



**REQUEST FOR PROPOSAL(RFP)  
FOR  
SELECTION OF AGENCY FOR SUPPLY, INSTALLATION  
& COMMISSIONING OF VIDEO CONFERENCE  
ROOMS, AND COMMAND CENTRE FOR CAPITAL  
REGION URBAN TRANSPORT.**

Tender No: **608/CRUT**

Date: **06.03.2024**

E.M.D: **Rs. 3,00,000.00 (Three Lakhs Only)**

Tender Paper Fee: Non-refundable Rs. 3,540- {Rs.3000/- + 18% GST (Rs. 540/-)}

Tender Inviting Authority

**Capital Region Urban Transport**

Plot no-548/1452, Patia, Kalarahanga, Bhubaneswar, Odisha 751024

Phone: 0674-3501580

Email: [crutbbsr@gmail.com](mailto:crutbbsr@gmail.com)

Website: <https://capitalregiontransport.in/>

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**DISCLAIMER**

1. Though adequate care has been taken while preparing the tender Document, the Bidders should satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately. If no intimation is received from any Bidder within seven days from the date of notification of tender Document/ Issue of the tender Document, it shall be considered that the tender Document is complete in all respects.
2. The information contained in this tender and subsequently provided to the Bidders (henceforth referred to as "Bidder/s") verbally or in documentary form by CRUT (Capital Region Urban Transport) (henceforth referred to as "Authority" in this document) shall form integral part of this tender.
3. The Managing Director, CRUT reserves the right to modify, amend or supplement this tender Document.
4. While this tender Document has been prepared in good faith , CRUT (Capital Region Urban Transport) Odisha nor its employees make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this tender Document, even if any loss or damage is caused by any act or omission on their part.
5. The issue of this tender document does not imply that CRUT (Capital Region Urban Transport) Odisha is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter) and Managing Director, CRUT reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.
6. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, uploading delivery fees, expenses associated with any demonstrations or presentations which may be required by CRUT (Capital Region Urban Transport), or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and Managing Director, CRUT, Odisha shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the selection process.
7. This tender is not an agreement or an offer by the CRUT (Capital Region Urban Transport), Odisha to the prospective Bidders or any other person. The purpose of this tender is to provide interested parties with information that may be useful to them in the formulation & submission of their Proposals pursuant to this tender.
8. This tender may not be appropriate for all persons, and it is not possible for the CRUT (Capital Region Urban Transport), Odisha and its employees to consider the objectives, technical expertise and particular needs of each party who reads or uses this tender. The assumptions, assessments, statements, and information contained in this tender may not be complete, accurate, adequate, or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this tender and obtain independent advice from appropriate sources. Information provided in this tender to the Bidders may be on a wide range of matters, some of which may depend upon interpretation of

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law.

9. The CRUT (Capital Region Urban Transport), Odisha accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.
10. The CRUT (Capital Region Urban Transport), Odisha and its employees/ advisors make no representation or warranty and shall have no liability to any person including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this tender or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the tender and any assessment, assumption, statement or information contained therein or deemed to form part of this tender or arising in any way in this Selection Process.
11. The tender also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Bidder upon the statements contained in this tender.
12. The CRUT (Capital Region Urban Transport), Odisha may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this tender.

**Place: Bhubaneswar, Odisha**

**Date: DD/MM/YYYY**

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

## Contents

Capital Region Urban Transport.....	1
DISCLAIMER.....	2
Data Sheet .....	8
1. Introduction .....	10
1.1. About Capital Region Urban Transport, Odisha.....	10
1.2. Project Background.....	10
1.3. Instruction to Bidders .....	10
1.4. General .....	11
1.5. Tender Form and Tender Fee.....	12
1.6. Earnest Money Deposit.....	12
1.7. Completeness of Response.....	13
1.8. Pre-Bid Queries on tender .....	13
1.9. Responses to Pre-Bid Queries and Issue of Corrigendum.....	14
1.10. Proposal Preparation Cost .....	14
1.11. Amendment of tender Document .....	15
1.12. Modification & Withdrawal of Bids.....	15
1.13. Supplementary Information to the tender.....	15
1.14. Sub-Contracting .....	15
1.15. Contacting the Managing Director, Capital Region Urban Transport .....	15
1.16. Right to Terminate the Process .....	16
1.17. Right to Vary Scope of Contract .....	16
1.18. Rejection Criteria .....	16
2. Bid Submission Instructions.....	17
2.1. Submission, Sealing, and Marking of Proposals .....	17
2.2. Preparation of Proposals.....	18
2.3. Bidders Authorization.....	19
2.4. Address for Correspondence .....	19
2.5. Local Conditions.....	19
2.6. Site Visits by Bidder .....	19
2.7. Language .....	19
2.8. Bid validity period .....	20
2.9. Discount.....	20
2.10. Only one proposal and one solution .....	20
2.11. Additional Conditions .....	20
2.12. Right to Terminate the Process .....	20
2.13. Compliant proposals/Completeness of response .....	21
2.14. Deviations and Exclusions .....	21
2.15. Modification and Withdrawal of Bids .....	21
2.16. Late Bids .....	21
2.17. User license and patent rights.....	22
3. Bid Opening and Evaluation Process .....	22
3.1. Opening of Bids .....	22

# Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.

3.2.	Evaluation of Bids .....	22
3.3.	Clarification on Bids .....	23
3.4.	Preliminary Examination of Bids .....	23
3.5.	Pre-Qualification .....	25
3.6.	Technical Evaluation .....	27
3.7.	Consortium/Joint Ventures of Firms .....	28
3.8.	Commercial Bid Evaluation .....	29
3.9.	Award Criteria .....	30
3.10.	Notification of Award .....	30
3.11.	Contract Finalization and Award .....	31
3.12.	Notification of Award .....	31
3.13.	Performance Bank Guarantee.....	31
3.14.	Signing of Contract .....	32
3.15.	Failure to Agree with the Terms and Conditions of the Agreement .....	32
4.	Fraud and Corrupt Practices .....	33
5.	Miscellaneous.....	34
6.	Scope of Work .....	35
6.1.	Civil Infrastructure and Interior .....	35
6.1.1.	ICCC Interiors .....	35
6.1.2.	Civil and Architectural work.....	35
6.1.3.	False Ceiling .....	36
6.1.4.	Raised Flooring .....	36
6.1.5.	Electrical Distribution System .....	36
6.1.6.	Electrical and Communication work .....	36
6.1.7.	Lighting Works .....	36
6.1.8.	CCTV System .....	37
6.1.9.	Access Control System .....	37
6.1.10.	Rodent Repellent system.....	37
6.1.11.	Control Desk for Workstation .....	37
6.1.12.	Chair for Control Desk .....	40
6.2.	Command Control Centre: Technology Components .....	40
6.2.1.	2MP Dome Camera .....	40
6.2.2.	8 Channel NVR .....	41
6.2.3.	24 Port 1G L2 Switch .....	41
6.2.4.	24U Network Rack .....	43
6.2.5.	Fire Alarm System.....	43
6.2.6.	Access Control System .....	44
6.2.7.	Rodent Repellant System .....	45
6.3.	Command Control Centre: Utility Components .....	45
6.3.1.	20KVA UPS with 30 Mint Backup .....	45
6.3.2.	Workstation with Monitor.....	47
6.3.3.	55" 4K UHD Smart TV .....	48
6.3.4.	Laptop .....	50
6.3.5.	SITC of Cassette Air Conditioner .....	50

# Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.

6.3.6.	SITC of Fixed Speed Split AC.....	51
6.4.	Electrical, Networking Works & Other Services (Passive Components for Command Control Centre) .....	51
6.4.1.	Cat-6 UTP Indoor .....	51
6.4.2.	CAT-6 Patch Cord.....	52
6.4.3.	24 Port Copper Patch Panel (fully loaded) .....	52
6.5.	Video Conferencing System Room Based Unified VC .....	53
6.5.1.	Technical Specifications of Room Based Unified VC Endpoint (At Patia Conference Hall)..	53
6.5.2.	Technical specification for bezel-less 2x2 matrix (54 inch each panel) active LED video wall (indoor) size: (Width - 8' x Height- 4'6"). (At Patia Conference Hall) .....	56
6.6.	Video Conferencing System at Depot Office .....	59
6.6.1.	USB Based PTZ Camera and Speaker Phone based Conference Hall System .....	59
6.6.2.	Technical specification for 75-inch UHD LED TV for USB Based PTZ Camera and Speaker Phone based Conference Hall System .....	61
7.	Bill of Material for IT Hardware & Peripherals Approved OEM/Manufacturer .....	63
8.	Project & Payment Schedule .....	69
8.1.	Project deliverables .....	69
8.2.	Project timelines .....	69
8.3.	Payment Milestone .....	69
8.4.	Service Level Agreements & Penalties.....	70
9.	Annexures of the Tenders .....	72
	Annexure 1: Bidder's Details.....	72
	Annexure-2: Undertaking of non-blacklisting.....	73
	Annexure 3: Power of Attorney for signing of Bid .....	74
	Annexure 4: Consortium Agreement.....	76
	Annexure 5: Financial Bid/ Commercial Bid.....	79

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**Invitation to Bid**

**From:**

Managing Director  
Capital Region Urban Transport  
Plot no-548/1452, Patia, Kalarahanga, Bhubaneswar, Odisha 751024  
Phone: 0674-3501580  
Email: crutbbsr@gmail.com  
Website: <https://capitalregiontransport.in/>

**To:**

All Prospective bidders

1. CRUT (Capital Region Urban Transport), Odisha invites responses ("tender") from eligible reputed, competent, and professional companies, who meet the minimum eligibility criteria, as specified in this bidding document.
2. The complete bidding document shall be published on **11.03.2024** for the purpose of downloading.
3. A bidder shall be selected based on the Eligibility Criteria and Commercial evaluation criteria, and procedures, described in this tender.
4. The bidder is advised to study this tender document carefully, before submitting their proposals, in response to the tender Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions, and implications.
5. The time, date and venue details related to the pre-bid conference and proposal submission are mentioned in the Key Events and Dates Sheet. Proposals that are received after the deadline shall not be considered in this tender process.
6. Consortium is allowed.

**Sd-**

**Managing Director  
Capital Region Urban Transport  
Odisha**

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**Data Sheet**

Sr. No	Information	Details
1.	Tender Issuing Authority	Managing Director, Capital Region Urban Transport
2.	Purpose of Tender	Selection of Agency for Supply and Installation of IT Hardware along with allied Civil and Electrical infrastructure for commissioning of Conference Room and Control Centre.
3.	Tender Issue Date	<b>11.03.2024</b>
4.	Availability of Tender documents	The Tender is available and downloadable on ( <a href="https://capitalregiontransport.in/tenders">https://capitalregiontransport.in/tenders</a> ) All Subsequent changes to the Bidding document shall be published on the above-mentioned website.
5.	Non-Refundable Tender Cost	Non-refundable Rs. 3,540- {Rs.3000/- + 18% GST (Rs. 540/-)} in form of Demand Draft issued by an Indian Nationalized / Scheduled Bank and drawn in favor of <b>Capital Region Urban Transport</b> payable at Bhubaneswar valid for 180 days from the date of submission of bid
6.	Earnest Money Deposit	Rs. 3,00,000.00 (Two Lakhs Only) in form of Demand Draft issued by an Indian Nationalized / Scheduled Bank and drawn in favor of <b>Capital Region Urban Transport</b> payable at Bhubaneswar valid for 180 days from the date of submission of bid
7.	Last date and time for submission of queries for clarifications	All the queries/clarification requests shall be received on or before <b>27.03.2024 upto 03:00 PM</b> , through e-mail only, with subject line as follows: "Pre-Bid queries -<Bidder's Name>".  The queries shall be submitted in MS-Excel file, as per the format prescribed in Volume-I of the Tender.  The Pre-Bid queries shall be sent to the following e-mail Ids: Email ID: <a href="mailto:crutbbsr@gmail.com">crutbbsr@gmail.com</a>
8.	Date, time, and venue of pre-bid meeting	<b>28.03.2024</b> at 4:00 PM Conference Hall, 1 <sup>st</sup> Floor, Capital Region Urban Transport, Plot no-548/1452, Patia, Kalarahanga, Bhubaneswar, Odisha 751024



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No	Information	Details
9.	Clarification of bidder queries	<b>03.04.2024</b>
10.	Last date for receipt of Technical and financial proposals (Through Speed Post /Registered Post / Courier)	<b>18.04.2024</b> till 03:30 PM
11.	Date, time, and venue of opening of Technical Proposals received in response to the Tender notice	<b>19.04.2024</b> till 04:00 PM  Conference Hall, 1 <sup>st</sup> Floor, Capital Region Urban Transport, Plot no-548/1452, Patia, Kalarahanga, Bhubaneswar, Odisha 751024
12.	Submission of Bid	1 <sup>st</sup> Floor, Capital Region Urban Transport, Plot no-548/1452, Patia, Kalarahanga, Bhubaneswar, Odisha 751024
13.	Place, time, and date of opening of Financial Proposals received in response to the Tender notice	Capital Region Urban Transport will inform qualified bidders.
14.	Language	Proposals should be submitted in English only.
15.	Bid validity	Proposals must remain valid up to 180 days (One hundred eighty days) from the last date of submission of the Bid.
16.	Contact Person	Shri. Sanjay Kumar Biswal, OTES General Manager (Operations and Maintenance) Capital Region Urban Transport Email: crutbbsr@gmail.com

# **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

## **1. Introduction**

### **1.1. About Capital Region Urban Transport, Odisha**

Capital Region Urban Transport (CRUT) is a public transit agency committed to providing sustainable mobility options to the residents and visitors of Bhubaneswar, Cuttack, Khordha, Pipili, Puri, Konark and Rourkela.

Initially known as Bhubaneswar Puri Transport Services Limited (BPTSL), CRUT was established in 2018 to manage and operate bus services on intra-city and inter-city routes. Over the years, it has evolved into a more comprehensive public transportation system with the launch of its new initiatives.

One of the major initiatives is the Mo Bus, launched on 6th November 2018. The buses are designed to provide comfortable rides to passengers with modern amenities. Mo Bus operates on several intracity and intercity routes in the urban areas of the Capital Region and Sundargarh district of Odisha. Over the years, CRUT expanded its Mo Bus services to make public transport accessible to all.

In addition, CRUT launched its e-rickshaw service under the brand name of Mo E-Ride that provides first and last-mile connectivity by acting as feeder service to Mo Bus in different parts of Bhubaneswar.

With these initiatives, CRUT is redefining "The Way We Move" and "Ride with Pride" by integrating multimodal alternatives for residents and visitors. CRUT's team of experts, representing transportation planning, technology, operations, and communications are working together to provide excellence in public transit service and strive to continuously improve Odisha's city transportation system.

### **1.2. Project Background**

Capital Region Urban Transport intends to hire an agency to undertake IT hardware supply, Civil and electrical equipment supply installation and commissioning of ready to use system for below.

- a) Command and Control Centre at Patia Office
- b) Video Conferencing System at Patia Office
- c) Mini Video Conferencing System at Bhawanipur Depot.

### **1.3. Instruction to Bidders**

Bidders are advised to study this Tender document carefully before participating. It shall be deemed that submission of Bid by the bidder has been done after its careful study and examination of the Tender document with full understanding of its implications. Bidders are also expected to visit the Capital Region Urban Transport and understand the requirements to allow them to propose the best solution. Bid is to be submitted as per enclosed format and instructions only. Attach the certificates, brochures & documents asked for in the Tender document with well described index with page numbers. All the pages should be properly marked with page numbers.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

This section specifies the procedures to be followed by Bidders in the preparation and submission of their Bids. Information is also provided on the submission, opening and evaluation of bids and on the award of contracts.

### **1.4. General**

- i. Managing Director, Capital Region Urban Transport, Odisha invites proposals ("Bids") to this Tender Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Conference Rooms, and Control Centre for Capital Region Urban Transport envisaged in the tender as described.
- ii. The tenure of the contract of the successful bidders shall be for a term of Implementation Period plus 3 years of Operation & Maintenance Contract.
- iii. While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, bidders must form their own conclusions about the solution needed to meet the requirements. Bidders and recipients of this tender may wish to consult their own legal advisers in relation to this tender.
- iv. All information supplied by the successful bidder may be treated as contractually binding on the bidder, after successful award of the assignment is made based on this tender.
- v. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of Managing Director, Capital Region Urban Transport.
- vi. Managing Director, Capital Region Urban Transport may cancel this tender at any time prior to a formal written agreement being executed between parties.
- vii. Proposals must be received not later than time, date and venue mentioned in the Proposal Data Sheet. Proposals that are received late shall not be considered in this tender process.
- viii. No oral conversations or agreements with any official, agent, or employee of Capital Region Urban Transport Odisha shall affect or modify any terms of this tender and any alleged oral agreement or arrangement made by a bidder with any agency, official or employee of Capital Region Urban Transport Odisha, Odisha shall be superseded by the definitive agreement that results from this tender process.
- ix. Neither the bidder nor any of bidder's representatives shall have any claims whatsoever against Capital Region Urban Transport Odisha or any officials or employees arising out of or relating to this tender or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms thereof).
- x. All proposals and accompanying documentation of the technical proposal shall become the property of Capital Region Urban Transport and shall not be returned after opening of the technical proposals.
- xi. The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means, and illegal activities during any stage of his bid or during any pre-contract or post-contract stage to secure the contract or in furtherance to secure it.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

### **1.5. Tender Form and Tender Fee**

The tender document can be downloaded from the portal (<http://https://capitalregiontransport.in/tenders/>). The tender fee of Tender Fee: Non-refundable Rs. 3,540- {Rs.3000/- + 18% GST (Rs. 540/-)} in form of Demand Draft issued by an Indian Nationalized / Scheduled Bank and drawn in favour of Capital Region Urban Transport, Odisha payable at Bhubaneswar valid for 180 days from the date of submission of bid. The tender fee is non-refundable.

### **1.6. Earnest Money Deposit**

The bidders are required to submit an EMD of Rs. 3,00,000.00 (Two Lakhs Only), in form of Demand Draft/ Banker's Cheque issued by an Indian Nationalized / Scheduled Bank and drawn in favor of Capital Region Urban Transport, Odisha payable at Bhubaneswar valid for 180 days from the date of submission of bid.

However, All the MSMEs registered with District Industries Centre or National Small Industries Corporation, or any other bodies specified by Ministry of Micro, Small & Medium Enterprises, and vendors registered with NSIC under a single point vendor registration scheme will be exempted from payment of tender fees and EMD on submission of relevant document viz. copy of valid Entrepreneurs Memorandum (EM Part-II) / NSIC Certificate / Memorandum (UAM) / MSME Certificate.

Bidders shall ensure that the payment of the EMD is made prior to the last date of Bid Preparation and Submission of the Tender Schedule to have seamless submission keeping Bank's clearing process lead time.

The earnest money deposit shall be non-interest bearing and is refundable to unsuccessful Bidders. The successful bidders EMD will be discharged to the successful bidder post executing the Contract and furnishing the EMD Bank Guarantee as specified in this Tender.

The EMD shall be forfeited and appropriated by the Capital Region Urban Transport without prejudice to any other right or remedy that may be available to the Capital Region Urban Transport hereunder or otherwise, under the conditions. In such an event, the decision of the office of Capital Region Urban Transport regarding forfeiture of the Bid Security shall be final and binding upon bidders.

