

**Request for Proposal (RFP)
And
Technical Specifications**

For

**Supply and Installation of Video Conferencing Equipment
on Turnkey Basis at Trade Development Authority of
Pakistan**

1. INVITATION FOR BIDS (IFB)

- 1.1 This Invitation for Bids (IFB) is being issued for the TDAP's project, "Supply and Installation of Video Conferencing Equipment on Turnkey Basis at Trade Development Authority of Pakistan". TDAP's current objectives are to attract foreign buyers and disseminate as much helpful information to boost trade and commerce.
- 1.2 The use of latest digital technology as a powerful marketing tool is becoming important in the given competitive environment. Quick decision making is imperative for performance and growth that can only be achieved if lines of communication are improved by TDAP within its own organizational structure.
- 1.3 The Trade Development Authority of Pakistan (TDAP) invites sealed bids from eligible Bidders for the supply and installation of Video Conferencing Facility on turnkey basis.
- 1.4 Interested eligible Bidders may obtain further information from TDAP and inspect the Bidding Documents during normal working hours at the address given below.
- 1.5 **Bids must be delivered to the address below before 10:30 hours, within 15 days of date of advertisement in daily newspapers. All bids must be accompanied by a bid bond, in the shape of a Demand Draft/Pay Order, of not less than two (02) percent of the bid price in favor of DG HR & FA, TDAP. Late bids will be rejected.**
- 1.6 The attention of prospective Bidders is drawn to (i) the fact that they will be required to certify in their bids that all hardware & software is either covered by a valid license or was produced by the Bidder and (ii) that violations are considered fraud, which is, among other remedies, punishable by potential blacklisting from participation in future procurements.

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2. DESCRIPTION OF WORK

Trade Development Authority of Pakistan intends to launch the Video Conferencing System in TDAP Karachi & its regional offices located in all the four provinces including Islamabad. TDAP invites the proposal for supply & installation of video conferencing equipment from the licensed resellers of Video Conferencing Service.

3. SCOPE OF WORK

The scope of work includes;

- i) Supply of the equipment, installation of the equipment at each site i.e. Karachi, Lahore, Islamabad, Peshawar and Quetta.
- ii) Training for minimum of three persons to be nominated by the TDAP.

4. TERMS & CONDITIONS

- 4.1 The lead bidder should be a company/firm having legal presence in Pakistan.
- 4.2 A bidder can submit only one bid with one proposed solution as multiple bids and offers of multiple alternative solutions shall not be considered.
- 4.3 Bidders shall provide such evidence of their continued eligibility satisfactory to the TDAP, as the TDAP shall reasonably request.
- 4.4 By submission of documentary evidence in its bid, the Bidder must establish to the TDAP's satisfaction:
 - that it is a Pakistani firm/company incorporated in Pakistan
 - that it has been in business for the last three (3) years;
 - that it has an average annual turnover of Rs. thirty (30) millions for last three (3) years
- 4.5 By submission of documentary evidence in its bid, the Bidder must establish to the TDAP's satisfaction:
 - that it has at least twenty fulltime relevant technical resources for last one year.
- 4.6 The bid opening committee reserves the right to accept/reject any or all bids without assigning any reason, at any stage of the tender process.
- 4.7 A 2% bid bond as earnest money of the tender value in the shape of Bank Draft/Pay Order in favor of DG HR and FA, TDAP, Karachi SHOULD BE INCLUDED IN THE FINANCIAL PROPOSAL.

