# Request for Proposal for

# Supply, Installation, Testing & Commissioning of AV Infrastructure Solution for Conference Rooms at Bank of Baroda



# BANK OF BARODA FACILITIES MANAGEMENT DEPARTMENT 1<sup>st</sup> Floor, Baroda Corporate Centre, C-26, G-BLOCK, BANDRA KURLA COMPLEX, BANDRA (EAST), MUMBAI-400051

RFP REFERENCE NUMBER: BOB/FMBCC/109/AO/AV/2

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# SECTION A

#### INTRODUCTION

<b>Definitions of some common t</b>	Definitions of some common terms & Abbreviations		
Bidder / Respondents	Reputed Manufacturers/Vendors/Distributors which participate in E		
	tendering to make an offer		
Contractor/Supplier/Vendor	Final successful Bidder to whom the contract will be awarded		
Bank	Bank of Baroda		
RFP	Request for Proposal		
EMD	Earnest Money Deposit		
CBS	Core Banking Solution		
OEM	Original Equipment Manufacturer		
SLA	Service Level Agreement		
CAMC	Comprehensible Annual Maintenance Contract		
MOU	Memorandum of Understanding		
IST	Indian Standard Time GMT +5:30		
INR	Indian Rupee		
SITC	Supply, Installation, Testing and Commissioning		
PBG	Performance Bank Guarantee		

#### **Notice:**

Bank of Baroda, Facilities Management Deptt.,BCC, Mumbai, invites offers from prospective Vendors/AV Integrator for Supply, Installation, Testing and Commissioning of AV Infrastructure Solution Conference Rooms/Board Rooms at Various Loactions of Bank of Baroda. Interested bidders can access RFP from Tender Section of Bank of Baroda's website www.bankofbaroda.com

Further "Corrigendum" or "Addendum" (if any) shall be issued on Bank's website only and prospective Bidders have to keep checking our website for any additional instructions/ Addendum, if any till 48 hours of tender submission time. Bidders who quote tender without attaching tender or the addendum if any will be rejected.

The Bank reserves the right to reject any / all applications without assigning any reason whatsoever.

# **Confidentiality:**

This document is meant for the specific use by the Company / person/s interested to participate in the current tendering process. This document in its entirety is subject to Copyright Laws. Bank of Baroda expects the bidders or any person acting on behalf of the bidders to strictly adhere to the instructions given in the document and maintain confidentiality of information. The bidders will be held responsible for any misuse of the information contained in the document and liable to be prosecuted by the Bank. In the event of such a circumstance is brought to the notice of the Bank. By downloading the document, the interested party is subject to confidentiality clauses.

Sched	Schedule of E Tender		
A.1	E-Tender No.	BOB/FMBCC/109/AO/AV/2	
A.2	Date of viewing Tender	08.09.2017	
A.3	Date of Starting of E-Tender for submission of on line	08.09.2017	
	Technical Bid and Commercial Bid at		
	https://eauction.auctiontiger.net/		
A.4	Date& Time of closing of online E-Tender for	04.10.2017 &1500 hrs IST	
	submission of Technical Bid & Commercial Bid		
A.5	Date & time of opening of Part-I - Technical Bid	04.10.2017 &1530 hrs IST	
A.6	Date & time of opening of Part-II - Commercial Bid	Date of opening of Part II i.e. Commercial bid	
		shall be informed separately.	
<b>A.7</b>	Last date of submission of EMD through RTGS/NEFT	04.10.2017 up to 1500 hrs IST	
<b>A.8</b>	Pre-Bid Meeting starting date & time	19.09.2017, at 1200 hrs	

A.9	Earnest Money Deposit	Rs 5,00,000.00 INR (Rupees Five Lacs Only)
A.10	Address for online submission of bids (technical as well as commercial bids)	Bid must be submitted online on <a href="https://eauction.auctiontiger.net/">https://eauction.auctiontiger.net/</a>
A.11	Address for opening of bids	https://eauction.auctiontiger.net/
A.12	Contact Details of M/s. e-Procurement Technologies Ltd.(ETL), Ahmedabad	Mr. Shivam Email ID: shivam@auctiontiger.net Phone: +91 (79) 40230 804/803

Conditional tenders are liable to be rejected. Dispute, if any, will be subject to Mumbai jurisdiction only.

For any further information on the tender, following offices / persons to be contacted:

# 1. Mr. Nishant P. Kawade,

Chief Manager (Electrical)

Ph: 022-66985105

Email: em.bcc@bankofbaroda.com

# 2. Mr. Abhinav Pushpam,

Officer (IT)

Ph. No.: 022 – 6698 5119

Email: em.bcc@bankofbaroda.com

# **SECTION B**

# IMPORTANT INSTRUCTIONS FOR E-PROCUREMENT

<b>B.1</b>	Important instructions for E-Procurement	
	This is an online tender event of Bank of Baroda.  O I The second of Bank of Baroda.	
	<ul> <li>Online tender service provider is M/s. e-Procurement Technologies Ltd.(ETL), Ahmedabad.</li> <li>Bidders are requested to read the terms &amp; conditions of this RFP before submitting their online</li> </ul>	
	tenders.	
	Bidders who do not comply with the conditions with proper/necessary documentary proof	
	(wherever required) will not qualify in the Tender process for opening of Commercial bid.	
	• The intending bidders are required to submit their offer electronically through E-Tendering	
	portal. No physical tender is acceptable by Bank of Baroda.	
	• Online (Part I - Technical Bid) and (Part II - Commercial Bid) will be done through	
B.2	https://eauction.auctiontiger.net/ System Requirement	
D.2	System Requirement:	
	i) Windows 98 /XP-SP3 & above/Windows 7 Operating System	
	ii) IE-7 and above Internet browser.	
	iii) Signing type digital signature	
	iv) JRE 7 update 79 software to be downloaded and installed in the system. Security level should	
	be medium.	
B.3	Bid Submitting & Opening	
	• Part I Technical bid will be opened electronically on specified date and time as given in the RFP. Bidder(s) can witness electronic opening of bid.	
	Part II Commercial bid will be opened electronically of only those bidder(s) who's Part-I Technical	
	Bid is found to be acceptable by Bank of Baroda. Such bidder(s) will be intimated date of opening	
	of Part-II Commercial bid, through valid email confirmed by them.	
	All entries in the tender should be entered in online Technical & Commercial Formats without any	
	ambiguity.	
	• All notices /corrigendum and correspondence to the registered bidder(s) shall be sent by email only	
	during the process till finalization of tender by Bank of Baroda. Hence the bidders are required to ensure that their corporate email id provided is valid and updated at the stage of registration.	
	E-Tender cannot be accessed after the due date and time mentioned in RFP.	
	The process involves Electronic Bidding for submission of Technical and Commercial Bid.	
	The process involves Electronic Electronic Statement of Technical and Committee Electronic Electronic Statement of the Electronic Electronic Electronic Statement of the Electronic Electro	
<b>B.4</b>	Submission of Technical Bids	
	The TENDER response shall be submitted in two parts. Part I shall comprise of Technical Bid plus	
	EMD and Part II shall contain Commercial Bid. These bids shall be submitted Online.	
	Bidder shall submit Earnest Money Deposit (EMD) amount online through NEFT/RTGS on the details	
	below:	
	Bank: BANK OF BARODA	
	Branch: Bandra East	
	IFSC: BARB0BANEAS ('0' is Zero)	
	Account Type: OD Account No.: 2904040000418	
	Under no circumstances, Earnest Money Deposit will be accepted in the form of fixed deposit	
	receipt/DD/Banker's cheque or Insurance guarantee or Cheque.	
	1 8	
	Please note that firms/agencies claiming exemption from submission of EMD under any statutory	
	authority/law (eg. NSIC, MSME etc.) shall be required to submit necessary documents viz. valid	
	registration certificate etc. to the satisfaction of the Bank. Such firms shall ensure to submit copy of	
	valid Registration Certificate duly signed and stamped in place of receipt of NEFT/RTGS.	

The proposal shall be prepared in English. Name of contact person, e-mail address and phone/fax numbers of the bidder shall also be indicated on the sealed envelopes.

Please note that any changes in the technical / prequalification criteria mentioned in this Tender Document shall be inserted as addendum in the tender section of Bank's Website and in <a href="https://eauction.auctiontiger.net/">https://eauction.auctiontiger.net/</a>

# **B.5** Submission of Commercial Bids

- > Commercial Bids will be submitted online.
- The prices offered to the Bank must be in Indian Rupees.
- ➤ Rate quoted shall be inclusive of GST
- All the items along with entire solution/system shall be with 1 year onsite warranty.
- > Separate Rate shall be quoted for 5 years onsite Comprehensive Warranty.
- L1 will be decided on the total of SITC cost and 5 years onsite Comprehensive Warranty.
- Any price variation on account of change in tax structure (+ or -) shall be payable/recoverable during the contract period.
- No price increase on account of exchange rate fluctuations.
- > Commercial quote shall be submitted online.

# B.6 Pre-Bid Meeting

A pre-bid meeting shall be arranged at 19.09.2017, at 1200 hrs:

**Bank of Baroda** 

**Facilities Management Department** 

1st Floor, Baroda Corporate Centre,

C-26, G-Block, Bandra Kurla Complex,

Bandra (East), Mumbai-400051.

Queries received up to two days prior to Pre-bid meeting date only will be addressed during pre-bid meeting. All the queries should be sent to the mail id: em.bcc@bankofbaroda.com

# **B.7** Opening of Technical Bids

The Technical Bids will be opened in the presence of Bank's authorized committee. The representatives of the bidders may remain present during the opening of Technical bids. No separate intimation will be given to the bidders in this regard.

# **B.8** Evaluation of Technical Bids

Technical Bids will be evaluated on the basis of fulfilling Bidders Profile Details and compliance to Eligibility criteria, Technical specification, other terms and conditions stipulated in the tender document. Commercial Bids of only those bidders who qualify in the technical evaluation / demonstration, based on the criteria laid down hereinabove, will be opened.

The Bank reserves the right to reject any or all the tenders without assigning any reason thereof.

# MARKING SYSTEM FOR PREQUALIFICATION

To qualify, the bidder has to obtain minimum 60% mark in overall and suggested marks in each category

Bank has the right to obtain confidential report from the clients / consultant of the works carried out by the bidder.

Sr. No.	Description	Maximum Marks (Tm	nax)	Eligibility Marks
1	Year of experience in relevant field	1) ≥7 years 2) For every 'x' years less than 7	20 20-2x	8
2	Details of the project completed of similar nature completed in last 7 years of costing Rs. 2 Crore.	1) Project Cost ≥ Rs. 2 Crores 2) Rs. 2 Crores > Project Cost	10	10
3	Experience with PSUs / PSBs	Total no. of similar successful works completed,  1) ≥ 2 no of work  2) 1 work  3) No work	10 7 0	7
4	Performance / quality of work for similar job (will be assessed based on site visit / confidential reports from the clients)	1) Excellent 2) Very Good 3) Good / Satisfactory 4) Average	20 17 15	15
5	In house set up such as Experience center, Technical staff, design Team, Project management team, Implementation Team, Service Support Team and Presentation on proposed solution.	Marks will be allotted as per the documents of proof submitted as well as site visit at Office/Centre	30	20

# **B.9** Evaluation of Commercial Bids

After the technical evaluation of the tenders, the price bid of only technically qualified bidders (as per the criteria mentioned hereinabove) shall be considered for price bid evaluation. The Bank reserves its right to seek and obtain substantiating data from the bidders for verification of the credentials submitted. The Date of opening of Price Bid shall be advised separately to all technically qualified bidders. Bank may at its discretion, request the shortlisted bidders to give a demonstration of their proposed system at their cost before opening of price bid. This will also be considered as a part of technical evaluation.

# B.10 Scope of Work

The following activities will be under the scope of work of the System Integrator (SI) / AV vendor:

• Cabling through conduits and/or trunks laid by other contractor

The SI will lay cables through the conduits according to the conduit plan sanctioned by respective Authority for AV Cables.

# • Installation Commissioning, Programming and Configuration of AV Devices

The SI will be responsible for Installation and Commissioning of AV equipment provided by them according to the tender requirements.

# • Training & troubleshooting procedures

SI will provide training and standard operating procedures to the client / respective Contractor and/or System Administrator

# • Project Documentation and Site Handover

SI will provide documents such as Completion Certificate, Product Manuals, Standard Operating Manuals etc.

# • Project Management

SI will provide all the necessary documents to update client on the progress of the project or request for information/support or escalate the matter in case of delays, non - availability of the site due to external factors.

# **SECTION C**

# **BIDDER'S PROFILE**

All the supporting Documents are required to be uploaded on e-tender's website. Details filled in this form must be accompanied by sufficient documentary evidence, in order to verify the correctness of the information. <u>All the documents uploaded should be attested by the bidder</u>.

Sr.	Description	Bidders Response	<b>Documents Required</b>
C.1	Name of the Bidder/Firm	Enter your Company name.	No Documents required
C.2	Whether OEM or Authorized Dealers	Enter in YES/NO.	No Documents required
C.5	Permanent Account Number	Enter Permanent Account No.	Upload supporting document.
<b>C.6</b>	GST No.	Enter GST No.	Upload supporting document.
C.7	Registered Office address	Enter your complete registered office address along with Pin code	Upload supporting document.
<b>C.8</b>	Office address at Gujarat	Enter your office addresses.	Upload supporting document.
<b>C.9</b>	Email Address	Enter at least Five Email addresses	No Documents required
C.10	Phone/Mobile nos.	Enter at least Five Phone/Mobile nos.	No Documents required
C.11	Year of Establishment	Enter year of Establishment	Upload Certificate of Incorporation.
C.12	Status of the firm (Sole Proprietorship/ Partnership/ Ltd. Co./ Others)	Enter your status of firm.	Upload Certificate of Incorporation.
C.13	Whether registered for Sales Tax purpose. If so, mention number and date	Enter in YES/NO. Whether registered for Sales Tax purpose. If so, mention number and date	Upload supporting document.
C.14	Name of Director/Partner/Proprietor	Enter Name of Director/Partner/Proprietor	Upload supporting document.
C.15	Name of the person who have power of attorney or Authorized Signatory	Enter the name.	Please upload supporting document/power of attorney.
C.16	Account no., Bank name, NEFT Details, Address of the Bank, Branch Name, IFSC Code and MICR code	Enter Account no., Bank name, NEFT Details, Address of the Bank, Branch Name, IFSC Code and MICR code	Please attach copy of cancelled cheque.
C.17	Net Profit/Loss Made by bidder in 2014-15	Enter your net profit/loss	Upload Income Tax Return filed for the year.
C.18	Net Profit/Loss Made by bidder in 2015-16	Enter your net profit/loss	Upload Income Tax Return filed for the year.
C.19	Net Profit/Loss Made by bidder in 2016-17	Enter your net profit/loss	Upload Income Tax Return filed for the year.
C.20	Annual Turnover of bidder in 2014-15	Enter your Annual Turnover	Upload Audited Balance Sheet for the year.
C.21	Annual Turnover of bidder in 2015-16	Enter your Annual Turnover	Upload Audited Balance Sheet for the year.
C.22	Annual Turnover of bidder in 2016-17	Enter your Annual Turnover	Upload Audited Balance Sheet for the year.
C.29	Details of EMD submitted to Bank of Baroda	Enter UTR No. and Bank Name along with date	Upload Scanned copy of NEFT/RTGS/Transfer/Deposit Receipt

# SECTION D

# **ELIGIBILITY CRITERIA**

All the supporting Documents are required to be uploaded on e-tendering website. Details filled in this form must be accompanied by sufficient documentary evidence, in order to verify the correctness of the information. <u>All the documents uploaded should be attested by the bidder</u>.