- i. If a bidder submits a non-responsive bid; and/or If a Bidder withdraws his bid or increases his quoted prices during the period of bid validity or its extended period, if any.
- ii. In the case of successful bidder, if bidder fails within the specified time limit:
- iii. to sign the contract within the time specified by the office of Capital Region Urban Transport; or
- iv. to furnish the Performance Bank Guarantee within the period prescribed as specified in the terms and conditions of the contract.
- v. During the bid process, before signing the contract, if the bidder fails to comply with the terms and conditions of the tender.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- vi. If during the bid process, any information provided by the bidder is found false/fraudulent/mala fide, then the office of Capital Region Urban Transport shall reject the bid and, if necessary, initiate action provided.
- vii. If during the bid process, a bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.
- viii. If a bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice, or restrictive practice.

**1.7. Completeness of Response**

- i. The bidders are advised to study all instructions, forms, terms, requirements, and other information in the tender documents carefully. The submission of bid shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.
- ii. The response to this tender should be full and complete in all respects. Failure to furnish all information required by the tender document or submission of a Bid not substantially responsive to the tender document in every respect will be at the bidder's risk and may result in rejection of its Bid and forfeiture of the bid EMD.

**1.8. Pre-Bid Queries on tender**

- i. Authority will host a Pre-Bid meeting as per the date mentioned in the tender NIT sheet. The representatives, limited to 2, of the interested organizations may attend the pre-bid conference at their own cost. The purpose of the conference is to provide bidders with information regarding the tender and the proposed solution requirements in reference to the tender. Pre-Bid meeting will also provide each bidder with an opportunity to seek clarifications regarding any aspect of the tender and the project.
- ii. All Bidders shall e-mail their queries to Capital Region Urban Transport, Odisha, [crutbbsr@gmail.com](mailto:crutbbsr@gmail.com). The response to the queries will be published on (<https://capitalregiontransport.in/tenders>). No telephonic / queries will be entertained thereafter. This response of Authority shall become integral part of tender document. Authority shall not make any warranty as to the accuracy and completeness of responses.
- iii. Authority shall endeavour to respond to the questions raised or clarifications sought by the Bidders. However, Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this clause shall be taken or read as compelling or requiring Authority to respond to any question or to provide any clarification.
- iv. Authority may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by Authority shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by Authority, or its employees or representatives shall not in any way or manner be binding on Authority.

Name of Bidder	
----------------	--

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Department Name						
tender Ref. No						
tender Name						
tender Due Date						
#	Tender Page No.	tender No.	Clause	Clause Title	Queries /Clarification Sought	Justification by Bidder
..		..		..	..	..

All Bidders shall e-mail their queries in above (Microsoft Excel sheet) format:

### 1.9. Responses to Pre-Bid Queries and Issue of Corrigendum

- i. Capital Region Urban Transport will formally respond to the pre-bid queries after the pre-bid conference.
- ii. Capital Region Urban Transport will endeavour to provide timely response to all queries. However, Capital Region Urban Transport, Odisha makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does undertake to answer all the queries that have been posed by the bidders.
- iii. At any time prior to the last date for receipt of bids, Capital Region Urban Transport, Odisha may, for any reason, whether at its own initiative or in response to a clarification requested by prospective Bidders, modify the tender Document by issuing a corrigendum.
- iv. The Corrigendum, if any, notifications regarding extensions, if any, and clarification to the queries from all bidders will be posted on the website mentioned in the Proposal Data Sheet or emailed to all participants of the pre-bid meeting.
- v. Any such corrigendum shall be deemed to be incorporated into this tender.
- vi. To provide prospective Bidders reasonable time for taking the corrigendum into account, Capital Region Urban Transport, Odisha may, at its discretion, extend the last date for the receipt of Proposals.
- vii. Notifications regarding extensions, corrigendum, will be published on the website mentioned in the tender schedule and there shall be no paper advertisement.

### 1.10. Proposal Preparation Cost

- i. The bidder shall be responsible for all costs incurred in connection with participation in the tender process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of Bid, in providing any additional information required by Capital Region Urban Transport, Odisha to facilitate the evaluation process, and all other related activities of the Bid process. The Authority shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- ii. All materials submitted by the bidder shall be the absolute property of Authority and no copyright etc. shall be entertained by Authority.

### **1.11. Amendment of tender Document**

- i. All the Corrigendum / Addendum made in the document would be published on the Portal and shall be part of tender.
- ii. The Bidders are advised to visit the portal on regular basis to check for necessary updates. Authority also reserves the right to amend the dates mentioned in this tender.

### **1.12. Modification & Withdrawal of Bids**

No bid can be modified by the Bidder, after the closing date and time for submission of bids. If date of submission is extended due to some reasons, modification in bids is possible till extended period provided bid has not been opened.

Withdrawal of Bids is not permissible after its submission. If the bid is withdrawn before the validity period, the EMD will stand forfeited.

### **1.13. Supplementary Information to the tender**

If Authority deems it appropriate to revise any part of this tender or to issue additional data to clarify an interpretation of provisions of this tender, it may issue supplements to this tender. Any such corrigendum shall be deemed to be incorporated by this reference into this tender.

### **1.14. Sub-Contracting**

Sub-contracting shall be subject to the following conditions:

- i. Sub-contracting should not dilute the responsibility and liability of the bidder.
- ii. Any changes in sub-contractors must be approved by the Managing Director, Capital Region Urban Transport prior to conclusion of any contract between the bidder and the sub-contractor.
- iii. Managing Director, Capital Region Urban Transport Odisha reserves the right to request discontinuation of sub-contracting of activities at any time during the contract period.
- iv. Managing Director, Capital Region Urban Transport reserves its right to subject the sub-contractors to security clearances as it deems necessary.

### **1.15. Contacting the Managing Director, Capital Region Urban Transport**

- i. No Bidders shall contact the Managing Director, Capital Region Urban Transport on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.
- ii. If a Bidder tries to directly influence the Authority or otherwise interfere in the bid submission and evaluation process and the Contract award decision, its bid may be rejected.



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**1.16. Right to Terminate the Process**

- i. Managing Director, Capital Region Urban Transport may terminate the tender process at any time and without assigning any reason. Managing Director, Capital Region Urban Transport makes no commitments, express or implied, that this process will result in a business transaction with anyone.
- ii. This tender does not constitute an offer by Capital Region Urban Transport, Odisha

**1.17. Right to Vary Scope of Contract**

- i. Managing Director, Capital Region Urban Transport may at any time, by a written order given to the bidder, make changes within the quantities, specifications, services, or scope of the Contract as specified.
- ii. If any such change causes an increase or decrease in the cost of, or the time required for the bidder's performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment on mutually agreed terms shall be made in the Contract Price or time schedule, or both, and the Contract shall accordingly be amended. Any claims by the bidder for adjustment under this Clause must be asserted within thirty (30) days from the date of the bidder's receipt of the Capital Region Urban Transport, Odisha's changed order.

**1.18. Rejection Criteria**

Besides other conditions and terms highlighted in the tender document, bids may be rejected under following circumstances:

- i. Bids not qualifying under eligibility criteria.
- ii. Bids submitted without improper EMD or tender fees.
- iii. Bids received through any platform other than prescribed platform as mentioned in the tender.
- iv. Bids which do not confirm to the unconditional validity of the bid as prescribed in the tender.
- v. If the information provided by the Bidders is found to be incorrect / misleading at any stage / time during the Tendering Process
- vi. Any effort on the part of a Bidders to influence the Authority' s bid evaluation, bid comparison or contract award decisions.
- vii. Bids received by the Managing Director, Capital Region Urban Transport after the last date and time for receipt of bids prescribed in the data sheet.
- viii. Bids without signature of person (s) duly authorized on the bid.
- ix. Bids without power of authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidders.
- x. Technical Bid containing commercial details or any such hints/ calculations /extrapolations/ records.
- xi. Revelation of Prices in any form or by any reason before opening the Commercial Bid



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- xii. Failure to furnish all information required by the tender Document or submission of a bid not substantially responsive to the tender Document in every respect.
- xiii. Bidders not quoting for the complete scope of Work as indicated in the tender documents, addendum (if any) and any subsequent information given to the Bidders.
- xiv. Bidders not complying with the General Terms and conditions as stated in the tender Documents.
- xv. The Bidders do not confirm unconditional acceptance of full responsibility of providing services in accordance with the Scope of work, General Terms & Conditions and Service Level Agreements of this tender.
- xvi. If it is found that bidders have tendered separately under different names for the same contract, all such tender(s) shall stand rejected and the tender deposit of each such firm/ establishment shall be forfeited. In addition, such firms/ establishments shall be liable at the discretion of the Capital Region Urban Transport, Odisha for further penal action including blacklisting.
- xvii. If after awarding the contract, it is found that the accepted bid violated any of the directions pertaining to the participation, the contract shall be liable for cancellation at any time during its validity in addition to penal action including blacklisting against the bidders.
  - a. Price Bids that do not conform to the tender's price bid format.
  - b. The total price quoted by the Bidders does not include all statutory taxes and levies applicable.

## **2. Bid Submission Instructions**

### **2.1. Submission, Sealing, and Marking of Proposals**

- i. The Consultant shall submit a signed and complete Proposal comprising the documents and forms in accordance with tender requirements. The Proposal shall be submitted in physical form (hard copy) and will be hand delivered or sent by registered post, speed post or courier in the manner and to the address specified in the Data Sheet. The CRUT will not be responsible for any delays, loss or non-receipt of Proposals.
- ii. Proposals submitted by fax, telegram or e-mail shall be rejected.
- iii. An authorized representative of the bidder shall sign the submission letters in the required format for the Qualification Documents, Technical Proposal and the Financial Proposal and shall initial all pages as required. The authorization shall be in the form of a written power of attorney attached to the Proposal.
- iv. Any modifications, revisions, interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the Proposal.
- v. The signed Proposal shall be marked "Original", and its copies marked "Copy"1 as appropriate. The number of copies required to be submitted is indicated in the Data Sheet. All copies shall be made from the signed original. If there are discrepancies between the original and the copies, the original shall prevail.
- vi. The Proposal will comprise 2 separate sealed envelopes which will be placed in a sealed outer envelope as follows:
  - a) The first envelope (Envelope A) will contain the Qualification Documents in original and such number of copies as specified in the Data Sheet and be marked as follows:

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**"Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport- QUALIFICATION DOCUMENTS"**

- b) The Second envelope (Envelope B) will contain the original Financial Proposal and be marked as follows:

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport- FINANCIAL PROPOSAL".**

- c) The sealed envelopes containing the Qualification Documents, Technical Proposal and Financial Proposal shall be placed into one outer envelope and sealed. This outer envelope shall bear the name and address of the Bidder and the RFP reference number and be marked as follows:

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport..**

- d) If the envelopes are not sealed and marked as required, the Client will assume no responsibility for the misplacement, loss, or premature opening of the Proposal.

## **2.2. Preparation of Proposals**

- i. The bidder shall prepare the bid based on details provided in the tender documents. It must be clearly understood that the quantities, specifications, and diagrams that are included in the tender document are intended to give the bidder an idea about the scope and magnitude of the work and are not in any way exhaustive and guaranteed by Capital Region Urban Transport, Odisha.
- ii. The bidder shall carry out the sizing of the solution based on internal assessment and analysis, which may include the use of modelling techniques wherever necessary.
- iii. The bidder must propose a solution to meet the requirements of the Managing Director, Capital Region Urban Transport. If, during the sizing of the solution, any upward revisions of the specifications and/or quantity as given in this tender document, are required to be made to meet the conceptual design and/or requirements of tender, all such changes shall be included in the technical proposal and their commercial impact, thereof, shall be included in the commercial bid.
- iv. If, during the sizing of the solution, any additional product that is not listed in the tender document is required to be included to meet the conceptual design, performance requirements and other requirements of tender, all such product(s) should be included by the bidder in the technical proposal and their commercial impact, thereof, included in the commercial bid.
- v. Capital Region Urban Transport, Odisha will in no case be responsible or liable for any costs associated with the design/sizing of the proposed solution, regardless of the conduct or outcome of the Tendering process.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- vi. If at any stage during the currency of the contract, the solution proposed does not meet the functional requirements, conceptual design, performance requirements/SLA, and other requirements of tender, the bidder shall revise the required specifications and/or quantities as proposed by the bidder in their bid to meet the said objectives/targets. All such provisions shall be made by the bidder within the lump sum contract price, at no extra cost and without any impact to Managing Director, Capital Region Urban Transport whatsoever.

### **2.3. Bidders Authorization**

- i. The "Bidders" as used in the tender documents shall mean the one who has signed the tender Forms. The Bidders may be either the Principal Officer or his duly Authorized Representative, in either case, he/she shall submit a power of attorney. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall be furnished, and signed by the representative and the principal.
- ii. The authorization shall be indicated by written power-of-attorney accompanying the bid in the name of the signatory of the Proposal.
- iii. Any change in the Principal Officer shall be intimated to Managing Director, Capital Region Urban Transport in advance.

### **2.4. Address for Correspondence**

The Bidders shall designate the official mailing and e-mail address to which all correspondence shall be sent.

### **2.5. Local Conditions**

- i. It will be incumbent upon each Bidder to fully acquaint itself with the local conditions and other relevant factors such as legal conditions which would have any effect on the preparation of the bid and performance of the contract and / or the cost. Capital Region Urban Transport, Odisha shall not entertain any request for clarification from the Bidders regarding such conditions.
- ii. Failure to obtain the information necessary for preparing the bid and/or failure to perform activities that may be necessary for the providing services before entering contract shall in no way relieve the successful Bidders from performing any work in accordance with the tender documents.
- iii. Neither any change in the time schedule of the contract nor any financial adjustments to the contract awarded under the bidding documents shall be permitted by the Capital Region Urban Transport, Odisha on account of failure of the Bidders to apprise themselves of local laws and prevailing conditions.

### **2.6. Site Visits by Bidder**

The Bidder at its own cost may visit and examine site, at a time to be agreed with Capital Region Urban Transport, Odisha (and obtain for himself on his own responsibility all information that may be necessary for preparing the Bid document). The visit may not be used to raise questions or seek clarification; such matters must be submitted in writing.

### **2.7. Language**

The proposal should be filled by the bidders in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

be duly attested by the bidders. For purposes of interpretation of the documents, the English translation shall govern.

### **2.8. Bid validity period**

Bid shall remain valid for the time mentioned in the Proposal Data Sheet. Bid validity may be extended by the bidder by submitting a letter to Capital Region Urban Transport, Odisha in writing on receipt of request from Capital Region Urban Transport, Odisha.

### **2.9. Discount**

The Bidders are advised not to indicate any separate discount. Discount, if any, should be merged with the quoted prices. Discount of any type, indicated separately, shall not be considered for evaluation purposes. However, in the event of such an offer, without considering discount, is found to be the lowest, Capital Region Urban Transport, Odisha shall avail such discount at the time of award of Contract. For future purposes, Unit prices of all individual components will be discounted accordingly (by the overall discount % in case overall discount % is given or by the individual component discount % in case item wise discount given) to arrive at component-wise unit prices.

### **2.10. Only one proposal and one solution**

If a Bidder submits or participates in more than one Proposal and / or presents more than one Solution, such a Bidder shall be disqualified.

### **2.11. Additional Conditions**

- i. No oral conversations or agreements with any official or employee of Capital Region Urban Transport, Odisha shall affect or modify any terms of this tender and any alleged oral agreement or arrangement made by a bidder with any agency, official or employee of Capital Region Urban Transport, Odisha shall be superseded by the definitive agreement that results from this tender process. Oral communications by Capital Region Urban Transport, Odisha to bidders shall not be considered binding nor shall any written materials have provided by any person other than Capital Region Urban Transport, Odisha.
- ii. Neither the bidder nor any of bidder's representatives shall have any claims whatsoever against Capital Region Urban Transport, Odisha or any of its employees arising out of or relating to this tender or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms thereof).
- iii. All proposals and accompanying documentation of the technical proposal will become the property of Capital Region Urban Transport, Odisha and will not be returned after opening of the technical proposals.
- iv. The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means, and illegal activities during any stage of his bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it.

### **2.12. Right to Terminate the Process**

- i. Capital Region Urban Transport, Odisha may terminate the tender process at any time and without assigning any reason. Capital Region Urban Transport, Odisha makes no commitments, express or implied, that this process will result in a business transaction with anyone.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- ii. This tender does not constitute an offer by Capital Region Urban Transport, Odisha. The bidder's participation in this process may result in Capital Region Urban Transport, Odisha selecting the bidders to engage towards execution of the contract.

### **2.13. Compliant proposals/Completeness of response**

- i. Bidders are advised to study all instructions, forms, terms, requirements, and other information in the tender documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.
- ii. Failure to comply with the requirements of this paragraph may render the proposal non-compliant and the proposal may be rejected. Bidders must:
  - a) Include all documentation specified in this tender
  - b) Follow the format of this tender and respond to each element in the order as set out in this tender.
  - c) Comply with all requirements as set out within this tender.
- iii. Bidder should not propose multiple options for any system software or other infrastructure proposed as part of the bid.
- iv. For all the components, wherever applicable, bidder needs to provide the data sheets of the product.

### **2.14. Deviations and Exclusions**

Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the tender. No Deviations and Exclusions to the tender are allowed. In the absence of any specific provision in the agreement on any issue, decision by Capital Region Urban Transport, Odisha shall be final.

### **2.15. Modification and Withdrawal of Bids**

- i. No bid shall be altered / modified after submission to the Capital Region Urban Transport, Odisha. Unsolicited correspondences in this regard from Bidders shall not be considered.
- ii. No bid shall be withdrawn in the interval between the last date for receipt of bids and the expiry of the bid validity period specified by the Bidders in the Bid.
- iii. Withdrawal of a bid during this interval shall result in the Bidders forfeiture of its EMD.
- iv. Prices in any form or by any reason before opening the Commercial Bid should not be revealed. If price change is envisaged due to any clarification, revised financial Bid can be called from all the bidders by Capital Region Urban Transport, Odisha.

### **2.16. Late Bids**

- i. Bids received in hard copy after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained.
- ii. The bids submitted by telex/telegram/fax/e-mail, or any other mode shall not be considered. No correspondence will be entertained on this matter.
- iii. Capital Region Urban Transport, Odisha reserves the right to modify and amend any of the above-stipulated conditions/criteria depending upon project priorities vis-à-vis urgent commitments.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

### **2.17. User license and patent rights**

- i. The Vendor shall provide licenses for all software products, whether developed by it or acquired from others. In the event of any claim asserted by a third party for software piracy, the vendor shall act expeditiously to extinguish such claim. If the vendor fails to comply and CRUT is required to pay compensation to a third party resulting from such software piracy, the vendor shall be responsible for compensation including all expenses, court costs and lawyer fees. The CRUT will give notice to the vendor of such claim, if it is made, without delay.
- ii. The Vendor shall indemnify the purchases against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the goods, software package or any part thereof.

## **3. Bid Opening and Evaluation Process**

### **3.1. Opening of Bids**

- i. The bids that are submitted successfully shall be opened as per date and time given in Proposal Data Sheet, as per the procedure only in the presence of bidders or their respective duly authorized representatives.
- ii. Total transparency will be observed and ensured while opening the Proposals/Bids.
- iii. Capital Region Urban Transport, Odisha reserves the right to postpone or cancel the Bid opening schedules.
- iv. Bid opening will be conducted in two stages,
  - a) In the first stage, Pre-qualification Proposals would be opened. The EMD of the Bidders will be opened on the same day and time, on which the Pre-qualification Proposal is opened. Technical Proposals of Bidders who fulfil the Pre-qualification criteria will be opened.
  - b) In the second stage, Commercial Proposal of those Bidders whose Technical Proposals qualify, would be opened.
  - c) In the event of the specified date of Bid opening being declared as Government holiday, the bids shall be opened at the same time and location on the next working day. In addition to that, if the representative(s) of any Bidder remain(s) absent, Capital Region Urban Transport, Odisha will continue the process and open the bids of the all the other Bidders, whose representatives are present.

