSM/3G)</li> <li>• Trunk Connectivity (T1/E1/ISDN PRI)</li> <li>• Trunk Connectivity (TWT or CO)</li> <li>• Trunk Connectivity (VoIP)</li> <li>• Trunk Reservation</li> <li>• Upgrading the Software</li> <li>• User Absent/Present</li> <li>• Virtual Stations</li> <li>• Voice Message Applications</li> <li>• Voice Prompts for Tones</li> <li>• Walk-In Class of Service (Single/Multiple calls)</li> <li>• Web based Programming</li> <li>• GSM Trunk Connectivity</li> <li>• Automatic Call to Missed (Predefined) Calls on Trunks</li> <li>• Routing of calls to only permissible legal networks (Logical Partitioning)</li> <li>• SMDR through Ethernet Port</li> </ul>
		Technical Specification of Digital Key phone:-
		<ul style="list-style-type: none"> <li>• 240*64 Pixels Graphical LCD with Backlit</li> <li>• LED for Incoming/Ongoing Call, Mute, Hold</li> <li>• Add on 32 key module support, maximum 4 key modules shall be supported</li> <li>• Intuitive User Interface with Icons</li> <li>• Multiple Languages Caller ID with Name, Number</li> <li>• 49 keys including 4 Context Sensitive Hard Keys</li> <li>• 1 x RJ9 Handset Port</li> <li>• 1 x RJ9 Headset Port</li> <li>• 1 x 3.5 mm Headset Port</li> <li>• Installation: Wall Mount, Table-top,</li> <li>• CE, FCC-15. RoHS certified</li> </ul>

# Surat Urban Development Authority

		<ul style="list-style-type: none"> <li>• Mute</li> <li>• Call Hold</li> <li>• Do Not Disturb</li> <li>• Speed Dial</li> <li>• Hotline</li> <li>• Redial</li> <li>• Call Back</li> <li>• Auto Answer</li> <li>• Call Forward</li> <li>• Call Waiting</li> <li>• Call Transfer</li> <li>• Room Monitoring</li> <li>• Conference</li> <li>• Directory</li> <li>• Call Logs</li> <li>• Dial-by-Name</li> <li>• Message wait Lamp</li> <li>• Ringer Lamp</li> <li>• Voice Mail</li> <li>• Call Pickup – Group and Selective</li> </ul>
		<p><u>Technical Specification of Type-1 IP Phone:</u></p> <ul style="list-style-type: none"> <li>• <u>132 x 64 Pixel Graphical Display</u></li> <li>• <u>Context Sensitive and Fixed Function Keys</u></li> <li>• <u>Full Duplex Speakerphone with AEC, VAD, CNG</u></li> <li>• <u>TLS/SRTP for Voice Security</u></li> <li>• <u>Integrated PoE (802.3af)</u></li> <li>• <u>Auto Provision, TR069</u></li> <li>• <u>IPv6 Ready, PC and LAN Ports</u></li> <li>• <u>132x64-pixel Graphical LCD</u></li> <li>• <u>LED for Incoming/Ongoing Call, MWI, Mute, Hold</u></li> <li>• <u>Intuitive User Interface with Icons and Soft keys</u></li> <li>• <u>Multiple Languages</u></li> <li>• <u>Caller ID with Name, Number</u></li> <li>• <u>2 x 10/100 Mbps LAN &amp; PC Ports</u></li> <li>• <u>29 keys including 4 Soft Keys</u></li> <li>• <u>1 x RJ9 Handset Port</u></li> <li>• <u>1 x RJ9 Headset Port</u></li> <li>• <u>Installation: Wall Mount, Table-top</u></li> <li>• <u>CE, FCC-15 (Class-B), RoHS</u></li> </ul>
		<p>Phone Book</p> <ul style="list-style-type: none"> <li>• Local Phonebook up to 1000 entries Black List</li> <li>• XML Remote Phonebook</li> <li>• Intelligent Search Method</li> <li>• Phonebook Search/Import/Export</li> <li>• Call History: Dialed/Received/Missed/Forwarded</li> </ul>