D.1	Prequalification Criteria for Principal Vendor (Bidder) who is submitting the bid. Company who		
	qualifies all the above criteria can participate in the tender directly or indirectly through authorized Business Partner/System Integrator who qualifies below mentioned criteria.		
	Prequalification Criteria	Bidders Response	Documents Required
D.1	Bidder should have made net	Mention in Yes/No.	Copy of the last three years audited
D.1	profits during last three financial	Mention in Tes/140.	financial statements
	years. (2014-15, 2015-16, 2016-		imaliciai statements
	2017).		
<b>D.2</b>	Bidder Average Annual turnover	Mention in Yes/No.	Copy of the last three years audited
	of the company of last three years		financial statements
	should not be less than 50 Crores.		
D.3	Letter from major OEMs regarding	Mention in Yes/No.	Unconditional acceptance letter from
	the unconditional acceptance of		OEM for back to back service agreement
	terms and conditions related to		is mandatory.
	support to their products during		
	warranty period and AMC if		
D.4	vendor fails to do so.	Mention in Yes/No.	Copy of Purchase Orders/Work
D.4	Bidder should have experience in Supply, installation	wichidon in Tes/No.	Copy of Purchase Orders/Work completion certificate.
1	implementation & integration as		completion certificate.
	well as Commissioning of Audio		
	Video system in Board Rooms/		
	Conference Rooms/Auditorium		
	with VC end points and 3-Screen		
	Integrated Telepresence Systems		
	in reputed organization (preferably		
	Public Sector Bank and other		
	government organization) spread		
	across India during the last 7 years		
	as of June 2017.		
D.5	The tenderer(s) in their own name		Copy of Purchase Orders/Work
	should have satisfactorily executed	Mention in Yes/No.	completion certificate.
	the work of similar nature in Semi		
	Govt. /Govt. & Public / Private		
	Sector Organizations during last		
	seven (7) years (up to 31.08.2017)		
	a) Three similar completed works		
	each of value not less than the		
	value equal to Rs. 2 Crore		
	OR		
	b) Two similar completed works		
	each of value not less than the		
	value equal to Rs. 2.5 Crores.		
	OR		
	C) One similar completed works		
	each of value not less than the		
	value equal to Rs. 4 Crores.		
<b>D.6</b>	Bidder should have existing	Mention in Yes/No.	Copy of One purchase order worth Rs. 50
	assignments of CAMC of the value		lakh for one year of AMC

	of about Rs. 50 lakh for similar equipments.		
D.7	Bidder must be an Indian firm company/organization registered under Companies Act	Mention in Yes/No.	Certificate of incorporation issued by Registrar of Companies
D.8	Bidder should have at least -5- Infocom certified executives and minimum 3 each of Major OEM (Proposed) certified executives.	Mention in Yes/No.	Copy of latest valid certificate.
D.9	Bidder should have their office/service center within 100-150km from the place of installation	Mention in Yes/No.	Copy of address and contact number
D.10	The tenderer(s) in their own name should have satisfactorily executed the work of SITC of minimum 3 units of 3-screen Integrated Telepresence system, in Semi Govt. /Govt. & Public / Private Sector Organizations during last seven (7) years (up to 31.08.2017) three.	Mention in Yes/No.	Copy of Purchase Orders/Work completion certificate.

# **SECTION E**

# **TERMS & CONDITIONS**

E.1	General Terms & Conditions
13.1	The Solution has to be complete in all aspects including hardware, software and licenses.
	To integrate VC Infrastructure Solution with these endpoints will be bidder's responsibility.
	Please Submit product description along with datasheet.
E.2	Earnest Money Deposit (EMD)
	Earnest Money Deposit of Rs.5,00,000/- (Rupees Five Lacs only) has to be submitted through NEFT/RTGS on details under Section B.5. The Earnest Money Deposit of unsuccessful bidders will be refunded on acceptance of the work order by the successful bidder. <b>Earnest Money Deposit shall not carry any interest</b> . The EMD of successful bidder will be adjusted while settling the final bill.
	The Earnest Money Deposit will be forfeited if:
	<ul> <li>The bidder withdraws his tender before processing of the same.</li> <li>The bidder withdraws his tender after processing but before acceptance of "Letter of appointment" to be issued by the Bank</li> </ul>
	➤ The selected bidder withdraws his tender before furnishing Bank Guarantee/Security Deposit as required under this Tender.
	The bidder violates any of the provisions of the terms and conditions of this tender specification Bidder shall Upload the NEFT/RTGS/Transfer/Deposit receipt. Please note that firms/agencies claiming exemption from submission of EMD under any statutory authority/law (eg. NSIC etc.) shall be required to submit necessary documents viz. valid registration certificate etc. to the satisfaction of the Bank. Such firms shall ensure to submit copy of valid Registration Certificate duly signed and stamped in a separate cover (in lieu of the EMD).
<b>E.3</b>	Initial Security Deposit
	An amount equivalent to 5% of the accepted tender value shall be deposited by the successful bidder towards the initial security deposit after adjusting the EMD amount. Thus, the contractor has to submit the difference amount only.
	The security deposit will be refunded by the bank after the expiry of warranty (five years from the date of successful commissioning of the system). Amount of Security Deposit will be rounded off to the nearest thousand.  Bank Guarantee in lieu of Security Deposit is also acceptable.
F 4	
E.4	Performance Bank Guarantee:  The selected bidder has to provide an unconditional and irrevocable Performance Bank Guarantee of 5% of the contract value from a Scheduled Bank in India (other than Bank of Baroda) towards due performance of the contract in accordance with the specifications, terms and conditions of Tender document, within 15 days from the date of letter of intent (LOI). The Performance Bank Guarantee shall be kept valid three months, beyond the warranty period.
	The selected bidder has to provide an unconditional and irrevocable Performance Bank Guarantee of 10% of the CAMC value from a Scheduled Bank in India (other than Bank of Baroda) towards due performance of the contract in accordance with the specifications, terms and conditions of Tender document, within 15 days from the start of CAMC period each year. The PBG shall be kept valid three months, beyond the CAMC Period for each year.
E.5	Payment Terms
	<ul> <li>75% of the total cost on delivery, successful installation, integration and demonstration of all functional features, training and acceptance test.</li> <li>20% of total cost after one month of successful installation and satisfactory functioning.</li> <li>Balance amount of 5% will be retained till the end of warranty period plus three months (i.e. One year</li> </ul>
	plus three months). The 5% retention amount can be released upon submission of a Performance Bank Guarantee to equivalent amount, valid till end of warranty period plus three months (i.e. One year plus three months).
	<ul> <li>No advance payment shall be permitted under any reason, whatsoever.</li> <li>The Bank will release the payments, within a period of 15 working days from the date of receipt of bill on along with all the relevant documents. Any dispute regarding the relevant documents will be communicated to the selected Bidder within 5 days from the date of receipt of bill. After the dispute is resolved, Bank shall make payment within 15 working days from the date the dispute stands resolved.</li> </ul>

- At payment time, bidder submits the all Original/a copy of document with duly signed by the Bank's official and detailed packing list.
- The bidder shall also submit the documented Acceptance test reports and Acceptance certificate signed by the Bank's official indicating satisfactory completion during of acceptance test.
- Payment for CAMC will made in advance half yearly. However, bank reserves the right to cancel the CAMC Contract if the services provided by the Bidder is unsatisfactory.

#### E.6 Place of Order

Order will be placed by Facilities Management Deptt, Corporate Office Mumbai & Payment will also be released by our office on production of following documents.

- A. Original copy of Invoice
- B. Original copy of Delivery Challan
- C. Original copy of Installation report
- D. Site Test Report & acceptance of Bank confirming satisfactory working of the system.
- E. Bidders shall make necessary arrangements for processing the purchase orders including the road permit, if any.

#### E.7 Validity Period of the Offer

The offer shall remain valid for -12- months from the date of submission of tender document.

# E.8 Authorized Signatory

The selected Bidder shall submit, at the time of signing the contract, a certified copy of the extract of the resolution of their Board, authenticated by Company Secretary, authorizing an official or officials of the company or of Attorney copy to discuss, sign agreements/contracts with the Bank. The Bidder shall furnish proof of signature identification for above purposes as required by the Bank.

The selected Bidder shall indicate the authorized signatory/ies who can discuss and correspond with the bank, with regard to the obligations under the contract.

# E.9 Bank of Baroda reserves the right to

- > Reject any or all responses received in response to the Tender
- > Waive or Change any formalities, irregularities, or inconsistencies in proposal format delivery
- > Cancel the selection process as per Tender at any stage, without assigning any reason whatsoever
- Alter the nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this Contract.

# **E.10** | Cancellation of contract and compensation

The Bank reserves the right to cancel the contract of the selected Bidder and recover expenditure incurred by the Bank in the following circumstances:

- A. The selected Bidder commits a breach of any of the terms and conditions of the Tender/contract.
- B. The selected Bidder becomes insolvent or goes into liquidation voluntarily or otherwise
- C. The progress regarding execution of the contract made by the selected Bidder is found to be unsatisfactory.
- D. If the delivery is delayed by more than three weeks from the due date of delivery.
- E. If the selected Bidder fails to complete the due performance of the contract in accordance with the agreed terms and conditions of contract, The Bank would provide 30 days notice to rectify any breach/unsatisfactory progress

# E.11 No Legal Relationship

No binding legal relationship will exist between any of the Recipients / Respondents and Bank of Baroda until execution of a contractual agreement.

# E.12 Disqualification

Any form of canvassing/lobbying/influence/query regarding short listing status etc will be a disqualification.

# **E.13** Pre-Shipment Inspections

Bank of Baroda reserves the right, but not any obligation, to undertake a pre-shipment inspection of the complete central system in a factory test environment. For this purpose, Bank of Baroda's personnel may visit the factory site, if required.

# **E.14** Transportation and Insurance

The cost of AV infrastructure solution shall include insurance and freight. However, the Bidder has the option to use transportation and insurance cover from any eligible source. Insurance cover shall be provided by the Bidder till the successful installation of the System. The Bidders, by submitting this offer, also assure and indemnify the Bank that the goods would be replaced at no cost to Bank in case insurance cover is not provided.

# **E.15** | Liquidated Damages

- ➤ Bidder will have to pay liquidated damages (LD) to Bank of Baroda @ 1% of the contract value inclusive of all taxes, duties, levies etc., per week for late delivery *beyond due date of delivery*, to a maximum of 3% of the contract value. If delay exceeds three weeks from due date of delivery, Bank of Baroda reserves the right to cancel the entire order.
- ➤ Bidder will have to pay Liquidated damages to Bank @ 0.1% of the contract value inclusive of all taxes, duties, levies etc., per day to maximum of 2% of the contract value, for delay in installation, if the delay is caused owing to reasons attributable to the Bidder.
- If the selected Bidder fails to complete the due performance of the contract in accordance with the specifications and conditions agreed during the final contract negotiation, the Bank reserves the right either to cancel the contract as a whole or to accept performance already made by the bidder and get the remaining Contract performed by another contractor. All expenses incurred by the Bank in calling fresh bids will be borne by the bidder subject to a maximum of 5 % of contract value as Liquidated Damages for non-performance.

# **E.16** Completion Period

The work shall be completed in all respect within <u>8 weeks</u> from the date of PO Acceptance of work order.

# **E.17** Limitation of Liability

Vendor's aggregate liability in connection with obligations undertaken as part of the RFP regardless of the form or nature of the action giving rise to such liability (whether in contract, tort or otherwise), shall be at actuals and limited to the Total Contract Value of the Transaction. Bidder's liability in case of claims against the Bank resulting from Willful Misconduct or Gross Negligence of Bidder, its employees and Subcontractors or from infringement of patents, trademarks, copyrights or such other Intellectual Property Rights or third party claims or breach of confidentiality obligations shall be unlimited. Bank shall not be held liable for and is absolved of any responsibility or claim / litigation arising out of the use of any third party software or modules supplied by Bidder as part of procurement under the RFP. It is expressly agreed between the Parties that for any event giving rise to a claim, Bank shall have the right to make a claim (including claims for indemnification under the services provided/ product procured in this RFP) against Bidder. Under no circumstances can there be multiple claims by any Party for the same event giving rise to liability. "Willful Misconduct" means any act or omission of a party which is willfully intended to harm the interests of the other party, provided however, that willful Misconduct does not include ordinary negligence, an error of judgment or mistake of a person. "Gross Negligence" means an indifference to, and a blatant violation of a legal duty with respect to the rights of others, being a conscious and voluntary disregard of the need to use reasonable care, which is likely to cause foreseeable grave injury or harm to persons, property, or both. Gross negligence involves conduct that is extreme, when compared with ordinary negligence. A mere failure to exercise reasonable care shall not be a Gross negligence.

# E.18 Force Majeure

Should either party be prevented from performing any of its obligations under this proposal by reason of any cause beyond its reasonable control like riots, civil commotion, war, lightning ,earthquake, flood, fire, strike etc. then the time for performance shall be extended until the operation or such cause has ceased, provided the party affected gives prompt notice to the other of any such factors or inability to perform, resumes performance as soon as such factors disappear or are circumvented.

# E.19 Arbitration

In the event of a dispute or difference of any nature whatsoever between Bank and the Bidder during the course of the assignment arising as a result of this proposal, the same will be settled through the process of arbitration conducted by Sole Arbitrator appointed by Bank. The place of arbitrational proceedings shall be at Mumbai. The provisions of Indian Arbitration Act & Conciliation Act 1996 with the revisions thereof shall apply to the arbitration proceeding.

# E.20 Indemnity

The Bidder shall indemnify and keep indemnified, protect and save the Bank against all claims, losses, damages, costs, expenses, action suits and other proceedings, resulting from infringement of any patent, trademarks, copyrights etc. by the Bidder. The Bidder shall always remain liable to the Bank for any losses suffered by the Bank due to any technical error and negligence or fault on the part of the Bidder. The bidder shall execute an indemnity in favour of Bank on adequate non judicial paper as per Bank's satisfaction.

#### E.21 | Risk and Title

The bidder/agency cannot be absolved of the responsibility of ensuring the normal functioning of the equipments supplied and installed by them. They will continue to maintain the equipment during CAMC period. The proposed shall be of latest configuration.

# E.22 No Commitment to Accept Lowest or Any Tender

The Bank shall be under no obligation to accept the lowest or any other offer received in response to this tender notice and shall be entitled to reject any or all offers including those received late or incomplete offers without assigning any reason whatsoever.

	The Bank reserves the right to make any changes in the terms and condition of the RFP.
	The Bank will not be obliged to meet and have discussions with any bidder and/or to listen to any
	representations.
E.23	Subcontracting
	The vendor will not subcontract or permit anyone other than the company personnel to perform any of the
	work, services or other performance required of the company under this Agreement without the prior
	written consent of the Bank.
E.24	Patent Rights
	In the event of any claim asserted by a third party of infringement of copyright, patent, trademark, industrial
	design rights, etc. arising from the use of the Goods or any part thereof in India, the Vendor shall act
	expeditiously to extinguish such claim. If the Vendor fails to comply and the Bank is required to pay
	compensation to a third party resulting from such infringement, the Vendor shall be responsible for the
	compensation to claimant including all expenses, court costs and lawyer fees. The Bank will give notice to
	the Vendor of such claim, if it is made, without delay. The Vendor shall indemnify the Bank against all
	third party claims.
E.25	
E.25	Change Orders  The Book was at a section by a section and a size of a Manda was been as a sixting the annual account.
	The Bank may, at any time, by a written order given to the Vendor, make changes within the general scope
T 46	of the Contract for place of delivery and vendor has to accept without any extra cost to Bank.
E.26	Contract Amendments
	No variation in or modification of the terms of the Contract shall be made, except by written amendment,
	signed by both the parties.
E.27	Termination for Default
	The Bank, without prejudice to any other remedy for breach of Contract, by a written notice of default sent
	to the Vendor, may terminate the Contract in whole or in part:
	(a) If the Vendor fails to deliver any or all of the Products and Services within the period(s) specified in
	the Contract, or within any extension thereof granted by the Bank;
	Or
	(b) If the Vendor fails to perform any other obligation(s) under the Contract. In the event the Bank
	terminates the Contract in whole or in part, it may procure, upon such terms and in such manner as it deems
	appropriate, Products and Services similar to those undelivered, and the Vendor shall be liable to the Bank
	for any excess costs for such similar Products or Services. However, the Vendor shall continue performance
	of the Contract to the extent not terminated.
E.28	Termination for Insolvency
	Bank may, at any time, terminate the Contract by giving written notice to the Vendor if the Vendor becomes
	Bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Vendor,
	provided that such termination will not prejudice or affect any right of action or remedy, which has accrued
	or will accrue thereafter to the Bank.
E.29	Termination for Convenience
	Bank, by written notice of one month sent to the Vendor, may terminate the Contract, in whole or in part,
	at any time for its convenience. The notice of termination shall specify that termination is for the Bank's
	convenience, the extent to which performance of the Vendor under the Contract is terminated, and the date
	upon which such termination becomes effective.
E.30	Governing Language
2.00	The governing language shall be English.
E.31	Warranty / Uptime / Penalty
12.31	Warranty period shall be 01 year on the entire solution and 5 year CAMC post expiry of 1 year's warranty
	period.
	The Vendor warrants that the products supplied under the Contract are new, unused, of the most recent
	or current model and they incorporate all recent improvements in design and / or features mentioned
	in the technical specifications. The Vendor further warrants that all the Products supplied under this
	Contract shall have no defect, arising from design or from any act of omission of the Vendor that may
	develop under normal use of the supplied products in the conditions prevailing in India.
	On-site comprehensive warranty: The warranty would be on-site and comprehensive in nature and back
	to back support from the OEM. The vendor will warrant all the hardware and software against defects
	arising out of faulty design, materials and media workmanship etc. for a period of three years from the
	date of acceptance of the hardware and software. The vendor will provide support for hardware and
	software components during the warranty. Defective hardware shall be replaced by the vendor at his
	own cost, including the cost of transport etc.
	own cost, including the cost of transport etc.