### **3.2. Evaluation of Bids**

- i. Capital Region Urban Transport, Odisha will constitute a Proposal Evaluation Committee to evaluate the responses of the bidders.
- ii. The Proposal Evaluation Committee constituted by Capital Region Urban Transport, Odisha shall evaluate the responses to the tender and all supporting documents / documentary evidence. The Bidders' technical solution will be evaluated as per the requirements and evaluation criteria as spelt out in the tender document.



## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- iii. The Committee may seek inputs from their professional and technical experts in the evaluation process.
- iv. Capital Region Urban Transport, Odisha reserves the right to do a reference check of the past credentials stated by the Bidder. Any feedback received during the reference check shall be considered during the technical evaluation process.
- v. The decision of the Proposal Evaluation Committee in the evaluation of responses to the tender shall be final. No correspondence will be entertained in this regard.
- vi. The Proposal Evaluation Committee reserves the right to reject any or all proposals on the basis of any deviations without assigning any reason thereof.
- vii. Proposal Presentations: The proposal evaluation committee may invite each pre-qualified Bidder to make a presentation to Capital Region Urban Transport, Odisha at a date, time and venue decided by Capital Region Urban Transport, Odisha. The purpose of such presentations would be to allow the Bidders to present their proposed solutions to the Committee and orchestrate the key points in their Proposals.
- viii. Bidders with technical qualifications may be invited to showcase their equipment and proof of concept in front of technical committees, and only those who successfully qualify in the demonstration will be eligible for the financial bid opening.
- ix. Unnecessarily elaborate brochures or other promotional materials beyond those sufficient to present a complete and effective proposal are considered undesirable and may be construed as an indication of the bidder's lack of cost consciousness. Capital Region Urban Transport, Odisha's interest is in the quality and responsiveness of the proposal.

### **3.3. Clarification on Bids**

- i. During the bid evaluation, Capital Region Urban Transport, Odisha may at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered, or permitted. Capital Region Urban Transport, Odisha may ask for clarifications as many times as possible from the bidders to the satisfaction of the Technical Evaluation committee.
- ii. If the bidder fails to provide the clarification or any additional information sought, the information provided in the technical proposal only, will be used for evaluation. It is clearly understood that the additional information or clarification on the technical proposal provided by the bidders will not be the basis for affecting any changes in the Commercial Proposal already submitted by the bidders.

### **3.4. Preliminary Examination of Bids**

- iii. Capital Region Urban Transport, Odisha will examine the bids to determine whether they are complete, whether the required EMD has been furnished, whether the documents have been properly signed, and whether the bids are generally in order. Any bids found to be non-responsive for any reason or not meeting the criteria specified in the tender, will be rejected by Capital Region Urban Transport, Odisha and shall not be included for further consideration. Any deviations in proposal response may make the bid liable for rejection. Initial Bid scrutiny will be held, and bids will be treated as non-responsive, if bids are:
  - a) Not submitted in format as specified in the tender document Received without the Letter of Authorization (Power of Attorney) Found with suppression of details.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- b) With incomplete information, subjective, conditional offers, and partial offers submitted.
- c) Submitted without the documents requested.
- d) Non-compliant to any of the clauses mentioned in the tender.
- e) With lesser validity period



## Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.

### 3.5. Pre-Qualification

The bidders shall be evaluated based on the Pre-Qualification criteria mentioned below. The bidders should fulfil all the following eligibility criteria, as per details mentioned below. Bidders who fulfil all the Eligibility criteria, will be considered for further Technical Evaluation. The proposal failing to meet all the below pre-qualification eligibility criteria shall be disqualified and shall not be considered for technical evaluation process. Decision of Authority shall be final in this matter and would be binding upon the bidder.

PQ #	Qualification Requirements	Documents to be submitted
PQ 1	<p>The bidder or any/all the bidders in case of consortium should be.</p> <p>"A Company registered in India under the Companies Act 1956 or 2013 since last 3 years."</p> <p style="text-align: center;"><b>OR</b></p> <p>"A Partnership firm registered under Partnership Act, 1932 &amp; LLP as per LLP Act 2008 in India since last 3 years."</p> <p style="text-align: center;"><b>OR</b></p> <p>"A Sole Proprietorship with valid Certificate/License and having existence since last 3 years."</p> <p style="text-align: center;"><b>OR</b></p> <p>"A Micro, Small &amp; Medium Enterprises (MSMEs) registered with District Industries Centre, or any other bodies specified by Ministry of Micro, Small &amp; Medium Enterprises, in India."</p>	<ul style="list-style-type: none"> <li>▪ Certificate of Incorporation/ LLP Incorporation Certificate.</li> <li>▪ Copy of the list of properly constituted management/ governing body of the Organization</li> <li>▪ Articles of Association &amp; Memorandum of Association</li> <li>▪ A partnership deed duly registered under the Partnership Act</li> <li>▪ MSME/NSIC/SSI/DIC or equivalent certificates, List of machinery, production capacity and other related documents of the manufacturer</li> <li>▪ Trade License/GST Certificate</li> </ul> <p style="text-align: center;">(As applicable)</p>
PQ 2	<p>The bidder or any/all the bidders in case of consortium should have an average annual turnover of a minimum of INR 10 crores for the last three financial years.</p>	<p>Audited Balance sheet and Profit &amp; Loss account statement of the Bidder for each of the last 3 audited financial years (FY 2020-2021, FY 2021-2022, FY 2022-2023)</p> <p>Average annual turnover certificate for last 3 financial years should be duly certify by the Statutory Auditor/Chartered Accountant</p>
PQ-3	<p>The bidder or any/all the bidders in case of consortium shall have positive net worth as on 31st March 2023.</p>	<p>The net worth certificate should be duly certified by statutory auditor /Chartered Accountant</p>
PQ-4	<p>Technical Experience 1:</p> <p>"The bidder or any bidder in case of consortium should have experience of at least 1 work order for order for executing</p>	<p>Work Order/Purchase Order shall be provided as supporting document for each project.</p>

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

PQ #	Qualification Requirements	Documents to be submitted
	<p>eligible project(s) in India of value not less than Rs. 80 Lakhs in the last 3 years from the last date of bid submission for any Government Organization.</p> <p align="center"><b>OR</b></p> <p>The bidder or any bidder in case of consortium should have experience of at least 2 work orders order for executing eligible project(s) in India of value not less than Rs. 50 Lakhs each in the last 3 years from the last date of bid submission for any Government Organization.</p> <p align="center"><b>OR</b></p> <p>The bidder or any bidder in case of consortium should have experience for executing eligible project(s) in India of value not less than Rs. 40 Lakhs each in the last 3 years from the last date of bid submission for any Government Organization.</p> <p>Eligible Project: Supply and implementation of Command Control Centre/ Data center/ Technology enabled centers</p>	
PQ-5	The bidder or any/all the bidding member firm in case of consortium is (are) not debarred/ blacklisted/banned/ not being under declaration of ineligibility for corrupt or fraudulent practices by any Government / PSU in India as on date of submission of the Bid.	A self-certified letter signed by the Authorized Signatory of the Bidder as per Annexure
PQ-6	The bidder or any/all the bidding member firm in case of consortium should have GST registration certificate as on last date of submission.	GST registration certificate
PQ-7	<p>Power of Attorney to be on non-judicial stamp paper of appropriate value as per Stamp Act, relevant to place of execution.</p> <p>All the bidder in case of consortium</p>	Power of Attorney signed by the respective Managing Director or Board resolution and authorization letters of Board of Directors of the Companies.
PQ-8	The Bidder or any/all bidder in case of consortium should have ISO Certification 9001:2015 for Quality, The Bidder/s shall attach the copy of the OEM's respective ISO Certificates for along with the bid.	ISO Certification 9001:2015

## Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.

\*The phrase "Substantially Completed" used in this section shall mean where the employer has certified that:

- i. Substantially Completed Projects shall mean if 75% of the contract value has been paid to the bidder as part of each project ("Completion Certificate from Client" OR "Work Order/Purchase Order and Invoice along with corresponding Bank statement duly certified by the Chartered Accountant" shall be provided as supporting document for each project.).
- ii. The Capital Region Urban Transport, Odisha reserves the right to contact the competent authority to verify the information.

### 3.6. Technical Evaluation

- iii. This shall be the second stage of the evaluation. Only those bidders who qualify for as per the pre-qualification shall be considered for technical evaluation.
- iv. In case of no response by the bidder to any of the requirements about the contents of the Technical Bid, he shall not be assigned any marks for the same.
- v. Technical bid of the bidder shall be opened and evaluated for acceptability of Techno-functional requirements, deviations, and technical suitability. The bidders shall respond to the requirements as explained below for their evaluation of experience and qualification. Also, the bidder shall refer to and respond to all technical requirements as mentioned in the RFP document.
- vi. The evaluation process would also include a presentation of technical proposals by the bidder.
- vii. Method of evaluation of selection of successful Bidder and award of Contract to bidder shall be on QCBS basis. All the bidders who secure overall minimum of 70% will be considered as technically qualified Technical Bidders.
- viii. The Evaluation Committee shall indicate to all the bidders the results of the technical evaluation through a written communication. The technical scores of the Bidders will be announced prior to the opening of the Commercial Proposals.
- ix. The technical qualification criteria are based on the following components.

Sr. No	Criteria	Technical Evaluation Criteria	Documentary Evidence	Maximum Points
TQ-1	Experience-1	<p>The bidder or any/all bidder in case of consortium must have experience supply, installation, and commissioning of Data Centre/ Command Control Centre/ Monitoring Centre of minimum order value of Rs. 40.00 Lakhs for any Government Organization in India in last 3 years from the date of issuance of this RFP.</p> <p>a. 1 Project: 5 Marks b. 2 Project: 10 Marks.</p>	Work order copy	10

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No	Criteria	Technical Evaluation Criteria	Documentary Evidence	Maximum Points
TQ-2	Experience-2	<p>The bidder or any/all the bidders in case of consortium must have experience supply, installation, and commissioning of video conferencing system /LED video wall solution of minimum Rs. 10 Lakhs for any Government Organization in India in last 3 years from the date of issuance of this RFP.</p> <p>a. 1 Project: 5 Marks b. 2 Project: 10 Marks.</p>	Work order copy	10
TQ-3	Turnover	<p>The Average Annual Turnover from bidder or any/all bidders in case of consortium from last three financial years ending 31st March 2023; shall be minimum Rs. 10 Crores or above</p> <p>a. &gt;INR. 10 Crore - 5 Marks b. &gt; INR 15 Crore and &lt;= INR 20 Crore – 10 Marks c. &gt; INR 20 Crore and above – 20 Marks</p>		20
TQ-4	Certificate	<p>The bidder or any/all the bidders in the case of consortium should have valid certificates from the date of release of RFP.</p> <p>a. ISO 14001:2015 b. ISO / IEC 20000:2018 c. ISO 27001-2013 d. ISO 45001-2018</p>	Certificate copy	20
TQ-5	Bidder Response to Technical Presentation	<p>Project Presentation</p> <p>a. Understanding of Project: 15 points b. Design Demonstration: c. Control Room Layout with 3D design - 15 Points. d. Justify ability to deliver project within stipulated time &amp; budget – 10 Points.</p>	<p>Presentation- The bidder will need to exhibit functional and non-functional requirements through a presentation</p>	40

### 3.7. Consortium/Joint Ventures of Firms

Consortium or Joint Ventures are allowed in this tender subject to maximum 2 firms.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

### **3.8. Commercial Bid Evaluation**

- i. The commercial bids shall not be opened by Capital Region Urban Transport, Odisha until the evaluations of technical bids have been completed. The technically shortlisted Bidders will be informed of the date and venue of the opening of the Commercial Proposals through email or written communication.
- ii. Prices quoted indicating total prices for all the deliverables and services shall be fixed and final and shall remain constant throughout the period of the contract and shall not be subject to any upward modifications, on any account whatsoever. The Bid Prices shall be indicated in Indian Rupees (INR) only and payments shall be made to successful bidders in Indian currency only.
- iii. The bid should clearly indicate the price to be charged without any qualifications whatsoever and should include all taxes, duties, fees, levies, works contract tax and other charges as may be applicable in relation to the activities proposed to be carried out. Capital Region Urban Transport, Odisha reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
- iv. Any tax rates as applicable will be paid by Capital Region Urban Transport, Odisha. Similarly, any benefits arising due to downward revision in tax rates, or any exemptions availed by the Bidders organization should be passed on to Capital Region Urban Transport, Odisha.
- v. The individual cost components as detailed later in the tender shall be submitted in the commercial envelope. The summary of all components shall be provided as BoQ format in excel.
- vi. An adjustable price quotation or conditional proposal shall be treated as non-responsive, and the bid may be rejected.
- vii. Bidders are advised to exercise adequate care in quoting the prices. No excuse for corrections in the quoted figures will be entertained after the commercial proposals are received.
- viii. Errors & Rectification: Arithmetical errors will be rectified on the following basis:
  - ix. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected.
  - x. If there is a discrepancy between words and figures, the amount in words will prevail.
  - xi. Bidder should provide all prices as per the prescribed format provided in Volume I of the tender.
  - xii. Bidders shall indicate the unit rates and total Bid Prices of the equipment/ services, it proposes to provide under the Contract. Prices should be shown separately for each item as required in the tender.
  - xiii. Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate "0" (Zero) in all such fields.
  - xiv. If there is no price quoted for certain material or service, the bid shall be declared as disqualified.
  - xv. The Bidder needs to account for all Out-of-Pocket expenses related to Boarding, Lodging and other related items in the commercial bids. Any additional charges shall be borne by the bidder. To evaluation of Commercial Bids, Capital Region Urban Transport, Odisha shall

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

make appropriate assumptions as mentioned below to arrive at a common bid price for all the Bidders. This however shall have no co-relation with the Contract value or actual payment to be made to the Bidder.

- xvi. The price quoted in the Commercial Proposal shall be the only payment, payable by Capital Region Urban Transport, Odisha to the successful Bidder for completion of the contractual obligations by the successful Bidder under the contract, subject to the terms of payment specified as in the proposed commercial bid or the one agreed between Capital Region Urban Transport, Odisha and the Bidder after negotiations.
- xvii. The bid amount shall be inclusive of packing, forwarding, transportation, insurance, delivery charges and any other charges as applicable. Any other charges as applicable shall be borne by the bidder.
- xviii. Percentage (%) of taxes etc. if any, to be claimed shall be indicated in the Price bid, otherwise it will be presumed that rates are inclusive of all taxes and no plea would be accepted in this regard after opening of the tenders and during the validity of the contract.

### **3.9. Award Criteria**

- i. Evaluation criteria proposed to be adopted will be Quality cum Cost Based System (QCBS). A weightage of 70% shall be awarded for Technical Bid Score and a weightage of 30% shall be awarded for Commercial Bid Score.
- ii. The bidder would be technically evaluated out of 100 marks. All the bidders who secure overall minimum of 70% (70 Marks out of 100 across all the components together) will be considered as technically qualified. Technical score of all bidders shall be calculated on the basis of the following formula:
- iii. Technical Score of bidders (TS) = Technical Marks received by the bidder x 70%
- iv. The Bid having the Lowest Commercial Quote shall be termed as the Lowest Evaluated Bid and will be awarded 100 marks. and a Commercial Score of 30. Commercial score of all the other bidders will be calculated on the basis of the following formula:
- v. Commercial score of bidders (CS) =  $\frac{\text{Commercial Quote of the lowest bidder} \times 100}{\text{Commercial Quote of the bidder}} \times 30\%$
- vi. Commercial Quote of the bidder
- vii. Final Score of the bidder: Final Score of each bidding party will be computed by adding the technical score and Commercial Score on the basis of the following formula:
- viii. Total Score = TS + CS
- ix. The bidder whose bid has secured the "Highest Total Score" out of 100 as per above evaluation will be considered as Most responsive bid.
- x. In case of a tie where two or more bidders achieve the same highest overall score, the bidder with the higher technical score will be invited first for negotiations.
- xi. Managing Director, Capital Region Urban Transport (CRUT) is not bound to accept the Most responsive bid or any bid and reserves the right to accept any bid, wholly or in part.

### **3.10. Notification of Award**

- i. Prior to the expiration of the validity period, Managing Director, Capital Region Urban Transport (CRUT) will notify the successful bidders in writing or by fax or email, that its proposal has been accepted. In case the tendering process / public tender process has not been completed within the stipulated period, Managing Director, Capital Region Urban Transport (CRUT) may like to request the bidders to extend the validity period of the bid.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Upon the selected bidder's furnishing of Performance Bank Guarantee, the Authority will notify all other bidders who are not selected.

- ii. At the time, Managing Director, Capital Region Urban Transport (CRUT) notifies the successful bidder that its bid has been accepted by sending the proforma of contract, incorporating all clauses/ agreements between the parties.

### **3.11. Contract Finalization and Award**

- iii. The written advice to any change shall be issued by Managing Director, Capital Region Urban Transport (CRUT) to the selected bidder within 4 (four) weeks prior to the due date of commencement of services.
- iv. The selected Bidder should convey acceptance of the award of contract by returning duly signed and stamped two sets of agreement within 7 days of receipt of the communication.
- v. Upon notification of award to the successful Bidder, Managing Director, Capital Region Urban Transport (CRUT) will promptly notify each unsuccessful Bidder.

### **3.12. Notification of Award**

- i. Prior to the expiration of the validity period, Capital Region Urban Transport, Odisha will notify the successful bidders in writing or by fax or email, that its proposal has been accepted. In case the tendering process / public tender process has not been completed within the stipulated period, Capital Region Urban Transport, Odisha may like to request the bidders to extend the validity period of the bid. Upon the selected bidder's furnishing of Performance Bank Guarantee, the Authority will notify all other bidders who are not selected.
- ii. At the time, Capital Region Urban Transport, Odisha notifies the successful bidder that its bid has been accepted by sending the proforma of contract, incorporating all clauses/ agreements between the parties.

### **3.13. Performance Bank Guarantee**

- i. The PBG (10% of total contract value) shall be submitted within 30 days of notification of award done through issuance of the Work Order/ Letter of Acceptance valid for the entire period of the project. Capital Region Urban Transport, Odisha shall facilitate the signing of contract within the period of 30 days of notification of award. However, it is to be noted that the date of commencement of project and all contractual obligations shall commence from the date of issuance of Work order/ letter of acceptance, whichever is earlier. All reference timelines as regards execution of project and payments to bidder shall be considered as beginning from date of issuance of Work Order/ letter of acceptance, whichever is earlier.
- ii. An amount equivalent of 3% of total contract value shall be payable by the bidder for one year (Warranty Period) and six months. All charges whatsoever such as commission, etc. with respect to the Performance Bank guarantee shall be borne by the bidder. Post completion of Project, this bank guarantee shall be returned subject to work carried out to the satisfaction of the Capital Region Urban Transport, Odisha Officers.
- iii. The Performance bank guarantee may be discharged / returned by Capital Region Urban Transport upon satisfactory completion of project as per the tender and contract. However, no interest shall be payable on the PBG. The selected bidder shall be responsible for extending the validity date and claim period of the Performance Bank Guarantee as and when it is due on account of non-completion of the project and warranty period. In case the selected bidder fails to submit performance bank guarantee with the time stipulated,



## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Capital Region Urban Transport, Odisha at its discretion may cancel the work order placed with the selected bidder.

