

**Request for Proposal (RFP) For Deployment of  
Video-Conferencing Solution**



**HOUSING & URBAN DEVELOPMENT CORPORATION LIMITED.**

Core 7-A, HUDCO Bhawan,  
India Habitat Centre,  
Lodhi Road,  
New Delhi 110003

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### **BID DETAILS**

| <b>Sr. No.</b> | <b>Subject</b>                                    | <b>Date/time</b>                                                                                                                              |
|----------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>       | Date of Commencement of Bidding Process           | 15 <sup>th</sup> March 2010                                                                                                                   |
| <b>2</b>       | Last date & time for receipt of Bidding Documents | 13 <sup>th</sup> April 2010<br>3.00 PM                                                                                                        |
| <b>3.</b>      | Date & Time for Technical Bid Opening             | 15 <sup>th</sup> April 2010<br>11.00 AM                                                                                                       |
| <b>4.</b>      | Date & Time for Commercial Bid Opening            | 19 <sup>th</sup> April 2010<br>11.00 AM                                                                                                       |
| <b>5.</b>      | Place of Opening of Technical / Commercial Bids   | Housing and Urban Development Corporation Ltd. (HUDCO)<br>HUDCO Bhawan,<br>Core 7A<br>India Habitat Centre<br>Lodhi Road,<br>New Delhi 110003 |

# **INTRODUCTION**

## **1. Introduction**

HUDCO is a leading national techno-financial institution with the major objective of financing/encouraging the housing activity in the country. Organization structure consists of Corporate office and Human Settlement Management Institute (HSMI) located at New Delhi and regional offices at various state capitals including Delhi.

HUDCO has set up a Wide Area Network (HUDCONET) and Local Area Networks (LAN) at all its offices. The existing WAN connectivity between various offices in these cities is through Sify MPLS VPN which shall be changed latest by 30/04/2010. The existing LAN in HUDCO offices is based on structured UTP cabling, using switches.

Through this tender, it is proposed to establish Video-Conferencing facility between HUDCO, New Delhi Head Office Board Room and 8 Regional Offices spread across India. The Bidder shall be responsible for Supply, Installation, Commissioning and Configuration of the Video-Conferencing equipments including End Points, Plasma/LCD Display Panels, Multi-Conferencing Unit, related software etc. as per specifications mentioned in the RFP. The detailed list of proposed Regional Office locations and Head Office to be connected through Video-Conferencing is given in "Annexure-VI". The requirement may be increased or decreased depending upon the requirement of Hudco. The smooth operations for the E presence of ROs at PACs and Board meeting, whenever required is to be ensured by the bidder.

## **2. Existing Network Design & Architecture**

### **2.1. Existing Network Design & Architecture**

HUDCO has a robust Data Centre at corporate office to run all the applications, in centralized database architecture. The Data Centre hosts central servers, storage equipments, backup equipment, WAN equipment and LAN equipment. The proposed solution shall be critical for the business requirements of HUDCO. Vendor shall therefore adequately plan for high availability of the equipment and necessary operational support.

### **2.2 LAN at Corporate Office**

Existing LAN at Corporate Office consists of one central switch & managed switches, which are further cascaded with managed/unmanaged switches. The backbone is Giga bit fibre cable. The inventory of LAN equipments is given in LAN is having redundant gigabit fiber backbone with 10/100 mbps connectivity to the desktops. The LAN provides gigabit connectivity to the servers, layer 3 capabilities at core switch level and LAN management software to monitor the LAN.

### **2.3 Wide Area Network**

The network connectivity available at access locations are MPLS VPN links each Ro' is connected with corporate office with 25Kbps links. Aggregation Points are connected to Data Centre through two nos of RF links backed up by fiber links. Presently, Wide Area Network is supported by a set of high-end Cisco Routers installed at the Data Centre, and Aggregation Points and low-end Routers at Access locations. Network Monitoring System (NMS) – Cisco Works 2000 is operational at Data Center, where all WAN links are monitored on 24\*7 bases.

### **2.4 Number of Offices to be covered under the Scope of the tender:**

The numbers of offices proposed to be covered under the scope of this tender is 9 (nine). The List of Offices is enclosed at Annexure VI

## **3. Bidders' Eligibility Criteria**

HUDCO will use the pre-qualification criteria as mentioned in Annexure II. Only those bidders fulfilling these criteria should respond to the tender.

## 4. Scope of Work

1. To establish Video-Conferencing facility between HUDCO Delhi Head Office and 8 Regional Offices spread across India as mentioned in clause 2.4. The Bidder shall be responsible for Supply, Installation, Commissioning and Configuration of the Video-Conferencing equipments including End Points, Plasma Display Panels, Multi - Conferencing Unit, related softwares etc. as per specifications mentioned in the RFP at HUDCOs 8 Regional Offices and Head Office. The detailed list of proposed Regional Office locations and Head Office to be connected through Video-Conferencing is given at Annexure VI.
2. The offered solution should be of High Quality, Reliable, Scalable, Easily usable, Manageable and Secure.
3. The bidder shall manage the equipments for a period of 3 years during warranty.
4. As per business need HUDCO may shift the Video-Conferencing equipments from one location to another. The bidder shall be responsible for shifting/packing/re-installation/commission etc. Hudco shall pay for the transportation as per actual on presenting the actual bills.
5. The accessories required, if any, during installation / operationalization / testing / commissioning of the supplied equipments at the identified HUDCO locations will be arranged by the bidder.
6. The bidder shall specify the other associated infrastructure requirement, if any, to the HUDCO for installation and smooth operationalization of supplied Video-Conferencing equipments. This may include site requirement, power sockets, network points and lighting arrangements for layout of the equipments.
7. The bidder shall conduct the Video-Conferencing session from the identified HUDCO locations with Head Office, Delhi location (where multi-conferencing unit will be installed) and to other existing Video-Conferencing location after initial installation as a demonstration session.
8. The bidders shall fine tune the video-conferencing equipments at identified HUDCO locations during warranty period for smooth operations.
9. The bidders are expected to offer solutions covering all the functionality as mentioned in this RFP document. Incomplete response will not be considered and no correspondence in this regard will be entertained.
10. The bidder shall co-ordinate with existing HUDCO network integrator for assigning IPs to the Video-Conferencing equipments at proposed HUDCO locations and any configurationally changes required for opening ports at corresponding location Routers for smooth operationalization of the equipments.

11. To provide facility management at Head Office, Delhi only to setup and manage conferences as and when required by the HUDCO.
12. The bidder will arrange the training for at least two officials at each HUDCO Regional Office and Head Office locations on the operational aspects which will cover administration, usage, troubleshooting etc. of the supplied Video-Conferencing equipments.
13. The bidder has to ensure maximum uptime for the Video-Conferencing equipments at Central location i.e. Head Office and at end points i.e. Regional Offices and should be ready to execute service level agreement for the same.

*Note:-Scope of supply also includes components, materials, accessories required to render the equipments and systems offered complete in all respects even though every individual item may not have been specifically mentioned in the RFP.*

## **INSTRUCTIONS TO BIDDERS**

### **5. Bidding Process**

#### **5.1 RFP Purchase and Bid Submission**

The interested eligible bidder may collect this RFP from the Information Technology Wing, Head Office located at following address after depositing a non-refundable Demand Draft / Pay Order for Rs. 5,000/- (Rupees Five Thousand Only) favoring HUDCO. The RFP can be collected from 10:00 AM to 05:00 PM on working days before the last date for bid-submission. The RFP can also be downloaded from the HUDCO's website, i.e. [www.hudco.org](http://www.hudco.org) and [www.tenders.gov.in](http://www.tenders.gov.in). However; the bidder shall have to submit a Demand Draft / Pay order as above along with the bid in EMD envelope.

HUDCO shall not consider any request for date-extension for bid-submission on account of late receiving/downloading of RFP by any prospective bidder. The bids, not already purchased and not accompanied by the Demand Draft / Pay Order of requisite amount shall be outrightly rejected. Bids duly sealed, addressed to the Asstt. Chief (IT), should be delivered on or before last date of submission up to 03:00 P.M. Bids have to be dropped in the tender box.