- > The Vendor shall in addition comply with the performance guarantees specified under the Contract. If, for reasons attributable to the Vendor, these guarantees are not attained in whole or in part the Vendor shall make such changes, modifications and / or additions to the Products or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests.
- Down time of machine will be defined as reduction / loss of rated performance of the machine. In the event of the equipment not being repaired or a workable solution not provided during Warranty period, a penalty of one (1) percent of the total contract value for each week or part thereof the delay, subject to maximum amount of ten (10) percent of the total consideration will be charged to vendor. Vendor may provide temporary equivalent replacement as a workable solution to avoid the above penalty. Any penalty due during the Warranty period will be adjusted against the payments made for bills/invoices provided by the vendor.
- Bank shall promptly notify the Vendor in writing of any claims arising under this warranty. Upon receipt of such notice the Vendor shall with all reasonable speed, repair or replace the defective products or part thereof without cost to the Bank.
- During Warranty Period, Vendor guarantees an Uptime of minimum 99 % on monthly basis for the entire/core solution proposed.
- Warranty for Hardware/System Software/off-the-shelf Software will be provided to the Bank as per the general conditions of sale of such software. If standby system is needed, for maintaining the uptime, the vendor has to arrange it at its own cost.
- Vendor shall repair or replace worn out or defective parts including all plastic parts / lenses of the equipment and all consumables at no extra cost to the Bank.
- It is expected that critical and hot swappable spares (whether software or hardware) are stored and available at the Bidder's office.
- In case equipment is taken away for repairs, the Bidder shall provide a standby equipment (of equivalent configuration), so that the Bank's Work is not affected.
- The bidder/agency while carrying out installation has to co-ordinate with other agencies engaged by Bank for furnishing work. Bank will identify the location/space for installation of system in the office area and accordingly vendor should arrange to install the system with necessary spares and fittings as per the requirement of site.

# **E.32** Preventive Maintenance Services

The Vendor shall provide free preventive maintenance services on quarterly basis during the period of warranty/CAMC and detailed report of the same will be submitted to the Bank.

Professionally qualified personnel who have expertise in the hardware and system software supplied by the vendor will provide these services.

# E.33 Training

Vendor is required to train a minimum of -30- officers of the Bank to use the system. The training should be comprehensive and adequate enough to enable the Bank's technical and end-user personnel to effectively operate and perform administration of the total system.

# E.34 OEM Back to Back support

Vendor or bidder will submit necessary proof in regards of OEM back to back support by furnishing necessary documents from OEM at the time of bid submission and fulfillment letter within 15 days of Purchase Order released, before any money is released to the bidder.

# E.35 | Supply, Installation, Testing, Commissioning & Acceptance

Commissioning of the Video Conferencing Equipment will be deemed as complete only when the same is accepted by the Bank in accordance with the Terms & Conditions of this RFP and completion of User Acceptance Test and training.

During the period of contract up to completion of Warranty period and also during Comprehensive annual maintenance contract, any engineering changes/upgradations applicable to the Video Conferencing solution shall be communicated to the Bank by the Bidder within a period of one month from the date of release.

OEM may from time to time release Updates/Upgrades/New releases/New versions and notify the Bank about the same. The Bidder agrees that all such Updates/Upgrades/New releases/New versions, as and when released during the term of warranty or CAMC shall be provided to the Bank at no additional cost.

Any software support like update/enhancement/upgrade etc. released till the completion of warranty period and during Comprehensive annual maintenance contract shall be supplied, installed and commissioned free of cost by the bidder.

Any corruption in the Software or media shall be rectified during the full period of the contract including Warranty and CAMC, if contracted, at no extra cost to the Bank.

All tools, tackles, testing instruments, consumables, vehicles, etc., as required during all operations such as transport, installation, testing, commissioning maintenance during warranty and AMC (if contracted) etc., shall be provided by the Bidder at no cost.

# E.36 Delivery and Installation Address

The equipments shall be delivered and commissioned within 8 weeks from the date of purchase order. Bidder will be responsible for ensuring proper packing, delivery and receipt of all the components related at the Location. Sealed packs will be opened in the presence of Bank officials.

The complete sets of manuals & licenses shall be delivered together with the system.

Any component which has not been delivered or is not operational after delivery, will be deemed/treated as non-delivery thereby excluding the Bank from all payment obligations under the terms of this contract. Partial delivery of products is not acceptable and payment would be released as per terms only after full delivery and installation.

Bidder shall be excused of delay in case the installation could not be completed due to non readiness of site, which shall be determined by Bank. Decision of Bank in this regard shall be final and binding.

Delivery and Installation Address:

2 Nos. Conference Room
 Bank of Baroda,
 R.S. No. 576/1, Gulistan Bunglow,
 R C Dutt Road, Opp. Alkapuri, Petrol Pump,
 Alkaprui, Vadodara – 390007

1 Nos. Conference Room
 Bank Of Baroda
 Baroda Corporate Centre,
 C-26, G-Block, Bandra Kurla Complex,
 Bandra (East), Mumbai-400051

3) 1 Nos. Conference Room

Bank Of Baroda

Hyderabad office, Near Urdu University,
Gachibowli, Telangana.

# E.37 Repeat Orders for equipments and system

Initial order shall be for rooms referred above. After the issuance of Purchase Order is awarded to a Supplier, Bank may, at its discretion, award further Purchase Orders to the same Supplier for all / some of the goods originally quoted by him at the same prices up to a period of one year from the date of first Purchase Order without calling for fresh quotations. This repeat order shall be for maximum 200% of original purchase order quantity. In such repeat orders, if there is fluctuation in dollar rate (more than 5%), from the prevailing rate on the last date of submission of tender, the rates shall be revised (increased / decreased) accordingly.

# **E.38** Manual and Escalation Matrix

Bidders have to submit the architecture of the complete solutions. Vendor shall supply technical / systems Manuals for all the Systems supplied and all required interfaces. Operation and maintenance Manuals for all the systems and applications covering the operations needed to start, run, other operations, transfer to fall back system/site including business continuity plan to be provided by the Vendor. The manuals shall be in English. Bidders also have to submit detailed Escalation Matrix of each location where delivery has to be done.

# E.39 User Acceptance Test

Acceptance/performance test will be performed after completion of installation and commissioning of all the equipments at the respective locations. Complete hardware and software as specified in the tender must have been supplied, installed and integrated with existing Multi conferencing system of the Bank properly by the Bidder prior to acceptance of the same.

- > The acceptance test will be conducted by the bank or their consultant or other such persons nominated by Bank at its option as per the acceptance criteria. The Bidder will be responsible for setting up and running the acceptance test without any extra cost to the Bank.
- In the event of hardware and software failing to pass the acceptance test, a period not exceeding Two weeks will be given to rectify the defects and clear the acceptance test, failing which the Bank reserves the right to get the corresponding component replaced by the Bidder at no extra cost to the bank or to cancel the order and recall all the payment made by the bank to the bidder.
- Bank's right to inspect, test and, where necessary, reject the goods after the good's arrival at destination shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by the Bank or its representative prior to the shipment of the goods.
- Successful conduct and conclusion of the acceptance test for the installed components shall also be the sole responsibility and at the cost of the Bidder.

#### **Acceptance Certificate**

OTHER TERMS AND CONDITIONS

On successful completion of acceptability test, receipt of deliverables etc. for the equipment and after the bank is satisfied with the working on the system, the acceptance certificate signed by the Bidder and the representative of the Bank will be issued. The date on which such certificate is signed shall be deemed to be date of acceptance of the system and the Warranty of the hardware start from the date.

Bidder has to demonstrate the features as mentioned in the technical specification of the tender. Vendor is required to train a minimum of -2- officers of the Bank by certified and trained engineers / personnel of the Bidder on the hardware and software products supplied.

#### E.40

CAMC cost will include all cost of materials, components, spare parts, labours, transportation, taxes etc. (complete in all respects).

# **Adherence to Terms and Conditions** The bidders who wish to submit responses to this tender should note that they should abide by all the terms and conditions contained in the tender. If the responses contain any extraneous conditions put in by the respondents, such responses may be disqualified and may not be considered for the selection process. Bidders are required to give comments/compliance against each clause and sub clause on the following technical specifications. Comments should be specific and to the point. It should also give specific information, wherever, asked for. Deviations, if any, should be clearly indicated with details and proper justification to avoid back reference. Unless stated otherwise, latest alterations/ revisions of specifications/ standards/ drawings shall be applicable. In respect of safety standards and environmental standards relevant to the fixtures/equipments, it is mandatory for the manufacturer to ensure compliance with International / National standards (IS) (wherever applicable) in their offer. Bidders must offer and quote for all the items and accessories which are considered essential for the installation and commissioning of the AV System. **Execution of SLA/NDA**

The Bidder shall execute (a) a Service Level Agreement, which would include all the services and terms and conditions of the services to be extended as detailed herein and any other conditions as may be prescribed by the Bank; and (b) Non-disclosure Agreement.

The selected Bidder shall execute the SLA and NDA within 30 days from the date of acceptance of Letter of Appointment. The contract shall be executed by the authorized signatory of the selected Bidder. A power of attorney to that effect shall be submitted by the successful bidders. The proforma for agreement shall be provided and approved by Bank.

# 3 Substitutions of Project Team Members

During the assignment, the substitution of key staff identified for the assignment shall not be allowed unless such substitution becomes unavoidable to overcome the undue delay or that such changes are critical to meet the obligation. In such circumstances, the Bidder can do so only with the concurrence of the Bank by providing other staff of same level of qualifications and expertise. If the Bank is not satisfied with the substitution, the Bank reserves the right to terminate the contract

	and recover whatever payments made by the Bank to the Bidder during the course of this assignment besides claiming an amount, equal to the contract value as liquidated damages. However, the Bank reserves the right to insist the Bidder to replace any team member with another (with the qualifications and expertise as required by the Bank) during the course of assignment.
4	Professionalism
	The selected Bidder should adhere to standards prescribed by laws, issued by various regulatory,
	statutory and Government authorities.
5	Skill Professional
	The bid should contain the resource planning proposed to be deployed for the project which includes, inter-alia, the number of personnel, skill profile of each personnel, duration etc.
6	Penalty/Liquidated Damages (LD)
	The selected Bidder shall start Designing, Supply, Installation, Testing, Commissioning and Integration of System within seven of the signing of the contract.
	The selected Bidder shall have to produce document showing "Reasons for delay to commence / completion of work" from the representatives of Bank of Baroda and to undertake to complete the work within agreed revised schedule. This, however, does not preclude the Bank from invoking the Performance Guarantee and cancelling the contract, if warranted, as per the terms of this RFP / agreement. If the selected Bidder fails to complete the due performance of the contract in accordance to the terms and conditions agreed during the final contract negotiation, the Bank reserves the right either to cancel the contract or to accept performance already made by the selected bidder. In case of termination of contract the Bank reserves the right to recover an amount equal to 10% of the Contract value as Liquidated Damages for non-performance.
7	Penalty/LD is not applicable for reasons attributable to the Bank and Force Majeure. However, it is the responsibility of the selected bidder to prove that the delay is attributable to the Bank and Force Majeure. The selected bidder shall submit the proof authenticated by the bidder and Bank's official that the delay is attributed to the Bank and Force Majeure along with the bills requesting payment.
/	Indemnity The successful bidder shall indemnify Bank and keep indemnified for against any loss or damage
	that Bank may sustain on account of breach of terms of agreement, violation of patent, trademarks, intellectual property rights, losses incurred due to malfunctioning /inferior quality of AV System, breach of confidentiality by the employees, associates or agent or consultant of the successful bidder etc. by executing an instrument to the effect on a Non-Judicial stamp paper.  The selected Bidder shall, at its own expense, defend and indemnify the Bank against all third party claims for infringement of patent, trademark, design or copyright arising from use of products or any part thereof supplied by selected Bidder. Selected Bidder will provide infringement remedies and indemnities for third party products, on a pass through basis. The selected Bidder shall expeditiously extinguish any such claims and shall have full rights to defend it there from. If the Bank is required to pay compensation/ damages to a third party resulting from such infringement, the selected Bidder shall be fully responsible to pay such compensation along with all costs, damages and attorney's fees and other expenses that a court may finally awards, in the event of the matter being adjudicated by a court or that be included in a selected Bidder approved settlement. The Bank will issue notice to the selected Bidder of any such claim without delay and provide reasonable assistance to the selected Bidder in disposal of such claim, and shall at no time admit to any liability for, or express any intent, to settle the claim. The selected Bidder shall also reimburse all incidental costs, which the Bank incurs in this regard.  In the event of the selected Bidder not fulfilling its obligations under this clause within the period specified in the notice issued by the Bank, Bank has the right to recover the amounts due to it under this provision from any amount payable to the selected Bidder under this project.  The indemnities under this clause are in addition to and without prejudice to the indemnities given elsewhere in this RFP.
8	Governing Law
	The Bids and the subsequent contract with the selected Bidder shall be governed in accordance with the Laws of India and shall be subject to the exclusive jurisdiction of Courts in Mumbai.
9	Dispute Resolution
-	
	The selected Bidder and bank shall endeavor their best to amicably settle all disputes arising out of

or in connection with the contract in the following manner:

- A. The Party raising a dispute shall address to the other Party a notice requesting an amicable settlement of the dispute within seven (7) days of receipt of the notice.
- B. The matter will be referred for negotiation between authorized representative of the bank and of the selected Bidder. The matter shall then be resolved between them and the agreed course of action documented within a further period of 15 days.
- C. In case any dispute between the Parties, is not settle by negotiation in the manner as mentioned above, the same may be resolved exclusively by arbitration and such dispute may be submitted by either party for arbitration within 20 days of the failure of negotiations. Arbitration shall be held in Mumbai and conducted in accordance with the provisions of Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof. Each Party to the dispute shall appoint one arbitrator each and the two arbitrators shall jointly appoint the third or the presiding arbitrator.
- D. The "Arbitration Notice" should accurately set out the disputes between the parties, the intention of the aggrieved party to refer such disputes to arbitration as provided herein, the name of the person it seeks to appoint as an arbitrator with a request to the other party to appoint its arbitrator within 45 days from receipt of the notice. All notices by one party to the other in connection with the arbitration shall be in writing.
- E. The arbitrators shall hold their sittings at Mumbai. The arbitration proceedings shall be conducted in English language. Subject to the above, the courts of law at Mumbai alone shall have the jurisdiction in respect of all matters connected with the contract.. The arbitration award shall be final, conclusive and binding upon the Parties and judgment may be entered thereon, upon the application of either party to a court of competent jurisdiction. Each Party shall bear the cost of preparing and presenting its case, and the cost of arbitration, including fees and expenses of the arbitrators, shall be shared equally by the Parties unless the award otherwise provides.
- F. The selected Bidder shall not be entitled to suspend the Services or the completion of the job, pending resolution of any dispute between the Parties and shall continue to render the Services in accordance with the provisions of the contract/agreement notwithstanding the existence of any dispute between the Parties or the subsistence of any arbitration or other proceedings.

# 10 Force Majeure

Notwithstanding the above provisions, the Successful bidder shall not be liable for penalty or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. For purposes of this clause, "Force Majeure" means an event beyond the control of the Bidder and not involving the Bidder's fault or negligence and not foreseeable. Such events may include, but are not restricted to, wars or revolutions and epidemics. If a Force Majeure situation arises, the Bidder shall promptly notify the Bank in writing of such condition and the cause thereof. Unless otherwise directed by the Bank in writing, the Bidder shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means of performance not prevented by the Force Majeure event.

# 11 **Termination for Default**

The Bank, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Bidder, may terminate this contract in whole or in part, if the Bidder fails to perform any obligation(s) under the contract.

In the event of the Bank terminating the contract in whole or in part, the Bank may procure, upon such terms and in such manner, as it deems appropriate, services similar to those undelivered, and the Bidder shall be liable to the Bank for any excess costs for such similar services.

# 12 Confidentiality

This document contains information confidential and proprietary to the Bank. Additionally, the selected Bidder s shall be exposed by virtue of the contracted activities to the internal business information of the Bank. Disclosures of receipt of this RFP or any part of the aforementioned information to parties not directly involved in providing the services requested could result in the disqualification of the selected Bidder s, premature termination of the contract, and / or legal action against the selected Bidder s for breach of trust.