- iv. Managing Director, Capital Region Urban Transport shall invoke the performance guarantee in case the selected bidder fails to discharge their contractual obligations during the period, or if the Authority incurs any loss due to bidder's negligence in carrying out the project implementation, as per the agreed terms & conditions. Notwithstanding and without any prejudice to any rights whatsoever of Managing Director, Capital Region Urban Transport under contract, the proceeds of PBG shall be payable to Managing Director, Capital Region Urban Transport as compensation, for any loss resulting from bidder's failure to complete its obligations under the Contract. Managing Director, Capital Region Urban Transport shall notify the bidder in writing, of the exercise of its right, to receive such compensation within 14 days, indicating the contractual obligations for which the bidder is in default.
- v. The Authority shall also be entitled to make recoveries, from the bidder's bills, PBG, or from any other amount due to the bidder, the equivalent value of any payment made to the bidder due to inadvertence, error, collusion, misconstruction, or misstatement.

### **3.14. Signing of Contract**

- i. After the Capital Region Urban Transport notifies the successful bidder that their proposal has been accepted, Capital Region Urban Transport shall enter into a contract, incorporating all clauses, pre-bid clarifications and the proposal of the bidder, between Capital Region Urban Transport, Odisha, and the successful bidder.
- ii. After completing negotiations, the Authority shall issue a Letter of Intent to the selected bidder and promptly notify all other bidders who have submitted proposals about the decision taken.

### **3.15. Failure to Agree with the Terms and Conditions of the Agreement**

- i. Failure of the successful bidders to agree with the terms and conditions of draft Agreement and tender shall constitute sufficient grounds for the annulment of the award, in which event Managing Director, Capital Region Urban Transport may award the contract to the next Most responsive bid or call for new proposals from the interested bidders.
- ii. In such a case, the Managing Director, Capital Region Urban Transport shall forfeit the PBG of the successful bidder.



## 4. Fraud and Corrupt Practices

4.1.1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process. Notwithstanding anything to the contrary contained herein, the TIA may reject bid without being liable in any manner whatsoever to the bidders if it determines that the bidders has directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process.

4.1.2. Without prejudice to the rights of the TIA under Clause 5.1.1 hereinabove, if a Bidders is found by the TIA to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, such Bidders shall not be eligible to participate in any tender or Tender issued by the TIA during a period of 2 (two) years from the date such Bidders is found by the TIA to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case maybe.

4.1.3. For the purposes of this Clause 5.1.2, the following terms shall have the meaning hereinafter respectively assigned to them:

- (A) "corrupt practice" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to, or employing, or engaging in any manner whatsoever, directly or indirectly, any official of the TIA who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Contract Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the TIA, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or (ii) save and except as permitted under the Tender document, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Contract Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Contract Agreement, who at any time has been or is a legal, financial or technical adviser of the TIA in relation to any matter concerning the Project;
- (B) "Fraudulent practice" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process.
- (C) "Coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process.
- (D) "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by the TIA with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- (E) "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

## 5. Miscellaneous

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

5.1.2. The TIA, in its discretion and without incurring any or liability, reserves the right, at any time, to:

- (A) suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates other terms conditions relating thereto.
- (B) consult with any Bidders in order to receive clarification or further information.
- (C) retain any information and/ or evidence submitted to the TIA by, on behalf of, and / or in relation to any Bidders; and / or
- (D) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidders.

5.1.3. It shall be deemed that by submitting the Bid, the Bidders agrees and releases TIA, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, Damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection herewith and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or future.

5.1.4. The single currency for evaluation is Indian Rupee (INR). The conversion rate of Foreign Currencies shall be the State Bank of India Bill Selling Rate of exchange as on the relevant date of the financial statements.

## 6. Scope of Work

### 6.1. Civil Infrastructure and Interior

#### 6.1.1. ICCC Interiors

The CCC interiors shall be state of the art adhering to various best practices norms for control center wherein the scope includes designing, engineering, supply & installation of 24X7 Critical Control Room Interiors. It shall be designed properly in terms of Aesthetics, Ergonomics and Functionality. Various aspects should be considered while designing Control Room area to create ideal workplace, considering physiological aspects such as line of sight and field of vision and cognitive factors such as concentration and perceptivity as per latest ISO Ergonomic Norms. The following norms shall be adhered to: -

- The entire wall paneling and partition system must be 100% modular with type self inter lockable panels.
- Quality Certifications for Control Room (Wall Paneling/ Partition & Ceiling) -
  - ✓ ASTM standards, as applicable from time to time, for Wall Paneling & Partition tiles.
  - ✓ Compliant to IS and ISO standards.
  - ✓ The proposed interior system should be modular, scalable & Sustainable and shall comply to ISO 11064 (Ergonomic Design of Control Centers).
  - ✓ All material / finished components should be rugged enough to handle 24/7, 365 days VOC's (within permissible limits) working environment.

#### 6.1.2. Civil and Architectural work

The scope for civil work in this RFP is to furnish the CCC in all aspects. The furnishing includes but not limited to the following:

- Cutting and chipping of existing floors
- Hardware and metals
- Glazing
- Paint work
- False flooring
- False ceiling
- Storage
- Partitioning
- Doors and locks
- Fireproofing all surfaces
- Cement concrete works
- Insulation and Soundproofing
- Woodwork and Paneling.

All material to be used shall be of fine quality ISI marked unless otherwise specified in Technical Specifications.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

### **6.1.3. False Ceiling**

The successful bidder shall install the top false ceiling at CCC. This false ceiling shall house A/C ducts (if required) and cables of electrical lighting, firefighting, and CCTV. Appropriate pest control measures shall be taken to keep pests at bay.

### **6.1.4. Raised Flooring**

The successful bidder shall be responsible for raised flooring at CCC if required and provide suitable pedestal and under structure designed to withstand various static and rolling loads subjected to it in server racks. The entire raised floor shall have laminated floor covering and beadings on all sides of the panel.

### **6.1.5. Electrical Distribution System**

The successful bidder shall be responsible for installation of electrical distribution system at CCC. SI shall be responsible for proper and uninterrupted working and shall ensure this by having the IT equipment, essential building infrastructure necessary of uninterrupted operations:

- UPS system with battery bank for critical loads
- AC Distribution Boards as per requirement.

### **6.1.6. Electrical and Communication work**

The successful bidder shall do complete electrical cabling and, communication infrastructure work for CCC, which shall include but not limited to:

- Main electrical panel in CCC
- Power cabling
- UPS distribution board
- UPS point wiring
- Power cabling for utility components and utility points etc.
- Online UPS
- Earth pits for the component
- Metering for different loads
- The bidder shall use fire retardant cables of rated capacity exceeding the power requirements of existing and proposed components to be used at maximum capacity.
- All communication network and infrastructure works including Ethernet cabling, modems, switches, routers, patch panels, Wi-Fi routers etc. for facilitation of inter-CCC and temporary command and control center networking.
- All materials conform to ISI standards as per industry practice.

### **6.1.7. Lighting Works**

The successful Bidder shall be responsible for the lighting works at CCC. Following items need to be undertaken by bidder for lighting:

- Supply of all equipment associated with implementation of lighting including fixtures, lamps, wiring etc.

## **Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

- Wiring for lighting system in the building.
- Installation of lighting fixtures.
- Warranty for the lighting equipment.
- Critical lights shall be connected to UPS for uninterrupted lighting.
- Post the installation, bidder shall ensure that the lux levels of the building are as per IES-HB-10-11.

### **6.1.8. CCTV System**

The bidder shall provide CCTV system within the CCC on 24X7 basis. All important areas of the CCC along with the non- critical areas like locations for entry exit of CCC, Entry and Exit of building premises need to be under constant video surveillance. Monitoring cameras shall be installed strategically to cover all the critical areas of all the respective locations.

Cameras and system to be used as per the specifications provided under relevant sections.

### **6.1.9. Access Control System**

The Biometric/Access card-based Access Control System shall be deployed at CCC with the objective of allowing entry and exit to and from the premises to authorized personnel only with appropriate door locks and controller assemble connected with BMS system if available. The system deployed shall be based on proximity as well as biometric technology for critical areas and proximity technology for non-critical areas.

The system to be provided as per the specifications provided under relevant section.

### **6.1.10. Rodent Repellent system**

Since good amount of cabling runs in the CCC and the damage to any cable by rodents could be of serious concern so an effective system to curb this need to be provided which helps in keeping the rodents away from the CCC area and at the same time it should not kill the rodents. Other than this system SI also need to conduct periodic pest control using chemical spray once in a quarter as a contingency measure to effectively fight pests once the CCC is up and running and during the entire O&M period.

The system to be provided as per the specifications provided under relevant section.

### **6.1.11. Control Desk for Workstation**

The Control Desk shall conform to the high standard of engineering as mentioned in the document, meeting the specified codes, standards and designs. It shall be capable of performing 24X7 operations under the specified environmental condition in compliance with control room ergonomic norms i.e. ISO 11064. All the certificates and reports mentioned below and in BOQ shall be submitted along with the technical bid.

SL	Specifications	Compliances (Yes/No)
1	<b>Structure</b>	
2	Made of heavy-duty extruded vertical and horizontal aluminium profiles. The extrusions shall be duly powder coated with 40+ microns over all surfaces. All sheet metal parts shall be finished with a durable, black, electrostatic powder coating. OEM shall have a valid trademark registration certificate issued by the Government of India for the Control Desk proposed in this	

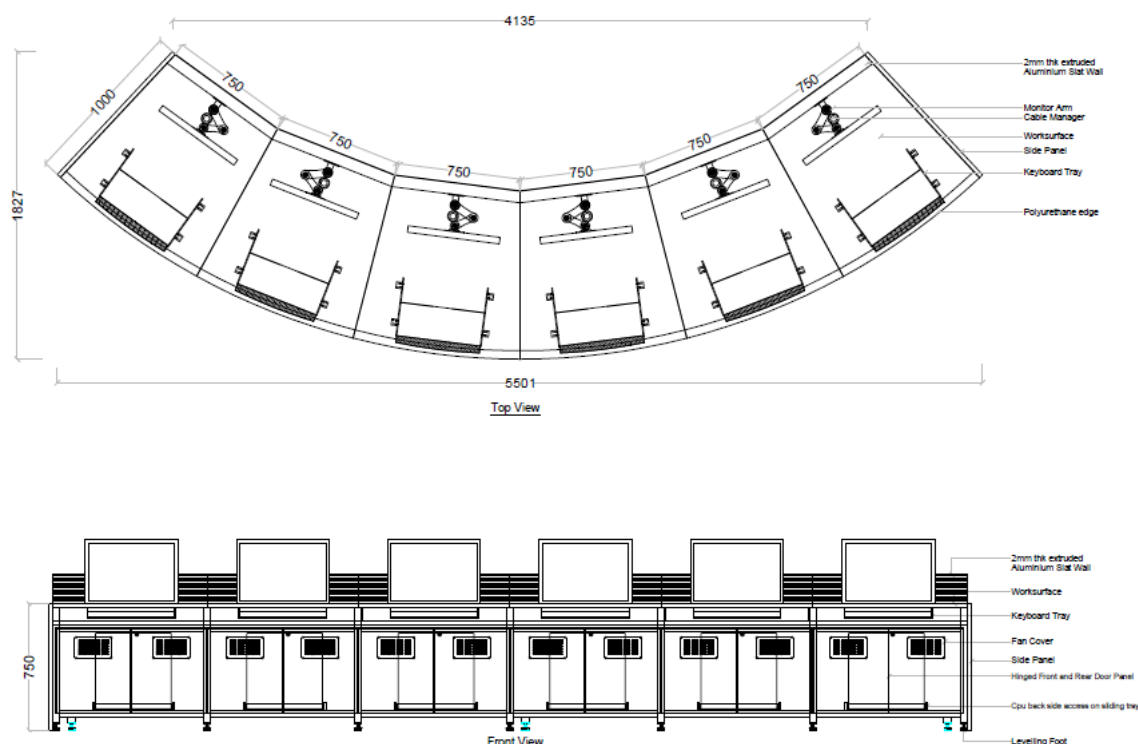
**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Specifications	Compliances (Yes/No)
	tender. Valid Trademark registration certificate to be submitted along with the technical bid.	
3	To allow future extension and expansion, a weld-free system shall be proposed. Interconnecting joints shall not be visible. The structure shall be rigid enough to withstand BIFMA X5.5 tests. OEM shall have had BIFMA X5.5 certificate for at least five years prior to April 1 <sup>st</sup> , 2023. The structure shall allow easy assembly of hinged shutters, slat wall, gland plate, and monitor arms in extremely rigid manner. Valid certificate of BIFMA X5.5 from authorized agencies to be submitted along with technical Bid.	
4	The EPD (Environmental product declaration) of Control Desk shall be verified in accordance with ISO 14025 (from UL/Intertek) for Impacts on Environment by Control Desk. Valid report/document from UL/Intertek to be submitted along with the technical bid.	
5	<b>Tabletop:</b> The material of the working surface shall be minimum 25 mm thick MDF with High-Pressure laminate. The proposed Control Desk's life cycle should be assessed (from approved LCA consultant) for environmental impacts associated with all the stages of a product's life for cradle to grave analysis. Valid report/document from UL/Intertek to be submitted along with the technical bid.	
6	<b>Slat Wall:</b> Slat wall shall be made of approximately 2mm thick extruded aluminium (aluminium alloy). The proposed Control Desk shall be UL Listed and valid certificate to be submitted along with the technical bid.	
7	<b>Modular removable PU nosing:</b> The front edge of consoles is the component which comes in frequent contact of the operator. The soft polyurethane edge is meant to prevent injury (accidental impact) to operator during emergency and it also reduces the contact stress. In case of damage to this edge the desk design shall permit quick & easy replacement within half an hour without taking any shutdowns or removal of the tablesps. Audit certified design feature of modular PU Edge: High-density polyurethane moulded on industrial grade aluminium core to form 50mm deep tapered edge to be installed on worktop. In case of damage or wear, the edge shall be mechanically replaceable within 30 minutes without opening or removing the worktop. Valid UL audit certificate to be submitted along with the technical bid. Extruded PU edging/PVC T-beading shall be deemed unacceptable.	
8	<b>Monitor Arm:</b> The Console shall feature ergonomic display mounting arms. It shall enable quick & easy replacement of VESA mounts & arm extensions as per the ergonomic. UL audit certified design feature of monitor arm assembly shall have auto lock, push & remove feature for quick release of VESA mounts and modular arm extensions for ease in maintenance and fixing of monitor by one technician within 30 seconds without using any tools. Valid UL audit certificates to be submitted along with the technical bid.	
9	The proposed control desk shall be ANSI/BIFMA e3-2019 certified/tested at least for level 3 from UL/Intertek as per Furniture Sustainability Standard to identify the sustainability level of the furniture with respect to the environmental, health & wellness, and social impacts applicable to	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

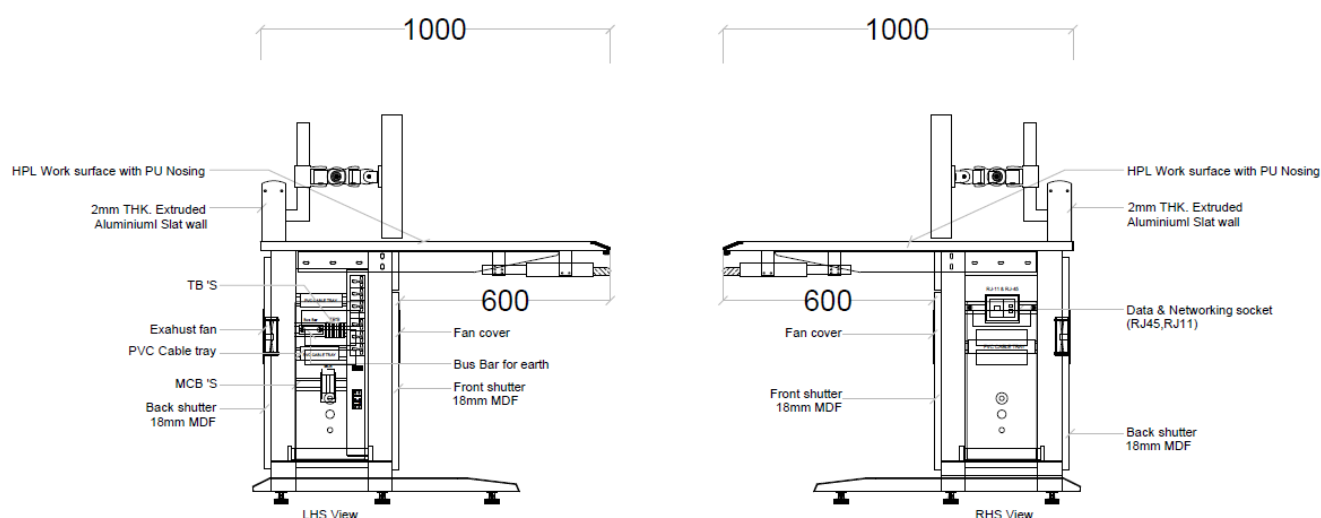
SL	Specifications	Compliances (Yes/No)
	product(s). Valid certificate to be submitted along with the technical bid.	
10	The proposed control desk/Workstation shall satisfy the dimensional requirements of BS EN ISO 11064: 2013; Ergonomic design of control centres – Part 4: Layout and dimensions of workstations. Valid Ergonomic test certificate from UL/FIRA to be submitted along with the bid.	
11	<b>Shutters &amp; Side Legs:</b> Front, and back shutters shall be of 18 mm Laminated MDF Board with premium finish. Side leg shall be of 25mm of the same finish. The proposed console shall be Greengard Gold certified. OEM shall have had this certificate for at-least five years prior to April 1st, 2023. Valid certificate from UL/Intertek to be submitted along with the technical bid.	
12	<b>Cable Trays and Wiring:</b> The Console shall be designed with vertical and horizontal cable trays to allow for continuous cable management between the cabinets. Wire shall be routed into the cabinet through gland plate. The proposed console shall be RoHS Certified/tested from UL/Intertek and the valid certificate/ test report shall be submitted along with the technical bid.	
13	<b>Hardware</b> All bolts shall be of SS material to avoid rust due to environment. The remaining hardware shall be Nickel Plated MS.	

Please refer the below design for manufacturing of Control Desk:





## Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.



### 6.1.12. Chair for Control Desk

SL	Parameter	Description	Compliances (Yes/No)
1.	Type	High Back Chair	
2.	Arm	PU adjustable Arm,	
3.	Features	Gas lift, Back Net Tapestry & Seat fabric Tapestry, Synchro Tilt	
4.	Finish Colour	Multiple Colour Options	
5.	Certifications	Green Guard, Indoor Advantage	
6.	Upholstery Material	Fabric	
7.	Base	Chrome	

## 6.2. Command Control Centre: Technology Components

The following is the scope of work to enable the deployment Command & Control Center (CCC) at Capital Region Urban Transport.

The scope of the project involves Design, Supply, Install, Commission, Test, Deploy and Warranty support & maintenance of Integrated and Unified Command & Control Center Solution with 3 years comprehensive on-site warranty as defined in this document.