#### **Tender Box placed at the following address:**

**HOUSING & URBAN DEVELOPMENT CORPORATION LIMITED**  
**Core – 7A, HUDCO Bhawan (1<sup>st</sup> Floor)**  
**India Habitat Centre**  
**Lodhi Road**  
**New Delhi – 110 003.**

In the event of the specified date for bid-submission being declared a holiday for the HUDCO, the bids will be received up to the appointed time on the next working day.

#### **5.2. Cost of Bidding**

The bidder shall bear all costs associated with the preparation and submission of its bid and the HUDCO will, in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

#### **5.3 Late Bids**

Any bid received by the HUDCO after the last date/time for bid-submission will be rejected and returned unopened to the bidder, if the bidder desires so.

#### **5.4 Amendment to RFP Contents**

At any time prior to the last date for bid-submission, the HUDCO may, for any reason, whether at its own initiative or in response to clarification(s) requested by

a prospective bidder, modify the RFP contents by amendment. Amendment will be notified and published on HUDCO's website, and will be binding on bidders. The HUDCO shall not be liable for any communication gap. In order to provide prospective bidders, reasonable time to take the amendment into account for preparation of their bid, the HUDCO may, at its discretion, extend the last date for bid-submission. Further the HUDCO reserves the right to scrap the RFP or drop the tendering process at any stage without assigning any reason.

## **5.6 Bid Participation**

The bidder shall submit the Technical Bid containing documents enlisted in Section 6.6. Technical Bid Essentials, in a sealed envelope super scribed as Technical Bid & the Commercial Bid containing documents enlisted in Section 6.6 /Commercial Bid Essentials, in a sealed envelope super scribed as Commercial Bid. The envelopes must have Bidder's Title/Name, Address, Contact Person and his Telephone/Mobile No.

The HUDCO expects the bidder to carefully examine all instructions, forms, terms & conditions, technical specifications etc., mentioned in this RFP. Failure to furnish all information required for submission of a bid not substantially responsive to the RFP in every respect will be at the bidder's risk and may result in the rejection of its bid without any further reference to bidder.

## **6. Bid Features**

### **6.1 Language of the Bid**

All bids and supporting documentation must be in English only.

### **6.2 Bid Currency & Price Structure**

Prices shall be expressed in the Indian Rupees only. The Prices quoted by the bidders should be inclusive of supply, installation, commissioning, integration, configuration and maintenance of offered Video-Conferencing equipments. The price quoted must be inclusive of all Insurance, Forwarding, Packaging, Dispatch, Travelling Charges. All levies/taxes/duties shall be mentioned as per L1 bidder determination Sheet (Annexure V). HUDCO shall neither pay any other cost nor consider any other cost. The bidder has to bear the cost of supporting at all locations.

The cost will not depend on any variation in USD/£/€ exchange rate or change in tax structure.

### **6.3 Validity Period**

The Bids should be valid for a period of 180 days from the date of submission of bid. A bid valid for a shorter period shall be rejected by the HUDCO.

### **6.4 Format & Signing of Bid**

Each bid shall be made in the legal name of the bidder and each page of it shall be

signed and duly stamped by the bidder or a duly authorized person to sign on behalf of the Bidder. Any interlineations, erasure or overwriting shall be valid only if these are initialed by the person(s) signing the bid. Executive(s) representing the bidder should be duly authorized to sign the bid, interacting with the HUDCO for all sorts of communication as well as appearing in for price negotiation meeting, in case the bidder emerges as L-1 as a result of commercial evaluation of all technically qualified bids. A letter issued by the Proprietor, CEO, Director, or any top level executive, authorizing representing executive(s) should be submitted as part of the Technical Bid.

## **6.5 Reliability/Quality of the Hardware**

Since the Video-Conferencing equipments shall be installed at Regional Offices, the items so offered should be robust and reliable, as per technical specifications. The bidder must guarantee that Video-Conferencing equipments delivered are brand new.

## **6.6 Technical Bid Essentials**

The Technical Bid must contain the following.

1. Letter authorizing representing executive(s);
2. Documents in support of meeting Bidder's Eligibility Criteria;
3. Bidder's General Information
4. Authorization Letter(s) from OEM;
5. Point wise Compliance with the Scope of Work;
6. Compliance with technical specifications of the Video-Conferencing equipments
7. Details of Service/Support Infrastructure;
8. Letter of acceptance of all Terms & Conditions as mentioned in the RFP
9. Product Brochures containing detailed description of essential technical and performance characteristics of offered Video-Conferencing equipments and related equipments;
10. Audited Balance Sheet for the last 3 years;
11. Undertaking to provide Post Warranty Maintenance Support for Video-Conferencing equipments and arrange for spare parts for a minimum period of 2 years after expiry of warranty period.
12. Exact replica of Bill of Material without Pricing Information.
13. Electronic copy (MS Word/Excel Format) of Technical Bid on a CD. (If there is variation in hard copy and soft copy of the submitted bid, hard copy will be

treated as final bid)

### **Commercial Bid Essentials**

**The Commercial Bid must contain the following.**

1. Bill of Material with Pricing Information of all Video-Conferencing equipments with models and software items, with 3 years comprehensive on-site warranty (Annexure IV).
2. L1 bidder determination sheet with pricing of all Video-Conferencing equipments with various models and software items, with 3 years comprehensive on-site warranty (Annexure V).
3. Electronic copy (MS Word/Excel Format) of Commercial Bid burned on a CD. If there is variation in hard copy and soft copy of the bids, hard copy will be treated as final bid.

### **Tender Conditions:-**

1. The bids may be submitted in three sealed cover envelopes separately. The first envelope shall contain EMD and receipt of purchase of tender document and if the tender document is downloaded from Web then a Demand draft/ pay order of the requisite amount required for purchase of tender document, second envelope shall contain Technical bid and third envelope shall contain financial bid. Upon receipt of EMD amount, the technical bid shall be opened and after qualifying technically, the financial bid will be opened.
2. The bid should be strictly as per terms & condition failing which the bid is liable to be rejected without any further notice.
3. The period of validity of bid for acceptance should be for six months from the closing date. Bid with less validity shall not be accepted HUDCO shall not entertain any request for escalation in cost/price on account of any reasons during the period of validity of bid.
4. Any modification in offer after the opening date will not be considered.
5. Bidder, before submitting bids, should clearly understand HUDCO's requirement and, in case any information/clarification is required, he/she may visit HUDCO office during working days (Monday to Friday between 10 a.m. to 6 p.m.). It may be noted that no clarification/information, after closure of the last date of receipt of bid, would be entertained.
6. EMD Bid Envelope must contain earnest money deposit of Rs. 3 lacs (Three lacs only) by way of Draft/Pay order valid for 6 (six) months in favour of HUDCO, payable at New Delhi. The bid/tender without EMD will be considered as unresponsive and rejected. The EMD of unsuccessful bidder shall be refunded within period of sixty days from date of award of contract. No interest will be payable by the Purchaser on the amount of the EMD.
7. EMD of successful vendor will be converted into security deposit. Rs. 3 lacs (Three lacs only) EMD deposited by you will be covered towards partial fulfillment of Security deposit. Additionally you shall also furnish Performance Bank Guarantee (BG) issued by a scheduled commercial bank in favour of Hudco, which shall be equal to 5% of total order value within 15 days of start of contract. The BG shall be valid upto the Warranty period plus 60 days beyond that. In case the time of contract extended, you shall get the validity of BG extended to cover such extended time. No interest will be paid on the security

amount. The security amount shall be released only after successful completion/satisfactory execution of the contract and successful completion of the warranty period. The EMD is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the EMD's forfeiture in following cases : -

- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid; or
  - (b) in the case of a successful Bidder, if the Bidder fails;
    - (i) to sign the Contract or
    - (ii) to furnish performance security
    - (iii) to acknowledge/deposit the security deposit amount.
8. Firms / companies who have or had business relations with Purchaser are advised not to employ serving Purchaser Employees without prior permission. It is also advised not to employ ex-personnel of Purchaser within the initial two years period after their retirement/resignation/severance from the service without specific permission of Purchaser. The Purchaser may decide not to deal with such firm(s) who fails to comply with the above advice.
- 9 The successful vendor shall be fully responsible for meeting the HUDCO's requirements as mentioned and to the satisfaction of HUDCO.
- 10 The bidder, should clearly specify all taxes & duties applicable. In case there is increase/decrease in service tax during the tenure of contract, the amount as per actual service tax during the tenure of payment shall be paid.
- 11 If vendor fails to execute the order, then security amount will be forfeited and the company will be debarred from dealing with HUDCO in future.
- 12 HUDCO shall make payment of bills after deduction of all applicable taxes.
- 13 Bids received late, will not be considered. Hudco will not be responsible for any postal delay.
14. HUDCO reserves the right to reject any or all bids and/or alter the quantity without assigning any reason.
- 15 Bid will be disqualified, if at any point during the selection process, it is found that information provided by bidder is incorrect.
16. Bids shall be rejected out-right and will not be evaluated for failure of vendor to meet the dead-line, failure to provide all information as specified above and failure to accept aforesaid terms and conditions.
- 17 Bid with vague and indifferent expression such as "subject to ....." shall not be accepted. Bid with any condition including conditional rebate shall also be rejected.
- 18 Bid received telegraphically or by fax or by e-mail shall not be entertained.
- 19 The bid shall be typed /printed and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The authorization shall be indicated by written power-of-attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.
- 20 Prices in any form or by any reason before opening the Bid shall not be revealed, failing which the offer shall be liable to be rejected. If price change is envisaged due to any clarification, revised complete Bid in a separate sealed

- cover super-scribing "REVISED" on the envelope shall be accepted with prior written permission of the Purchaser before closure of bid submission date
- 21 Pre-Printed terms and conditions of the Bidders will not be considered as forming part of the bids and these need to be specifically re-written.
  - 22 The Bidders or any of their authorized personnel or Agents or Subcontractors will be granted permission by the Purchaser, to enter upon its premises and lands, for the purpose of such inspections, but only upon the express condition that the Bidder, their authorized personnel and Agents/Subcontractors will indemnify the Purchaser from and against all liabilities in this respect and will be responsible for personal injury, fatal or otherwise, loss of or damage to life or property, or other loss, damage, costs or expenses however caused, thereof, which, but for the exercise of such inspection would not have arisen. Failure to visit Purchaser's sites will in no way relieve the successful Bidder from furnishing any material or performing any work in accordance with the Contract.
  - 23 The Bidder shall designate the official mailing address, place and fax number to which all correspondence shall be sent by the Purchaser.
  - 24 When deemed necessary, the Purchaser may seek clarifications on any aspect from the bidder. However, that would not entitle the Bidder to change or cause any change in the bid submitted or price quoted.
  - 25 The Purchaser will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the best bid, provided further that the Bidder has been determined to be qualified to perform the Contract satisfactorily. The Purchaser shall however not bind itself to accept the lowest or any bid and reserves the right to accept any bid, wholly or in part.

## **7. Bid Evaluation**

The purpose of bid evaluation is to determine the lowest evaluated responsive bid from amongst the substantially responsive bids received by the HUDCO. In order to determine the lowest evaluated responsive bid, the HUDCO shall adopt a systematic evaluation process comprising of following logical steps.

### **7.1 General Evaluation**

1. The HUDCO will examine the bids against Bidder's Eligibility Criteria mentioned in the RFP. Bidders who do not qualify all the criteria's in this section shall be summarily rejected from further evaluation.
2. The HUDCO will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
3. Prior to the detailed evaluation, the HUDCO will determine the substantial responsiveness of each bid against this RFP. For purposes of these clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the RFP without material deviations.
4. During evaluation of the bids, the HUDCO may, at its discretion, ask the bidder for providing clarification on any point mentioned in its bid. The request for clarification

and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.

## **7.2 Technical Evaluation**

The technical bid containing all the documents mentioned in Section 6.6 Technical Bid Essentials shall be evaluated as per the criterion determined by the HUDCO. The HUDCO will evaluate technical bids on the following broad criteria.

1. Bidders' Eligibility Criteria
2. Technical Completeness of the bid; "& Compliance with Scope of Work;
3. Compliance with technical specifications of all Video-Conferencing equipments.
4. Bidder's acceptance of Terms & Conditions as mentioned in the RFP.
5. Bidder's experience and ability to provide support at HUDCO's locations.

## **7.3 Commercial Evaluation**

Commercial bids submitted will be opened only for those bidders, who have qualified the general and technical evaluation, their price will be comprising of total cost of ownership for 3 year warranty period compared and the lowest quoting bidder will be declared as L-1 based on the L-1 bidder determination sheet. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the bidder does not accept the error-correction, its bid will be rejected, and its bid security may be forfeited.

## **8. Award Notification**

The acceptance of a bid, subject to contract, commercial considerations & compliance with all terms and conditions will be communicated in writing by means of placing order at the address supplied by the bidder in its bid. Any change of bidder's address, should therefore be promptly notified to:

### **Asstt. Chief (IT)**

Housing & Urban Development Corporation Limited,  
Information Technology Wing,  
Core 7-A India Habitat Centre,  
Lodhi Road,  
NEW DELHI – 110 003.  
Phone : 011-24648193/94/95 (EPBX) Extn: 3020  
e-mail :videoconferencing@hudco.org

## **9. Bidder's Disqualification**

Any bidder not complying with the bidding process is liable for disqualification at any stage. Decision of the HUDCO in this regard shall be final, conclusive and binding on the bidder.

## **10. Proposal Ownership**

The bid and all supporting documentation submitted by the bidders shall become HUDCOs property and the HUDCO reserves the right to accept or reject any request made by any bidder to return or destroy the bid and accompanying documentation.

## **11. Technical Inspection and Performance Evaluation**

HUDCO reserves the right to carry out a Technical Inspection and Performance Evaluation (benchmarking) of offered Video-Conferencing equipments.

## **12. Delivery, Installation and Commissioning of Items**

The bidder shall deliver all the offered equipments at the intended site within 4-6 weeks from the date of purchase order. The bidder shall install and commission all the equipments within 8 weeks from the date of purchase order. In short, the entire project shall be implemented within 8 weeks from the date of purchase order. The bidder will have to verify all the items within one week from the date of delivery in the presence of EDP officials. Appropriate insurance to cover the ordered item(s) for the transit period and till the time of its acceptance by the HUDCO at the respective site is to be taken by the Bidder. At the discretion of the HUDCO, there will be an acceptance test conducted by the Bidder in presence of the HUDCO official(s) and/or its nominated consultant(s) after installation of complete item(s). In case of serious discrepancy in Video-Conferencing equipments supplied, the HUDCO may cancel the entire purchase order and return the item(s) back to the Bidder at Bidder's costs and risks. The Bidder shall give acceptance of the order within one week from the date of order. HUDCO has right to cancel the order, if the same is not accepted within the stipulated period from the date of order. The HUDCO will arrange electrical points and LAN cabling required, if any, at the locations.

## **13. Payment Terms**

The HUDCO will make payment as per following scheduled terms.

### **For supply & installation :-**

40% - On delivery of the Video-Conferencing equipments

40%- On installation, operationalization and integration of the same to the satisfaction of the HUDCO.

20% - 30 days after installation, operationalization and integration of the same to the satisfaction of the HUDCO.

#### **14. Further Orders**

The HUDCO may place further orders for supply, installation, commissioning, and maintenance of Video-Conferencing equipments at the same rate and terms & conditions as per the Rate Contract entered into with finally selected Bidder within 12 months period from the date of first Purchase Order.

#### **15. Order Cancellation**

The HUDCO reserves the right to cancel the purchase order in the event of one or more of the following situations and decision of Hudco in the matter shall be final and binding on the vendor.:

1. Delay in supply, installation, and commissioning of Video-Conferencing equipments, beyond the specified period (6-8 weeks).
2. Deviations of the Video-Conferencing equipments proposed from those mentioned in the RFP.
3. In the event of order cancellation the Bidder shall be responsible to take back the faulty equipments at their cost & expenses.