- 4.8 The amount deposited as earnest money will be refunded to the successful bidder after providing deliverables and its acceptance from the competent authorities. While earnest money of unsuccessful bidders can be collected from the DG HR and FA office within thirty days of final award of contract.
- 4.9 The successful bidder shall co-ordinate with the concerned person appointed by TDAP.
- 4.10 The successful bidder will undertake to provide the agreed services approved by the TDAP within the approved time frame from the date of signing the agreement. In case of delay TDAP reserves the rights to impose a penalty not exceeding 5% of the total amount of the contract for each day of delays.
- 4.11 If the quality of work done is not made to the satisfaction of TDAP, the TDAP has the right to cancel the entire work and may allot to other company subject to the condition that if the first party has to pay any amount in excess of the agreement amount the difference will be recovered from the second party.
- 4.12 The Government taxes will be deducted from the Contractor as per rules.
- 4.13 Proposals sent to TDAP by fax or email will not be accepted.
- 4.14 Proposals submitted after due date and time will be rejected.
- 4.15 An effort by any firm(s) to influence TDAP, "directly or indirectly through unfair means", in TDAP proposal evaluation, proposal comparison or contract award decisions, to meet or discuss with any TDAP official unless desired by the TDAP may result in the rejection of bidder's proposal.
- 4.16 All participating recipients of this RFP will be notified in writing by the TDAP, regarding any changes made to this RFP for the purposes of clarification.
- 4.17 All responses to this RFP shall become the property of TDAP.
- 4.18 TDAP will not bear any expense incurred in the preparation of proposals in response to this RFP.
- 4.19 Bids not conforming to the terms, conditions and specifications stipulated in this RFP will be rejected.
- 4.20 TDAP has the rights to add, enhance or remove any functionality not disturbing the major scope of work.
- 4.21 The bidder may wish to visit and examine the site or sites and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the bid and entering into the Contract. The costs of visiting the site or sites shall be at the Bidder's own expense.
- 4.22 The TDAP will arrange for the Bidder and any of its personnel or agents to gain access to the relevant site or sites, provided that the Bidder gives the TDAP adequate notice of a proposed visit of at least seven (7) days. Alternatively, the

TDAP may organize a site visit or visits concurrently with the pre-bid meeting. Failure of a Bidder to make a site visit will not be a cause for its disqualification.

- 4.23 No site visits shall be arranged or scheduled after the deadline for the submission of the Bids and prior to the award of Contract.

5. INSTRUCTIONS FOR SUBMISSION OF THE BIDDING DOCUMENTS

Content of Bidding Documents

- 5.1.1 Bidders are expected to examine all instructions, forms, terms, specifications, and other information in the RFP. Failure to furnish all information required by the RFP or to submit a bid not substantially responsive in every respect will be at the Bidder's risk and may result in the rejection of its bid.
- 5.1.2 At any time prior to the deadline for submission of bids, the TDAP may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, amend the RFP.
- 5.1.3 Amendments will be provided in the form of Addenda to the RFP and will be sent in writing, cable, facsimile, or electronic mail to all prospective Bidders that have received the RFP and will be binding on them. Bidders are required to immediately acknowledge receipt of any such Addenda, and it will be assumed that the amendments contained in such Addenda will have been taken into account by the Bidder in its bid.
- 5.1.4 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the TDAP may, at its discretion, extend the deadline for the submission of bids, in which case, the TDAP will notify all Bidders by cable confirmed in writing of the extended deadline.

5.2 Preparation of Bids

Language of Bid

- 5.2.1 The language of all correspondence and documents related to the bid is English.

Documents Comprising the Bid

- 5.2.2 The bid submitted by the Bidder shall comprise the following:
- Financial information of the bidder
 - Documents establishing firms eligibility and qualification, such as year of incorporation, list of partners/directors, statement of experience, key personnel, details of relevant projects etc
 - Response to the technical requirements as given in the appendices relevant to the bid

- a Bid Form duly completed and signed by a person or persons duly authorized to bind the Bidder to the Contract;
- all Price Schedules duly completed in accordance with this RFP and signed by a person or persons duly authorized to bind the Bidder to the Contract;
- bid bond in the shape of Bank Draft/Pay Order should be submitted.
- a duly notarized, written power of attorney;
- a list of all deviations and justifications for the deviation to the required technical features specified in the Technical Requirements
- An undertaking that the Bidder, or in case of a joint bid any of the partners, has not been blacklisted by any government or public sector organization

5.2.3 Bidders are reminded that their bids may be considered as non-responsive if material deviations are taken.

5.3 Bid Prices & Currency

5.4.1. Bidders may be required to provide a breakdown of any composite or lump-sum items included in the price.

5.4.2. These prices must include all incidental costs associated with the provision of the service, such as travel, subsistence, office support, communications, printing of materials, etc., and all taxes, levies, duties and fees imposed on the Bidder, its subcontractors, or employees on account of such services in the TDAP's country or in any other country.