# Surat Urban Development Authority

	<p>Phone Features</p> <ul style="list-style-type: none"> <li>• Full-duplex Hands-free Speakerphone with AEC</li> <li>• Codecs: G.711(A/μ), G.722, G.723, G.729, G.726, iLBC</li> <li>• DTMF: In-band, Out-of-band (RFC 2833) and SIP INFO</li> <li>• VAD, CNG, AEC, PLC, AJB, AGC</li> <li>• 1 VoIP Account</li> <li>• Call Hold, Mute, DND</li> <li>• One-touch Speed Dial, Hotline</li> <li>• Redial, Call Return, Auto Answer</li> <li>• Call Forward, Call Waiting, Call Transfer</li> <li>• Local 3-way Conferencing</li> <li>• Direct IP Call without SIP Proxy</li> <li>• Ringtone Selection/Import/Delete</li> <li>• Keypad Lock, Emergency Call</li> <li>• Set Date &amp; Time Manually or Automatically</li> <li>• Dial Plan, XML Browser, Action URL/URI</li> <li>• Instant Messaging (Web UI and Phone)</li> </ul> <p>Call Management</p> <ul style="list-style-type: none"> <li>• Anonymous Call (CLIR)</li> <li>• Anonymous Call Rejection</li> <li>• Message Waiting Indicator (MWI)</li> <li>• Voicemail, Call Pickup</li> <li>• Intercom, Music on Hold</li> <li>• Call Completion, Hot-desking</li> <li>• Dial out Number from Web UI</li> </ul>
	<p>Networking and Security</p> <ul style="list-style-type: none"> <li>• SIP v1 (RFC2543), v2 (RFC3261)</li> <li>• IPv6</li> <li>• NAT Transverse: STUN Mode</li> <li>• Proxy Mode and Peer-to-Peer SIP Link Mode</li> <li>• IP Assignment: Static/DHCP/PPPoE</li> <li>• HTTP/HTTPS Web Server</li> <li>• Time and Date Synchronization using SNTP</li> <li>• UDP/TCP/DNS-SRV (RFC 3263)</li> <li>• QoS: 802.1p/Q Tagging (VLAN), Layer 3 ToS, DSCP</li> <li>• SRTP for Voice</li> <li>• Transport Layer Security (TLS)</li> <li>• HTTPS Certificate Manager</li> <li>• AES Encryption for Configuration File</li> <li>• Digest Authentication using MD5/MD5-sess</li> <li>• IEEE802.1X</li> <li>• SNMP v1/v2</li> </ul>
	<p>Management</p> <ul style="list-style-type: none"> <li>• Configuration: Browser/Phone/Auto Provision</li> <li>• Auto Provision via FTP/TFTP/HTTP/HTTPS for Mass Deploy</li> <li>• Server Redundancy</li> <li>• Factory Reset</li> <li>• Soft Reboot</li> <li>• Package Tracing</li> <li>• System Log</li> </ul>

## Surat Urban Development Authority

		Power Supply <ul style="list-style-type: none"> <li>• Power Adapter: 5VDC/600mA (Included in the Box)</li> <li>• Power over Ethernet (IEEE 802.3af)</li> <li>• Power Consumption: 5W (Typical)</li> <li>• Connector: DC Power Jack</li> </ul>
		Technical Specification for Type-2 IP Phone
		<ul style="list-style-type: none"> <li>• 240*64 Pixels Graphical LCD with Backlit</li> <li>• LED for Incoming/Ongoing Call, Mute, Hold</li> <li>• Add on 32 key module support, maximum key modules shall be supported</li> <li>• Intuitive User Interface with Icons</li> <li>• Multiple Languages Caller ID with Name, Number</li> <li>• 49 keys including 4 Context Sensitive Hard Keys</li> <li>• 1 x RJ9 Handset Port</li> <li>• 1 x RJ9 Headset Port</li> <li>• 1 x 3.5 mm Headset Port</li> <li>• Installation: Wall Mount, Table-top</li> <li>• CE,FCC-15,RoHS</li> <li>• Power over Ethernet (IEEE 802.3af)</li> <li>• Power Consumption: 5W (Typical)</li> <li>• Connector: DC Power Jack, 5VDC/600mA</li> <li>• Operating Temperature Range =0 to 45°C</li> <li>• Storage Temperature = 0 to 55°C</li> <li>• Message wait Lamp</li> <li>• Ringer Lamp</li> <li>• Voice Mail</li> <li>• Call Pickup – Group and Selective</li> <li>• Paging</li> </ul>
		Phone Features
		<ul style="list-style-type: none"> <li>• Mute</li> <li>• Call Hold</li> <li>• Do Not Disturb</li> <li>• Speed Dial</li> <li>• Hotline</li> <li>• Redial</li> <li>• Call Back</li> <li>• Auto Answer</li> <li>• Call Forward</li> <li>• Call Waiting</li> <li>• Call Transfer</li> <li>• Room Monitoring</li> <li>• Conference • Directory</li> <li>• Call Logs</li> <li>• Paging</li> <li>• Dial-by-Name</li> </ul>
		Technical Specification of Mobile UC client for Android/iPhone:



## Surat Urban Development Authority

	<ul style="list-style-type: none"> <li>• Shall be installed on android OS 2.2 or later</li> <li>• Shall be installed on IOS 7 or later</li> <li>• Comprehensive Call Management</li> <li>• One-Touch Access to PBX Features</li> <li>• Corporate Directory Integration</li> <li>• Video Calling</li> <li>• Favorites</li> <li>• Presence Sharing and Instant Messaging</li> <li>• Voice Mail Access</li> <li>• Conversation Recording</li> <li>• Call management – call hold, transfer, forward, DND and intercom</li> <li>• Multiparty audio conferencing</li> <li>• Blind transfer</li> <li>• Menu options - Call Pickup, Paging, Message wait, Call Retrieve, Alarm and Reminder, Dynamic Lock, Dial-In Conference, CLIR, Room monitoring &amp; Call supervision</li> <li>• Dial by extension</li> <li>• Call Screening - ACB, Forced Answer, Global Hold, General Call Park, Call Chaining,IR&amp; Barge-IN</li> <li>• Multiple call support</li> <li>• SMS over IP</li> <li>• One touch transfer</li> <li>• Wi-Fi to cellular handover</li> <li>• Multiple language support</li> <li>• Call toggle</li> <li>• Auto call back</li> <li>• Auto redial</li> <li>• Forced answer</li> <li>• Open a door</li> <li>• Call logs</li> <li>• Missed calls notification</li> <li>• DND override</li> </ul>
	Technical Specification of Windows Desktop based UC Soft client:
	<ul style="list-style-type: none"> <li>• Windows Desktop based UC Client for Seamless Collaboration, shall support installation on windows 7 service pack 1 or higher</li> <li>• Corporate Directory Integration</li> <li>• 1000 DSS &amp; 600 BLF keys for Monitoring</li> <li>• Popup Window for Incoming Message and Call</li> <li>• Presence Sharing and Instant Messaging</li> <li>• Video Calling</li> <li>• Drag and Drop Conference</li> <li>• Contact Grouping</li> <li>• Video call</li> <li>• Voicemail</li> <li>• Favorites</li> <li>• Call management – call hold, transfer, forward, DND and intercom</li> <li>• Multiparty audio conferencing</li> <li>• Blind transfer</li> <li>• Menu options - Call Pickup, Paging, Message wait, Call Retrieve, Alarm and Reminder, Dynamic Lock, Dial-In Conference, CLIR, Room monitoring &amp; Call supervision</li> <li>• Handover to external number</li> <li>• Smart directory access</li> <li>• Dial by extension</li> </ul>