### 6.2.1. 2MP Dome Camera

SL	Parameter	Compliances (Yes/No)
1	The camera should be IP based Indoor Dome with 3 mm or better Fixed lens with minimum resolution of 2 (1920*1080) Megapixel and appropriate angel of view for indoor application. Camera should carry all the accessories and mounting equipment required to make it installed and live.	
2	The camera should work with minimum illumination of 0.1 lux @ F1.4(day mode) and 0 lux @ F1.4 (night mode IR ON) with 30 IRE AGC on condition.	
3	The camera should be UL, BIS, CE/EN/FCC certified.	



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

4	Cameras should be ONVIF Profile S compliant	
5	The internal CCTV system should be complete in all functional respect to the extent not specifically provided in this RFP.	

#### 6.2.2. 8 Channel NVR

SL	Parameters	Minimum Requirements	Compliances (Yes/No)
1	Processor	Dual Core embedded Processor	
2	IP Camera Input	8 Channel	
3	Operating System	Embedded LINUX	
4	Operation Interface	Web/operating in local GUI	
5	Performance by Camera	8 channel	
6	Compression	H.265/Smart H.264+/H.264/MJPEG	
7	Multi-screen Display	1, 4, 8, 9 views	
8	Recording Resolution	5MP/4MP/3MP/1080p/960p/720p/D1/CIF	
9	Video Display Split	1/4	
10	Playback	8 Channel	
11	Power Consumption	<5Watt	
12	Working Temperature	0 to 50 Deg.	
13	Humidity	10% to 90%	
14	Storage	External HDD as per site Requirement	

#### 6.2.3. 24 Port 1G L2 Switch

SL	Minimum Requirements	Compliances (Yes/No)
1	Switch with at least 24 X 10/100/1000BASE-T PoE Ports and 2 x 10G Base-T and 4 X SFP+ Ports.	
2	Switch should have console port for accessing the CLI of the switch.	
3	Switch should have RJ-45 port for out of band Management Port	
4	Switch should have USB port for connecting a USB storage device.	
5	Switching capacity should be 168 Gbps or higher or non-blocking architecture.	
6	Switch shall have 64 Bytes packet forwarding rate should be 124 Mpps or higher or non-blocking architecture.	
7	Switch MAC table should be at least 16K or higher.	
8	Switch should be standard 19-inch 1U rack mountable.	
9	Switch should have internal redundant power supply for 1+1 redundancy and load sharing.	
10	Physical stacking Up to 9 units per stack & Single IP Management (SIM) Up to 32 units per virtual stack	
11	Switch should have one + one AC power with 100 to 240 VAC, 50/60 Hz, power supply should be supplied with switch from day 1.	
12	Switch should have Smart fan design.	
13	Operating temperature should be 0 to 50 °C.	
14	Certification: FCC Class A, CE Class A, VCCI Class A, CB, UL,	
15	Should have 802.1D STP, 802.1w RSTP and 802.1s MSTP Spanning Tree Protocol.	
16	Should support BPDU Filter, BPDU restriction, Root restriction	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

<b>SL</b>	<b>Minimum Requirements</b>	<b>Compliances (Yes/No)</b>
17	Support Jumbo Frame up to 9K Bytes or higher.	
18	Should support Loopback detection (LBD) to detect the loop created by a specific port.	
19	Should support IGMP Snooping v1/V2/V3 & IGMP groups 1K or more IGMP groups and require support for IGMP Snooping Fast Leave.	
20	Should support MLD Snooping v1/v2 & MLD group 1K or more and require support for MLD Snooping Querier.	
21	Should support 16 L3 IP interfaces and IPv4/IPv6 Loopback interface.	
22	Should support IPv6 Neighbour Discovery (ND).	
23	Should support VRRPv3, Equal-Cost Multi-Path (ECMP) and UDP helper.	
24	Should support Static route for both IPv4 and IPv6, OSPFv1, v2 & v3, RIP V1/V2/ng.	
25	Should have Policy-based Route (PBR).	
26	Switch should support IEEE 802.1Q VLAN with different type of VLAN like Port based, Voice VLAN, Private, Double (Q-In-Q), Multicast VLAN (ISM VLAN for IPv4/IPv6), 802.1v Protocol VLAN, VLAN Trunking, Super VLAN	
27	should have per-port broadcast, multicast, and unicast storm control to prevents faulty end stations from degrading overall systems performance.	
28	Should support port security to secures the access port based on MAC address.	
29	Require prevention of DoS attacks, which include Land, Blat, TCP Null Scan, TCP Xmas Scan, TCP SYNFIN, Ping of Death Attack and TCP Tiny Fragment attack.	
30	Should support DHCP snooping and DHCP server screening, DHCP server.	
31	Should support 802.1X port based and 802.1X host-based access control, Identity-driven Policy (VLAN, ACL or QoS) Assignment	
32	Should support RADIUS and TACACS+ authentication.	
33	Should support Authentication database failover.	
34	Switch should support QoS (quality of service) IEEE 802.1P for traffic prioritization. It should support 8 queues per port.	
35	Different type of QoS priority like Strict Priority Queue and Weighted Round Robin, Strict + WRR, Congestion control using Weighted Random Early Detection (WRED) or WTD	
36	Should support Remark 802.1p priority, Remark ToS/DSCP and Rate limiting in Policy map.	
37	Support at least 2K ingress & 512 egress access control entries. ACL based on MAC, IPv4 and IPv6, TCP/UDP port number, User-defined packet content, CPU Interface Filtering. Should support time-based ACL.	
38	Able to manage trough Fully functional CLI interface.	
39	Support for Telnet server, TFTP Client, FTP Client and Secure FTP (SFTP) client for IPv4/IPv6 access.	
40	Should have multiple Image and configuration support to reduced down time for the switches.	
41	Should support SNMP v1, v2c, v3 and SNMP Traps and Remote Monitoring (RMON).	
42	Support for DHCP Client support for IPv4/IPv6, DHCP server, DHCP Relay and DNS client.	
43	Should have SNTP/NTP protocol for time synchronization.	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Minimum Requirements	Compliances (Yes/No)
44	Should support CDP/UDLD, Link Layer Discovery Protocol (LLDP) and LLDP-MED.	
45	OEM Should be international certification for the ISO 45001 Health and Safety Management System, Information Security Management System: ISO 27001, ISO 9001 Quality Management System, ISO 14001 Environmental Management System and ISO 14064-1 Greenhouse Gas Inventory Standards.	
46	Minimum PoE Budget will be 370 Watt.	

#### 6.2.4. 24U Network Rack

SL	Parameters	Minimum Requirements	Compliances (Yes/No)
1	Basic Structure	Rack should be of All Steel Construction with powder coated finish.	
2	Space	Height: The Rack should Provide 24U Usable Space. Width: The rack should be 800mmW with 19" mounting provision Depth: The rack should be at least 900mmD. Usable Depth should be not less than 850mm	
3	Load Bearing Capacity	Load carrying capacity of rack should be minimum 300 Kg.	
4	Mounting Provisions	Mounting rails (for Standard 19" mounting) should be made up of steel (Minimum 2.0mm thickness) and should be of multi-fold design for enhanced loading capacity and rigidity. It should have unique U Marking.	
5	Cable Management	1U Cable Managers to be supplied.	
6	Heat Management	Roof shall have provision to mount the cooling fans. It should come with at least 4 nos. of 90 CFM cooling fans on this roof and in addition there should be space for the cable entry from the top.	
7	Powder Coating Details	Thickness of powder coating should be 60 microns or more.	
8	Thickness of Material	The structure and all its components should be made from at least 1.2mm thick Sheet	
9	Shelving Options	The rack should be provided with 1 Heavy Duty Shelf of 727mmD	
10	Power Management	Rack should have 2 Nos PDU	

#### 6.2.5. Fire Alarm System

SL	Description	Compliances (Yes/No)
<b>A</b>	<b>General Requirements</b>	
1	Conventional Fire Alarm Panel with support for 2 Zone or more, External/in-	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Compliances (Yes/No)
	built auto-dialler (4G GSM and PSTN support), Generic Keypad for easy operation, CE Certified.	
2	Multi Criteria Detector with accessories (5 Nos.) and Manual Call Point (2 Nos.) to be installed	
3	Hooter cum Strobe with separate power supply and inbuilt SMF Battery to ensure function even in case of power failure (1 Nos.) to be installed	
<b>B</b>	<b>Technical Requirements</b>	
1	Fire Alarm Panel should provide LED indication of system and individual zone status. 16*2 characters LED display or better	
2	Fire Alarm should have in-built UPS type SMPS with inbuilt battery charger	
3	Fire Alarm should have in-built transient protection for power supply and mother board.	
4	Fire Alarm Panel should have internal memory for logging at least 200 events	
5	Fire Alarm System should be installed and wiring should be done as per OEM guidelines	
<b>C</b>	<b>OEM Criteria</b>	
1	OEM should have ISO 9001, ISO 14001 and ISO 27001 certification and direct presence in India.	
2	OEM of Fire Alarm System should have supplied Fire Alarms to at least 1 Central/State/PSU institution in the last 3 years.	

#### 6.2.6. Access Control System

SL	Specifications	Compliances (Yes/No)
1	Proposed Access Control System should have a dedicated controller which shall share data with the access control software. The controller should support TCP/IP protocol for communication and configuration. If any expansion modules are connected, the controller needs to encrypt the data with AES-256 encryption formats.	
2	The controller should support a minimum of 1 door locally in an open architecture.	
3	Should support TSL 1.2, AES-256, OSDP encryption.	
4	Credential Capacity: Min. 20000	
5	The System should support existing 125KHz Proximity Cards.	
6	Configurable system for user defined access policy for each access point	
7	Record, report and archive each and every activity (permission granted and / or rejected) for each access point.	
8	User defined reporting and log formats	
9	Fail safe operation in case of no-power condition and abnormal condition such as fire, theft, intrusion, loss of access control, etc.	
10	Day, Date, Time and duration-based access rights should be user configurable for each access point and for each user.	
11	One user can have different policy / access rights for different access points.	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**6.2.7. Rodent Repellant System**

SL	Specifications	Compliances (Yes/No)
1	The entry of rodents and other unwanted pests shall be controlled at the Integrated command and control centre using non-chemical, non-toxic devices.	
2	Ultrasonic pest repellents shall be provided in the false flooring and ceiling to repel the pests without killing them. However, the MSI shall conduct periodic pest control using chemical spray once in a quarter as a contingency measure to effectively fight pests.	
3	The system proposed is to protect all the equipment, areas with relevant type of high frequency sound producing device called satellites or transducers. Once powered up these transducers produce very high frequency variable sound waves (above 20 KHz) continuously which irritate the rodents and are forced to evacuate the place.	
4	The system shall cover minimum of 700 sq.ft. area per controller & shall be able to connect minimum 6 transducers per controller. The transducers shall cover minimum 200 sq.ft. of area. The devices can be tested periodically by means of a test switch provided on the Main console	
5	The satellites or Transducers shall be circular ceiling mounted low profile units that produce high decibel sound waves at very high frequency not less than 20 KHz.	
6	No looping is permitted while connecting the satellites to the main controller. Every satellite connected to the controller shall have a dedicated connection with the controller	
7	The controller shall support minimum 8 Transducers and shall come with a pair of stands and brackets. The controller is installed in the Server Room and the transducers in the problematic areas i.e. above and below false ceiling and below false flooring.	
8	Controller Features: 700 Sq. Feet of Area Coverage per system/ Controller, shall drive more than 8 Transducers with minimum @200sft coverage each, LCD display with on-board controls for changing parameters.	

**6.3. Command Control Centre: Utility Components**

**6.3.1. 20KVA UPS with 30 Mint Backup**

SL	Parameter	Description	Compliances (Yes/No)
1	Rating	20KVA	
	<b>System Parameter</b>		
2	Technology	IGBT based Double conversion PWM based online UPS	
3	Parallel Mode	4 (N+1)	
4	Installation Mode	Rack/Tower	
	<b>Input</b>		
5	Rated Voltage	400VAC 3-phase,4-wire	
6	Voltage Range	Three phase 175VAC -498VAC	
7	Rated Frequency	50Hz/60Hz	
8	Frequency Range	40Hz ~ 70Hz	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Parameter	Description	Compliances (Yes/No)
9	Power Factor	0.95 for Three Phase	
	<b>Output</b>		
10	Rated power	20KVA/20kw	
11	Voltage	Three phase 415VAC/ 230vac Single phase	
12	Frequency Synchronization Range	Rated frequency $\pm$ 3Hz. Configurable range: $\pm$ 0.5Hz ~ $\pm$ 5Hz	
13	Rated Power Factor	Unity	
14	Crest Factor	3:1'	
15	Voltage Harmonic Distortion	< 2% (linear load)	
16	Voltage Regulation	1%	
17	Dynamic Response Recovery Time	60ms	
18	Inverter Overload Capability on utility mode	At 25°C: 105% ~ 125%- 5min; 125% ~ 150%- 1min; 150%- more than 200ms	
19	Programmable Outlet	Available	
20	Inverter Overload Capability on battery mode	At 25°C :105% ~125%-60~ 30 s; >125%- more than 200ms	
	<b>Bypass</b>		
21	Separate bypass	Yes	
22	Static bypass	Inbuilt	
	<b>Efficiency</b>		
23	ECO Mode	99%	
24	Online mode (AC-AC)	> 96%	
25	Inverter Efficiency (DC-AC)	>92%	
	<b>Battery</b>		
25	Type	Sealed, lead-acid, Tubular, LI-ION	
26	Nos. of Batteries	24(1),32,34,36,38,40; 32 by default	
27	Minimum 30 mins backup (min VAH)	19152	
28	Battery charging capacity	13A	
	<b>Transfer Time</b>		
29	Mains Battery	0ms	
30	Inverter Bypass	Synchronous transfer: $\leq$ 0ms Asynchronous transfer (default): $\leq$ 20ms	
31	Noise	<65db	
	<b>Panel Display Mode</b>		
32	Display Type	Graphical LCD display	
33	No of events stored	Max 256	
34	Orientation	Gravity sense	
	<b>Environmental Parameter</b>		
35	Operating Temp.	0°C ~ 50°C	
36	Storage Temp.	-40°C ~ +70°C (battery excluded)	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Parameter	Description	Compliances (Yes/No)
		-25°C ~ +55°C (battery included)	
37	Relative Humidity	5%RH ~ 95%RH, non-condensing	
38	Altitude	≤3000m; derating when higher than 3000m	
39	Ventilation	Forced air cooled	
40	Ingress Protection Level	IP20	
41	Color	Powder coated Black Texture finish	
	<b>Network Management</b>		
42	Smart RS232/USB	Supports Windows 2000/2003/XP/Vista/2008, Windows 7, Linux, unix and MAC	
43	SNMP	Inbuilt for web monitoring	
44	MODBUS	Inbuilt for BMS connectivity	
45	Remote Alarm	Inbuilt	
46	Optional SNMP	Power management from SNMP manager and web browser	
47	Management Software	Site monitor	
48	Modbus	Inbuilt via multifunction port	
	<b>Certifications</b>		
49	Safety (CE) & EMC	IEC/EN62040-1-1, IEC/EN62040-2, IEC/EN61000-3-11, IEC/EN61000-3-12, YD/T1095-2008	
50	Surge Protection	IEC/EN62040-2, meeting IEC/EN61000-4-5	
51	Energy Star	As per UL approved	
52	Standard	IS 9001-2015, ISO 14001, ISO 45001, ISO 27001, ROHS, NABL Approved Government lab test report	

### 6.3.2. Workstation with Monitor

SL	Parameter	Description	Compliances (Yes/No)
1	Processor	Core i5 or higher, 3.0 GHz	
2	RAM	Minimum 16 GB	
3	Memory	256 GB SSD, 1 TB HDD	
4	Interface	Ethernet Ports X 2 Nos., USB Ports X 4 Nos.	
5	Power	230 V AC	
6	Operating System	Licensed Windows OS	
7	LED Monitor	Single Display with 22 Inch monitor	
8	Keyboard	104 keys or better	
9	Network Card	1Gbit/s network card	
10	Antivirus	Enterprise level pre-loaded antivirus	
11	Graphic card	Nvidia Quadro Graphics Card	
12	Windows	Minimum Windows 10	



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**6.3.3. 55" 4K UHD Smart TV**

SL	Parameter	Description	Compliances (Yes/No)
1	Display	• Screen Size: 1m 38cm (55")	
2		• Resolution: 3,840 x 2,160	
3	Video	<ul style="list-style-type: none"> <li>• Picture Engine Crystal Processor 4K</li> <li>• One Billion Color: Yes</li> <li>• HDR (High Dynamic Range) HDR</li> <li>• HDR 10+Support</li> <li>• HLG (Hybrid Log Gamma)</li> <li>• Contrast Mega Contrast</li> <li>• Color Pur Colour</li> <li>• Brightness/Color Detection Brightness Detection</li> <li>• Contrast Enhancer</li> <li>• Film Mode</li> <li>• Motion Technology Motion Xcelerator</li> <li>• Picture Clarity Filmmaker Mode (FMM)</li> </ul>	
4	Sound	<ul style="list-style-type: none"> <li>• Adaptive SoundAdaptive Sound</li> <li>• Object Tracking SoundOTS Lite</li> <li>• Q-Symphony</li> <li>• Sound Output (RMS): 20W.</li> <li>• Speaker Type2CH</li> <li>• Multiroom Link</li> <li>• Bluetooth Audio</li> <li>• Dual Audio Support (Bluetooth)</li> <li>• Buds Auto Switch</li> </ul>	
5	Smart Service	<ul style="list-style-type: none"> <li>• Operating System Tizen™ Smart TV/Android</li> <li>• Works with AI Speaker Alexa (IN Only), Google Assistant (IN Only)</li> <li>• Samsung TV Plus Yes (India Only)</li> <li>• Smart Things Yes</li> <li>• Universal Guide Yes (IN only)</li> <li>• Media Home Yes</li> </ul>	
6	Smart Feature	<ul style="list-style-type: none"> <li>• Multi Device Experience Mobile to TV, TV Sound to Mobile, Sound Mirroring, Wireless TV On</li> <li>• Tap View</li> <li>• Video Communication Google Meet</li> <li>• Mobile Camera Support</li> <li>• Easy Setup</li> <li>• App Casting</li> </ul>	
7	Differentiation	<ul style="list-style-type: none"> <li>• Dongle Compatibility (3G / LTE / Wi-Fi)</li> <li>• Analog Clean View</li> <li>• Triple Protection</li> </ul>	
8		<ul style="list-style-type: none"> <li>• Digital BroadcastingDVB-T2</li> <li>• Analog Tuner</li> </ul>	
9	Connectivity	<ul style="list-style-type: none"> <li>• HDMI3</li> <li>• USB1</li> <li>• Digital Audio Out (Optical)1</li> <li>• RF In (Terrestrial / Cable input)1/1(Common Use for Terrestrial)/0</li> </ul>	