#### **16. Manuals/Guides**

The equipments will have to be supplied with all the manuals/guides in electronic form and/or printed booklet(s) as provided by the respective Original equipments Manufacturers. All the manuals/guides should be in English only.

#### **17. Warranty**

All hardware/software /license /firmware supplied should be covered comprehensive on-site warranty/ Maintenance/ ATS for 36 months by the bidder from the date of installation and acceptance of the system by the HUDCO. This includes updation of latest patches of software, configuration, including its components, providing latest version (software subscription), of the software/license etc. as and when released by the OEM of equipments will be supplied by the bidder.

The Bidder shall be fully responsible for the warranty of all equipments, accessories, spare parts, software, etc. against any defects arising from design, material, manufacturing, workmanship or any act or omission of the manufacturer and/or Bidder any defect that may develop under normal use of supplied equipments during warranty period. During the Warranty period of equipments, bidder shall not assign any kind of maintenance like hardware, software, upgradations etc. related to these equipments to any third party.

Warranty should not become void if the purchaser buys any other supplemental hardware from third party and install it with/in these machines. However, the warranty will not apply to such hardware items installed.

## **18. Support**

The bidder is required to provide sound after-sales service/support by arranging timely attending of calls received from the branches/offices where the Video-Conferencing equipments have been supplied & installed and problem rectification through competent service engineers. The desired support time should be uniformly maintained at all the sites. The Bidder has to maintain sufficient inventory of spare parts/equipments at all the support centers to avoid unnecessary delay in obtaining the spare parts/equipments.

The Bidder must supply the details of its service/support infrastructure meant for registering the complaints along with the contact numbers like mobile nos., phone nos., electronic mail addresses and names etc. of its service engineers.

## **19. Spare Parts**

The Bidder shall ensure availability of spare parts for the supplied Video-Conferencing equipments for a minimum period of five years from the time of their acceptance. Thereafter, Bidder shall give at least twelve months notice prior to discontinuation of support services, so that the HUDCO may order its requirements of the spares, if desired. If any of the peripherals, components like expansion cards, memory etc., are not available or difficult to procure or the procurement is likely to be delayed for replacement, the replacement must be carried out with peripheral/component of equivalent capacity or higher capacity at no additional charges to the HUDCO, within the stipulated time as mentioned in the section 'Warranty' above. However, lower capacity of such replacement shall be permitted by the HUDCO on case-to-case basis subject to practical limitations of Video-Conferencing equipments for which such replacement is required.

## **20. Liquidated Damages**

The HUDCO expects delivery within 6 weeks. However, if the Bidder commits delay in delivery or installation, integration of the Video-Conferencing equipments as mentioned in the purchase order within the period, the bidder will be liable to pay a sum of 1% (one percent) of the undelivered/uninstalled portion of the order value per site for each week of delay beyond the scheduled delivery date by way of liquidated damages. To the maximum on liquidated damages shall be 8% of the undelivered/uninstalled value of the order.

## **21. Failure of equipments**

If, during the warranty period as well as AMC period, any equipments fails to function properly five or more times during a quarter due to any reason except force majeure event, the bidder shall arrange replacement of the same by new equipments of same or higher configuration, at no cost to the HUDCO.

## **22. Penalty During Warranty period**

The HUDCO expects high uptime for all the video-conferencing equipments

including MCU, Display panels etc. to be deployed at Head Office and at Regional Offices. The bidder's support engineer will report at HUDCO sites where Video-Conferencing equipments are installed within four hours of reporting of breakdown and repair the same at the earliest. Incase faulty equipment is to be sent to OEM for repair or replacement the bidder has to arrange the standby equipment in lieu of faulty one.

Warranty should also cover the following :-

- a) The complaint should be resolved at the earliest with following conditions -
- Complaint must be attended within 4 hours of receipt of complaint.
  - Warranty should cover updates/maintenance patches/bug fixes (available from the original software Bidder) for system software & firmware patches/bug fixes, signatures, if any, for hardware.
- b) The bidder should provide on site preventive maintenance on regular interval.
- c) The bidder shall obtain written acknowledgement from the HUDCO after completion of warranty period for successful sign off of warranty period.

Incase of default the penalties shall be charged as under:

| Downtime | Penalty    |
|----------|------------|
| >1 day   | Rs. 1000/- |
| >2 days  | Rs. 1500/- |
| >5 days  | Rs. 5000/- |

Maximum cap on penalty on above shall be Rs. 10,000/-. In addition to above HUDCO may invoke the Performance Bank Guarantee (PBG).

## **23. Indemnity**

Bidder shall indemnify, protect and save the HUDCO against all claims, losses, costs, damages, expenses, action suits and other proceedings, resulting from infringement of any patent, trademark, copyright etc., or such other statutory infringements in respect of all the Video-Conferencing equipments supplied by it.

## **24. Suspension of Work**

The HUDCO reserves the right to suspend and reinstate execution of the whole or any part of the work without invalidating the provisions of the contract. The HUDCO will issue orders for suspension or reinstatement of the work to the Bidder in writing. The time for completion of the work will be extended suitably to account for duration of the suspension.

## **25. Guarantees**

Bidder should guarantee that the Video-Conferencing equipments and other related equipments ordered for Regional Office and Head Office locations are brand new. HUDCO reserve the right to inspect and conduct test of the Video-Conferencing equipments before dispatch at Bidder's site/office/factory

premises/facilities in India or abroad. In case the equipment is to be imported, the bidder is required to do and complete all such processes without involving HUDCO in any manner at any stage. It will be the responsibility of the bidder to abide by all the statutory requirements like payment of all taxes, duties etc, without any reference.

## **26. Force Majeure**

The Bidder shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Bidder and not involving the Bidder's fault or negligence and not foreseeable. Such events may include, but are not limited to, Acts of God or of public enemy, acts of Government of India in their sovereign capacity, acts of war, fire, floods, strikes, lock-outs and freight embargoes. If a Force Majeure situation arises, the Bidder shall promptly notify the HUDCO in writing of such conditions and the cause thereof within twenty calendar days. Unless otherwise directed by the HUDCO in writing, the Bidder shall continue to perform its obligations under the Contract as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. In such a case, the time for performance shall be extended by a period not less than the duration of such delay. If the duration of delay continues beyond a period of three months, the HUDCO and the Bidder shall hold consultations with each other in an endeavor to find a solution to the problem. Notwithstanding above, the decision of the HUDCO shall be final and binding on the Bidder.

## **27. Resolution of Disputes**

If during the subsistence of the contract and / or thereafter any dispute arises between the parties to the contract, under or in connection with any of the terms of contract or otherwise the Parties hereto shall endeavor to settle such dispute amicably and/or by Conciliation to be governed by the Arbitration and Conciliation Act, 1996. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the Parties hereto, after reasonable attempts; which attempt shall continue for not less than thirty (30) days, gives thirty (30) days notice to refer the dispute to arbitration to the other Party in writing. In case of such failure the dispute shall be referred to an authority designated by the CMD of Hudco for the purpose of the above clause who shall act as the sole Arbitrator for settlement of such dispute. The Arbitration proceedings shall be governed by the Arbitration and Conciliation Act, 1996 and other related substantive laws of India. The venue of the arbitration shall be New Delhi

Notwithstanding the fact that settlement of dispute(s) (if any) under arbitration may be pending, the parties hereto shall continue to be governed by and perform the work in accordance with the provisions under this Contract.