## Surat Urban Development Authority

		<ul style="list-style-type: none"> <li>• Call Screening - ACB, Forced Answer, Global Hold, General Call Park, Call Chaining, Call Recording, IR &amp; Barge-IN</li> <li>• Multiple call support</li> <li>• SMS over IP</li> <li>• One touch transfer</li> <li>• Call toggle</li> <li>• Auto call back</li> <li>• Auto redial</li> <li>• Forced answer</li> <li>• Open a door</li> <li>• Call logs</li> <li>• Missed calls notification</li> <li>• DND override</li> <li>• Click to Call</li> <li>• Outlook Integration</li> <li>• Calendar Integration</li> <li>• Keyboard Integration</li> </ul>
<b>31</b>		<b>4 MP Speed Doom PTZ 25X Zoom Make : HIKVISION/Dahau or equivalent Suppling, Installation &amp; Configuring as per security requirements.</b>
		Camera Module: DS-2DE7430IW-AE E Series 4MP 30x IR Network Speed Dome
		Image Sensor:1/1.9" progressive scan CMOS
		Min. Illumination: Color: 0.005 Lux @(F1.5, AGC ON) B/W: 0.002 Lux @(F1.5, AGC ON) 0 Lux with IR
		Shutter Time: 50Hz: 1/1 s to 1/30,000 s 60Hz: 1/1 s to 1/30,000 s
		White Balance: Auto/Manual/ATW (Auto-tracking White Balance)/Indoor/Outdoor/Fluorescent Lamp/Sodium Lamp
		AGC: Auto/Manual
		Day & Night: IR cut filter
		Digital Zoom: 16x
		Privacy Mask: 8 programmable privacy masks
		Focus Mode: Auto/Semi-automatic/Manual
		3D DNR: Support
		BLC: Support
		HLC: Support
		Digital WDR:Support
		Defog: Support
		EIS:Support
		Regional Exposure: Support
		Regional Focus : Support
		Lens:
		Focal Length: 5.9 mm to 177 mm, 30x Optical Zoom
		Zoom Speed: Approx. 4.8 s (Optical Lens, Wide-Tele)
		Horizontal FOV:48.8° to 2.3° (Wide-Tele)
		Working Distance:10 mm to 1500 mm (Wide-Tele)
		Aperture Range:F1.5 to F3.4

## Surat Urban Development Authority

		PTZ:
		Movement Range (Pan):360° endless
		Pan Speed: Configurable, from 0.1°/s to 160°/s, Preset Speed: 240°/s
		Movement Range (Tilt): From -15° to 90° (Auto Flip)
		Tilt Speed: Configurable, from 0.1°/s to 120°/s, Preset Speed: 200°/s
		Proportional Zoom: Support
		Presets:300
		Patrol Scan:8 patrols, up to 32 presets for each patrol
		Pattern Scan: 4 pattern scans, record time over 10 minutes for each scan
		Power-off Memory: Support
		Park Action:Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan
		PTZ Status Display:Support
		Preset Freezing: Support
		Scheduled Task: Preset/Pattern Scan/Patrol Scan/Auto Scan/Tilt Scan/Random Scan/Frame Scan/Panorama Scan/Dome Reboot/Dome Adjust/Aux Output
		Smart Features:
		Basic Event Detection: Motion Detection, Video Tampering, Alarm Input, Alarm Output, Exception
		Smart Event Detection: Audio Exception Detection, Face Detection, Intrusion Detection, Line Crossing Detection, Region Entrance Detection, Region Exiting Detection
		Smart Record: ANR (Automatic Network Replenishment), Dual-VCA
		Infrared:
		IR Distance:150 m
		Smart IR: Support
		IR Control: IR brightness and angle are intelligently adjustable according to the scenes.
		Network:
		Max. Resolution: 2560 × 1536
		Main Stream: 50Hz: 25fps (2560 × 1536, 2048 × 1536, 1920 × 1080, 1280 × 960, 1280 × 720) 50fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (2560 × 1536, 2048 × 1536, 1920 × 1080, 1280 × 960, 1280 × 720) 60fps (1920 × 1080, 1280 × 960, 1280 × 720)
		Sub-Stream: 50Hz: 25fps (704 × 576, 640 × 480, 352 × 288) 60Hz: 30fps (704 × 480, 640 × 480, 352 × 240)
		Third Stream: 50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 576, 640 × 480, 352 × 288) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720, 704 × 480, 640 × 480, 352 × 240)
		ROI: Main stream, sub-stream and third stream respectively support four fixed areas
		Video Compression: Main Stream: H.265+/H.265/H.264+/H.264 Sub-Stream: H.265/H.264/MJPEG Third Stream: H.265/H.264/MJPEG