Selected Bidder shall have to sign a legal non-disclosure agreement with the Bank before starting the project.

The selected Bidder (and its employees) shall not, unless the Bank gives permission in writing, disclose any part or whole of this RFP document, of the proposal and/or contract, or any specification, plan, drawing, pattern, sample or information furnished by the Bank (including the users), in connection therewith to any person other than a person employed by the bidder in the performance of the proposal and/or contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance. The employees or the third party engaged by the bidder shall maintain strict confidentiality. The selected Bidder, its employees and agents shall not, without prior written consent from the Bank, make any use of any document or information given by the Bank or its Authorized personnel, except for purposes of performing the contract awarded. In case of breach, the Bank shall take such legal action as it may be advised. The selected Bidder has to maintain confidentiality even after completion/ termination of the contract. 13 **Limitation of Liability** The selected Bidder's aggregate liability in connection with obligations undertaken as a part of this Project whether arising under this project regardless of the form or nature of the action giving rise to such liability (whether in contract, tort or otherwise), shall be at actual. Selected Bidder's liability in case of claims against the bank resulting from Willful Misconduct or Gross Negligence of the selected Bidder, its employees and Subcontractors or from infringement of patents, trademarks, copyrights or such other Intellectual Property Rights or breach of confidentiality obligations shall be unlimited. The bank shall not be held liable for and is absolved of any responsibility or claim/litigation arising out of the use of any third party software or modules supplied by the selected Bidder as part of this Agreement. 14 Limitation on promotion The selected Bidder shall agree to make no reference to the Bank for the procurement of products and services hereunder or the agreement in any literature, promotional material, brochures, sales presentation or the like without the express prior written consent of the Bank. 15 **Patents Rights** The selected Bidder shall indemnify the Bank against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods, or any part thereof in India. The selected Bidder shall, at their own expense, defend and indemnify the Bank against all third party claims or infringement of intellectual Property Rights, including Patent, trademark, copyright, trade secret or industrial design rights arising from use of the products or any part thereof in India The selected Bidder shall expeditiously extinguish any such claims and shall have full rights to defend it there from. If the Bank is required to pay compensation to a third party resulting from such infringement, the selected Bidder shall be fully responsible for, including all expenses and court and legal fees. The Bank will give notice to the selected Bidder of any such claim without delay, provide reasonable assistance to the selected Bidder in disposing of the claim, and shall at no time admit to any liability for or express any intent to settle the claim. **Authorized Signatory** The selected bidder shall indicate the authorized signatories who can discuss and correspond with the Bank, with regard to the obligations under the contract. The selected bidder shall submit at the time of signing the contract, a certified copy of the extract of the resolution of their Board, authenticated by Company Secretary, authorizing an official or officials of the company or a Power of Attorney copy to discuss, sign agreements/contracts with the Bank. The bidder shall furnish proof of signature identification for above purposes as required by the Bank. 17 **Cancellation of Contract and Compensation** 

# 2. An attachment is levied or continues to be levied for a period of 7 days upon effects of the bid. 3. If deductions on account of liquidated demagns likely to exceeds more than 10% of the total

incurred by the Bank on the following circumstances:

1. The bidder goes into liquidation voluntarily or otherwise.

The Bank reserves the right to cancel the contract of the selected bidder and recover expenditure

In other cases the Bank further reserves the right to cancel the contract of the selected bidder and recover expenditure incurred by the Bank in the event any of the following defaults occur and same is not rectified by the Bidder within 30 days from the date of receipt of intimation from the Bank with respect to the occurrence of such default in case of 1. The selected bidder commits a breach of any of the terms and conditions of the bid/contract.

- 2. The progress regarding execution of the contract, made by the selected bidder is found to be unsatisfactory.
- 3. Supply of sub standard material shall lead to cancellation of order. The Bank reserves its right to cancel the order in the event of delay in delivery / installation / commissioning of equipment and charge liquidated damages for the delay.

After the award of the contract, if the selected bidder does not perform satisfactorily or delays execution of the contract, the Bank reserves the right to get the balance contract executed by another party of its choice by giving one month's notice for the same. In this event, the selected bidder is bound to make good the additional expenditure, which the Bank may have to incur to carry out bidding process for the execution of the balance of the contract. This clause is applicable, if for any reason, the contract is cancelled.

The Bank reserves the right to recover any dues payable by the selected bidder from any amount outstanding to the credit of the selected bidder, including the pending bills and/or invoking Bank Guarantee, if any, under this contract or any other contract/order.

#### Non Payment of Professional Fees

If any of the items/activities as mentioned in the Commercial bid are not taken up by the Bank during the course of this assignment, the Bank shall not pay for the item quoted by the selected Bidder in the Commercial Bid against such activity/item.

#### 19 **Assignments**

Neither the contract nor any rights granted under the contract shall be sold, leased, assigned, or otherwise transferred, in whole or in part, by the selected Bidder, and any such attempted sale, lease, assignment or otherwise transfer shall be void and of no effect without the advance written consent of the Bank.

# 20 Subcontracting

The selected Bidder shall not subcontract or permit anyone other than its personnel to perform any of the work, service or other performance required of the selected Bidder under the contract without the prior written consent of the Bank.

#### 21 Set-Off

Without prejudice to other rights and remedies available to bank, bank shall be entitled to set-off or adjust any amounts due to bank from selected Bidder against payments due and payable by bank to selected Bidder for the services rendered.

# 22 Single Point Of Contact & Direct Support

The bank intends the selected Bidder shall have the single point responsibility for fulfilling all obligations and providing all deliverables and services required for successful implementation of this project, notwithstanding the fact that the selected Bidder may appoint / procure services of third party suppliers, to perform all or part of the obligations contained under this RFP and that the bank may for convenience enter into arrangements, including tripartite agreements, with such third party if selected Bidder required.

# 23 Information and Secrecy

The Bidder must provide a written undertaking to the bank to comply with the secrecy provision pursuant to provision of Banking Regulation Act, 1949 and other applicable laws. The Bidder will follow professional ethics and conduct in performing their duties. The Bank has right to terminate the services of the Bidder if it fails to comply with the conditions imposed. The external and internal auditors of the bank will be given right to review the books and internal controls of the Bidder related to the current project.

#### 24 Audit

Bank reserves the right to conduct an audit/ ongoing audit of the services provided by selected Bidder. The selected Bidder should allow the Reserve Bank of India (RBI) or persons authorized by it to access BOB documents, records or transaction or any other information given to, stored or processed by selected Bidder within a reasonable time failing which selected Bidder will be liable to pay any charges/ penalty levied by RBI.

# 25 **Penalty Metrics**

If the bidder fails to SITC of the solution penalty of 1% of the contract value per week will be levied

	from the Bidders		
26	Manuals and documentation  The selected Bidder shall provide complete technical documentation, brochures, user manuals etc. for the machine supplied. All the manuals shall be in English and the documentations should be clearly indicative of machines supplies.		
	Operation manual/all drawings should be provided in soft copy alongwith four printed sets of hard copy.		
27	Repeat Order		
	In case the Bank could complete the supply and integration/commissioning satisfactorily, the Bank would have option to place additional order upto 200% if desired by Bank on same terms and conditions within 12 months from award of this contract.		
28	Right to Alter Quantities  The Bank reserves the right to alter quantities and will be free to either reduce or increase the quantity up to 100% to be purchased on the same terms and conditions.		
29	Availability of Product and Spares		
	1) Spares for the product offered should be available for at least 7 years from date of installation.		
	2) In case the product/configuration offered is discontinued in the mean time, the selected Bidder should provide alternative spares/ equipment of same specification.		
30	Other Terms and Conditions		
	Bank of Baroda reserves the right to:		
	Reject any and all responses received in response to the RFP		
	Waive or Change any formalities, irregularities, or inconsistencies in proposal format delivery		
	Extend the time for submission of all proposals		
	• Select the most responsive bidder (in case no bidder satisfies the eligibility criteria in totality)		
	• Share the information/ clarifications provided in response to RFP by any bidder, with any other bidder(s) /others, in any form.		
	<ul> <li>Cancel the Tender at any stage, without assigning any reason whatsoever.</li> <li>Change the time schedule of the RFP for inviting the bids or evaluation thereof.</li> </ul>		
	Modify the quantity or any specifications related to eligibility or technicalities.		
31	Bid Rejection Criteria		
	In the following circumstances bank will have discretion to reject the entire bid or accept the bid		
	with some conditions stipulated by bank.		
	<ul> <li>Bid submitted by holding company and its subsidiary</li> <li>Bids submitted by one or more companies having common director/s</li> </ul>		
	Bids submitted by one or more partnership firms / LLPs having common partners		
	Bids submitted by one or more companies in the same group of promoters / management		
	Any other bid in the sole discretion of the bank is in the nature of multiple bids.		
	Related parties cannot submit bids. In case they do so both/all bids submitted by related parties are liable to be rejected at any stage.		
	Bid submitted not as per terms and conditions		
32	All compensation or other sums of money payable by the successful bidder to the Bank under the		
	terms of this contract may be deducted from his Security Deposit and performance guarantee if the amount so permits and the successful bidder shall, unless such deposit has become otherwise		
33	payable within ten days after such deductions make good in cash the amount so deducted  The Successful Bidder shall not assign the Contract to subcontractor. He shall not sublet any portion		
	of the Contract except with the written consent of the Bank may serve a notice in writing on the		
	Successful Bidder rescinding the contract whereupon the security deposit shall stand forfeited,		
	without prejudice to his other remedies against the Successful Bidder.		
34	The Schedule of Probable Quantities is liable to alterations by omissions, deductions or additions at the discretion of the Bank. Each tender should contain not only the rates but also the value of		

	each item of work entered in a separate column and all the amounts quoted against various items		
	should be totaled in order to show the aggregate value of the entire tender.		
35	The Successful Bidder shall have to use materials of the makes/manufacturers specified in the list of material approved brand and/or manufacture contained in this tender form.		
36	The contractor shall strictly comply with the provision of safety code.		
37			
31	the date of opening of Tenders.		
38	The performance guarantee of the successful Bidder will be forfeited if he fails to comply with any		
	of the conditions of the Contract.		
39	Bank reserves the right for any addition/deletion/alteration of materials/specifications before/after awarding the job without any compensation.		
40	Bidder shall be abide by the Minimum Wage Act, Labour Laws/Bye-laws, Shops & Establishment		
40	Act etc. of the State Government / Statutory bodies.		
41	All necessary permit/license, permission from public authorities etc., if required, for the completion		
41	of work, has to be arranged by the contractor.		
42	If the quality of material supplied is found to be unsatisfactory by us at any point of the contract		
	period, Bank is entitled to terminate the contract or withdraw the work order and get the balance		
	supply at your risk and cost by any other agency particularly in case of the following defaults from		
	bidder side.		
43	BOB discourages the stipulation of any additional conditions by the Bidders along with their offer.		
	The clarifications / conditions etc. of all the Bidders, if any, will be examined and after discussions		
	with all the Bidders in the prebid meeting, the conditions acceptable to BOB will be intimated to		
	the Bidders through Addendum/Corrigendum.		
44	All the material should be of the best quality available in the market.		
45	Bidders are advised to carry out the work without causing inconvenience to the occupant in the		
	building.		
46	Bank will deduct TDS, other applicable taxes/surcharge/cess etc. as per norms.		
47	Bank reserves the right to accept or reject any/all the offer without giving any reasons thereof.		
48	Other terms and conditions as per Bank's norms/IBA terms & conditions will be applicable.		
49	Since the building is in operation, installation will have to be carried out after office hours and on		
50	Sundays & holidays.  OEM should fulfill following criteria and Bidders should submit documents as evidence to fulfill		
30	the same		
51	Bank reserves the right to select/reject one or more Bidders. The Bank does not bind itself to accept		
	the lowest or any tender and reserves the right to accept or reject any or all tenders either in whole		
	or in part, without assigning any reasons whatsoever. Conditional tenders are liable to be rejected.		
	Dispute, if any, will be subject to Mumbai jurisdiction only.		
52	Faxed or emailed copies of any submission are not acceptable and shall be rejected by the Bank.		
53	All supporting documents duly self attested with digital signature are to be stamped, scanned,		
23	uploaded and attached along with online bid.		
54	Incomplete or partial or faulty submissions shall be rejected.		
55	OPENING OF BIDS:		
	Opening of Bids shall be strictly as per schedule under this RFP and no request for change in date		
	shall be entertained		
	Bids not accompanied with EMD will not be opened.		
56	Materials &workmanship to Description to confirm		
	All materials and workmanship shall so far as procurable be of to the respective kinds		
	described in the Schedule of Quantities to and/or Specifications and in accordance with the		
	Bank's instructions, and the Contractor shall upon the request of the Bank furnish it with all		
	invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The		
	Contractor shall at his own cost arrange for and/or carry out any test of any materials which the		
	Bank may require as per the testing schedule of tender.		
	paint may require up per the tebung benedule of telluct.		
57	Contractor's superintendence and representative on the works		

	The Contractor shall give all necessary personal superintendence during the execution of
	the works, and as long thereafter as the Bank may consider necessary until the expiry of the
	"Defects Liability Period"
58	Dismissal of workmen
	The Contractor shall on the request of the Bank immediately dismiss from the works any person
	employed thereon by him who may, in the opinion of the Bank be incompetent or misconduct
	himself and such persons shall not be again employed on the works without the
	permission of the Bank.
59	Access to works
	The Bank, their respective representatives shall at all reasonable times have free access to the
	work and/ or to the workshops, factories or other places where materials are lying or from which
(0)	they are being obtained and the Contractor shall give every facility to the Bank.
60	The Schedule of Quantities, unless otherwise stated shall be deemed to have been prepared
(1	in accordance with the Standard Method of Measurement.
61	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of
	Quantities, and/or the Schedule of Rates and Prices which rates and prices shall cover all his
	obligations under the Contract, and all matters and things necessary for the proper completion of
	the works.
62	The Bank may from time to time intimate to the Contractor that he requires the works to be
02	measured, and the Contractor shall forthwith attend or send a qualified Agent
	to assist the Bank. The Contractor Should not attend or neglect or omit to send such Agent then the
	measurement taken by the Bank shall be taken to be correct measurements of the works.
	incusarement taken by the Bank shari be taken to be correct incusarements of the works.
	The Contractor or his Agency may at the time of measurement take such notes and measurements
	as he may require.
63	Any defect, shrinkage, settlement or other faults which may appear within the "Defects Liability
	Period" or, if none stated, then within twelve months after the virtual completion of the works,
	arising in the opinion of the Bank from materials or workmanship not in accordance with the
	contract, shall upon the directions in writing of the Bank, and within such reasonable time as shall
	be specified therein, be amended and made good by the Contractor, at his own cost and in case of
	default the Bank may employ and pay other persons to amend and make good such defects,
	shrinkage, settlement or other faults, and all damages loss and expenses consequent thereon or
	incidental thereto shall be made good and borne by the Contractor and such damage, loss and
	expenses shall be recoverable from him by the Bank.
64	The Contractor shall be responsible for all injury or damage to and property, persons, animals or
	things, and for all damage to property which may arise from any factor omission on the part of the
	Contractor or any Sub-Contractor or any nominated Sub-Contractor or any of their employees.
	The liability under this clause shall cover also, interalia any damages to structures, whether
	immediately adjacent to the works or otherwise; any damage to roads, streets, footpaths, bridges as
	well as damage caused to the building and other structures and works forming the subject matter of
	this contract. The contractor shall also be responsible for any damage caused to the buildings and
	other structures and works forming the subject, matter of this contract due to rain, wind, frost or
	other inclemency of weather. The contractor shall, indemnify and keep indemnified the Bank
	and hold him harmless in respect of all and any loss and expenses arising from any such injury or
	damage to persons or property as aforesaid and also against any claim made in respect of injury
	or damage, whether under any statute or otherwise and also in respect of any award or
	compensation or damage consequent upon such claims.
	The Contractor shall rainstate all demage of every sort mentioned in this clause as as to do
	The Contractor shall reinstate all damage of every sort mentioned in this clause so as to do
	delivery of the whole of the works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to property or third parties.
	or otherwise satisfy an erainis for damage to property of tilluparties.
	The Contractor shall also indemnify and keep indemnified the Bank against all claims which may
	be made against the Bank by any person in respect of anything which may arisen respect of the
	the made against the bank by any person in respect of anything which may arisen respect of the

works or in consequence thereof and shall at his own expense, effect and maintain until the contract period.