## Bidder's General Information

### Information to be filled by the bidder

1. Name of the bidder
2. Year of starting operations
3. Constitution of the bidder, i.e., Limited Company, Private Limited Company, Partnership, Sole Proprietorship, or any other type
4. Bidder's registered address
5. Bidder's corporate address
6. Name(s) of partner(s), if applicable
7. Address(s) of partner(s), if applicable
8. Name(s) of the authorized executive(s)
9. E-mail/Phone/Fax nos. details of authorized representative(s)
10. Net Profit (Rs. In crores)  
  
During FY2006-07  
During FY2007-08  
During FY2008-09
11. Total Turnover (Rs. In Crores)  
  
During FY 2006-07  
During FY 2007-08  
During FY 2008-09
12. PAN NO:
13. Service Tax Registration No.:
14. No. of support centres with their addresses
15. Experience in establishing connectivity through Video-Conferencing equipments. The reference sites where the bidder has supplied and successfully commissioned the connectivity through Video-Conferencing equipments.

### Signature

### Seal of the bidder

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## Bidders' Eligibility Criteria

## Annexure II

The following is the bidders' eligibility criteria.

| S.No | Pre- qualification criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Compliance (Y/N) |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1.   | The bidder should preferably be a Firm/Company / Public Sector Undertaking/Govt. Company incorporated in India involved in the business of deploying Video Conferencing Solutions. The Bidder should have a minimum annual turnover of Rs.25 Crore in each of the last three financial years and should also be in profits during the same three financial years. Duly Audited copies of last 3 years Balance sheets and Profit and Loss Accounts Statements must be submitted |                  |
| 2.   | The Bidder should be the Original equipments Manufacturer (OEM) or their authorized representative/dealer/distributor of the OEM. The proof in support of the same must be enclosed along with technical bid.                                                                                                                                                                                                                                                                  |                  |
| 3.   | The Bidder must have the experience of successful implementation of minimum 1 Video Conferencing projects each with minimum of 10 locations comprising supply, installation and operationalization of Video Conferencing Facility in last five years. The proposed Video Conferencing Solution should be in use at least two Govt. organizations.                                                                                                                              |                  |
| 4.   | As HUDCOs MCU is to be installed at Delhi Head Office, the bidder should have support center located in Delhi and also be able to provide support at all the 8 Regional Offices where end points will be installed.                                                                                                                                                                                                                                                            |                  |
| 5.   | The Bidder should submit documentary evidence in respect of all above mentioned criteria while submitting the proposal. Proposal of Bidder who do not fulfill the above criteria or who fail to submit documentary evidence thereon would be rejected.                                                                                                                                                                                                                         |                  |
| 6.   | The Original Equipment Manufacturer (OEM) and Bidder should be ISO Certified                                                                                                                                                                                                                                                                                                                                                                                                   |                  |
| 7.   | The Bidder should be authorized supplier of OEM. Authorization letter in this regard from the OEM is mandatory. The videoconferencing OEM should be of repute make with considerable market share across the globe                                                                                                                                                                                                                                                             |                  |

**Please enclose documentary proof for all the above criteria. In absence of these, the bids will not be considered for further evaluation. No further correspondence will be entertained in this case.**

**Note :- Please write description of items in brief instead of writing words like "Offered", "Complied with" etc.**

### 01. Multipoint Conferencing Unit

The MCU must be a rack solution provided with all the necessary accessories to integrate into a 19 inch rack.

The MCU should be purpose-built platform for advanced communications. Offers reliability, availability, and serviceability. The MCU shall connect 9 HD sites with 720p@30fps Transmit & receiving each at 4Mbps on IP with AES encryption in continuous presence (CP) and voice activated (VA) mode having any combination of SD and HD endpoint without loss of ports. The MCU should be up gradable to 22 ports in HDCP 720p@30fps in future.

9 ports @ 4Mbps with HD 720p resolution should be supported on the same chassis without any cascading. The MCU should additionally have capability for 9 audio only participants. The MCU should support 9 ports with HD 1080p@30fps additionally.

The MCU should support 9 CP on single screen, min. 23 different layouts & AES encryption on each port without the reduction of any port on the MCU.

The MCU must have two dedicated 10/100/1000 Mbps Ethernet interfaces for diverse IP communication

The solution should be designed such as to allow secure Video communication over private and public Internet network.

Flexible design enables streamlined traffic flow and mass scale for converged IP Networks. The system should be HD ready supporting HD 720p @ 30 frames in continuous presence mode

Conferencing Highlights -Personal layout, Auto layout, Layout range -min. 20 layouts, Choose site to see, Layout border for active speaker indication, Lecture and presentation mode, Conference profiles, Far-end camera control (FECC), Conference dial out and dial in.

The MCU must be capable of transcoding on every port without loss of port count with:

- a) bitrates up to 4Mbps with H.264 per connection
- b) resolutions of QCIF, CIF, 4CIF, VGA, SVGA, XGA, HD (w720p) , HD (1080p)

- c) all resolutions supported at 30fps with H.264

- d) Video codecs: H.261, H.263, H.263+, H.263++, H.264

- e) Audio codecs: G.711, G.722, G.723.1, G.729, MPEG-4 AAC-LC/ MPEG-4 AAC-LD/Siren14™ / G.722.1 Annex C

The MCU shall support video codecs: H.261 for interoperability with legacy systems and H.263, H.263+, H.263++ and H.264.

The MCU shall support dual video H.239 and ability to send content to legacy EP which do not support H239 through its main video.

The MCU shall support H.243/chair control.

The MCU shall support a mix of resolutions in both Voice Activated mode and Continuous Presence. Each endpoint shall receive at the maximum of its capacity without reducing the capacity of another.

The MCU shall support an inbuilt or external Gatekeeper to support 25 device registrations, management tool, scheduling and address book.

The MCU should support external management application to monitor, scheduling and call control of the entire Video network from centralized location.

The management application should provide detailed reports on conference summary, network statistics monitoring, call detailed reports, detailed graphical view of complete call flow in the network. Any hardware required for management software needs to be provided by the bidder

The MCU shall support down-speeding and packet error/loss concealment methods to ensure optimum video and audio quality. The MCU must provide standards based method of compensating and correcting for packet loss (of media streams, both 'to' and 'from' the MCU and terminals) of up to a minimum of 5%.

The MCU shall support an external recording and video-on-demand solution

The MCU shall support conferences that permanently exist but use no resources/port if no participants are in the conference. This functionality gives end user the flexibility to directly join the conference without having to depend or wait for the system administrator/operator

The MCU shall provide a built-in Web server, for configuration and administration.

The MCU shall support various user privileges from administrator to simple guest.

The MCU shall have a built-in address book and built-in scheduling.

The MCU shall support scheduled conferences and ad hoc conferencing mode at the same time.

The MCU shall support a predefined and unique PIN for each conference.

The MCU shall allow users to create conferences on the fly from their endpoints without the need of an operator.

The MCU shall have a separate encode for every port and be able to mix any number of resolutions, codecs and bitrates by default without loss of port count or functionality.

The MCU shall transcode video and audio on all ports, without loss of port count, regardless of bitrates, resolutions or codecs that endpoints connect with.

The MCU shall provide HD quality in Continuous Presence to all HD endpoints connected and deliver this even if SD endpoints are part of the conference.

MCU have the ability to enhance the resolution even from the SD endpoints and send to HD participant. This shall not reduce the overall number of ports of the MCU.

The solution shall support Standard Definition and High Definition in both Voice Activated and Continuous Presence mode without loss of functionality or capacity.

The MCU shall provide advanced mechanisms to prevent unnecessary usage of high bandwidth in HD

The MCU shall be capable of supporting H323, SIP, and H.235 v3 in the same conference at any bandwidth resolution

The MCU shall support communication at up to 4Mbps per port using both H.263 and H.264 video codecs.

The MCU shall support AES encryption using H.235 V3 for every participant without affecting any other feature, functionality or port count.

The MCU must support optional removal of the terminal endpoint's own video image from the continuous presence video

The solution should have the capability to allow 12 or more desktop PC based video conferencing participants. Web camera and multimedia kit of reputed make should be proposed.

MCU, management software and Video endpoints should be from the same OEM.

MCU must support a configurable 'Text Overlay' features, optionally displaying the party H.323 ID, or custom text, within the video frame during continuous presence or voice activated switching.

The Bidder should certify that the solution offered shall be based on scalable architecture and capable of meeting future requirements. The existing MCU shall also have to be upgraded to connect 22 locations from 9 locations in future. While upgrading MCU, bidder has to certify that the investment made earlier shall be protected.