## Surat Urban Development Authority

		H.264 with Baseline/Main/High Profile
		Audio Compression: G.711alaw/G.711ulaw/G.722.1/G.726/MP2L2/PCM
		Protocols: IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, Bonjour
		Simultaneous Live View: Up to 20 channels
		User/Host: Up to 32 users, 3 levels: Administrator, Operator and User
		Security Measures: User Authentication (User ID and Password), Host Authentication (MAC address), HTTPS Encryption, IEEE 802.1x Port-Based Network Access control, IP address Filtering
		System Integration:
		Alarm Input: 2-ch alarm input
		Alarm Output: 1-ch alarm output
		Alarm Linkage: Preset, Patrol Scan, Pattern Scan, Memory Card Video Recording, Trigger Recording, E-Map, VCA Capture, Upload to FTP, Send Email, etc.
		Audio Input: 1-ch audio input
		Audio Output: 1-ch audio output
		Network Interface: 1 RJ45 10 M/100 M Ethernet Interface, Hi-PoE
		Storage: Built-in memory card slot, support Micro SD/SDHC/SDXC, up to 128 GB, NAS (NPS, SMB/ CIPS), ANR
		API: Open-ended, support ONVIF, PSIA and CGI, support HIKVISION SDK and Third-Party Management Platform
		Client: iVMS-4200, iVMS-4500, iVMS-5200
		Web Browser: IE 8+, Chrome 31+, Firefox 30+, Safari 8.0+ web browser
		General:
		Power: 24 VAC & Hi-PoE Max.: 40 W Supplement Light: 19 W
		Working Temperature: Outdoor: -30°C to 65°C (-22°F to 149°F)
		Working Humidity: ≤ 90%
		Protection Level: IP66 Standard, TVS 4000V Lightning Protection, Surge Protection and Voltage Transient Protection
		Dimensions: Φ 220 mm × 353.4 mm (Φ 8.66" × 13.91")
		Weight: Approx. 4.5 kg (9.92 lb)
<b>32</b>		<b>Raised Flooring For Server room With Installation (Make:- Unitile/Unifloor/ztfloor or equivalent)</b>
		Concentrated Loads : 360 Kgs (800 lbf ) with a top-surface deflection under load and a permanent set not to exceed 2.54 & 0.25 mm (0.10 & 0.010 inch) respectively according to CISCA A/F, Section I "

## Surat Urban Development Authority

		Concentrated Loads''
		Ultimate Concentrated Load: 900 kgs (2000 lbf) without failing according to CISCA A/F, Section II '' Ultimate Loading''
		Rolling Loads : 180 kgs ( 400 lbf) of the following magnitude, with a combination of local and overall deformation not to exceed 1.02 mm (0.040 inch) according to CISCA A/F, Section III '' Rolling Loads'' CISCA AF Rolling Load: 10000 Passes
		Stringer Load Testing : 102 Kgs (225 lbf) at the centre of the span with a permanent set not to exceed 0.25mm ( 0.010 inch) as determined by CISCA A/F, Section IV, '' Stringer Load Testing''
		Pedestal Axial Load Test : 22 kN axial Load per pedestal, according to CISCA A/F, Section V, ''Pedestal Axial Load Test ''
		Pedestal Over Turning Moment Test : 113 N x meters ,according to CISCA A/F, Section VI, ''Pedestal Overturning Moment Test''
		Uniformly Distributed Load (UDL): 1080 kg/m <sup>2</sup> with a maximum permissible deflection of not more than 1.52 mm as per definition of ''Uniform load'' of CISCA tested over an area of 1 ft x 1 ft for 220 lbf/ft <sup>2</sup> load. Note: The uniform load rating of an access floor panel as specified here in should not be confused with the ''uniform live load'' as specified in seismic zone application.
		Soft body impact test on the system shall be with a load of 40 kgs dropped form a height of 1000 mm and shall comply to all the performance as specified in the test method (T12.03) of MOB PF2 PS Standards.
		Hard body impact test on the system shall be with 4.5 kgs dropped from a height of 600 mm and shall comply to all the performance as specified in the test method (T13.03) of MOB PF2 PS Standards.
		Fire Rating : The Panels shall confirm to Class O & Class 1 Fire Ratings tested as per BS 476 Part 6 (Fire Propagation) & 7 (Surface spread of flame) as also ASTM E84 1998 (Flammability) and ASTM E136 (Combustibility)
		Electrical Resistivity : As per ASTM F150/ NFPA 99 / ANSI S7.1 / CEI 61340 but modified for surface to ground. To place one electrode on the Access floor Panel surface and to attach the other electrode on the pedestal. Resistance to be tested at 100/500 volts 1. Conductive range : 2.5x10 <sup>4</sup> – 1x 10 <sup>6</sup> Ohms (surface to ground) 2. Static dissipative range : 1x10 <sup>6</sup> – 1x10 <sup>9</sup> Ohms (surface to ground) 3. Anti static range : 1x10 <sup>9</sup> – 2x10 <sup>10</sup> Ohms (surface to surface)