The contractor shall also indemnify the Bank against all claim which may be made upon the Bank, whether under the Workmen's Compensation Act or any other statute in force, during the currency of this contract or at Common Law in respect of any employee of the contractor or of Sub-Contractor and shall be at his own expense effect and maintain until the contract period.

The contractor shall be responsible for any liability which may not be referred to above and also for all other damages to any person, animal or defective carrying out of this contract, whatever, may be the reasons due to which the damage shall have been caused.

The contractor shall also indemnify and keep Indemnified the Bank against all and any costs, charges or expenses arising out of any claim or proceedings relating to the works and also in respect of any of damage or compensation arising there from.

Without prejudice to the other rights of the Bank against contractors in respect of such default, the Bank shall be entitled to deduct from any sums payable to the contractor the amount of any damages, compensation costs, charges and other expenses paid by the Bank and which are payable by the contractor under this clause.

# 65 Delay and extension of time

If in the opinion of the Bank the works be delayed

- (a) by force majeure or
- (b) by reason of any exceptionally inclement weather or
- I by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through the Contractor's own default or (d) by the works or delays of other Contractors or Tradesmen engaged or nominated by the Employer or the Bank and not referred to in the Schedule of Quantities and/or Specification or
- I by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or
- (g) in consequences of the Contractor not having received in due time necessary instructions from the Bank for which he shall have specifically applied in writing or
- (h) from other causes which the Bank may certify as beyond the control of contractor or
- (i) in the event, the value of work exceed the value of the priced schedule of quantities owing to variations the Bank may with previous approval in writing of the Bank make fair and reasonable extension of time for completion of the Contract Works. In case of such strike

or lock out the Contractor shall immediately give written notice thereof to the Bank but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Bank to proceed with work.

If the Contractor needs an extension of time for the completion of the work or if the completion of work gets delayed for any reason beyond due date of completion stipulated in the contract, the Contractor shall apply to the Bank for extension of time in writing at least 3 days before the expiry of the scheduled time and while applying for extension of time Contractor shall furnish the reasons in detail and his Justification, if any, for delays. Only that period of extension of time as granted by the Bank (on receipt of the application from the contractor or even in absence of any such application) will qualify for exemption of imposition of liquidated damages.

Further, the contract shall remain in force even for the period beyond the due date of completion irrespective whether the Contractor has applied or not, for the grant of extension of time for completion unless the Bank decides to terminate the contract. The delay for completion of work for any reason will not entail any right to the contractor to claim any revision of rates or any extra compensation for any reason

# 66 | Termination of Contract by the Bank

If the Contractor being an individual or a firm commits any "act of insolvency", or shall be adjudged an insolvent or being an incorporated Company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervision of the Court and the Official Assignee or the Liquidator of such acts of

insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of the Bank that he is able to carry out and fulfill the Contract and to give security therefore, if so required by the Bank.

Or if the Contractor (when and individual, firm or incorporated Company) shall suffer execution

or other process of Court attaching property to be issued against the Contractor.

Or shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors of the Contractor.

Or shall assign or sublet this Contract without the consent in writing of the Bank first had and obtained.

Or shall charge or encumber this Contract or any payments due

or which may become due to the Contractor hereunder.

# 67 Right of technical scrutiny of Final Bill

The Bank shall have a right to cause a technical examination of the works by any of the persons or organization as appointed by the Bank and the final bill of the Contractor including all supporting vouchers, abstracts, etc. If as a result of this examination or otherwise any sum is found to have been overpaid or over certified it shall be lawful for the Bank to recover the sum from any payment due to the Contractor for this works or any other works being carried out by the contractors elsewhere under the BANK OF BARODA.

# 68 Bank entitled to recover compensation paid to workmen

If, for any reason, the Bank is obliged, by virtue of the provisions of the Workmen's Compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the Contractor in execution of the works, the Bank shall be entitled to recover from the Contractor the amount of compensation so paid, and without prejudice to the rights of the Bank under the said Act. The Bank shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by the Bank to the Contractor under this contract or otherwise. The Bank shall not be bound to contest any claim made against it under the said Act, except on the written request of the contractor and upon his giving to the Bank full security to the satisfaction of the Bank for all costs for which the Bank might become liable in consequence of contesting such claim.

Bank of Baroda reserves the right, but not any obligation, to undertake a pre-shipment inspection of the complete central system in a factory test environment. For this purpose, Bank of Baroda's personnel may visit the factory site, if required.

#### 70 SPLIT CLAUSE

69

Bank will allot the work to L1 Vendor. However, Bank may at its sole discretion allot the work to two or three bidders on L2 and L3 agreeing to parity of rates quoted by L1. Basis of allotment will be as under:

- a) In case the Bank decides to have two service providers , work allotted to L1 will be 60% and L2 will be 40%
- b) In case the Bank decides to have three suppliers, work allotted to L1 will be 50%, L2 will be 30% and L3 will be 20%

Note: Bank will have right to refix the percentage of sharing among L1, L2 & L3. The Bank at its sole discretion will allot the work in above ratios on the basis of their estimation and Bank's decision will be final and binding

	Bank may, at its sole discretion, decide to seek more information from the respondents in order to normalize the bids. However, respondents will be notified separately, if such normalization exercise as part of the technical evaluation is resorted to.
71	Quantities mentioned in the BOQ are approximate quantities and may vary by +/ - (plus /minus) 50%
72	In case of any default in services as mentioned in the tender, the bidder shall be blacklisted and the information may be shared with other authorities.

#### SECTION F

# **Specifications of Immersive Video Collaborative Board Room:**

Construction of State of the Art Immersive Video Collaboration Board Room Solutions , to be used for Local Meeting, Local Presentation and Video Meeting with 01 or many branches of Bank of Baroda and/ or customer/ vendors/ outside Bank of Baroda network.

The solution should include package of fully technically integrated solution including the complete hardware, software, networking, Lighting, Audio Visual, Conferencing, control systems & recording solution to work on our existing Video Conference Bridge/MCU/VCS of CISCO Brand. We are asking for the solution to achieve the following objectives:

Sr. No	Technical Function and Feature
1	Locations:
	A. Bank of Baroda, Administrative Building @ Alkapuri, Vadodara.
	1) Board Room
	<ul> <li>Seating capacity for only local Meeting : 36</li> </ul>
	Seating capacity for local Presentation and Video Meeting : 27
	2) Conference Room
	Seating capacity for only local Meeting : 60
	Seating capacity for local Presentation and Video Meeting: 45
	B. Bank of Baroda, Corporate Centre @ Mumbai
	3) Board Room
	Seating capacity for only local Meeting : 36
	• Seating capacity for local Presentation and Video Meeting: 36
	C. Bank of Baroda, @ Hyderabad
	4) Board Room
	Seating capacity for only local Meeting : 24
	Seating capacity for local Presentation and Video Meeting : 24

# 2 **Purpose:**

The solution should provide high quality Local & Immersive Telepresence Video Meeting Experience. The objective to implement such a solution is to provide an immersive experience of video meeting to multiple locations of Bank simultaneously with the same effectiveness as done in local meeting. We wish to have video meeting with our key customers and/ or vendors outside the Bank network. In local meeting we would like to have proper audio solutions for local audio reinforcement which can be integrated with Immersive video conference solution to act as speaker tracker solution.

# 3 Experience of Immersive Video Collaboration Solution

- The functionality can be achieved by pressing the Local Audio Reinforcement Mic Button or any look at me button with automatic adjustment of PAN, Tilt & Zoom in Video Camera. The size of the displays should be such as to show far participants in 100 % life size images.
- In Media-Rich Immersive Video Collaborative meeting, participants at all locations should be able to see each and every participant of all other locations at all times on a dedicated monitor at all the locations in the most efficient format depending on the no of locations automatically, along-with allowing the speaking location active segment that shows the speaker. The speaking location would be immediately visible at all the other locations, the moment someone start speaking from that location. It should happen automatically in a running conference.
- Interoperability with existing video conferencing studios:- All the sites should be able to join any legacy videoconferencing studio of our organization or any of our customer, partner or supplier in a video meeting over IP/ISDN in the same way two videoconferencing studios have a video meeting experience or higher. All this should be possible by the end users themselves in a running call. End users should be able to add audio only participant also from address book as well as in ad hoc fashion by dialing tel. nos. for Audio Conference & IP address for video meeting.
- Users can select bandwidth before making any video call for getting desired video quality.
- Add or disconnect locations on demand-During a running call the calling location should be able to add by end users themselves on demand, more no. of participating legacy VC or only audio endpoints or similarly drop the chosen participant locations on demand.
- Media-rich Immersive Video Collaboration experience: Any participant can share
  their laptop from any corner of table by wired & wireless media at the press of a button,
  without moving from the seat. The Chair person can share any physical document/
  material from their chair at the press of button without moving from his chair.
- The shared content (locally or remotely) can be seen to the motorized touch content monitors installed on the table. Also they can annotate the content and can save it, email it and print it by just a click without moving from their chair.
- Uniform full duplex stereo spatial high definition audio in Immersive Video meeting:-During Immersive Video Meeting experience the far site participants should get the digital crystal clear audio from local site.
- Local Audio Reinforcement Experience:- The solutions should be design in such a way
  that participants in room should be able to hear audio of each and every participant
  clearly from the table speaker. The same system should be used to track the active
  speaker during Immersive Video meeting experience by pressing Look at Me Button.

- Entire facility of the room can be operated by any non-technical person at any point of time without involving or disturbing IT/ technical person. By just a button press the experience of local meeting/ local presentation/ immersive video meeting should be started in simple and easy way. The control of the whole system on touch based Tablet.
- The Board Room should be available 24x7 for any kind of collaboration.
- The participants should be able to connect Laptops to network, presentation cables, audio cables 24×7, without any need of bringing these cables for the meetings. Also no adaptors should be required to connect any local or international visitor's laptops to power connections. All these connections should be easily locatable on the conference table itself.

#### Audio Solution - Local Audio Reinforcement & Over Immersive Video Collaboration:

- Local Audio Reinforcement:-
- The audio of the participants should be crystal clear & stereo spatial to all the other participants in the room. Whether the participant speaks softly or loudly from any corner of the room every single word spoken by the person should be heard crystal clear to each participant.
- Every participant audio/speech should be reinforced for highly interactive meeting.
- Audio Experience over Video Collaboration:-
- The user experience should be such that without carrying any lapel mics, the participants can sit relaxed, lean back, walk around the room, standup and still the far site participants should be able to hear his/her softly spoken words crystal clear.
- The solution should be design in such a way that, remote participants should not find any difference whether the participants is talking from the same location or from any other location.

The mic system used for local audio reinforcement should be give command to video conference camera to track the active speaker.

# **Functionality required from the AV System**

# 7<sup>th</sup> floor Boardroom – Alkapuri Office

#### **Display and Video System**

- Input Sources: VGA-Audio and HDMI connectivity on the furniture, Wireless presentation gateway device for presenting wireless content Click to Share and video conferencing codec.
- Output Device: One 84" UHD LED Display and Retractable monitors (with touch) on table (13 no's).
   Note: Content on all the monitors and display should be same
   Note: For enabling annotation user should connect USB cable, press push button and annotation software needs to be installed on the laptop to enable annotation.
- Centralized matrix switcher- enables and manages the routing of input sources to various output destinations.

# **Audio System**

- The system re-enforces VC far end audio and presentation audio through the fixed install front in wall and ceiling speakers.
- Table top boundary layer microphones capture the local user's speech and transmit to far end during a Video and audio conferencing calls.
- DSP should be enabled with telephone-PSTN hybrid should get connected to Bank's PBX system for audio conferencing calls.
- Volume control to be done through the touch control app/ touch panel user interface.

# **Conferencing System**

- This system must be implemented to enable to establish video conferencing with far end participants at high level Full HD 1080p resolution.
- Video capture of near end performed through PAN/TILT/ZOOM HD camera in the front for capturing the users/participants.

# **Control System**

- The system should enable the touch panel user interface i.e. Touch Panel to manage the signal routing, various AV equipment ON/OFF, volume control, dialer pad during a VC or Audio conferencing call.
- "Look @ ME" Feature: 13 no's push buttons on table enables the VC camera to look at the respective group of participants during a VC session.
- "Annotation button: 13 no's push buttons on table for annotation.

# **Installation System**

• Industry standard modular cabinet (equipment rack) with front glass door should accommodate the installed AV equipment's and provide ease of access for future servicing requirements.

# 3<sup>rd</sup> floor Boardroom - Alkapuri Office

# Display and Video System-

- Input Sources: VGA-Audio and HDMI connectivity on the furniture, Wireless presentation gateway device for presenting wireless content Click to Share and video conferencing codec.
- Output Device: One 98" UHD LED Display, Retractable monitors (with touch) on table (5 no's) and four 48" auxiliary displays.
- Projector screen should be for redundancy and should work if display fails.
  - Note: Content on all the monitors and display will be same
  - Note: For enabling annotation user should connect USB cable, press push button and annotation software needs to be installed on the laptop to enable annotation.
- Centralized matrix switcher- enables and manages the routing of input sources to various output destinations.

# **Audio System**

- The system re-enforces VC far end audio and presentation audio through the fixed install front in wall and ceiling speakers.
- Retractable gooseneck microphones capture the local user's speech and transmit to far end during a Video, audio conferencing calls and for local audio reinforcement.
- DSP should be enabled with telephone-PSTN hybrid and should get connected to Bank's PBX system for audio conferencing calls.
- Volume control to be done through the touch control app/ touch panel user interface.

# **Conferencing System**

- This system must be implemented to enable to establish video conferencing with far end participants at high level Full HD 1080p resolution.
- Video capture of near end performed through PAN/TILT/ZOOM HD camera in the front for capturing the users/participants.

#### **Control System**

- The system should enable the touch panel user interface i.e. Touch Panel to manage the signal routing, various AV equipment ON/OFF, volume control, dialer pad during a VC or Audio conferencing call.
- "Look @ ME" Feature: 15 no's push buttons on table enables the VC camera to look at the respective group of participants during a VC session.
- "Annotation button: 5 no's push buttons on table for annotation.

# **Installation System**

• Industry standard modular cabinet (equipment rack) with front glass door should accommodate the installed AV equipment and provide ease of access for future servicing requirements.

# 9th floor Boardroom - Mumbai Office

# Display and Video System

- Input Sources: VGA-Audio and HDMI connectivity on the furniture, Wireless presentation gateway device for presenting wireless content Click to Share and video conferencing codec.
- Output Device: 85" LED Display (Existing), Retractable monitors (with touch) on table (4 no's) and two 55" auxiliary displays.
  - Note: Content on all the monitors and display should be same
  - Note: For enabling annotation user must connect USB cable, press push button and annotation software needs to be installed on the laptop to enable annotation
- Centralized matrix switcher- should enable and manage the routing of input sources to various output destinations.

# **Audio System**

- The system should re-enforce VC far end audio and presentation audio through the fixed install front in wall and ceiling speakers.
- Boundary microphones (Existing) should capture the local user's speech and transmit to far end during a Video and audio conferencing calls.
- DSP should be enabled with telephone-PSTN hybrid to get connected to Bank's PBX system for audio conferencing calls.
- Volume should be controlled through the touch control app / touch panel user interface.

# **Conferencing System**

Existing

# **Control System**

- The system should enable the touch panel user interface i.e. Touch Panel to manage the signal routing, various AV equipment ON/OFF, volume control, dialer pad during a VC or Audio conferencing call.
- "Look @ ME" Feature: 13 no's push buttons on table should enable the VC camera to look at the respective group of participants during a VC session.
- "Annotation button: 4 no's push buttons on table for annotation.

# **Installation System**

 Industry standard modular cabinet (equipment rack) with front glass door should accommodate the installed AV equipment's and provide ease of access for future servicing requirements.

# **Boardroom – Hyderabad Office**

# Display and Video System-

- Input Sources: VGA-Audio and HDMI connectivity on the furniture, Wireless presentation gateway device for presenting wireless content Click to Share and video conferencing codec.
- Output Device: One 84" UHD LED Display and Retractable monitors (with touch) on table (5 no's). Note: Content on all the monitors and display must be same

  Note: For enabling annotation user must connect USB cable, press push button and annotation software needs to be installed on the laptop to enable annotation
- Centralized matrix switcher- should enable and manage the routing of input sources to various output destinations.

# **Audio System**

- The system should re-enforce VC far end audio and presentation audio through the fixed install front in wall and ceiling speakers.
- Table top boundary layer microphones should capture the local user's speech and transmit to far end during a Video and audio conferencing calls.
- DSP should be enabled with telephone-PSTN hybrid and get connected to Bank's PBX system for audio conferencing calls.
- Volume should be controlled through the touch control app / touch panel user interface.