HUDCO should be able to do from the Corporate office (Central location):-

- A. Software Deliveries to remote locations, Program scheduling & bandwidth management.
- B. HUDCO should be able to connect to other RO's with software and without additional cost to HUDCO.

## HD Group Video Conferencing System with Cameras , Mics & Remote

|                                               | TECHNICAL SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SET DELIVERED COMPLETE WITH:</b>           | The system should be a point to point system with 1080p Codec, HD 1080p camera with 10x zoom or higher, Mic , remote control, cables and power supply , The system should be capable of giving HD 720p @30fps from day one. The system should be upgradable to support 1080p@30fps through software upgrade. The HD Camera and Codec should be from the same OEM. The MCU and Video endpoints should be from same OEM |
| <b>BANDWIDTH</b>                              | H.323/SIP up to 4 Mbps point-to-point                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>FIREWALL TRAVERSAL</b>                     | H.460.18, H.460.19 Firewall Traversal                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>VIDEO STANDARDS</b>                        | H.261, H.263, H.263+, H.264                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>VIDEO FEATURES</b>                         | Native 16:9 Widescreen                                                                                                                                                                                                                                                                                                                                                                                                |
|                                               | Advanced Screen Layouts                                                                                                                                                                                                                                                                                                                                                                                               |
|                                               | Intelligent Video Management                                                                                                                                                                                                                                                                                                                                                                                          |
|                                               | Local Auto Layout                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>VIDEO INPUTS (2)</b>                       | The system should have 2 or more Video Inputs to connect 1x HD Camera (1080P) and 1 PC Input for presentation sharing                                                                                                                                                                                                                                                                                                 |
| <b>VIDEO OUTPUTS (2 OUTPUTS)</b>              | The system should have 2 HD Video Outputs - 2 x HDMI/ DVI or equivalent                                                                                                                                                                                                                                                                                                                                               |
| <b>LIVE VIDEO RESOLUTIONS (ENCODE/DECODE)</b> | The system should supports Video resolutions from CIF, QCIF, 4CIF, VGA, SVGA, HD 720p@60fps and HD 1080p@30fps, XGA and SXGA                                                                                                                                                                                                                                                                                          |
| <b>AUDIO STANDARDS</b>                        | G .711, G.722, G.722.1, 20KHz or better                                                                                                                                                                                                                                                                                                                                                                               |
| <b>AUDIO FEATURES</b>                         | CD-Quality audio                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                               | 1 acoustic echo canceller                                                                                                                                                                                                                                                                                                                                                                                             |
|                                               | Automatic Gain Control (AGC)                                                                                                                                                                                                                                                                                                                                                                                          |
|                                               | Automatic Noise Reduction                                                                                                                                                                                                                                                                                                                                                                                             |
|                                               | Active lip synchronization                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>AUDIO INPUTS (4 INPUTS)</b>                | The system should have 4 Audio Inputs wherein it should support 2 or more Microphones and 2 x RCA/Phone connectors                                                                                                                                                                                                                                                                                                    |
| <b>AUDIO OUTPUTS (3 OUTPUTS)</b>              | The system should have stereo/digital audio outputs                                                                                                                                                                                                                                                                                                                                                                   |
| <b>DUAL STREAM</b>                            | The system should have the capability to support H.239 in both H.323 and SIP Mode                                                                                                                                                                                                                                                                                                                                     |
| <b>PROTOCOLS</b>                              | The system should have H.323 and SIP capability                                                                                                                                                                                                                                                                                                                                                                       |
| <b>EMBEDDED ENCRYPTION</b>                    | The system should support AES Encryption. H.239 capability should be supported in an encrypted call. AES encryption is required for complete secure call between locations                                                                                                                                                                                                                                            |
| <b>IP NETWORK FEATURES</b>                    | The system should have features such as QoS, RSVP, standards based packet loss based downspeeding, TCP/IP, DHCP etc                                                                                                                                                                                                                                                                                                   |
| <b>SECURITY FEATURES</b>                      | The administration of the Video endpoint should be through Web Interface using HTTPS/HTTP                                                                                                                                                                                                                                                                                                                             |
| <b>NETWORK INTERFACES</b>                     | 1 x LAN/Ethernet (RJ-45) 10/100 Mbit                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>CAMERA (1080p)</b>                         | 1/3" CMOS/CCD Camera, 10x zoom or higher, +15°/-20° tilt, +/- 90° pan, 1920 x 1080 pixels                                                                                                                                                                                                                                                                                                                             |
|                                               | Automatic or manual focus/brightness/white balance, Far-end camera control, Dual HDMI / DVI                                                                                                                                                                                                                                                                                                                           |
| <b>SYSTEM MANAGEMENT</b>                      | Total management via embedded SNMP, Telnet, SSH,                                                                                                                                                                                                                                                                                                                                                                      |
|                                               | Remote software upload: via web server, HTTP, HTTPS, Remote control and on-screen menu system                                                                                                                                                                                                                                                                                                                         |
| <b>DIRECTORY SERVICES</b>                     | Support for Local directories (My Contacts), Received Calls, Placed Calls                                                                                                                                                                                                                                                                                                                                             |

## **RECORDING AND STREAMING SYSTEM**

### **Video Standards**

H.261, H.263, H.263+, H.263++, H.264,

### **Resolution**

From QCIF up to 720p

### **Frame Rates**

Up to 30 frames per second

### **Audio Standards**

G.711, G.722, G.723.1, G.728, G.729 /MPEG-4 AAC-LC /MPEG-4 AAC-LD/ G.722.1 Annex C Protocols

H.323 v4, SIP, H.239 (dual video), FTP, RTP, RTSP, HTTP, DHCP,SNMP, NTP

### **Bandwidth**

Recording bandwidth From 128 kbps to 2 Mbps with H.264

Universal Transcoding and Transrating

Video and audio are played back via H.323/SIP or streamed using a bandwidth and codec that can be different to the source

- All recordings are stored in native format with no loss of quality

### **Recording**

From an endpoint, MCU • Record one simultaneous recordings • From two endpoints on a point to point call

- H.323/SIP dial in, or dial out from built-in web server
- Data from H.239 (dual video) capable endpoints

The solution should support one recordings simultaneously

### **Streaming Video**

Stream live or recorded content • Slides presented alongside Video

- Pause, rewind and fast forward for recorded playback
- Embedded via web interface or standalone via URL

Stream at multiple bandwidths • Viewed using Windows

Media Player, RealPlayer or QuickTime • Support for 3rd party streaming servers • Unicast and multicast • UDP,TCP or HTTP

### **Playback**

To endpoint, MCU or gateway

- Replay of data / slides using H.239 (dual video)
- Choose side-by-side or picture-in-picture (voice activated) layout for playback of point-to-point recordings
- Pause, rewind and fast forward using remote control
- Bandwidth / codec adjusted to match endpoint and network

### **System Management**

Management via embedded web server • RS-232 for local control and diagnostics

- Syslog for diagnostics •
- Configurable event logs and full H.323 and SIP decoding •
- Configuration backup to network
- SNMP

### **Quality of Service**

Configurable DSCP or TOS/IP precedence Network Resilience

Standard based technology provides intelligent downspeeding, packet pacing and packet loss concealment to ensure optimum video and audio quality • Dynamic jitter buffering

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## Security Features

Administrator, User and Guest passwords • Password protected streaming and content playback

- DTMF passwords for H.323 endpoints
- Secure non-PC hardware and operating system