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Parameter	Description	Compliances (Yes/No)
		<ul style="list-style-type: none"> <li>HDMI Audio Return Channel eARC/ARC</li> <li>Bluetooth Yes (BT5.2)</li> </ul>	
SL	Parameter	Description	Compliances (Yes/No)
1	Display	<ul style="list-style-type: none"> <li>Screen Size: 1m 38cm (55")</li> </ul>	
2		<ul style="list-style-type: none"> <li>Resolution: 3,840 x 2,160</li> </ul>	
3	Video	<ul style="list-style-type: none"> <li>Picture Engine Crystal Processor 4K</li> <li>One Billion Color</li> <li>HDR (High Dynamic Range) HDR</li> <li>HDR 10+Support</li> <li>HLG (Hybrid Log Gamma)</li> <li>Contrast Mega Contrast</li> <li>Color Pur Colour</li> <li>Brightness/Color Detection Brightness Detection</li> <li>Contrast Enhancer</li> <li>Film Mode</li> <li>Motion Technology Motion Xcelerator</li> <li>Picture Clarity Filmmaker Mode (FMM)</li> </ul>	
4	Sound	<ul style="list-style-type: none"> <li>Adaptive Sound Adaptive Sound</li> <li>Object Tracking Sound OTS Lite</li> <li>Q-Symphony</li> <li>Sound Output (RMS): 20W.</li> <li>Speaker Type2CH</li> <li>Multiroom Link</li> <li>Bluetooth Audio</li> <li>Dual Audio Support (Bluetooth)</li> <li>Buds Auto Switch</li> </ul>	
5	Smart Service	<ul style="list-style-type: none"> <li>Operating System Tizen™ Smart TV/Android</li> <li>Works with AI Speaker Alexa , Google Assistant</li> <li>Smart Things</li> <li>Universal Guide</li> <li>Media Home</li> </ul>	
6	Smart Feature	<ul style="list-style-type: none"> <li>Multi Device Experience Mobile to TV, TV Sound to Mobile, Sound Mirroring, Wireless TV On</li> <li>Tap View</li> <li>Video Communication Google Meet</li> <li>Mobile Camera Support</li> <li>Easy Setup</li> <li>App Casting</li> </ul>	
7	Differentiation	<ul style="list-style-type: none"> <li>Dongle Compatibility (3G / LTE / Wi-Fi)</li> <li>Analog Clean View</li> <li>Triple Protection</li> </ul>	
8		<ul style="list-style-type: none"> <li>Digital BroadcastingDVB-T2</li> <li>Analog Tuner</li> </ul>	
9	Connectivity	<ul style="list-style-type: none"> <li>HDMI3</li> <li>USB1</li> <li>Digital Audio Out (Optical)1</li> <li>RF In (Terrestrial / Cable input)1/1(Common Use for Terrestrial)/0</li> </ul>	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Parameter	Description	Compliances (Yes/No)
		<ul style="list-style-type: none"> <li>HDMI Audio Return Channel eARC/ARC</li> <li>Bluetooth (BT5.2)</li> </ul>	

#### 6.3.4. Laptop

Sr. No	Description	Specification Parameter	Compliance (Yes/No)
1.	Generations and processor	11th Generation and i7 processor	
2.	Operating System	Windows 10 Home or higher	
3.	Display	35.6 cm (14 inch ) diagonal, FHD IPS, micro-edge, BrightView display with Intel® Iris® Xe Graphics	
4.	Memory And Storage	16 GB DDR4, 1 TB SSD Solid State Drive	
5.	Features	Backlit Keyboard, Wide Vision 720p HD camera, B&O Speakers	
6.	Warranty	1 Year	

#### 6.3.5. SITC of Cassette Air Conditioner

Sr. No.	Description	Specification Parameter	Compliance (Yes/No)
1.	Tons	3	
2.	Type	Inverted	
3.	Rated cooling capacity	10 KW	
4.	Min max capacity	5-10 KW	
5.	Rated power capacity	3400 watts	
6.	ISSER	3.6	
7.	Annual power consumption	2300	
8.	Operating temperature	IDU (DB) °C- 19-35 ODU (DB) °C - 19-50	
9.	Sound pressure level	52 dBA	
10.	Drain pan	Silver ION Antibacterial to prevent the growth of bacteria	
11.	Power requirement	230 V/50 HZ/1 ph	
12.	Refrigerant	R-32	
13.	Accessories	All required accessories like Drain Fan, complete piping, cabling, drain piping as per site requirement	
14.	Installation	Proper installation should be done by bidder	
15.	Warranty	1 Years on Product, 1 Years on Condenser, 5 Years on Compressor	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**6.3.6. SITC of Fixed Speed Split AC**

SL	Parameter	Description	Compliances (Yes/No)
1.	Split AC with non-inverter compressor	Power chill operation to ensure quick cooling	
2.	Capacity	0.8 Ton	
3.	Energy efficiency	3 Star	
4.	Warranty	1 Years on Product, 1 Years on Condenser, 5 Years on Compressor	
5.	Copper Condenser Coil	Better cooling and requires low maintenance	
6.	Cooling Capacity	@ 43°C 100%	
7.	Noise Level	32 db(A)	
8.	Ambient Operation	50°C	
9.	Special Features	Power chill operation to ensure quick cooling Coanda airflow for uniform cooling across room	
10.	Refrigerant gas	R32 Environmentally friendly - no ozone depletion potential	
11.	Accessories	Indoor Unit, Outdoor Unit, Remote Control, User manual, Warranty Card & Standard Installation Kit	
12.	Electrical connections and piping	Complete piping, stand, cabling, drain piping as per site requirement	

**6.4. Electrical, Networking Works & Other Services (Passive Components for Command Control Centre)**

**6.4.1. Cat-6 UTP Indoor**

SL	Description	Compliances (Yes/No)
1	4 Pair Cable with integral cross -member pair separator for uniform characteristic impedance.	
2	Category 6 Unshielded Twisted 4 Pair 100 Ω cable shall be compliant with ANSI/TIA/EIA-568-C.2-1 Additional ISO/IEC 11801 2ndEd. Transmission Performance Specification for 4 Pair 100Ω Category 6 Cabling	
3	Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, UTP cable jacket.	
4	Conductor: Solid Copper	
5	Conductor Diameter: 0.574, ± 0.01mm (23AWG)	
6	Insulator High Density Polyethylene	
7	Inner Jacket: LSZH	
8	Outer Jacket: PE –Black, Anti-Rodent with 1.1 thickness	
9	Aarmor: ECCS Tape (Thickness > 0.125 mm)	
10	Outer Diameter: 10.0 ± 0.3mm	
11	Max Temperature: -20°C to +70°C	
	<b>Mechanical Test</b>	
12	Should have Pulling force of 50 Kg.	
13	Crush Resistance: 1000N	
14	Bend Radius: 20 x Cable Diameter	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Compliances (Yes/No)
	<b>Electrical Test</b>	
15	Conductor Resistance: $<9.38\Omega / 100m$	
16	Resistance Unbalance: 5% Max	
17	Mutual Capacitance: $< 5.6nF/100m$	
18	Capacitance Unbalance: 330pF/100m.	
19	Characteristic Impedance: 100 +15 $\Omega$ conductor	

#### 6.4.2. CAT-6 Patch Cord

SL	Description	Compliances (Yes/No)
1	Standardization: Compliant with Cat.6, Class E requirements: ISO/IEC 11801 2 <sup>nd</sup> Edition Compliant with Cat.6 component standards IEC 60603-7-4 and 60603-7-5	
2	Cable shield: Tinned-copper braid	
3	Number of conductors: 8	
4	Stranding: 7 x 0.16 mm (26 AWG)	
5	Cable jacket characteristics: cable CM	
6	Cable overall diameter: 6.0 $\pm$ 0.2mm max.	
7	Tube / Wire type: stranded conductor	
8	Insulation: solid polyolefin, 0.97 $\pm$ 0.02 mm diameter	
9	Plug: Feature cable retention, with enhanced pull strength. The plug is designed to ensure precision wire placement, providing superior performance.	
10	Cat 6 patch cord plug to have round cable holder and strain relief boot to avoid bending.	
11	Jacket: LSZH with 8 different colour options	
12	Plug should be featured with colour ring options	
13	Plug should have high repeatability cross talk performance	
14	Plug design should be patented with unique feature	
15	Should be ETL verified; 4 Channel ETL certificate should have part code mentioned	

#### 6.4.3. 24 Port Copper Patch Panel (fully loaded)

SL	Specifications	Compliances (Yes/No)
1	Patch panel should be modular design, to be populated with 24 nos. Cat 6 UTP RJ 45 Keystone Jack as per specifications provided	
2	Each Ports should be with individual spring loaded shuttered for dust protection. Each port (jack) and individual replaceable.	
3	Material: Should Be made of cold rolled steel and conform to TIA / EIA 568-C.2 Component Compliant	
4	Should confirm to EIA/TIA 568A wiring Pattern	
5	Should have integral rear cable management shelf.	
6	Commercial Standards: TIA/EIA-568-B.2-1 Component Compliant FCC Subpart F 68.5 Compliant IEC-603-7 Compliant	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Specifications	Compliances (Yes/No)
	ISO 11801 Class E Compliant ETL Verified for Category 6 Component Compliance	

## 6.5. Video Conferencing System Room Based Unified VC

### 6.5.1. Technical Specifications of Room Based Unified VC Endpoint (At Patia Conference Hall)

The proposed system must be based on ITU standards & hardware based. No software-based solution will be accepted. All components of the VC system like Codec, Camera, Microphones and Touch Control Panel should be from the same OEM.

Sr. No.	Description	Specification Parameter	Compliance (Yes/No)
1	Package	UHD 2160p (4K) Dual Integrated Cameras, 4K Codec, Omnidirectional Digital Microphone and Touch Control Panel from the same OEM.	
2	Video Standards and Resolutions	It should support H.323 & SIP standards for communications.	
		It should support interoperability and bandwidth saving using video compression H.264 AVC, H.264 High Profile, H.265	
		It should support 4K30 fps, 1080p30 fps, 720p 30 fps.	
3	Content Standards and Resolutions	It should support both wired and wireless content sharing using standard based H.239 and BFCP. It should also support audio from Laptop used for content sharing.	
		It should transmit content to the far end location up to 4K15fps.	
		It should support inbuilt feature for wireless content sharing from Windows, MacOS, Android, iOS Smartphones & Tables without downloading any application on the user device.	
		It should support Content Annotation and WhiteBoarding/ Blackboarding capability when connected to Touch Enabled Display/Monitor.	
4	Audio Standards and Features	It should support G.711, G.728, G.729A, G.722, G.722.1, G.719 or better	
		It should support 20kHz or better bandwidth with crystal clear audio and stereo sound.	
		It should have inbuilt technology to identify and eliminate non-human distracting noises such as keyboard typing, paper shuffling and wrapper crinkling during video calls.	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No.	Description	Specification Parameter	Compliance (Yes/No)
		It should have inbuilt technology to create virtual boundary within the room to capture only the voices within a defined space in the room and blocking any human or non-human voice getting generated outside this virtual audio boundary during video calls.	
		Automatic Gain Control and Automatic Noise Suppression	
5	Video and Audio Inputs	1 x HDMI/HDCI/USB input for connecting main 4K Camera	
		1 x HDMI input to share 4K/Full HD content from PC/Laptop/Document camera/PTZ Camera.	
		3 x HDMI/USB inputs to connect additional PTZ cameras from same OEM to capture whiteboard/presenter and podium area in future whenever required.	
		3 x Microphone Inputs or more with support for a minimum of 3 digital omnidirectional mics. The bidder needs to quote 2 digital omnidirectional microphones with mute/unmute soft touch button on the microphone. Each microphone should have atleast 20 feet pickup range.	
6	Video and Audio Outputs	1 x RCA/3.5mm stereo line-in	
		2 x HDMI outputs for connecting primary and secondary 4K(UHD)/Full HD displays.	
7	Other Interfaces	1 x RCA/3.5 mm stereo line-out	
		1 x 10/100/1000 Ethernet port	
		1 x USB to support system software upgrade	
		Bluetooth 5.0 and Wi-Fi 802.11a/b/g/n/ac (MIMO) for Wireless Content Sharing for Guests using their Smartphones and Tablets (Android and iOS)	
8	Camera	1 x RS-232 Serial Port or equivalent port for connecting to external RS-232 Controller	
		The camera should support automatic speaker framing and group framing.	
		The integrated camera system should have a minimum of dual cameras with 20-megapixel 4K sensors and 7x Digital Zoom or more. Integrated, motorized privacy shutters.	
		The camera system should automatically scan the room and seamlessly command the cameras to appropriately frame the users/speaker during a call without any manual intervention upto a range of 25 feet or more.	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No.	Description	Specification Parameter	Compliance (Yes/No)
		Video Conference Camera and Codec should be controlled using same touch panel.	
9	Touch Panel	Display: 8-inch screen or higher	
		Aspect ratio: 16 x 10	
		Resolution: WXGA (1280 x 800)	
		Power over Ethernet (PoE) with IEEE 802.3af support	
		Designed with built-in stand support - no external stand required	
10	Network Features	H.323 and SIP bandwidth supporting up to 6 Mbps or more.	
		Must support IPv4 and IPv6 from day one on both H.323 and SIP.	
		Auto Gatekeeper Discovery, Lost Packet Recovery (LPR) technology, IP Precedence and DiffServ, Configurable MTU size	
11	USB Pass-Thru Mode	The system should have inbuilt functionality to use the VC system as an external camera and microphones when connected to a Laptop/PC over a single USB cable without using any external hardware components to connect to any Cloud Based VC platform like Cisco Webex, Zoom, BlueJeans, Microsoft Teams, Google Meet, etc.	
		The system should be able to support up to 1080p30fps video transmit in USB Pass-thru mode.	
		It should be possible to Mute/Unmute all the microphones and control camera functionality from the same touch control panel during USB pass-thu mode.	
		The system should be supplied with 10 mtrs. single USB 3.0 cable from the same OEM for USB Pass-thru mode for seamless functionality.	
12	Security	Media Encryption (H.323, SIP): AES-128, AES-256, H.235.6 support	
		Authenticated access to admin menus, web interface and APIs	
		Local account password policy configuration	
		Global Directory/Centralized Directory/LDAP support	
13	Other Standards/features	H.460.18, H.460.19, SSL, TLS	
14	Cloud Integration	It should be possible to natively register the VC system with Microsoft Teams Room and Zoom Room account for native cloud-based video calling features and experience. USB Pass-Thru mode functionality should also be available when the	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No.	Description	Specification Parameter	Compliance (Yes/No)
		system in running in Microsoft Teams Room / Zoom Room mode.	
15	Additional Feature	It should be able to achieve 1080p resolution at 1024 Kbps while making video call with same set of endpoints.	
16	Warranty	The complete solution should be from the same OEM with 2-year warranty from day one.	

6.5.2. Technical specification for bezel-less 2x2 matrix (54 inch each panel) active LED video wall (indoor) size: (Width - 8' x Height- 4'6"). (At Patia Conference Hall)

Item	Parameters	Description	Specification	Compliance (Yes/No)
<b>Panel I</b>	Physical Parameters	Panel Size	54 inches	
		Pixel Configuration	3 in 1 SMD	
		Pixel Pitch (mm)	2.5	
		Module Resolution (WXH)	120 x 90	
		module Dimensions (W x H, mm)	300 x 225	
		Weight per module (g)	430	
		No. of Modules per cabinet (W x H)	4 x 3	
		Cabinet Dimensions (W X H X D, mm)	1200 x675 x 51	
		Cabinet Surface Area (m <sup>2</sup> )	0.81	
		Weight per cabinet (kg/ cabinet)	22.5	
		weight per square meter (kg/m <sup>2</sup> )	27.8	
		Physical pixel density (pixel/ m <sup>2</sup> )	160000	
		Flatness of cabinet (mm)	±0.5	



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Item	Parameters	Description	Specification	Compliance (Yes/No)
		Cabinet Material	Die-Cast Aluminium	
		Service Access	Front	
	Optical Specification	Max Brightness (nit)	600	
		Colour Temperature (K)	3200-9300	
		Visual Viewing angle (H x V)	160 x160	
		Brightness Uniformity	95%	
		Colour Uniformity	±0.015 Cx, Cy	
		Contrast Ratio	Typ. 5000 : 1 / Peak 9000:1	
		Processing Depth (bit)	20 (HDR 10, HDR 10 Pro)	
	Electrical Specifications	Power Consumption (W/Cabinet, Max)	290	
		Power Consumption (W/Cabinet, Avg)	190	
		Power Consumption (W/m <sup>2</sup> , Max.)	358	
		Heat dissipation (BTU / Cabinet, Max)	990	
		Heat dissipation (BTU / Cabinet, Avg)	648	
		Heat dissipation (BTU/m <sup>2</sup> , Max.)	1222	
		Power Supply (V)	100 to 240	
		Frame Rate (Hz)	50 /60	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Item	Parameters	Description	Specification	Compliance (Yes/No)
	Operation Specification	Refresh Rate (Hz)	3840	
		Lifetime (Half Brightness)	100000	
		Operation Temperature (°C)	0 to +40	
		Operating Humidity	10-80% RH	
		<b>IP Rating Front / Rear</b>	IP 20 / IP 20	
	Certification		Safety 60950-1, EMC Class B	
	Environment		RoHS	
	System Controller		Same OEM	
	90 Degree Corner Cut		No	
	Service Access		Front	
	Onsite warranty		2 years	
Controller	Video Signal	Max Resolution	HDMI/Display Port: 3840x2160 @ 60Hz	
		Horizontal Frequency	HDMI/Display Port: 30kHz to 135 kHz	
		Vertical Frequency	HDMI/Display Port: 30kHz to 60.31 Hz	
		Synchronization	Separate Sync/Digital	
		Max Resolution	HDMI/Display Port: 3840x2160 @ 60Hz	
	Input/ Output Ports		IR-APL IN/OUT, LAN-01 to LAN-08, LAN IN, USB 2.0 IN, DP IN, HDMI IN 1, HDMI IN 2, HDMI IN 3, RS-232C IN/OUT, OPTIC OUT, IR & LIGHT SENSOR IN, AC IN	
	Power	Rated Voltage	100-240 V - 50/60 Hz 0.8A	
		Power Consumption	On Mode: 60 W (Max)	
			Standby Mode: <= 0.5 W	
	Embedded Battery		Applied	
	Environmental Conditions	Operating Temperature	0°C to 40 °C	
		Operating Humidity	10% to 80%	
		Storage Temperature	-20 °C to 60 °C	
		Storage Humidity	5% to 85%	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Item	Parameters	Description	Specification	Compliance (Yes/No)
	Dimensions (Width x Depth x Height) / Weight		446mm x 290mm x 63mm /4.5 kg	
	<b>Warranty</b>		2 years	