## Surat Urban Development Authority

		<p>Fabrication Tolerance</p> <p>A. Floor panel flatness : <math>\pm 0.75</math> mm in any direction</p> <p>B. Floor panel width or length from specified size : <math>\pm 0.50</math>mm</p> <p>C. Floor panel squareness : <math>\pm 0.38</math> mm</p>
		<p>Installation Tolerance</p> <p>A. Overall level before application of any load : <math>\pm 1.5</math> mm over any 5.00 Sqmt <math>\pm 6</math> mm over any size of basic space</p> <p>B. Panel level : <math>+ 0.75</math> mm before the application of any load</p> <p>C. Panel Interchangeability installation and removal : shall be interchangeable (except for field cut panels) and replaceable in any of the four directions at 90° increments</p>
33		<p><b>SAN BOX with OFC connectivity with ( 10X 10TB ) Loaded Suppling, Installation, Configuration, Virtualization Make: Dell /Linovo/HP or equivalent ( SAN box and server should be in same make.)</b></p>
		<b>PowerVault MD3800f, 16G Fibre Channel, 2U-12 drive Components.</b>
		1 Bezel Assembly, MD3800f
		2 Hard Drive Blank Filler 3.5
		10 10TB 7.2K RPM NLSAS 512e 3.5in Hot-plug Hard Drive
		2 Controller, 16G FC, 2U MD38xxF, 8G Cache
		2 2X SFP, FC16, 16GB
		1 Power Supply, AC 600W, Redundant
		2 Jumper Cord,10A,2M,C13/C14 (India BIS)
		4 Multi-Mode Fibre Channel Cable LC-LC 2 Meters
		1 ReadyRails II Static Rails for 4-post Racks
		<b>Software</b>
		1 No Software
		<b>Service</b>
		1 ProDeploy Dell Storage MD Series 3XXX 2U SAN up to 8 hosts - Deployment
		1 ProDeploy Dell Storage MD Series 3XXX 2U SAN - Deployment Verification
		1 Technical Support
		1 ProSupport: 7x24 Technical Support & Assistance: 3Yr
		1 Next Business Day Onsite Service Year 1-3 (NBD)
		1 # Limited Warranty: Year 1-3 (POW)
		1 3Yr ProSupport: Next Business Day Service (Parts+Labor)
		1 No Remote Advisory Services Purchased
34		<p><b>PowerEdge R740 Server R740 2 U Rack server with Raid 5 + RPS +64GB RAM Suppling, Installation, Configuration, Virtualization Make: Dell /Linovo/HP .( SAN box and server should be in same make.)</b></p>