# **Conferencing System**

- This system should be implemented to enable to establish video conferencing with far end participants at high level Full HD 1080p resolution.
- Video capture of near end performed through PAN/TILT/ZOOM HD camera in the front for capturing the users/participants.

#### **Control System**

- The system should enable the touch panel user interface i.e. Touch Panel to manage the signal routing, various AV equipment ON/OFF, volume control, dialer pad during a VC or Audio conferencing call.
- "Look @ ME" Feature: 13 no's push buttons on table should enable the VC camera to look at the respective group of participants during a VC session.
- "Annotation button: 5 no's push buttons on table for annotation.

# **Installation System**

• Industry standard modular cabinet (equipment rack) with front glass door should accommodate the installed AV equipment and provide ease of access for future servicing requirements.

# **3-Screen Integrated Video-conferencing Systems (Telepresence)**

- 1. Sleek and powerful system should incorporate an elegant triple 4K Ultra High Definition (UHD) camera cluster, three high-definition 70 inch or higher size LED screens, and HD Spatial quality audio, Amplifier and deep bass speaker system to bring people together as if they were just across the table. The system shall include the single-row, six seats system. The solution should comprise of main electronic components like displays, Cameras, codec(s), Touch panel, Audio amplifier and speaker system, microphones and Table. All the components should be provided by Single OEM in package.
- 2. Three 70 inch or higher size 1080p, 30fps LED screens real-size, lifelike remote meeting participation. Three state-of-the-art 4K HD cameras clustered together to deliver optimal eye contact and a continuous whole-room experience.
- 3. OEM supplied Lighting panels for facial illumination of participants. Additional room / ceiling lights will be provided by the Bank based on the recommendation of the bidder.
- 4. The system must have the ability to share presentation from any of the participants using a HDMI cable.
- 5. The system must also have the ability to share presentation without any wires. A laptop on the Bank's network must be able to share a presentation if it is in the same room by using an application on the laptop. Typing or configuring of any IP address for presentation sharing is not acceptable. This feature can be available as a built-in feature or using any third party component. However, bidder has to take full responsibility of the entire set up.
- 6. It should be possible to share a 'Whiteboard' as a presentation source during a meeting. This whiteboard can be wall mounted. This feature can be built-in or can be achieved using additional cameras such as document camera etc. or additional third party components. However, bidder has to take full responsibility of the entire set up.
- 7. The system must have the ability to view the presentation from the laptop on a dedicated screen for presentation.
- 8. The system must also have the ability to view the presentation on any of the 3 large 70 inch (or higher) LED screen. In case this feature is not available as part of the OEM offering, additional hardware and software components can be added. However, bidder has to take full responsibility of the entire set up.
- 9. The system shall be supplied with software and hardware stability in mind to ensure enterprise-grade reliability.
- 10. Microphones: Integrated microphones preferably raised desk microphone bars, allowing users to be heard clearly when standing up & to overcome audio distortion from personal devices such as laptops. AAC-LD spatial audio combined with high-fidelity speaker should provide lifelike, location-based audio from every seat. Uniquely designed speakers should be positioned above the screens to provide high-fidelity audio.
  - Touch panel should be provided to control the telepresence device, like making a call, sharing presentation, moving presentation to difference screens, selecting the source, volume adjustment, Stand up or Sit mode selection, etc.
- 11. Complete room remediation should be done to match and support the 3-screen VC system to give the best audio-video experience. It should include 6 Executive chairs, flooring, raceway conduits, lighting, acoustic wall paneling, complete cabling, false ceiling, etc.

Sr. No.	Equipment	Minimum Technical Requirements	Approved Makes	Bidders to Fill the makes and its model nos along with Compliance (Yes / No)
1	48" or	Professional LED Display	Samsung,	,
	higher Auxiliary LED display	Diagonal Size: 48 Inch	Sony, LG	
		Slim design with Narrow Bezel or better	1	
		Resolution: 1920X1080 (16:9) or better		
		Brightness(Typical): 350 nit or better		
		Contrast ratio: 1100: 1 or better		
		Viewing angle (H/V): 178: 178 or better	1	
		Response time (G-to-G): Max 12 ms or better	- - -	
		Color gamut : 68% or better		
		Lifetime (Typical): 50000 Hours or better		
		Operation Hours: 18 Hours or better	1	
		Maximum pixel frequency : Minimum 148.5 MHz or better	-	
		Input: Analog D-SUB, DVI-D, HDMI, Display Port, Stereo mini jack, USB or better		
		Output: Stereo mini jack or better  External control: RS-232C, Ethernet or better		
2	HD Surface Trea Brightness 3: Panel Techno Native Resol  Dynamic CR Contrast Ration Response Tin Color Depth  Inputs:  HDMI(2), D HDCP for all	Screen Size 84 (213 cm) Aspect Ratio 16: 9 Surface Treatment Anti-glare Haze 10% Brightness 350cd/m2 Panel Technology IPS Native Resolution 3840 x 2160 (UHD)	LG , Panasonic , Samsung	
		Dynamic CR 500,000 : 1 Contrast Ratio 1,400:1		
		Response Time 12ms (G to G) Color Depth 1.06 Billion		
		Inputs:		
		HDMI(2), DVI-D(1), Display Port(1) with HDCP for all input		
		RGB(1), Composite(1)		
3	98" LED display	Screen Size 97.52 inches(2476.95 mm) diagonal Native Resolution 3840 x 2160 (UHD) Brightness 500	LG , Panasonic , Samsung	
		Inputs: HDMI Yes(3) DP Yes (1) DVI-D Yes (1)		

4	Multi- channel Amplifier	8 channel amplifier with 150 Watts per channel @ 4-8 Ohms or 100 Volts nominal; 300 Watts per bridged pair of channels @ 8 Ohms  Frequency Response 20 Hz to 20 kHz ±0.5 dB at 1 Watt, 4-8 Ohms; 200 Hz to 20 kHz ±0.5 dB at 1 Watt, 70/100 Volts  1.23 Vrms, +4 dBu (balanced) for full rated output power  8 (8) 3-pin 3.5 mm detachable terminal blocks; Balanced line-level audio inputs; Maximum Input Level: 12.3 Vrms, +24 dBu; Input Impedance: 20k Ohms balanced	Crestron, QSC, Bose
5	109" Projection Screen	220V motorized Projection screen heavy duty metal with rust free powder coating, tilt & swivel facility, height adjustable Pentagonal steel case is scratch-resistant white polyester finish with matching endcaps.  Matte white surface with unity gain Image format: 16:10 Image Diagonal Size not less than 109" Image/Viewable area not less than 57 ½" x 92" Case length not less than 101 ¾"	Draper , Da- Lite , Stewart
6	HDMI Patch Cable	6 feet high–speed HDMI cable 24k gold-plated 19-pin Type A connectors RoHS compliant Supports 4K Ultra HD video Supports Full HD 1080p with Deep Color and 3D	Extron , Crestron
7	VGA + Audio Patch Cable	High-bandwidth computer VGA cable w/audio – 6ft Integrated mini-TRS stereo audio cable Supports computer resolutions up to WUXGA High-density 15-pin connectors RoHS compliant	Extron , Crestron
8	High Definition Document Camera	Image Sensor: ½.8-Type Exmor, high- speed, low-noise CMOS Image Sensor or better  Zoom: 20X Optical Zoom with Multi- element Glass Lens or better  Field of View: -  Horizontal: 63° Wide End to 3.47° Tele End, (16:9 Aspect Ratio) or better  Vertical: 36.8° Wide End to 1.85° Tele End or better	Vaddio , Panasonic , Sony

	1	T	
		Lens Focal Length: f=4.44mm to 89mm/	
		F1.6 – F3.4 or better	
		Minimum Illumination : 0.3 Lux or better	
		Video output Resolutions : HD:	
		1080p/60/59.94/50./30/25,	
		1080i60/59.94/50 and 720p/60/59.94/50 or	
		better Video output Formats : HDMI, Analog	-
		Component	
		Signal to Noise Ratio : > 50 dB or better	
		Pan Range: -	1
		Pan: +170 degrees to -170 degrees or better	-
			-
		Tilt: +90 degrees to -30 degrees or better	
		Preset positions : 16 (internal), 6 recalled via IR Remote or better	
		Control Methods: RS-232, IR Remote	
		Commander  Cot 5 Cohla Distance : Un to 100' (20.5m)	-
		Cat-5 Cable Distance : Up to 100' (30.5m) or better	
		or better	
9	48-Button	Allows third-party custom control panels to	Crestron,
	control	be interfaced to the Control system. It	Extron,
	panel	provides 48 digital inputs to accept contact	AMX
	interface,	closures from third-party switches, 48 LED	
	ŕ	output drivers, and two bar-graph outputs.	
			-
10	Control	Real-time, Multitasking Control processor	Crestron,
10	system	Should have minimum of 512MB RAM	Extron,
	System	Built in	AMX
			-
		I Should have minimum of 4GB Flash Built	
		Should have minimum of 4GB Flash Built In	
		In	
		In It should support Expandable storage up to	
		In It should support Expandable storage up to 1TB	
		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet	
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		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage	
		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports	
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		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports It should have minimum 8 Versiport I/O ports It should have minimum 8 Versiport I/O ports It should have native support for BACnet/IP.	
		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports It should have minimum 8 Versiport I/O ports It should have minimum 8 Versiport I/O ports It should have native support for BACnet/IP. It should be Ipv6 ready	
		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports It should have minimum 8 Versiport I/O ports It should have minimum 8 Versiport I/O ports It should have native support for BACnet/IP. It should be Ipv6 ready It should IIS v.6.0 Web Server	
		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports It should have minimum 8 Versiport I/O ports It should have minimum 8 Versiport I/O ports It should have native support for BACnet/IP. It should be Ipv6 ready	
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		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports It should have minimum 8 Versiport I/O ports It should have minimum 8 Versiport I/O ports It should have native support for BACnet/IP. It should be Ipv6 ready It should IIS v.6.0 Web Server It should be controllable thru iPhone®, iPad® and Android without the need of any other hardware modules	
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		In It should support Expandable storage up to 1TB It should have Industry-standard Ethernet communications It should have built in Web server It should have minimum One RS-232/422/485 COM port It should have minimum Two RS-232 COM ports It should have minimum 8 IR/serial It should have minimum 8 Low Voltage relay ports It should have minimum 8 Versiport I/O ports It should have minimum 8 Versiport I/O ports It should have native support for BACnet/IP. It should be Ipv6 ready It should IIS v.6.0 Web Server It should be controllable thru iPhone®, iPad® and Android without the need of any other hardware modules	

11	HDCP- Compliant multi format Scaling4K	Ultra high-definition 8x4 system switcher, scaler, mic mixer, audio DSP, amplifier, and control system  Provides matrix signal routing for up to 8 video sources and 4 displays	Crestron, AMX, Lightware	
	Presentatio n Switcher	Handles video resolutions up to 4K DCI and Ultra HD  Provides six or better HDMI and two or hotter twisted pair (HD PossT correctible)	-	
		better twisted pair (HD BaseT compatible) inputs Includes HDMI, Twisted pair, and balanced stereo analog audio inputs	_	
		Also supports Dual-Mode DisplayPort, DVI, and HDBaseT sources	1	
		Performs automatic AV signal format management via EDID  HDCP 2.2 compliant	-	
		Provides adjustable input level compensation on each audio input Includes built-in 6-channel gated		
		microphone mixing with DSP  Provides two HDMI and two twisted pair	_	
		(HDBaseT compatible) outputs  Features an independent, high-performance 4K scaler at each HDMI output	-	
		Up-scales input signals to match the native resolution of any screen — including 4K and Ultra HD displays	1	
		Downscales 4K, UHD, and ultra-high- resolution computer signals to fit 1080p and other lower-resolution displays		
		Handles any input resolution from standard NTSC 480i or PAL 576i, to UHD and 4K	-	
		Provides three balanced stereo audio outputs, each with independent mixer and DSP	_	
		Provides two additional audio mixes, either of which is selectable at any digital output  Features a built-in amplifier, selectable for	-	
		20W/Ch. @ 8Ω stereo or 40W @ 70/100 Volts mono  Enables analog-to-HDMI audio embedding	-	
		and de-embedding Includes onboard IR, RS-232, relay, digital		
		Supports iPhone, iPad, and Android control apps	1	
		Integrated Ethernet switch provides a single-point LAN connection  Private Network Mode — requires just one	<u> </u>	
		IP address for the complete system  Includes front panel controls for basic configuration, diagnostics, and signal	_	
		routing		

		Includes customizable front panel label	
		Includes customizable front panel label strips and LCD display	
		Allows advanced AV setup and adjustment via a web browser	
		via a web blowser	
12	Twisted	Cost-effective twisted pair receiver and	Crestron,
	pair .	display controller	AMX,
	receiver	Connects to a transmitter over a single CAT type twisted pair cable	Lightware
		Provides one HDMI or DVI display output	
		Handles video resolutions up to 4K and Ultra HD	
		Handles 3D video and Deep Color	
		Handles Dolby TrueHD, Dolby Atmos, DTS-HD, and uncompressed 7.1 linear PCM audio	
		HDCP 2.2 compliant	
		Supports cable lengths up to 330 feet (100 m) or better	
		Enables device control via CEC, IR, and RS-232	
13	twisted pair	Cost-effective twisted pair receiver and	Crestron,
	receiver	display controller	AMX,
		Connects to a transmitter over a single CAT type twisted pair cable	Lightware
		Provides one HDMI or DVI display output	
		Handles video resolutions up to 4K and	
		Ultra HD	
		Handles 3D video and Deep Color Handles Dolby TrueHD, Dolby Atmos,	-
		DTS-HD, and uncompressed 7.1 linear PCM audio	
		HDCP 2.2 compliant	
		Supports cable lengths up to 330 ft (100 m) or better	
		Enables device control via CEC, IR, and RS-232	
		Black in color	
		1-gang wall box mount design	
14	Twisted	Upscales the input signal to match the	Crestron,
17	pair	native resolution of any screen including	AMX,
	receiver	4K and Ultra HD displays	Lightware
	with built	Downscales 4K, UHD, and ultra-high-	
	in 4K scaler	resolution computer signals to enable	
		viewing on 1080p and other lower- resolution displays	
		Twisted pair receiver, 4K/60 scaler, audio	
		extractor, and display controller	
		Provides a 10/100 Ethernet LAN	1
		connection	
		Enables device control via CEC, IR, RS-232, and Ethernet	
		232, and Emerica	

		Allows de-embedding of stereo 2-channel audio signals		
		HDCP 2.2 compliant		
15	VGA HDMI	Twisted pair transmitter and multimedia interface	Crestron , AMX ,	
	transmitter	Built-in 2x1 AV switcher with auto- switching and analog audio-breakaway	Lightware	
		Connects to a receiver over a single CAT type twisted pair cable		
		Supports cable lengths up to 330 ft (100 m) or better  Provides HDMI and RGB/component video inputs		
		Also supports DVI and Dual-Mode DisplayPort sources		
		Handles video resolutions up to Full HD 1080p		
		Handles computer resolutions up to WUXGA Handles Dolby Digital, DTS, and		
		uncompressed 7.1 linear PCM audio		
		Includes an unbalanced stereo analog line- level audio input		
		Includes a local HDMI output HDCP compliant	-	
		Performs automatic AV signal format management via EDID	_	
		Provides a 10/100 Ethernet LAN connection		
		Enables device control via CEC and Ethernet		
		Enables USB HID signal extension for a local computer		
		Allows quick, easy setup and diagnostics	-	
16	Audio DSP	Should have twelve line/mic inputs with	Crestron,	
		66db gain range	Biamp,	
		Should have Eight 24 dB balanced line outputs	QSC	
		Should have 32x32 Dante audio network interface		
		Should have8x8 USB interface		
		Should have POTS or SIP audio		
		conferencing interface Analog-To-Digital Conversion: 24-bit 48 kHz	-	
		Digital-To-Analog Conversion: 24-bit 48 kHz		
		Frequency Response: 20 Hz to 20 kHz ±0.5 dB THD: 0.001%, 20 Hz to 20 kHz, 0		
		dB gain, +4 dBu input; 0.01%, 22 Hz to 22 kHz, 54 dB gain, -50 dBu input EIN: -125 dBu, 22 Hz to 22 kHz,		
		no weighting Dynamic Range: 110 dB, 22 Hz to 22 kHz,		