## 6.6. Video Conferencing System at Depot Office

### 6.6.1. USB Based PTZ Camera and Speaker Phone based Conference Hall System

Sr. No	Description	Specification Parameter	Compliance (Yes/No)
1.	<b>Camera</b>		
1.1.	Camera Type	1/2.7" CMOS (1920 x 1080)	
1.2.	Output	1080p30/25, 720p30/25, 960x540p30/25, 640x360p30	
1.3.	Zoom	12X Optical	
1.4.	Compression	H.264 SVC/AVC	
1.5.	Focus	Auto	
1.6.	Lens Focal Length	f=3.5mm to 42.3mm	
1.7.	Lens F#	1.8 - 2.8	
1.8.	Horizontal Field of View	6.9 - 72.5 degrees	
1.9.	Vertical Field of View	3.9 - 44.8 degrees	
1.10.	Pan Range	+/-170 degrees	
1.11.	Tilt Range	+90/-30 degrees	
1.12.	Camera PTZ Control	IR Remote Control to be supplied day one.	
1.13.	Minimum Illumination	0.5Lux @ (F1.8, AGC ON)	
1.14.	Exposure	Auto-iris, AGC	
1.15.	SNR	≥ 55dB	
1.16.	Certification	Microsoft Teams Certified Devices, Zoom Rooms Certified Hardware	
1.17.	Safety Compliance	UL, IEC, RoHS, BIS	
1.18.	Power	12v @ 1.5A power	
1.19.	Consumption		
1.20.		Gesture-based, multitouch capable capacitive touch screen	
1.21.	Speakerphone Display	Minimum 5 inch color LCD with 720x1280 pixel	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No	Description	Specification Parameter	Compliance (Yes/No)
1.22.		On-screen virtual keyboard	
1.23.		Mute LED indicators and capacitive touch volume and mut buttons	
1.24.		Three MSME microphones for 360 degree mic pick up	
1.25.	Mic Feature	Minimum 20 feet mic pickup range	
1.26.		It should support at least 2 expansion mics with LED indication and mute/unmute button. Same need to supply from day 1	
1.27.	Speaker Feature	It should have an in built speaker with supporting frequency range from 100 - 22000 Hz	
1.28.	Audio Protocol	It should support G.711, G.719, G.722, G729AB, Siren 14, iLBC, Opus, SILK	
1.29.		It should have inbuilt technology to identify and eliminate non-human distracting noises such as keyboard typing, paper shuffling and wrappercrinkling during video calls.	
1.30.		It should support acoustic echo cancellation & background noise suppression technology	
<b>2.</b>	<b>Speaker Phone</b>		
2.1.	Interface	10/100/1000 1000Base-TX across LAN IN and LAN OUT	
2.2.		LAN OUT port supports IEEE 802.3af PSE	
2.3.		In Built Wi Fi network connectivity supporting 2.4 & 5.15 GHz	
2.4.		One USB 2.0 Type-A compliant port	
2.5.		One USB 2.0 Micro-B device port for use as USB audio device and	
2.6.	Call Handling Features	content sharing	
2.7.		Integrated Bluetooth 5.0	
2.8.		Up to three lines with Distinctive incoming call	

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Sr. No	Description	Specification Parameter	Compliance (Yes/No)
		treatment/call waiting	
2.9.		Call transfer, hold, divert (forward), pickup	
2.10.		Local five-way audio conferencing	
2.11.		Corporate directory access using LDAP	
2.12.		Visual conference management	
2.13.	Security Features	802.1X authentication and EAPOL	
2.14.		Media encryption via SRTP and Digest authentication	
2.15.		HTTPS secure provisioning	
2.16.		Wi-Fi encryption1: WEP, WPA-Personal, WPA2-Personal, WPA2-Enterprise with 802.1X	
2.17.		QoS- IEEE 802.1p/Q tagging (VLAN), layer 3 TOS, and DSCP	
2.18.	Power Options	LAN IN: Built-in auto-sensing IEEE 802.3at. PoE Device (Class 4) (requires full Class 4 power input on LAN IN for operation Class 0 if no PSE). Backward compatibility	
2.19.		LAN OUT: Built-in auto-sensing IEEE 802.3af power sourcing equipment	
2.20.	Additional feature	It should be possible to cascade three such speakerphone systems to cover large rooms.	
2.21.	Certification	Device should be Microsoft Teams & Zoom certified	
2.22.	Warranty	The complete solution should be from the same OEM with 2 year warranty from day one.	
2.23.	Compatibility	Camera and speakerphone should be from same OEM.	

**6.6.2. Technical specification for 75-inch UHD LED TV for USB Based PTZ Camera and Speaker Phone based Conference Hall System**

Sr. No	Description	Specification Parameter	Compliance (Yes/No)
1.	Display		

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

1.1.	Size	75 inch	
1.2.	Resolution	3840 X 2160 (UHD)	
1.3.	Backlight Unit Type	Direct	
1.4.	Brightness	330	
1.5.	Dynamic Contrast Ratio (Dynamic MCI (Hz))	1,000,000:1	
1.6.	Static (Panel) Contrast Ratio	1200:1	
1.7.	Refresh Rate	60Hz	
2.	Video		
2.1.	HDR (10 Pro / HLG)	Yes / Yes	
3.	Audio		
3.1.	Speaker (sound output)	10W + 10W	
4.	Broadcasting System		
4.1	Digital (Terrestrial, Cable, Satellite)	DVB-T2/C	
4.2	Hospitality Feature	Hotel Mode / PDM / Installer Menu, One Channel Map, IP Channel Manager; External Speaker Out (Int Variable/Fixed, 3.5mm, Stereo, Single ended Type (GND, L+, R+), 2W+2W with 80)	
4.3	Smart Feature	webOS version (webOS 6.0), Smart Home (Launcher Bar), Web Browser Pre-loaded App (YouTube only, ), SDP Server compatibility, Mood Display, Soft AP, Wi-Fi (Version) (802. 11ac), Screen Share (Miracast), Smart Share, Bluetooth Audio Playback, HDMI-ARC (ARC, HDMI2)	
4.4	Signage Feature	Vertical Setup, Fail Over, Play Via URL, NTP Server Setting, CISCO Certi. Compatibility, Crestron Connected (Network Based Control), DPM (Digital Power management), Time scheduler, RTC (Real Time Clock), NTP sync timer, BEACON, Embedded CM (contents manager), Embedded GM (Group manager)	
4.5	SUPERSIGN SW COMPABILITY	Control / Control Plus, CMS(Premium), Simple Editor.	
5	Input Interface		
5.1	Set Side	HDMI In (3 (2.0)), Headphone Out (Phone Jack Type), RS-232C(D-Sub 9pin / Phone jack) (Phone Jack, 4pi)	
6	DIMENSION (UNIT: mm kg)		

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

6.1	VESA Compatible	400x400	
6.2	Weight without Stand	31.4	
6.3	Weight with Stand	32.1	
6.4	Weight in Shipping	41.5	
6.5	Size without Stand	1678x964x59.9	
6.6	Size with Stand	1678x1027x362	
6.7	Size in Shipping	1880x1115x200	
<b>7</b>	<b>Power</b>		
7.1	Power Supply (Voltage, Hz)	AC 120 V-, 50 / 60 Hz	
7.2	Power Consumption (Max)	228	
7.3	Power Consumption (Typ)	202	
<b>8</b>	<b>Mechanic</b>		
8.1	Standby Power Consumption	Under 0.5W	
<b>9</b>	<b>Required Listing (Certification)</b>		
9.1	Safety	CB, CU TR	
9.2	EMC	CE	
<b>10</b>	<b>Accessory</b>		
10.1	Remote type	S-con	
10.2	Power Cable	Detached (1.5m, Straight Type)	
<b>11</b>	<b>Warranty</b>		
11.1	Onsite	2 years	

## 7. Bill of Material for IT Hardware & Peripherals Approved OEM/Manufacturer

SL	Description	Unit	Qty	
A	Civil, Interior & Furniture Works			Approved OEM
1	<b>Dismantling Works</b> Dismantling of Cement Concrete including TSP scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 metres. <b>Brickwork</b> 125 mm thick Brick work with K.B. bricks 25cm x 12cm x 8 cm having crushing strength not less than 75 Kg/cm <sup>2</sup> with dimensional tolerance +8 percent in the lime mortar (1:6) in all lead & lifts as per site requirement. (Qty. minimum 72 Cum)	Job	1	Standard

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	
	<b>R.C.C Lintel</b> 150 X 150 mm R.C.C. Lintel work of M-25 grade with 20mm and downgrade black hard granite (crusher broken) stone chips including hoisting and laying, etc. all incl. as per site requirement. <b>12mm Plastering</b> Providing and laying 12mm thick cement plaster in C.M (1:6) including punning for skirting including cost of all & complete finished as per site requirement. <b>Wooden Door</b> Providing & Fixing 32mm thick solid wooden door shutter (Size-1200 x 2400) made out of 32mm B.W.R. block board and covering with 1 mm thick sunmica to both sides pasted with adhesive including fixing of fixtures like Godrej/equivalent make Mortice Lock having model No. 9168, Godrej/equivalent make Door closure having model No. 8340, 100mm Aluminium heavy hinges including frame, addnl. costs, conveyance, taxes of all materials etc. complete as required in site. (Qty. minimum 01 Nos.)			
2	<b>P.C.C</b> P.C.C. work M-15 (1:2:4) grade with 20mm and downgrade black hard granite crusher broken stone chips including hoisting and laying.	Job	1	Standard
3	<b>Flooring</b> Supplying and laying of flooring material for maintaining dead level for laying Carpet under surface flooring incl. all labour, materials., tools & tackles, all-inclusive for Carpet pasting Works as per site requirement.	Job	1	Standard
4	<b>Raised Flooring</b> Providing and making 300/150 mm Raised floor (made by Civil Works) as per site requirement	Job	1	Standard
5	<b>Acoustic Carpet Flooring as per site requirement</b> 500 X 500 mm size Minimum 4 mm thick acoustic carpet flooring incl. laying compound as per mfg.	Job	1	Standard



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	
	specifications & shall meet the requirement of EN 1307 (shall have Impact sound Lw 19 dB as per (ISO 717-2)). The floor must be resistant to fungal growth. Flooring shall be of approved shade, pattern, texture and design and of an approved manufacturer with sound absorption of 0.1 as per ISO 354. Dimensions shall be as per the final approved design and site requirement.			
6	<p><b>Solid Wall Panelling</b> Providing and fixing Solid Wall Panelling using plywood, laminates incl. fittings, accessories, glue, tapes, etc. (all materials), Labours, tools &amp; tackles, etc. as per site requirement.</p> <p><b>Wooden Panelling for Video Wall</b> Providing and fixing Solid Wall Panelling and one recessed pocket to install the Video Wall Panels to give a flush arrangement of the panels using plywood, laminates incl. fittings, accessories, glue, tapes, etc. (all materials), Labours, tools &amp; tackles, etc. as per site requirement.</p> <p><b>Aluminium skirting</b> Providing and fixing 50mm height Aluminium skirting of approved make with rubber beading fixed on screwing slot on partitions and walls etc. all complete as per architect's instructions. There shall be 12 mm thick Commercial Ply backing as per site requirement. The rate to be inclusive of all accessories required for fixing of skirting complete. (Qty. minimum 43Rmt.)</p> <p><b>Aluminium Step Profile</b> Supplying and fixing in position Aluminium Step Profile with all accessories, tools and tackles as per site requirement.</p> <p><b>Signage</b> Providing and fixing Polishing works etc. Graphic Design, Fire Escape plan, Glass Film etc. as per site requirement.</p>	Job	1	Standard
7	<p><b>False Ceiling</b> Supplying and fixing 8 mm thick perforated Calcium Silicate Board False</p>	Job	1	Standard

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	
	Ceiling Works of approved texture in the suspended on interlocking metal grid of hot-dipped galvanized steel sections including. required cutting/making. opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. as per site requirement.			
8	<b>Wall Panelling with Acoustic Insulation</b> Calcium Silicate Board Wall Panelling including Acoustic Insulation as per site requirement including cost of all framing materials, all labour, all tools & plants etc. up to required height for the work, complete in all respect as per site requirement.	Job	1	Standard
9	<b>Fire-rated painting</b> Supply and applying of Fire-rated painting of two coats of paint finish with the putty finish for all ceilings, walls and partitions including rubbing of existing wall partitions as per site requirement. (Qty. minimum 242Sqm.) <b>Double leaf Fire Door</b> Supplying and fixing of double-leaf Hollow metal fire-rated doors (as per IS 3614 part-1 & part-2) with the maximum rating of 2 hours of size 1500 X 2400 (or as per site requirement) incl. vision panel & all door hardware set, as per site requirement. (Qty. minimum 02 Nos.) <b>Fire Signage</b> Providing & fixing Aluminium Modular Signage, fire evacuation map & Exits using Aluminium Alloy 6063 extrusion with Anodizing The thickness of the anodization is typically 30 microns. The integrity of the anodize coating is tested to meet the international specifications ISO 2143-1981.	Job	1	Standard
10	<b>Control Desk</b> Workstation console (Control desk) with 25mm thick tabletop, aluminium frame, monitor arm, keyboard trays, RoHS certified, incl. all fittings.	Set	6	
11	<b>Operator chairs</b> Revolving Chairs with molded foam seat with P.U. arms and P.U. base, with	Nos.	15	Godrej/Geeken/ Featherlight

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	
	twin wheel casters upholstered in good-quality cloth.			
12	<b>Manager Cabin Furniture</b> Modern office furniture Pedestal unit for Help Desk Consider of Workstation size - 1200 (L)X 750 (D) X 750 (H) mm incl. all fittings as per site requirements. - 1 Set Chair revolving with molded foam seat with P.U. arms and P.U. base, with twin wheel casters upholstered in good-quality cloth - 1 no. Fixed type visitor Chair with molded foam seat with arms - 2 nos.	Lot	1	Godrej/ Customized
13	<b>Lounge Area Furniture</b> 3-Seater Sofa Set - 1 Nos. 2-Seater Sofa Set - 1 Nos. Centre Table - 1 Nos.	Lot	1	Godrej/ Customized
<b>B</b>	<b>Technology Components</b>			
1	Design, SITC of CCTV Surveillance including the required number of Dome cameras, NVR & client access software licenses as per site requirement.	Job	1	Bosch/Panasonic/CP Plus
2	SITC of 24 Port Network Switch, 2X10 Gbps uplink port, 24X1 Gbps PoE Ports as per the site requirement and of the approved make. The bidder to assess the requirement and accordingly offer the same.	Nos.	2	D-Link/Aruba/Cisco
3	SITC of 24U Network Rack	Job	1	Metaworks/WQ/Netrack/Valrack
4	Design, SITC of Fire Alarm System as per NFPA standards along with detectors, input, and output modules, MCP, Hooter, RI, complete wiring etc. as per site requirement. FRLS cables to be used for the wiring.	Job	1	-Standard
5	Design, SITC of Access Control System including door controller, magnetic locks, break glass unit, door release switch, complete wiring etc. as per site requirement and of the approved make.	Job	1	Spectra/IDCube/Honeywell
6	Design, SITC of Rodent Repellent System along with controller and transducers, complete wiring etc. as per site requirement and of the approved make.	Nos.	1	Maser
7	SITC of HDMI/DVI Cables, 10/15 Meter Length as per the connectivity requirements of the site for Video Wall	Nos.	6	Standard

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	
	connectivity with Workstations.			
8	SITC of Network Passive components like Patch Panel, Patch Cords etc.	Job	1	Molex/D-Link
9	SITC of Fire Extinguishers.	Job	2	Standard
<b>C</b>	<b>Utility Components</b>			
1	20KVA UPS with 30 Mint Backup	Nos.	1	Vertive/EATON/APC
2	Workstation PC, i5, 8GB, 1TB HDD, Nvidia Quadro Graphics Card, Windows 10 and 22" Monitor for Workstation PC	Nos.	8	Dell/HP
3	SITC of Laptop	Nos.	10	Dell/HP
4	SITC (55") 4K UHD Smart TV	Nos.	3	LG/Samsung/Sony
5	SITC Cascade Air Conditioner (3 Ton)	Nos.	2	Daikin/Mitsubishi/Hitachi
6	SITC Cascade Air Conditioner (0.8 Ton)	Nos.	1	Daikin/Mitsubishi/Hitachi
<b>D</b>	<b>Electrical, Networking Works &amp; Other Services</b>			
1	Complete Electrical Work including LT Electrical Panels, distribution panels, switchboards, power outlets as per site requirement. The bidder to assess the requirement and accordingly offer the same.	Job	1	Service
2	Networking Work including complete LAN cabling with conducting where required, Information outlets as per site requirement.	Job	1	Services
3	Branding	Job	1	Services
<b>E</b>	<b>Video Conferencing System</b>			
1	Room Based Unified VC Endpoint (At Patia Conference Hall)	Job	1	Polycom/Cisco
2	Bezel-less 2x2 matrix (54 inch each panel) active LED video wall (indoor) size: (Width - 8' x Height- 4'6"). (At Patia Conference Hall)	Job	1	Samsung/LG/Sony
3	USB Based PTZ Camera and Speaker Phone based Conference Hall System	Job	1	Polycom/Cisco
4	Technical specification for 75-inch UHD LED TV for USB Based PTZ Camera and Speaker Phone based Conference Hall System	Job	1	Samsung/LG/Sony

## Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.

Managing Director, Capital Region Urban Transport reserves the right to change OEM/Manufacturer subject to valid reason and justification of successful bidder.

### 8. Project & Payment Schedule

#### 8.1. Project deliverables

The successful bidder has to deliver the following deliverables to the Purchaser as part of an assurance to fulfil the obligations under the SLA. The table given below may not be exhaustive and the successful bidder is responsible to provide all those deliverables which may be specified in this tender but not listed here and those agreed by the successful bidder in response to any request from the Capital Region Urban Transport. The timelines for producing each of these deliverables will be in line and closely linked with the overall project timeline as indicated in this tender.

Any conflict with respect to project and/or deliverable timelines will have to be resolved by the successful bidder in consultation with the purchaser and/or its designated agencies and approved by the purchaser. Thereafter the approved timelines will have to be adhered to by the successful bidder, unless specified otherwise.

#### 8.2. Project timelines

The table below details the time schedule for key milestones and activities envisaged for the project.

Phases	Completion Timeline
<b>Acceptance of LOA/WO</b>	<b>T</b>
PBG submission	T + 30 Days
Signing of Contract	T + 45 Days
Commissioning of Command Control Centre	T + 50 Days
Commissioning of Room Based Unified VC Endpoint	T + 60 Days
Commissioning of USB Based PTZ Camera and Speaker Phone based Conference Hall System	T + 75Days

#### 8.3. Payment Milestone

Phases	Completion Timeline
Go-Live of Command Control Centre	80%
Go-Live Room Based Unified VC Endpoint	10%
Go-Live USB Based PTZ Camera and Speaker Phone based Conference Hall System	10%

# Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.

## 8.4. Service Level Agreements & Penalties

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service to be provided by the successful bidder to the Purchaser for the duration of this contract. SLA defines the responsibility of the successful bidder in ensuring adequate delivery of the deliverables and the services coupled with correctness of the same based on the performance indicators detailed out in this document. The successful bidder shall provide services as defined in the scope of work in accordance with the conditions mentioned in this tender to ensure adherence to project terms and error free availability of the services. The Service level agreement would be valid for the complete period of the contract. This SLA may be reviewed and revised according to the procedure detailed in SLA Change Control Mechanism.

The Authorized Officials from the Office of Capital Region Urban Transport shall report problems/ non-functional components to the successful bidder through telephone / email / fax / letter / verbally. A penalty shall be considered for the official working hours only (i.e. 8am to 10pm).

The following table defines the SLA requirements for all project components as per the services:

#	Services	Parameter	Validation	Penalty
1	Adherence to project timelines	Adherence to timelines as defined in the project timelines in this tender.	Number of days of delay for each milestone as defined in the project timelines in this tender.	Rs. 5,000 per additional day of delay, If the delay exceeds more than 30 days, the office of Managing Director, Capital Region Urban Transport may decide to invoke breach clause.
<b>Operation and Maintenance Phase</b>				
1	Maintenance/Repair of defunct systems	Any complaint raised due to the non-functionality of the system should be addressed within 24 Hrs. A report of cause should be submitted within 24 Hrs.	Complaint raised + 1 working day	Rs. 1,000 per additional day of delay, If the delay exceeds more than 30 days, the office of Managing Director, Capital Region Urban Transport may decide to invoke breach clause.
2	Replacement of defunct systems	Replacement of any system component should be done within 7 days of	Approval for replacement + 30 days	Rs. 5,000 per additional day of delay, If the delay

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

		problem identification. Approval The Office of Managing Director, Capital Region Urban Transport is mandatory for any replacement.		exceeds more than 30 days, the Capital Region Urban Transport may decide to invoke breach clause.
--	--	---	--	---

In case, the Bidder reaches maximum of penalty i: e: 10% of contract value at any point of time or failed to deliver deliverables outlined in the timeline chart impacting the handover of the project beyond 2 months or failed to deliver for two consecutive deliverables, the office of Capital Region Urban Transport reserves the right to invoke the termination clause including imposition of penalties and forfeiture of PBG.