## Interfaces

1 x RJ45 Ethernet, 10/100 full/half duplex, manual or auto sensing

- RJ45 serial port

## Environmental Data

Operating temperature 0°C to 35°C ambient

Relative humidity below 90%

## INTEGRATED END POINTS AT ROs

| Features                  | Specifications                                                                                                                                                                                                             |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Video</b>              |                                                                                                                                                                                                                            |
|                           |                                                                                                                                                                                                                            |
| Size and layout           | Should be an integrated system with at least 20inch LCD/TFT screen, with XGA/SXGA, 720P resolution and with speakers for audio output.                                                                                     |
|                           | The product should be operated for dialing calls and data sharing through a remote control of the system.                                                                                                                  |
| Video Standards           | H.261,H.263, H.263 ++, <b>H.264</b>                                                                                                                                                                                        |
|                           | The system should support H.323 and SIP simultaneously                                                                                                                                                                     |
|                           | The system should support H.239 in both H.323 and SIP calls                                                                                                                                                                |
|                           | It must be possible to enable or disable H.239                                                                                                                                                                             |
|                           | H.264 in a Multipoint and Encrypted call should be possible.                                                                                                                                                               |
|                           | H.264 in an Encrypted call should be possible                                                                                                                                                                              |
|                           | H.264 should be possible when sending or receiving two live video sources e.g. Presenter and Presentation.                                                                                                                 |
| Video Frame Rate          | 15 fps up to 200 Kbps, 30 fps --200 Kbps and above.                                                                                                                                                                        |
| <b>Video Features</b>     | Ability to send and receive two live simultaneous video sources in a single call.                                                                                                                                          |
|                           | Should support H.239 protocol                                                                                                                                                                                              |
|                           | Side by Side layout so that two video sources can be displayed on a single Plasma/LCD screen.                                                                                                                              |
| Video input               | Should have DVI/XGA ( Digital Video Interface) input to connect PC/ Laptop directly to the Video conferencing system and display a resolution of XGA/SXGA.                                                                 |
| Video standard            | H.261, H.263, H.263+, H.263++ (Natural Video), H.264                                                                                                                                                                       |
| Video resolutions         | 4CIF (704 x 576 pixels), Digital Clarity<br>Interlaced CIF (iCIF 352 x 576 pixels), Natural Video<br>CIF (352 x 288 pixels)<br>QCIF (176 x 144 pixels)<br>SQCIF (128 x 96 pixels) decode only<br>w720p (1280 x 720 pixels) |
| <b>Audio</b>              |                                                                                                                                                                                                                            |
| Audio standards supported | G.722,G.722.1, G.711, G.728, G.722.1 Annex C/MPEG 4 AACD or equivalent                                                                                                                                                     |

|                                                         |                                                                                                                                                                |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Desirable features                                | Noise Reduction, Automatic Gain control, Automatic Audio mixer                                                                                                 |
| <b>Network Interfaces</b>                               | 1 LAN /Ethernet--10/100 Mbps                                                                                                                                   |
|                                                         | 1 Ethernet hub interface for PC                                                                                                                                |
| <b>Bandwidth</b>                                        | H.323-- 2 Mbps                                                                                                                                                 |
|                                                         | SIP--2Mbps                                                                                                                                                     |
| <b>Network Capabilities</b>                             | Must support Standard based Packet loss recovery algorithm to handle packet loss.                                                                              |
| <b>H.323/ IP Features</b>                               | IP precedence( QOS), DiffServe.                                                                                                                                |
|                                                         | Resource reservation protocol-RSVP, IPLR                                                                                                                       |
|                                                         | IP Type of Service-TOS                                                                                                                                         |
|                                                         | Auto Gatekeeper discovery                                                                                                                                      |
|                                                         | Auto Network Address Translation( NAT) support                                                                                                                 |
|                                                         | Standards based- Packet Loss Recovery feature on H.323 call                                                                                                    |
|                                                         | Should support URL Dialing                                                                                                                                     |
|                                                         | Should support secure Firewall protocols--H.460.18 and H.460.19                                                                                                |
| <b>Multiconferencing capabilities upgrade in future</b> | Multiconferencing capability to connect 1+3 video sites In the following mode--Continuous presence, Voice switched and Chair control.                          |
|                                                         | Dial In and Dial out Mode should be supported                                                                                                                  |
|                                                         | H.243 cascading of up to 10 sites with continuous presence and Voice activated switching.                                                                      |
|                                                         | <b>Audio and Video Transcoding</b> should be supported so that different sites can be connected in a multiconference with different audio and video protocols. |
|                                                         | The system should have <b>True Transcoding</b> i.e. to provide HD Video and audio output irrespective of the protocol, speed, bandwidth, HD/ SD equipment      |
|                                                         | <b>Rate Matching</b> should be possible so that sites at different bandwidths or speed can be connected in a multiconference.                                  |
|                                                         | Any of the end points should be able to show presentation in addition to the main video ( H.239) in a multipoint call                                          |
|                                                         | The multi point call can be encrypted ( AES/DES encryption)                                                                                                    |
|                                                         | H.264 video compression in a Multipoint call should be possible.                                                                                               |
|                                                         | Should have H.243 Cascading.                                                                                                                                   |
|                                                         | 30 fps from 192 Kbps in Multiconferencing                                                                                                                      |
|                                                         | IP downspeeding and support for intelligent packet loss recovery                                                                                               |
|                                                         | Chair control facility for the host system                                                                                                                     |
| <b>Data Collaboration</b>                               | H.239 Presentation through presence of DVI / XGA Input port                                                                                                    |
|                                                         | Dynamic bandwidth adjustment                                                                                                                                   |
| <b>Security</b>                                         |                                                                                                                                                                |
| Menu Control                                            | Password protected system menu                                                                                                                                 |
| Password protection                                     | Meetings both point and point and multipoint , should be password protected and the same should be possible for H.323 and SIP networks                         |
| Encryption of video call                                | ITU-T standards based Encryption of the video call                                                                                                             |
|                                                         | Call should be encrypted end-to-end on IP call                                                                                                                 |

|                           |                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|
| ITU-T standards           | H.233, H.234, H.235. 'AES' encryption of IP calls. Call should be encrypted end to end even in a multiconference. |
|                           | Ability to manually turn encryption On or OFF should be there.                                                    |
|                           | Automatic key generation and exchange                                                                             |
|                           |                                                                                                                   |
| <b>Camera</b>             | Should be HD 1/3"CMOS or equivalent camera                                                                        |
|                           | Must support 720 P resolution. Should support Wide formats. Must support 1280 X 720 resolution                    |
|                           | 30 degrees Field of View                                                                                          |
|                           | 70 degrees total field of view                                                                                    |
|                           | Must have Manual / auto Focus.                                                                                    |
| Native resolution         | Should support native resolutions on all inputs                                                                   |
| Web Browser Support       | Internal web server                                                                                               |
|                           | Should support HTTPS, Telnet and XML                                                                              |
|                           | Remote software upload                                                                                            |
|                           |                                                                                                                   |
| <b>Directory services</b> | Should support Local and Global directories                                                                       |
|                           | Should support LDAP and H.350 protocols for directory transfer.                                                   |
|                           |                                                                                                                   |
| Dual protocol support     | Support for IPV4 and IPV6                                                                                         |
| End to End solution       | The end to end solution should be from same OEM                                                                   |

### OTHER EQUIPMENTS

|                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Min 65" plasma Display with trolley for Board Room of reputed make with inbuilt /external speakers with HDMI Video port and ability to attach Laptop cable connection ,DVD player etc. |
| 1 KVA online UPS with 30 min backup for Board room                                                                                                                                     |
| 3 KVA online UPS for video infrastructure equipments with 30 mins back up                                                                                                              |
| 1 KVA line interactive UPS for integrated desktop video equipments with 30 mins backup                                                                                                 |
| 8 port LAN switch and necessary cabling for RO from nearest LAN source of reputed make                                                                                                 |

## Annexure IV

### **Bill of Material**

| Product Description                                                                                                                                                                                  | QTY |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>AT HO:-</b>                                                                                                                                                                                       |     |
| 9 port HD (720p) MCU for initially connecting eight regional offices and one head office at 4Mbps per port capacity with encryption without loss of port upgradeable to connect 22 offices in future | 1   |
| HD Group Video Conferencing System with Cameras, Mics & Remote for board room                                                                                                                        | 1   |
| Min 65" Plasma Display for Board Room                                                                                                                                                                | 2   |
| 1 KVA online UPS with 30 min backup for Board room                                                                                                                                                   | 1   |
| 3 KVA online UPS for video infrastructure equipments with 30 mins back up                                                                                                                            | 1   |
| <b>AT ROs :-</b>                                                                                                                                                                                     |     |
| All in one Integrated desktop HD(720pp) Video Conferencing Equipment with Min 20 inch Screen , Microphone , Camera & Speakers for ROs                                                                | 8   |
| 1 KVA online UPS for integrated desktop video equipments with 30 mins back up                                                                                                                        | 8   |
| <b>AT both ROs and HO</b>                                                                                                                                                                            |     |
| 8 port LAN switch of reputed make and necessary cabling for RO from nearest LAN source                                                                                                               | 8   |