		O dB gain Crosstalk: -85 dB, 1 kHz, +4 dBu input, channel to channel -75 dB, 1 kHz, -50 dBu input, channel to channel  Latency: 3.0 ms (analog in to analog out) Dante I/O: 32 channels in, 32 channels out, at up to 24-bit 48 kHz USB Audio I/O: 2 channels in & out or 8 channels in & out, 16 or 24 bit, 48 kHz AEC Performance: Bandwidth: 20 Hz to 20 kHz THD+N: 0.001%, +4 dBu input Convergence Rate: 100 dB/s Tail Length: 300 ms	
17	Cable cubby with power, retractable VGA, audio, retractable HDMI	Supports up to two cable pass-through plates (included). Each plate includes four grommeted holes which may be selectively covered using blank caps provided. The cable pass-through plates are positioned at the left and right sides of the connection compartment  Dual International AC Power Outlet Module  Connector Plate, USB x 2	AMX , Extron , Crestron
18	HDMI DA	Should split one HDMI source to eight outputs  Should Handle video resolution up to 4K and ultra HD  Should handle 3D video and deep color  Should be HDCP compliant  Should include input and output sync indicators  No programming or control system required  Should have thin profile: less than one inch deep	Crestron/ AMX / Lightware
19	HDMI Extender	Shall be HDBaseT® Certified 4K Ultra HD signal extender  Shall Extend uncompressed digital video, audio, and control signals over a single CAT type twisted pair cable  Supports Dolby® TrueHD, DTS-HD®, and uncompressed 7.1 linear PCM audio  Supports cable lengths up to 330 ft (100 m) for 1080p, WUXGA, and 2K using CAT5e. Supports 4K and UHD for cable length using 165 ft (50 m) using CAT5e	Crestron/ AMX / Lightware

	T		T	T
		Compatible with HDMI®, DVI, and		
		DisplayPort Multimode sources.		
		Compatible with HDMI and DVI display devices		
		HDCP 2.2 compliant; should pass CEC		
		and EDID Should Include universal IR repeater up to	-	
		455 kHz; Extends bidirectional RS-232 up		
		to 115.2k Baud		
		24VDC power pack included	1	
		21 VBC power pack increased	-	
20	HDMI switcher	4x1 ultra high-definition 4K/60 digital AV switcher	Crestron/ AMX /	
	4x1	Simplified setup through the front panel	Lightware	
	741	OLED display or Web browser	Lightware	
			-	
		Four HDMI inputs and one HDMI output	-	
		High-speed Ethernet LAN connection	-	
		Comprehensive built-in EDID		
		configuration tools	-	
		Compact, low-profile surface mount design		
		Universal 100-240V external power pack		
		included	-	
	<b>—</b>		T 1.D	
21	Tabletop	Ergonomically designed	Launch Port	
	Docking	provides a stylish tabletop docking solution	, Crestron	
	Station	for an Apple® iPad Air® 2 or iPad Pro®		
		9.7 device.[1] The iPanel dock		
		simultaneously charges the iPad® device		
		while allowing it to be used to control a home, business, boardroom, or classroom.		
		The iPad device slides easily into the iPanel		
		dock, instantly transforming it into a		
		stationary tabletop touch screen. The iPad		
		device can be removed just as easily from		
		the iPanel dock to resume portable use at		
		any time.		
22	Touch	Storage: 16gb	Apple	
	interface	Wi-Fi (802.11a/b/g/n)		
	panel for	Bluetooth 2.1 + EDR technology		
	Control	9.7-inch (diagonal) LED-backlit glossy		
	System	widescreen		
		1024x768 resolution at 132 pixels per inch		
		(ppi)	_	
		Fingerprint-resistant oleophobic coating		
		Support for display of multiple languages		
		and characters simultaneously		
		Back camera: Video recording, HD (720p)		
		up to 30 frames per second with audio; still		
		camera with 5x digital zoom		
		Front camera: Video recording, VGA up to	1	
		30 frames per second with audio VGA-		
		quality still camera		
		Photo and video geotagging over Wi-Fi		
		External Buttons and Controls		
	•	•	•	

		Built-in 25-watt-hour rechargeable lithium-	
		polymer battery	
		Up to 10 hours of surfing the web on Wi- Fi, watching video or listening to music	
		Charging via power adapter or USB to	
		computer system	
		30-pin dock connector port	
		3.5-mm stereo headphone mini-jack	
		Built-in speaker	
		Microphone	
		Ambient light sensor	
23	4000	Display method shall be Transparent LCD	Panasonic,
	lumens WXGA	panel (x 3, R/G/B)	Christie, NEC
	w AGA projector	Brightness: 4000 Lumens- Normal mode	NEC
	projector	Lens: Manual zoom (1.6x) (throw ratio: 1.18–1.90:1), manual focus, F 1.60–1.90, f	
		15.31–26.24 mm	
		Center-to-corner uniformity: 85%	
		Contrast ratio: 12,000:1 (Full On/Off)	
		(input signals: PC, lamp power: Normal,	
		picture mode: Dynamic, Iris: On, Daylight	
		View: Off, Auto Power Save: Off ) Resolution: 1,280 x 800 pixels	
		Optical axis shift: 49:1(fixed)	
		Keystone correction range: Vertical=	
		±40°(±30° when using auto), Horizontal=	
		±30°	
		Terminals: HDMI IN, COMPUTER 1 IN,	
		COMPUTER 2 IN/ MONITOR OUT,	
		VIDEO IN S-Video in, AUDIO 1 IN, AUDIO 2 IN, AUDIO OUT, SERIAL IN,	
		LAN,	
		Built-in speaker: 10 W (monaural) x 1	
		Noise level: 37 dB (lamp power: Normal),	
		29 dB (lamp power: Eco),	
		Cabinet materials: Molded plastic (PC)	
		Operating temperature: 0 °C-40 °C (32 °F-	
		104 °F) Operating humidity: 20-80 % (no	
		condensation)	
		,	
24	ceiling	Should be a 2-way in-ceiling speaker	Crestron,
	speaker	Should have 4" woofer with wide-	QSC, BOSE
		dispersion dome tweeter	
		Should have Built-in 70/100V multi-tap transformer	
		Should have 30 Watts program power	
		handling	
		Should have 100 Hz – 15 kHz frequency	
		response (±3 dB)  Should have 120° nominal accorded pattern	
		Should have 120° nominal coverage pattern Impedance: 8 Ohms nominal with	
		transformer set to " $8\Omega$ "	
25	Wall mount	2-way surface mount speaker	Crestron,
	speakers	Built-in 70/100V multi-tap transformer	QSC, Bose
		I am a series of the series of	1

		Allows 360° rotation and continuously	
		variable positioning	
		150 Watts program (8 Ohms)	
		80 Hz – 18 kHz frequency range	
		Paintable to blend with surroundings	
		Taintable to blend with surroundings	
26	Wireless	Receiver:	Beyerdyna
	Handheld	Output level max. +3 dBV / +5 dBu	mics,
	Mic	Mains connection. 100 – 240 V AC with	Sennheiser,
		Power consumption. 3 W (typ.)	Shure
		Ambient temperature. 0 to +55 °C	
		Antenna connection. 2 x BNC input	
		Transmission range up	
		to 120 m	
		(line of sight)	
		Number of the simultaneously	
		active channels	
		per frequency band	
		Audio frequency response 45  – 15 kHz	
		Audio dynamic range	
		106 dB (A-weighted)	
		Transmitter:	
		Handheld transmitter with	
		dynamic cardioid capsule	
		Power supply 2 x	
		AA NiMH or	
		alkaline batteries	
		Operating time	
		Ambient temperature 0	
		to +55 °C	
		Transmitting power	
		mW / 50 mW	
27	Wireless	Receiver:	Beyerdyna
	Lapel Mic	Output level max. +3 dBV / +5 dBu	mics, Sennheiser,
		Mains connection. 100 – 240 V AC with Power consumption. 3 W (typ.)	Shure
		Ambient temperature. 0 to +55 °C	
		Antenna connection. 2 x BNC input	
		Transmission range up	
		to 120 m (line of sight)	
		Number of the simultaneously	
		active channels	
		per frequency band	
		Audio frequency response 45	
		- 15 kHz	
		Audio dynamic range	
		106 dB (A-weighted)	
		Transmitter:	

	T	I	
		Transducer type	
		Condenser (electret)	
		Operating principle	
		Pressure	
		Polar pattern	
		Omnidirectional	
		Frequency response 20 –	
		20,000 Hz*	
		Display LCD Power supply 2 x	
		AA NiMH or	
		alkaline batteries	
		Operating time	
		45pprox 10 hrs.	
		Ambient temperature 0 to +55 °C	
		Transmitting power 10 mW / 50 mW	
		Weight (without batteries) 85 g	
		Dimensions	
		x 26 mm	
		TYON (I) YOUR E	
28	USB	USB: (1) USB Type B female (cable	Crestron/
	transmitter	included);	AMX /
		USB 2.0 device port for connection to the USB host computer, media	Lightware
		server, game console, annotator, codec, etc.	
		Link: (1) 8-pin RJ45 female;	
		Connects to an Ethernet network	
29	USB	USB: (4) USB Type A female;	Crestron/
	receiver	USB 2.0 host ports for connection of USB	AMX /
		mice, keyboards, whiteboards,	Lightware
		game controllers, cameras, mobile devices,	
		printers, flash drives, hard	
		drives, hubs, and other USB devices [2];	
		Available Power: 500 mA @ 5 Volts DC	
		per port	
		24V DC: (1) 2.1 x 5.5 mm DC power	
		connector;	
		24 Volt DC power input;	
		Link: (1) 8-pin RJ45 female;	
		Connects to an Ethernet network	
		24VDC power pack included	
	1077 :	L 40XXI	X 1 1 /
30	42U AV	42U height	Valrack/
	Rack	Multi Hollow Extruded Aluminum Frames	Middle
		Structure across the X, Y & Z axis to give	Atlantic/ President
		an Uninstructed bolting mechanism (UL)	FICSIDEIIL
		and Further reinforced with 8 Nos. of	
		corner bracket which ensure better stability	
		and strength	
		Configured to hold 19-inch equipment with	
		the help of two pairs of mounting angle	
		provided with square slots to accommodate	
		M6 Cage nuts at universal pitch Pattern as per DIN 41494	
		pei DIN 41474	

	I	m (1 , 1 11 11 1 1 1	
		Top cover ventilated on all sides along the width and depth thereby enhancing exhaust of hot air  Cable entry provision is both at the top and bottom covers with 35mm round cable entry point, the cable entry provision comprising of a gland plate with cable entry points in round cut outs edge protected with rubber grommets	
		Monitor Tray – Ventilation – Tray Specially designed with multiple bend and additional stiffeners for better load carrying capacity  Metal Steel Ventilation Panel – Blank Ventilation Panels to help to fill the open space in the rack along with ventilation to facilitate air circulations	
		Castor – 4 Nos. of heavy duty castors to take care of heavy load bearing capacities are provided, 2 Nos. in the front with Break & 2 Nos. on the rear without break.  Rack mount channels with Hardware sets  Earthing Strip – Copper strip to take care of the grounding	
31	Bulk	Color Finishing – RAL – 7035 & RAL – 7037 Fine Texture with 60 – 80 microns, for better finish and aesthetic look  Shielded Cat6 cable	D-Link,
31	Cables	Microphone cable  16 AWG speaker bulk cable  Stereo Audio/Control Cable	Belden, Kramer
32	15" Retractable monitor with Touch	Aluminum retractable motorized monitor  Display  Size FULL HD 15.6" TFT Active Matrix Resolution 1920 (h) x 1080 (v) Brightness 400 cd/m2 Contrast ratio 1500:1 Pixel 0.1792(h) x 0.1792 (v) mm Viewing angle 85°/85° (u/d) / 85°/85° (l/r) Viewing area 344.16 (h) x 193.59 (v) mm LED backlight lifespan 70.000 hrs.	Arthurholm
		Movement's Control User interface on monitor (Up/Down) Remote RS-422 I/O/GPI	
		Connectivity Input signal DVI-I (1 input) – HDCP Compliant - Digital / Analog DVI-D (1 input) – HDCP Compliant - Digital RJ45 CAT5 (with loop) Addressable RS422 monitor control by Ahnet protocol GPI (SubD9) Up/Down control	

		Should be touch enable VIA USB	
33	Retractable	Up/Down Control Button on upper cover	Arthurholm
	gooseneck	plate	
	mic	GPI contact closer RS-422 (RJ45 CAT 5)	
		Microphone control Button on upper cover	
		plate	
		Customized function Button on upper cover	
		plate	
		GPI/O LEDs, up/down and switch	
		Microphone Transducer type	
		Transducer type	
		Operating principle	
		Polar pattern	
		Frequency response	
		Open circuit voltage	
		$\Omega$ Load impedance $\geq 1$	
		$k\Omega$ Signal to noise ratio / noise voltage 69	
		dB [A] / 6.0 µV [A] Max. SPL	
		dB [SPL @ 1% THD]	
		Equivalent SPL	
		Wiring GM 30x/30x S	
		balanced with 3-pin	
		XLR-plug	
		Microphone length 400mm	
34	Digital	Digital extender for camera ,Power, Control	SCT/Cisco/
34	extender	and Video over single traditional CAT 6	Polycom
	for camera	cable	
		kits provide:	
		Camera Power	
		Ethernet Camera Control	
		Distances up to 300' over CAT5e or CAT6 UTP cables	
35	23" Full	Video Standards / Features	Cisco,
	HD	The Screen size should be 23" or above	Polycom
	Desktop	Should support minimum H.264 and above	
	VC	The system should support SIP protocol.	
	Endpoint	Must support desktop sharing SIP calls	
		Must support 1080p 30 fps or above	
		Ability to send and receive two live	
		simultaneous video sources in a single call.	
		Side by Side layout so that two video	
		sources can be displayed on a single LCD	
		screen.	

Should have HDMI or DVI (Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display a resolution of XGA/SXGA. The user must be able to toggle between the Laptop/PC mode and the Video conferencing mode at a push of button/icon. Video Resolution: CIF (352 x 288 pixels) VGA 240p, 360p, 480p 720p (1280 x 720 pixels) 1080p (1920x1080 pixels) Audio The system should have minimum two stereo front speakers with inbuilt microphones, wideband speakers. G.722, G.711, MPEG 4 AAC or better – which supports 20 KHz audio must be supported Noise Reduction/Echo Cancellation, Automatic Gain control, Automatic Audio mixer It should support beam shaping audio capture of participants Network Interfaces / Features 1 x LAN /Ethernet-10/100/1000 1 x LAN /Ethernet-10/100/1000 to connect a PC (i.e. built in switch) Must support Standard based Packet loss recovery algorithm to handle packet loss. Should support QoS Should support URI Dialing Presentation through presence of DVI/HDMI Input port The system must have the ability to pair with laptop for sending content without any wires to the VC system The system should be support USB Headsets and Bluetooth headsets for personal calls Security Should support password protected system menu Multi-points meetings (using central MCU) should be password protected and the same should be possible for SIP networks Encryption of video call: ITU-T standards based Encryption of the video call Call should be encrypted end-to-end on IP calls Camera Should have HD 6 megapixel or higher camera, with privacy shutter Must support 1080P resolution. Should support

		Wide formats. Must support 1920 X 1080		
		resolution		
		60 degree horizontal Field of View		
		35 degree vertical field of view		
		Must have automatic Focus.		
		The VC unit must allow the camera to be		
		used as a document camera to capture hard		
		copies and transmit it to the far end site.		
		Alternately a Document camera has to be		
		supplied separately, if it is not integrated.	-	
		Brower Support / Directory Services /		
		Others Should have Internal web server	-	
			<u> </u>	
		Remote software upload	-	
		Should support Local and Global		
		directories Should support LDAR and H 250 protocols	-	
		Should support LDAP and H.350 protocols for directory transfer.		
		•	<u> </u>	
		Must support 802.11a/b/g/n (for Wi-Fi)	-	
		Must support escalation of point-to-point calls to Multiparty calls using the central		
		MCU without disconnecting the call.		
			-	
		Date and Time support via NTP.		
36	VC	Should support H.263,H.263+, H.264,	Cisco,	
	endpoint	H.265	Polycom	
	for large	H.264 in an Encrypted call should be		
	sized rooms	possible		
		H.264 should be possible when sending or		
		receiving two live video sources e.g.		
		Presenter and Presentation.	<u> </u>	
		Should support 60 fps with 1080p resolution in Motion mode.		
			-	
		Ability to send and receive two live		
		simultaneous video sources in a single call		
		simultaneous video sources in a single call,		
		so that the image from the main camera and		
		so that the image from the main camera and PC or document camera can be seen		
		so that the image from the main camera and PC or document camera can be seen simultaneously.		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display resolutions from WXGA (1280)		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display resolutions from WXGA (1280 x 768) to 1080p (1920 x 1080)		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display resolutions from WXGA (1280 x 768) to 1080p (1920 x 1080)  Should have at least 3 HDMI inputs to		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display resolutions from WXGA (1280 x 768) to 1080p (1920 x 1080)  Should have at least 3 HDMI inputs to connect multiple HD cameras.		
		so that the image from the main camera and PC or document camera can be seen simultaneously.  Should support H.239 and BFCP protocols  Should have at least 3 nos. of HD (High Definition) output to connect Full High Definition display devices such as plasma and projectors for both Video and content.  The unit must provide the flexibility to display video or content one any of the video output.  Should have one DVI ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display resolutions from WXGA (1280 x 768) to 1080p (1920 x 1080)  Should have at least 3 HDMI inputs to		