## 9. Annexures of the Tenders

### Annexure 1: Bidder's Details

#	Particulars	Details to be filled in by the bidder
1	Name of Bidder	
2	Legal status of Bidder (Company, Pvt. Ltd., LLP etc., )	
3	Main business of the Bidder	
4	Registered office address	
5	Incorporation/Registration date and number	
6	Details of Company's Registration (Please enclose copy of the company registration document)	
7	Name of Registration Authority	
8	Registration Number and Year of Registration	
9	GST registration No.	
10	Permanent Account Number (PAN)	
11	Primary Contact Person (Name, Designation, address, mobile number, fax, email)	
12	Secondary Contact Person (Name, Designation, address, mobile number, fax, email)	



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**Annexure-2: Undertaking of non-blacklisting**

To

Managing Director  
Capital Region Urban Transport  
Plot no-548/1452, Patia, Kalarahanga,  
Bhubaneswar, Odisha 751024  
Phone: 0674-3501580

**Subject:** Non-Blacklisting Declaration

Sir,

In response to the tender Reference No: \_\_\_\_\_ I as an owner/Partner/Director of <<Name of Bidder>>, hereby declare that <<Name of Bidder>> has not been blacklisted by any State / Central Government in India/PSUs as on bid submission date for corrupt, fraudulent or any other unethical business practices or for any other reason during last 3 financial years.

**Yours sincerely,**

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

In the capacity of: \_\_\_\_\_

Signed: \_\_\_\_\_

Duly authorized to sign the Authorization for and on behalf of

Date: \_\_\_\_\_

[Signature] – [Company Seal]

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**Annexure 3: Power of Attorney for signing of Bid**

Know all men by these presents, we..... (Name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint, and authorize Mr/ Ms (name), ..... son/daughter/wife of ..... and who is presently holding the position of ..... , as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Bid for pre-qualification and submission of our Tender for Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Conference Rooms, and Control Centre for Capital Region Urban Transport including but not limited to signing and submission of all Bids, and other documents and writings, participate in Pre- bid and other conferences and providing information/ responses to the TIA, representing us in all matters before the TIA, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our Tender, and generally dealing with the TIA in all matters in connection with or relating to or arising out of our Tender for the said Project and/ or upon award thereof to us and/or till the entering into of the Contract Agreement with the TIA.

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

IN WITNESS WHEREOF WE, [•], THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS [•] DAY OF [•], 20[•]

For

\_\_\_\_\_

(Signature, name, designation, and address) Witnesses:

1.

2.(Notarized)

Accepted

\_\_\_\_\_

(Signature)

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

(Name, Title and Address of the Attorney)

*Notes:*

1. *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
2. *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favor of the person executing this Power of*
3. *Attorney for the delegation of power hereunder on behalf of the Bidder.*
4. *For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalized by the Indian Embassy if it carries a conforming apostille certificate.*

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

## **Annexure 4: Consortium Agreement**

(To be executed by the Members in case of Consortium)

THIS CONSORTIUM AGREEMENT ("Agreement") is entered into on this [●] Day of [●] 2022  
AMONGST

1. [●], with its registered office at (referred to as the First Part which expression will, unless repugnant to the context include its successors and permitted assigns);  
AND
2. [●], with its registered office at (referred to as the Second Part which expression will, unless repugnant to the context include its successors and permitted assigns);

The above-mentioned parties of the FIRST [and] [,] SECOND, are collectively referred to as the Parties and each is individually referred to as a Party.

### **WHEREAS**

- A. Capital Region Urban Transport, Odisha (referred to as the Authority which expression will, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) has invited proposals by its tender dated and number. \_\_\_\_\_
- B. The Parties are interested in jointly bidding for the Project as Members of a Consortium and in accordance with the terms and conditions of the RFP.
- C. It is a necessary condition under the RFP that the Members enter into a Consortium Agreement and furnish a copy of it with the Proposal.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and interpretations

In this Agreement, the capitalized terms will, unless the context otherwise requires, have the meaning ascribed thereto under the RFP.

### **2. Consortium**

- 2.1 The Parties do hereby irrevocably constitute a consortium (the Consortium) for the purposes of jointly participating in the Bid Process for the Project.
- 2.2 The Parties hereby undertake to participate in the Bid Process only through this Consortium and not individually and or through any other consortium constituted for the Project, either directly or indirectly or through any of their Associates.

### **3. Covenants**

- 3.1 The Parties agree that they have examined in detail and understood the terms and satisfied themselves regarding the contents of the RFP.

### **4. Role of the Parties**

The Parties hereby agree that Party of the First Part will be the Lead Member of the Consortium and will have the power of attorney from all Parties and bind all Parties for and in conducting all business for and on behalf of the Consortium during the Bid Process and, if the Consortium is declared as the Selected Bidder, during the execution of the Project.

### **5. Representations of the Parties**

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Each Party represents to the other Parties as of the date of this Agreement that:

- a) such Party is duly organized, validly existing and in good standing under the laws of its incorporation and has all requisite power and authority to enter into this Agreement.
- b) the execution, delivery and performance by such Party of this Agreement has been authorized by all necessary and appropriate corporate or governmental action and a copy of the extract of the charter documents and board resolution/power of attorney in favour of the person executing this Agreement for the delegation of power and authority to execute this Agreement on behalf of the Consortium Member is annexed to this Agreement, and will not, to the best of its knowledge:
  - i. require any consent or approval not already obtained
  - ii. violate any applicable law presently in effect and applicable to it;
  - iii. violate the memorandum and articles of association, by-laws or other applicable organizational documents;
  - iv. violate any clearance, permit, concession, grant, license or other governmental authorization, approval, judgment, order or decree or any mortgage agreement, indenture or any other instrument to which such Party is a party or by which such Party or any of its properties or assets are bound or that is otherwise applicable to such Party; or
  - v. create or impose any liens, mortgages, pledges, claims, security interests, charges or encumbrances or obligations to create a lien, charge, pledge, security interest, encumbrances or mortgage in or on the property of such Party, except for encumbrances that would not, individually or in the aggregate, have a material adverse effect on the financial condition or prospects or business of such Party so as to prevent such Party from fulfilling its obligations under this Agreement;
- c) this Agreement is the legal and binding obligation of such Party, enforceable in accordance with its terms against it; and
- d) there is no litigation pending or, to the best of such Party's knowledge, threatened to which it or any of its Associates is a party that presently affects or which would have a material adverse effect on the financial condition or prospects or business of such Party in the fulfilment of its obligations under this Agreement.

**6. Termination**

This Agreement will be effective from the date hereof and will continue in full force for the entire duration of the Project in accordance with the Consultant Agreement, in case the Project is awarded to the Consortium. However, in case the Consortium is not selected for award of the Project, the Agreement will stand terminated in case the Consortium is not selected as the Selected Bidder or upon return of the Bid Security by Office of the Transport Commissioner to the Bidder, as the case may be.

**7. Miscellaneous**

7.1 This Agreement will be governed by the laws of India.

7.2 The Parties acknowledge and accept that this Agreement will not be amended by the Parties without the prior written consent of Office of the Transport Commissioner.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

7.3 The competent courts at Bhubaneshwar shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with this Consortium Agreement.

IN WITNESS WHEREOF THE PARTIES ABOVE NAMED HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

---

SIGNED, SEALED AND DELIVERED For and on behalf of the PARTY OF THE FIRST PARTY:	SIGNED, SEALED AND DELIVERED For and on behalf of the PARTY OF THE SECOND PARTY:
---	--

Name:  
Designation-  
Address:

Name:  
Designation-  
Address:

---

Instruction: The mode of the execution of the Consortium Agreement should be in accordance with the procedure, if any, laid down by applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**Annexure 5: Financial Bid/ Commercial Bid**

To

Managing Director

Capital Region Urban Transport

Plot no-548/1452, Patia, Kalarahanga, Bhubaneswar, Odisha 751024

Phone: 0674-3501580

Email: crutbbsr@gmail.com

Website: <https://capitalregiontransport.in/>

Subject: Financial Bid Tender for Request for Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Conference Rooms, and Control Centre for Capital Region Urban Transport..

Sir,

We hereby declare.

- i. that we have in the business of IT and Non-IT equipment supply to Government offices in India
- ii. We hereby offer to provide the Services at the prices and rates mentioned in the Commercial Bid in Part II.
- iii. We do hereby undertake, that, in the event of acceptance of our bid, the Services shall be provided as stipulated in the schedule to the Bid document and that we shall perform all the incidental services.

We enclose herewith the complete Commercial Bid as required by you. This includes:

- i. This Bid Letter
- ii. Price Bid Section

We agree to abide by our offer for a period of 180 days from the last date of submission of Bid and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and conditions of the tender and the conditions of the contract applicable to the tender and we do hereby undertake to provide services as per these terms and conditions.

Certified that the bidder is a Company and the person signing the tender is the duly constituted attorney.

We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof or placement of WO awarding the contract, shall constitute a binding contract between us.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

**Price Bid Section**

SL	Description	Unit	Qty	Unit Price	Total Price without taxes
A	Civil, Interior & Furniture Works		A	B	C=A*B
1	<p><b>Dismantling Works</b> Dismantling of Cement Concrete including TSP scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead of 1000 metres.</p> <p><b>Brickwork</b> 125 mm thick Brick work with K.B. bricks 25cm x 12cm x 8 cm having crushing strength not less than 75 Kg/cm<sup>2</sup> with dimensional tolerance +8 percent in the lime mortar (1:6) in all lead &amp; lifts as per site requirement. (Qty. minimum 72 Cum)</p> <p><b>R.C.C Lintel</b> 150 X 150 mm R.C.C. Lintel work of M-25 grade with 20mm and downgrade black hard granite (crusher broken) stone chips including hoisting and laying, etc. all incl. as per site requirement.</p> <p><b>12mm Plastering</b> Providing and laying 12mm thick cement plaster in C.M (1:6) including punning for skirting including cost of all &amp; complete finished as per site requirement.</p> <p><b>Wooden Door</b> Providing &amp; Fixing 32mm thick solid wooden door shutter (Size-1200 x 2400) made out of 32mm B.W.R. block board and covering with 1 mm thick sunmica to both sides pasted with adhesive including fixing of fixtures like Godrej/equivalent make Mortice Lock having model No. 9168, Godrej/equivalent make Door closure having model No. 8340, 100mm Aluminium heavy hinges including frame, addnl. costs, conveyance, taxes of all materials etc. complete as required in site. (Qty. minimum 01 Nos.)</p>	Job	1		
2	<p><b>P.C.C</b> P.C.C. work M-15 (1:2:4) grade with 20mm and downgrade black hard granite crusher broken stone chips including hoisting and laying.</p>	Job	1		
3	<p><b>Flooring</b> Supplying and laying of flooring material for maintaining dead level for laying Carpet under surface flooring incl. all labour, materials.,</p>	Job	1		



**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	Unit Price	Total Price without taxes
	tools & tackles, all-inclusive for Carpet pasting Works as per site requirement.				
4	<b>Raised Flooring</b> Providing and making 300/150 mm Raised floor (made by Civil Works) as per site requirement	Job	1		
5	<b>Acoustic Carpet Flooring as per site requirement</b> 500 X 500 mm size Minimum 4 mm thick acoustic carpet flooring incl. laying compound as per mfg. specifications & shall meet the requirement of EN 1307 (shall have Impact sound Lw 19 dB as per (ISO 717-2)). The floor must be resistant to fungal growth. Flooring shall be of approved shade, pattern, texture and design and of an approved manufacturer with sound absorption of 0.1 as per ISO 354. Dimensions shall be as per the final approved design and site requirement.	Job	1		
6	<b>Solid Wall Panelling</b> Providing and fixing Solid Wall Panelling using plywood, laminates incl. fittings, accessories, glue, tapes, etc. (all materials), Labours, tools & tackles, etc. as per site requirement. <b>Wooden Panelling for Video Wall</b> Providing and fixing Solid Wall Panelling and one recessed pocket to install the Video Wall Panels to give a flush arrangement of the panels using plywood , laminates incl. fittings, accessories, glue, tapes, etc. (all materials), Labours, tools & tackles, etc. as per site requirement. <b>Aluminium skirting</b> Providing and fixing 50mm height Aluminium skirting of approved make with rubber beading fixed on screwing slot on partitions and walls etc. all complete as per architect's instructions. There shall be 12 mm thick Commercial Ply backing as per site requirement. The rate to be inclusive of all accessories required for fixing of skirting complete. (Qty. minimum 43Rmt.) <b>Aluminium Step Profile</b> Supplying and fixing in position Aluminium Step Profile with all accessories, tools and tackles as per site requirement. <b>Signage</b> Providing and fixing Polishing works etc.	Job	1		

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	Unit Price	Total Price without taxes
	Graphic Design, Fire Escape plan, Glass Film etc. as per site requirement.				
7	<b>False Ceiling</b> Supplying and fixing 8 mm thick perforated Calcium Silicate Board False Ceiling Works of approved texture in the suspended on interlocking metal grid of hot-dipped galvanized steel sections including. required cutting/making. opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. as per site requirement.	Job	1		
8	<b>Wall Panelling with Acoustic Insulation</b> Calcium Silicate Board Wall Panelling including Acoustic Insulation as per site requirement including cost of all framing materials, all labour, all tools & plants etc. up to required height for the work, complete in all respect as per site requirement.	Job	1		
9	<b>Fire-rated painting</b> Supply and applying of Fire-rated painting of two coats of paint finish with the putty finish for all ceilings, walls and partitions including rubbing of existing wall partitions as per site requirement. (Qty. minimum 242Sqm.) <b>Double leaf Fire Door</b> Supplying and fixing of double-leaf Hollow metal fire-rated doors (as per IS 3614 part-1 & part-2) with the maximum rating of 2 hours of size 1500 X 2400 (or as per site requirement) incl. vision panel & all door hardware set, as per site requirement. (Qty. minimum 02 Nos.) <b>Fire Signage</b> Providing & fixing Aluminium Modular Signage, fire evacuation map & Exits using Aluminium Alloy 6063 extrusion with Anodizing The thickness of the anodization is typically 30 microns. The integrity of the anodize coating is tested to meet the international specifications ISO 2143-1981.	Job	1		
10	<b>Control Desk</b> Workstation console (Control desk) with 25mm thick tabletop, aluminium frame, monitor arm, keyboard trays, RoHS certified, incl. all fittings.	Set	6		
11	<b>Operator chairs</b> Revolving Chairs with molded foam seat with P.U. arms and P.U. base, with twin wheel	Nos.	15		

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	Unit Price	Total Price without taxes
	casters upholstered in good-quality cloth.				
12	<b>Manager Cabin Furniture</b> Modern office furniture Pedestal unit for Help Desk Consider of Workstation size - 1200 (L)X 750 (D) X 750 (H) mm incl. all fittings as per site requirements. - 1 Set Chair revolving with molded foam seat with P.U. arms and P.U. base, with twin wheel casters upholstered in good-quality cloth - 1 no. Fixed type visitor Chair with molded foam seat with arms - 2 nos.	Lot	1		
13	<b>Lounge Area Furniture</b> 3-Seater Sofa Set - 1 Nos. 2-Seater Sofa Set - 1 Nos. Centre Table - 1 Nos.	Lot	1		
<b>B</b>	<b>Technology Components</b>				
1	Design, SITC of CCTV Surveillance including the required number of Dome cameras, NVR & client access software licenses as per site requirement.	Job	1		
2	SITC of 24 Port Network Switch, 2X10 Gbps uplink port, 24X1 Gbps PoE Ports as per the site requirement and of the approved make. The bidder to assess the requirement and accordingly offer the same.	Nos.	2		
3	SITC of 24U Network Rack	Job	1		
4	Design, SITC of Fire Alarm System as per NFPA standards along with detectors, input, and output modules, MCP, Hooter, RI, complete wiring etc. as per site requirement. FRLS cables to be used for the wiring.	Job	1		
5	Design, SITC of Access Control System including door controller, magnetic locks, break glass unit, door release switch, complete wiring etc. as per site requirement and of the approved make.	Job	1		
6	Design, SITC of Rodent Repellent System along with controller and transducers, complete wiring etc. as per site requirement and of the approved make.	Nos.	1		
7	SITC of HDMI/DVI Cables, 10/15 Meter Length as per the connectivity requirements of the site for Video Wall connectivity with Workstations.	Nos.	8		
8	SITC of Network Passive components like Patch Panel, Patch Cords etc.	Job	1		
9	SITC of Fire Extinguishers.	Job	2		

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

SL	Description	Unit	Qty	Unit Price	Total Price without taxes
<b>C</b>	<b>Utility Components</b>				
1	20KVA UPS with 30 Mint Backup	Nos.	1		
2	Workstation PC, i5, 8GB, 1TB HDD, Nvidia Quadro Graphics Card, Windows 10 and 22" Monitor for Workstation PC	Nos.	8		
3	SITC of Laptop	Nos.	10		
4	SITC (55") 4K UHD Smart TV	Nos.	3		
5	SITC Cascade Air Conditioner (3 Ton)	Nos.	2		
6	SITC Cascade Air Conditioner (0.8 Ton)	Nos.	1		
<b>D</b>	<b>Electrical, Networking Works &amp; Other Services</b>				
1	Complete Electrical Work including LT Electrical Panels, distribution panels, switchboards, power outlets as per site requirement. The bidder to assess the requirement and accordingly offer the same.	Job	1		
2	Networking Work including complete LAN cabling with conducting where required, Information outlets as per site requirement.	Job	1		
3	Branding	Job	1		
<b>E</b>	<b>Video Conferencing System</b>				
1	Room Based Unified VC Endpoint (At Patia Conference Hall)	Job	1		
2	Bezel-less 2x2 matrix (54 inch each panel) active LED video wall (indoor) size: (Width - 8' x Height- 4'6"). (At Patia Conference Hall)	Job	1		
3	USB Based PTZ Camera and Speaker Phone based Conference Hall System	Job	1		
4	Technical specification for 75-inch UHD LED TV for USB Based PTZ Camera and Speaker Phone based Conference Hall System	Job	1		
<b>Total Price (In Numbers)</b>					
<b>Total Price (In Words)</b>					

Note:

1. We/I declare that We/I have read the "Tender" as set out conditions and I confirm that the above financial percentage shall be fixed for entire tenure of the project (if selected).
2. We/I will follow all the rules and if any change with respect to applicable rules in future by Govt. of India & Govt. of Odisha (If selected).
3. The authority reserves the right to increase or decrease the quantities as per requirement.
4. We/I have read the scope of work of this tender.

Date this.....day of ..... 2024.

**Request For Proposal (RFP) for Selection of Agency for Supply, Installation & Commissioning of Video Conference Rooms, and Command Centre for Capital Region Urban Transport.**

Signature

In the capacity of

Duly authorized to sign this bid for and on behalf of-----