## Surat Urban Development Authority

	<p>1 PowerEdge R740/R740XD Motherboard</p> <p>1 Intel Xeon Silver 4108 1.8G, 8C/16T, 9.6GT/s , 11M Cache, Turbo, HT (85W) DDR4-2400</p> <p>1 Chassis with up to 8 x 2.5" SAS/SATA Hard Drives for 1CPU Configuration</p> <p>1 PowerEdge 2U Standard Bezel</p> <p>1 Riser Config 1, 4 x8 slots</p> <p>1 PowerEdge R740 Shipping Material</p> <p>1 Quick Sync 2 (At-the-box mgmt)</p> <p>1 Dell EMC Luggage Tag</p> <p>1 2666MT/s RDIMMs</p> <p>1 Performance Optimized</p> <p>1 Blank for 1CPU Configuration</p> <p>2 32GB RDIMM 2666MT/s Dual Rank</p> <p>1 No Additional Processor</p> <p>1 iDRAC9,Enterprise</p> <p>3 600GB 15K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive</p> <p>1 PERC H740P RAID Controller, 8GB NV Cache, Mini card</p> <p>1 Standard 1U Heatsink</p> <p>1 No Internal Optical Drive</p> <p>1 Dual, Hot-plug, Redundant Power Supply (1+1), 750W</p> <p>2 Jumper Cord,10A,4M,C13/C14 (India BIS)</p> <p>1 No Trusted Platform Module</p> <p>1 Broadcom 5720 QP 1Gb Network Daughter Card</p> <p>1 No Operating System</p> <p>1 Power Saving Dell Active Power Controller</p> <p>1 ReadyRails Sliding Rails With Cable Management Arm</p> <p>1 RAID 5</p>
--	---

## Surat Urban Development Authority

		<p>1 OME Server Configuration Management</p> <p>Software</p> <p>1 4 Standard Fans for R740/740XD</p> <p>1 No Systems Documentation, No OpenManage DVD Kit</p> <p>Service</p> <p>1 ProDeploy Dell Server R Series 1U/2U - Deployment</p> <p>1 ProDeploy Dell Server R Series 1U/2U - Deployment Verification</p> <p>1 Technical Support</p> <p>1 Limited Warranty:Yr1-3 (Labor)</p> <p>1 Limited Warranty:Yr1-3 (Parts)</p> <p>1 3Yr ProSupport &amp; Mission Critical: (7x24) 4-hour Onsite Service</p> <p>1 Yr1-3 Mission Critical:(7x24) 4-hour Onsite Service</p> <p>1 3Yr ProSupport &amp; Mission Critical:(7x24) Technical Support &amp; Assistance</p> <p>1 No Remote Advisory Services Purchased</p>
35		<b>Windows Server STD Core 2016 SNGL OLP Lic NL CoreLic (Minimum 8Core)</b>
36		<b>Windows Server CAL 2016 SNGL OLP NL DvcCAL</b>
37		<b>Biometric Attendance system with face recognition with Software.</b>
38		<b>All the Equipment Installation and Configuration necessary Security implementation as per the IT consultant Planning to executed.</b>
39		<b>VMWare Licences</b>
40		<b>( NAS Storage/ Make:Netgear/ QNAP /Thecus as make.</b>
		<b>256GB SATA SSD for Caching</b>
		<b>HGST 6TB Ultrastar Enterprise SATA III HDD (Warranty : 5 Years)</b>
41		<b>Providing onsite L1 Manpower Support (For 3 year)Rate contract will be renewed quartly.</b>
		<b>Eligible Criteria:-</b>
		<b>Comprrehensive AMC for hardware &amp;system maintenance for after 3 (three) year.</b>