The system must have the ability to pair mobile devices such as Tablets and Smartphones based on iOS or Android platforms so that these devices can be used 1) View the Presentation that is being shown in the VC call. 2) Add and disconnect call. 3) Take snapshot of the presentation being The system must have the ability to pair with laptop for sending content without any wires to the VC system Must be able to combine the video feeds from all the three cameras/ video inputs connected to the HDMI or DVI interface and send the combined video to the other video size. In case the video mixing capability is not possible as a built-in feature, an additional external mixer may be supplied to provide Video Scaling and mixing function. G.711, G.722, G.722.1, 64 kbps MPEG-4 AAC-LD standard must be supported.. Noise Reduction, Automatic Gain control, Acoustic Echo Canceller, Active Lip synchronization Should support 6 Microphone inputs to connect 6 microphones. The system must have the capability to mix the audio from all the microphones and the line input and send the same to the far end side. In case the audio mixing capability is not possible as a built-in feature, an additional external mixer may be supplied to provide audio mixing function. The pick-up of the microphones should be at least 10 feet from the microphone. Echo Cancellation for every input must be available. Should support digital main audio output with the HDMI interface 1 LAN /Ethernet-10/100/1000 Mbps full H323/SIP up to 6 Mbps point-to-point. Packet Loss Based Down speeding QoS-DiffServe IP adaptive bandwidth management (including flow control) Auto Gatekeeper discovery Auto Network Address Translation( NAT) support Standards based- Packet Loss Recovery feature

Should support URL Dialing

Support for H.245 DTMF tones in H.323

Т		Decouverd protected eventure		
		Password protected system menu		
		ITU-T standards based Encryption of the		
		video call		
		Call should be encrypted end-to-end on IP		
		Should support Standards-based: H.235 v2		
		& v3 and AES Encryption via Automatic		
		key generation and exchange. The same		
		should be available in a call with Video		
		with presentation (dual video)		
		Ability to manually turn encryption On or		
		OFF should be there.		
		Automatic key generation and exchange		
		Minimum of 10 x optical zoom 20X digital		
		zoom		
		1920 x 1080 pixels progressive @ 60fps		
		Must have a PTZ camera with +15°/-25°		
		tilt, +/- 90° pan		
		The Camera and codec should be from the		
		same manufacturer.		
		Should have at least 72 degrees static field		
		of view.		
		Should support Local and Global		
		directories		
		Should support LDAP and H.350 protocols		
		for directory transfer.		
		Should have USB port to connect external		
		devices.		
		Should have RS232 port for management.		
		Must have built-in Multiconference		
		capability to connect at least 1+4 sites at		
		720p in a continuous presence mode		
		All sites must be visible in a continuous		
		presence mode with rate matching and		
		transcoding such that different sites may		
		connect at different speeds and protocols		
		and still maintain a resolution of at least		
		720p		
25		N1	G:	
37	Advanced	Must be at least 55 inches	Cisco,	
	Collaborati	Should have Floor Mounting and Wall	SMART	
	on Smart	Mounting options		
	Board	Must have elegant positioning of cameras		
		and audio system such that they are no		
		intrusive. Must not have external cameras		
		and other accessories for basic		
		functionalities.		
		Must have a 4 K resolution for the display		
		and Camera		
		Should be able to register onto a Cloud		
		based Collaboration Platform so that a		
		group can collaborate together using Audio,		
		Video, Presentation, Whiteboarding		
		capabilities in real time and also share		
J		messages, content and ideas in asynchronous mode.		

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		The Collaboration board should have the ability to do Digital Whiteboarding using multiple colors.  Erasing, Selection of colors, Smooth movement when whiteboarding are essential.		
		Multi touch capability so that drawing can be done by two persons and two fingers simultaneously must be possible.		
		The solution must have the ability to allow another users using a Collaboration Board to 'Co-annotate' on the same whiteboarding session. The co-annotation must be smooth.		
		Co-annotation must be possible from a laptop or Mobile user as well using an app or WebRTC browser		
		The white boarding sessions should be saved on the collaboration platform or a specific room or group such that it is available for future use.		
		Users must be able to share presentation using wired HDMI cable or even wirelessly		
		The solution must have the ability to display a file that has been uploaded to a group or a space. This file can be a PPT, Excel, pdf etc.		
		It would be desirable to start the collaboration session on a mobile app and move the meeting to the collaboration board		
		Must support Ethernet port of 100/1000Mbps. Wi-Fi 802.11a/b/g/n would be desirable		
38	VC endpoint for medium	VC system should be standard based with separate/integrated camera (with codec) and HD audio video Interfaces.	Cisco, Polycom	
	sized rooms	Endpoint should support H.263, H.263 +, H.264 Video Standards.		
		Endpoint point should support H.264 standards in an Encrypted call. H.264 should be possible when sending or receiving two live video sources e.g.		
		Presenter and Presentation.  Endpoint should support 1080p resolution in Video and Content both.		
		Endpoint must support of 1+3 (as a License upgrade option).		
		Endpoint must support G.711, G.722, G.722.1, 64 kbps MPEG-4 AAC-LD Audio standard must be supported.		
		Endpoint should support H.239/BFCP protocols with 1080p resolutions.		
		Endpoint should support data sharing capability in SIP/H.323 calls for dual stream transmit.		
	J	suvam nansmit.	l	1

Endpoint should have ability to send and receive two live simultaneous video sources in a single call, so that image from the main camera/Computer/Document camera can be seen simultaneously. Endpoint should have at least 2no.'s of HDMI (High Definition Multimedia Interface) output to connect Full High Definition display devices such as plasma and projectors for both Video and Content. (Dual Monitor Support). Endpoint should have HDMI/DVI (Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display resolutions from WXGA (1280 x 768) to 1080p (1920 x Endpoint should have 1 HD video Input to connect the HD camera. Endpoint should support digital main audio output with the HDMI interface. Endpoint should have USB port to connect external devices. Endpoint should have RS232/USB port for management. Endpoint should support -1- Microphone input from day one and must be standard based microphones. The pickup of the microphones should be at least 10 feet from the microphone. In Microphone input, features such as Noise Reduction, Automatic Gain control, Acoustic Echo Canceller, Active Lip synchronization should support Echo Cancellation for every input must be available. Endpoint must have a PTZ camera with  $+15^{\circ}/-25^{\circ}$  tilt, +/- 90° pan. Camera should support minimum of 10 x Camera should support 1920 x 1080 pixels progressive @ 30fps from day one. Camera and codec should be from the same manufacturer. Camera should have at least 70 degrees horizontal field of view. End point must have minimum 1 LAN /Ethernet–10/100/1000 Mbps full duplex Endpoint must support H323/SIP up to 6 Mbps point-to-point. Endpoint must support for IPV4 & IPV6. Endpoint must have full down speeding support over IP.

Multipoint video call can be encrypted (ITU-T standards) end to end on IP.

	converter	audio signal by 50dB Female XLR to Male XLR	Sennheiser, Beyerdyna mics	
42	Line to mic	and 3D  50 dB attenuator reduces the level of an	Shure,	
		Supports Full HD 1080p with Deep Color	1	
		Supports 4K Ultra HD video	1	
	patch cable	RoHS compliant	-	
7.1	HDMI	24k gold-plated 19-pin Type A connectors	Crestron	
41	30/35 ft	30 feet high–speed HDMI cable	Extron,	
		Single-space 1U rack mountable	4	
		Convection cooled – no noisy fans	1	
		Professional balanced inputs  Rear panel ±10dB input level controls	-	
		Output  Professional balanced inputs	-	
		Over current and DC offset protection per		
		signal		
		Auto power-down after 30 minutes of no	1	
		jumper or remote contact		
		Individual channel power control via	-	
		High-output power, low noise, low distortion performance		
		Bridgeable for 420W@8Ω	4	
		100V operation	_	
		Each channel selectable for $4/8\Omega$ , $70V$ , or		
		outputs	]	
	Amplifier	Transformer isolated 70 and 100 Volt	1	
••	channel	120W@8Ω, and 120W@70/100V	QSC, Bose	
40	Dual	Two channels each rated $210W@4\Omega$ ,	Crestron,	
		External control: RS-232C / Ethernet	-	
		Output: Stereo mini jack or better		
		Input: Analog D-SUB, DVI-D, HDMI, Stereo mini jack, USB or better		
		better		
		Response time (G-to-G): Max 12 ms or	1	
		Viewing angle (H/V): 178: 178 or better	1	
		Contrast ratio: 1100: 1 or better	1	
		Brightness(Typical): 350 nit or better	1	
		Resolution: 1920X1080 (16:9) or better	1	
39	display	Diagonal Size : 55 Inch or more	NEC, LG	
39	55" LED	Professional LED Display	Samsung,	
		protocols for directory transfer.	-	
		Endpoint should support LDAP and H.350		
		directories	  -	
		Endpoint should support Local and Global	1	
		Endpoint should support URI Dialing.	1	
		Video with presentation.		
		H.235 v2 & v3 and AES Encryption via		
		Automatic key generation and exchange. The same should be available in a call with		

43	Boundary microphone	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Beyerdyna mics, Sennheiser, Shure
		Dynamic range	
44	Wireless presentatio n system	Wireless connection to central screen Up to 4 users on-screen Delivered with 4 Buttons  Airplay Support iOS mirroring (Airplay) from iOS 9.0 up to iOS 10.3 / Mac OS 10.11 El Capitan or higher Operating system Windows 7/8/8.1/10 32 & 64 bit Mac OSX 10.10/10.11/10.12 (Sierra) Android v5 & v6 & v7 (ClickShare app) iOS 8, 9 & 10 (ClickShare app) Video outputs DisplayPort, Single link DVI-I Output resolution UHD (3840 x 2160)	Barco
45	Wireless access point	Wireless access point	D-Link, Azus, Cisco
46	Metal Switch Short Stroke Ring Illuminated switch for look at me	Switching Function N.O., N.C., N.O./N.C. Supply Voltage 24 / 12 / 5 VDC Ring Illumination	Schurter, Werner
47	3-Screen Integrated Video- conferencin g Systems (Telepresen ce)	The proposed TP solution should be high definition 1080p@30 fps video.  The proposed TP solution should support high definition 1080p@30 fps content.  The Telepresence system should accommodate minimum 6 participants, with life-size images, around a virtual table, to support an interactive and collaborative, virtual face to face immersive meeting over the network  The Telepresence camera should be 4K HD cameras or better with min. 200 lux illumination	Cisco, Polycom

The video conferencing will have business quality transmission. The business quality transmission is defined as 1080p high-definition video resolution at 30 frames per second and 20 kHz or more wide-band spatial audio.

Minimum Three LED screens, each of at least 70 inches or higher solution at each location supporting at least HD 1080P@30fps. The screens should be able to display life like images of the participants. At any given instance, the screens should be able to display Life like image of at least 6 participants.

The solution should comprise of one content Display of 55 inch or more. Its placement should be above or below the three people Displays.

Solution should support video standards of H.264 Video frame rate should be minimum 30 frames and 60 fps is desirable

Solution should support voice standards of G .711, G.722, or better, Spatial/ stereo audio 20 KHz or higher, Acoustic echo canceller and Automatic Gain Control (AGC)

Support audio-only participant by integrating audio conferencing bridge into point to-point and multipoint calls

Solution should use standards TIP control signaling protocol to allow for flexibility for interoperability. The solution must comply with standard based video formats like HD 720p and HD 1080p.

It should be possible to share content wirelessly. Necessary wireless presentation solution should be included in the system.

Additionally, the Telepresence unit must have the ability to view the presentation on a dedicated screen.

The user must also have the ability to view the presentation on any of the three screens simply by dragging and dropping the required content via a touch interface. In case this feature is not available as part of the OEM offering, additional hardware and software components can be added. However, bidder has to take full responsibility of the entire set up.

The telepresence should be operated using the touch panel for call initiation, disconnection, presentation sharing, volume control etc.

The bidder should provide all the relevant software and hardware to achieve above mentioned conferencing requirement.

The proposed solution should be IPV6 enabled

The system is required to ensure End to End AES 128 bit encryption for Telepresence calls.

Telepresence system components including 70 inch display screens, speakers, cables, accessories and table should be single OEM sourced. For moveable accessories like Chair and collaboration screens, Vendors may quote third party sourced equipment. Customized solution such as HD video conferencing based boardroom solutions will not be accepted as telepresence system.

The system must have the ability to pair mobile devices such as Tablets and Smartphone based on iOS or Android platforms so that these devices can be used for:

- 1) View the Presentation that is being shown in the VC call.
- 2) Add and disconnect call.
- 3) Take snapshot of the presentation being shown.

The system must have the ability to pair with laptop for sending content without any wires to the VC system.

In case the above feature is not available

In case the above feature is not available natively, then additional components can be provided to achieve this.

The system must have the ability to capture participants even when they are standing up.

The system must have the ability to view the presentation from the laptop on a dedicated 55 to 60 inch screen for presentation.

Room remediation for 3-Screen Integrated VC System – including 6 Executive chairs, flooring, raceway conduits, lighting, acoustic wall paneling, complete cabling, false ceiling, etc.

## ANNEXURE G

## COMPLIANCE

Bidders have to agree only the following terms & conditions.

Sr.	Description	Bidders Response
G.1	We confirm that we will abide by all terms and conditions mentioned in this RFP Document.	Agree only
<b>G.2</b>	We confirm that we will abide by all the changes made in corrigendum/addendum.	Agree only
G.3	We confirm that we will abide by all the new clauses added in the corrigendum/addendum.	Agree only
<b>G.4</b>	We confirm that we have uploaded and attached electronically all the relevant documents	Agree only
	required as per the provisions of the RFP Document.	
G.5	We confirm that the Technical Bid and the Commercial Bid are submitted by us as per the	Agree only
	provisions mentioned in the RFP Document.	
G.6	We have made a complete review and careful examination of the terms of the RFP	Agree only
	Document and we hereby unconditionally and irrevocably accept, agree and acknowledge	
	the terms mentioned thereof.	
G.7	We hereby confirm that we satisfy the entire eligibility criterion and Requirements	Agree only
	conditions to execute the job as and wherever prescribed in the RFP Document.	
G.8	Bank reserves the right for any addition/deletion/alteration of quantities to be supplied	Agree only
G.9	before/after awarding the work without any compensation.  Bank reserves the right to verify / evaluate the claims independently made by us in this RFP	Agree only
G.5	Document.	Agree only
G.10	Bank reserve the right to reject any tender without assigning any reason whatsoever and	Agree only
	also does not bind it to accept the lowest or any specific tender. At the sole discretion and	
	determination of the Bank, the Bank may add or alter any other criteria for evaluating the	
	proposals received in response to this RFP. The decision of our Bank in this regard will be	
	final & binding.	
G.11	We confirm that we have noted the contents of the RFP and have ensured that there is no deviation in filing our response to the RFP and that the Bank will have the right to disqualify us in case of any such deviations.	Agree only
G.12	We agree that the Bank is not bound to accept the lowest or any Bid that the Bank may receive.	Agree only
G.13	We confirm that rates quoted in Bill of Quantities includes cost of SITC of entire infrastructure solution at site including transportation, GST or any other kind of Taxes and all other duties levied by Govt. or any public bodies, including any work related to installation i.e. Carpentry, Electrical etc	Agree only
G.14	We confirm that the price for all the components has been quoted along with 1 years OEM warranty. We confirm that we will backline all the services with the OEM during the warranty period and submit a OEM letter as a proof within 30 days from the date of receipt of PO.	Agree only
G.15	We agree that CAMC for 5 years will be provided by us after 1 year warranty of the entire solution. CAMC cost will include all cost of materials, components, spare parts, labours, transportation, taxes etc. (replacement or repair whichever is applicable) (complete in all respects).	Agree only
G.16	We agree that we have not been blacklisted by any PSU Bank / IBA/RBI during the last five years. Self-Certified letter duly signed on our letterhead is attached.	Agree only