## L1 Bidder determination sheet

| S No | Item                                                                                                                                                                                                 | Qty | Unit Price (RS.) | Total Price with three year warranty- (A) (Rs.) | Total Taxes (B) | Total Price (Rs.) A+B |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------|-------------------------------------------------|-----------------|-----------------------|
| 1    | 9 port HD (720p) MCU for initially connecting eight regional offices and one head office at 4Mbps per port capacity with encryption without loss of port upgradeable to connect 22 offices in future | 1   |                  |                                                 |                 |                       |
| 2    | HD Group Video Conferencing System with Cameras, Mics & Remote for board room                                                                                                                        | 1   |                  |                                                 |                 |                       |
| 3    | Management , scheduling, Gatekeeper software and its hardware                                                                                                                                        | 1   |                  |                                                 |                 |                       |
| 4    | Min 65" Plasma Display for Board Room                                                                                                                                                                | 2   |                  |                                                 |                 |                       |
| 5    | 1 KVA online UPS with 30 min backup for Board room                                                                                                                                                   | 1   |                  |                                                 |                 |                       |
| 6    | 3 KVA online UPS for video infrastructure equipments with 30 minutes back up                                                                                                                         | 1   |                  |                                                 |                 |                       |
|      | <b>AT ROs :-</b>                                                                                                                                                                                     |     |                  |                                                 |                 |                       |
|      | All in one Integrated desktop HD(720pp) Video Conferencing Equipment with Min 20 inch Screen , Microphone , Camera & Speakers for ROs                                                                | 8   |                  |                                                 |                 |                       |
|      | 1 KVA online UPS for integrated desktop video equipments with 30 minutes back up                                                                                                                     | 8   |                  |                                                 |                 |                       |
|      | <b>AT both ROs and HO</b>                                                                                                                                                                            |     |                  |                                                 |                 |                       |
|      | 9 port LAN switch of reputed make and necessary cabling for RO from nearest LAN source                                                                                                               | 8   |                  |                                                 |                 |                       |
|      | <b>Total price (Rs.)</b>                                                                                                                                                                             |     |                  |                                                 |                 |                       |

**Other Services (not to be included in L1 Criteria)**

| <b>Sr.<br/>No.</b> | <b>Description</b>                                                                                                                       | <b>Rate (Rs.)</b> |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>1</b>           | Video-Conferencing equipments De-installation,<br>Shifting (including packing ) and re-installation<br>Charges • Inter City • Intra City |                   |

**Note: - All prices should be itemized. The unit price should be given in detail for each and every item offered.**

## **ANNEXURE – VI :**

### **ADDRESSES OF LOCATIONS**

Corporate Office  
HOUSING & URBAN DEVELOPMENT CORPORATION LIMITED  
Core – 7A, HUDCO Bhawan  
India Habitat Centre  
Lodhi Road  
New Delhi – 110 003.

HUDCO Regional Office,  
No. I, Gandhi Irwin Road, Vth Floor,  
CMDA Tower-II, Egmore  
Chennai – 600 008  
Tel. (044) 8413282, 8413283

HUDCO Regional Office,  
'Gruha Nirman Building', 4<sup>th</sup> floor,  
Ashram Road,  
AHMEDABAD – 380 009.  
Tel. (079) 6583488

HUDCO Regional Office  
Manipal Centre,  
Unit no. 703-704, North Block No. 47,  
Dickenson Road,  
BANGALORE – 560 042

HUDCO Regional Office,  
5-10-193, 1<sup>st</sup> Floor,  
HACA Bhavan,  
Opp: Public Gardens,  
Mukarramzahi Road,  
HYDERABAD – 500 004.

HUDCO Regional Office,  
HUDCO Bhavan,  
Behind RHB Office,  
Jyoti Nagar,  
JAIPUR – 302 015.

HUDCO Regional Office,  
B-1/N, 'E' Block,  
Pickup Bhavan, 2<sup>nd</sup> Floor,  
Bhabhuti Khand,  
Gomati Nagar,  
LUCKNOW – 226 010

HUDCO Regional Office,  
Saphalyam Complex  
3<sup>rd</sup> Fl., Palayam  
Thiruvananthampuram  
Pin – 695 034.

HUDCO Regional Office,  
2nd Floor, MMRDA Bldg.  
Block-1, Bandra Kurla Complex  
Bandra (East)  
Mumbai-400051

## ANNEXURE VII

(On Non-judicial stamp paper of requisite value in concerned State)

### **PERFORMANCE BANK GUARANTEE**

Performance Bank Guarantee No : \_\_\_\_\_

**Chief (IT)**

**Housing & Urban Development Corporation Limited (HUDCO),  
HUDCO Bhawan,  
India Habitat Centre,  
Lodhi Road,  
New Delhi-110 003;**

1. The Housing & Urban Development Corporation Limited (hereinafter referred to as HUDCO) have entered into contract dated \_\_\_\_\_ with (name of the Contractor) having its registered/Head Office at \_\_\_\_\_ (hereinafter referred to as 'The Vendor/Contractor/Supplier' - as the case may be) for the supply/execution of \_\_\_\_\_ /contract on the terms and conditions contained in the said contract.
2. In accordance with the terms of said contract, the Vendor/Contractor/Supplier has agreed to furnish HUDCO an irrevocable, unconditional and acceptable Performance Bank Guarantee for \_\_\_\_\_ % of the contract of Rs \_\_\_\_\_ /- i.e Rs \_\_\_\_\_ /- and to be remain valid till \_\_\_\_\_
3. In consideration thereof, we ..... (Name of the Bank), having its Registered/Head Office at ..... and one of the branch at ..... (hereinafter called 'the Bank' which expression shall, unless it be repugnant to the subject or context shall include its successors and assigns) hereby irrevocably and unconditionally guarantee to pay to HUDCO on demand the claim without demur and without reference to the Vendor/Contractor/ Supplier said amount or amounts not exceeding the sum of Rs.... /- (Rupees only) on receipt of such demand in writing from you. Any such demand raised by HUDCO to the Bank shall be conclusive and binding on the Bank notwithstanding any dispute/difference between the HUDCO and the Vendor/Contractor/Supplier on the terms and conditions of the said contract.
4. This Guarantee shall not be revoked without your consent and we also agree that HUDCO shall have the fullest liberty, without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by HUDCO against the said Vendor / Contractor / Supplier and to forebear to enforce any of the terms and conditions relating to the said contract and we shall not be released from our liability under this guarantee by reason of any such variation or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance by HUDCO to the said Vendor/Contractor/Supplier or for any forbearance and / or omission on the part

of HUDCO or any other matter or thing whatsoever, which under the law relating to sureties, would, but for this provision have the effect of so releasing us from our liability under this guarantee.

5. This guarantee shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respect and for all purpose be binding and operative until payment of all money payable to HUDCO in terms of these presents.
6. We also agree that you shall be entitled at your option to enforce this guarantee against our bank as a principal debtor in the first instance, notwithstanding any other security or guarantee that you have in relation to the Vendor/Contractor/Supplier's liabilities in respect of the premises.

Notwithstanding anything contained herein :-

- (a) Our liability under this Bank Guarantee shall not exceed Rs .....  
(Rupees .....)
- (b) This Bank Guarantee shall be valid upto.....
- (c) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before

.....  
Signed

Date : .....  
Place : .....

(Name & Designation of Authorized  
Officer of Bank)  
Seal of the Bank  
For and on behalf of .....  
Bank