## Surat Urban Development Authority

		<p><b>ELIGIBLE CRITERIA FOR L1 SUPPORT ENGINEER</b></p> <ul style="list-style-type: none"> <li>- First level of troubleshooting on systems, applications, networks etc.</li> <li>- Candidates would be trained and will work in a front end client facing role and would be the first point of contact for any IT related issues like laptop/desktop, Operating systems, network connectivity etc.</li> <li>- The candidates should have excellent communication skills.</li> <li>- Decent knowledge related to operating system, hardware, networking, etc.</li> <li>- Fundamental Technical knowhow on system trouble shooting, few prominent knowledge areas are:-</li> </ul> <p>The eligible bidder who having experience of managing and supporting of 300 + computers &amp; network infrastructure . Certificate should be provided.</p> <ul style="list-style-type: none"> <li>• Microsoft Windows Operating Systems (9X, NT, 2000, XP)</li> <li>• Microsoft Office</li> <li>• Network Connectivity</li> <li>• Printers and print Services</li> <li>• E-Mail and Internet mail</li> <li>• Familiar with MS Outlook email clients.</li> </ul> <ul style="list-style-type: none"> <li>- Excellent communication skills, with neutral accent. (Voice based Support)</li> <li>- Excellent written communication skills with email etiquettes.</li> <li>- Comfortable with rotational shifts</li> </ul>
		<p><b>skills :</b></p> <ul style="list-style-type: none"> <li>• Design and implement functional networks</li> <li>• Configure, manage, and maintain essential network devices</li> <li>• Use devices such as switches and routers to segment network traffic and create resilient networks</li> <li>• Identify benefits and drawbacks of existing network configurations</li> <li>• Implement network security, standards, and protocols</li> <li>• Troubleshoot network problems</li> <li>• Support the creation of virtualized networks</li> </ul> <p><b>Education:</b> Graduate / B.Tech/B.E., BCA, BCM, M.Sc., MCA, MCM Having CCNP &amp; MCSE Certified.</p> <p><b>Work Experience:</b> 10 Years Industry</p> <p>IT</p>
42		Comprehensive AMC for hardware & system maintenance for after 3 (three) year.
		<b>TOTAL ESTIMATED COST</b>

# Surat Urban Development Authority

We herewith certify that the above mentioned equipment / products are neither end of sale nor end of the life nor end of support and we hereby undertake to support these equipments till the successful completion of Warranty Period for five years from date of delivery/supply.

Yours faithfully,

(Signature of the Authorized Signatory

from OEM)

Name

Designation

Seal.

Date:

Place:

Business Address:

(Signature of the Authorized Signatory

from Bidder)

Name

Designation

Seal.

Date:

Place:

Business Address:

# Surat Urban Development Authority

## D. Self-Declaration

### FORM – B

#### Performa of Compliance letter

(To be submitted on Bidder's letterhead duly signed by Authorized signatory)

To

.....

, Surat Urban Development  
Authority , Nanpura, Surat-  
395001

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

**Ref:** Bid for Supply, Installation, Configuration and Integration of Networking Equipments

Dear Sir,

With reference to above referred bid, 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**>>.

I/We the undersigned, hereby submit our proposal along with the necessary documents. The information/documents furnished along with the above application are true and authentic to the best of my/our knowledge and belief. I/we, am/are well aware of the fact that furnishing of any false information / fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.

I/We have thoroughly & carefully read, studied and understood the Bid documents and Addenda and Corrigenda (if any) including the technical specification, terms and conditions, instructions, etc. referred there in and the same are acceptable to our company.

We hereby confirm that all our quoted items meet or exceed the requirement and are absolutely compliant with specifications mentioned in the bid document, moreover the items bided are not end of life items. .

We hereby confirm that all the components/parts/assembly/software which we shall supply on award of contract shall be original new components /parts/assembly/software from respective OEMs of the products and that no refurbished/duplicate/ second hand components/parts/ assembly / software shall be used.

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.

I/We also state that our company is not black-listed/debarred by any of the Government or Public Sector Units in India as on the date of the submission of the tender.

Further, I/we agree to abide by all the terms and conditions as mentioned in the bid document without any condition(s). We have also noted that SUDA reserves the right to consider/reject any or all bids without assigning any reason thereof.

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 SUDA for disqualification will be accepted by us.

Thanking you,

# Surat Urban Development Authority

For

< <Name of the bidder> >

< <Authorized Signatory> >

< <Stamp of the bidder> >

## Price Bid

Duly Sign&Stamp

Bid for Supply, Installation, Configuration and Integration of NetworkingEquipment

## PRICE BID

[Note: Must be submitted online, not to be sent physically]

### Note:

1. The rates (Quoted in Unit Rate Column) should be exclusive of all taxes. The applicable GST should be quoted separately in GST column in Price Bid.
2. The taxes at prevailing rate will be considered for payment purpose.

---

Duly Sign & Stamp

Bid for Supply, Installation, Configuration and Integration of Networking Equipments