5.4.3. Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to increases on any account. Bids submitted that are subject to price adjustment will be rejected.

5.4.4. All prices shall be quoted in Pak Rupees.

5.5 Bid Validity and Security

5.5.1. A bid security will be required. The amount of bid security required is two (02) percent of the Total Bid Price. This bid security has to be submitted in a shape of Demand Draft or Pay Order.

5.5.2. The bid validity period shall be One hundred twenty (120) days after the deadline for bid submission.

5.5.3. Bid security must be valid twenty-eight (28) days after the end of the bid validity period. Accordingly, a bid with a bid security that expires before twenty-eight (28) days after the end of the bid validity period shall be rejected as non-responsive.

5.6. Format and Signing of Bid

- 5.6.1. The Bidder shall prepare separately Technical Bid & Financial Bid. Clearly marking each one as "FINANCIAL BID" and "TECHNICAL BID".
- 5.6.2. The original bids shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. The person or persons signing the bid shall initial all pages of the bid, except for un-amended printed literature.
- 5.6.3. The bid shall contain no interlineations, erasures, or overwriting, except to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

5.7. Sealing and Marking of Bids

- 5.7.1 The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal. Clearly marking the envelopes as "TECHNICAL BID" & "FINANCIAL BID".
- 5.7.2 The inner and outer envelopes shall be addressed to the TDAP at the address given in the RFP, bear the Contract name, and the statement "**DO NOT OPEN BEFORE 1100 hours**".
- 5.7.3 The outer envelopes shall not have any marking to indicate the identity of the bidder.
- 5.7.4 The inner envelopes shall also indicate the name and address of the Bidder so that the bid can be returned unopened in case it is declared "late."
- 5.7.5 The Bank Draft for Bid Bond to be enclosed in a separate envelope, labeled as "Bank Draft (Bid Bond)", and which should be sealed. Please ensure that Bid Bond should not be in envelop of financial proposal, it should be in a separate envelop.

5.8. Deadline for Submission of Bids

- 5.8.1 Bids must be received by the TDAP at the address specified in the RFP within fifteen days after the date of advertisement by 1100 hours.
- 5.8.2 The TDAP may, at its discretion, extend this deadline for submission of bids by amending the RFP, in which case all rights and obligations of the TDAP and Bidders will thereafter be subject to the deadline as extended.

5.9 Late Bids

- 5.9.1 Any bid received by the TDAP after the bid submission deadline prescribed by the TDAP will be rejected and returned unopened to the Bidder.

5.10 Modification and Withdrawal of Bids

5.10.1 Modifications to the submitted bid will not be accepted.

5.10.2 The Bidder may withdraw its bid after submission, provided that written notice of the withdrawal is received by the TDAP prior to the deadline prescribed for bid submission.

5.10.3 A Bidder wishing to withdraw its bid shall notify the TDAP in writing prior to the deadline prescribed for bid submission. A withdrawal notice may also be sent by electronic mail or facsimile, but it must be followed by a signed confirmation copy, postmarked not later than the deadline for submission of bids. The notice of withdrawal shall be addressed to the TDAP at the address stated for bid submission. Bid withdrawal notices received after the bid submission deadline will be ignored, and the submitted bid will be deemed to be a validly submitted bid.

5.10.4 No bid may be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder's bid security.

5.11 Evaluation of Bids by TDAP

Evaluation of bids will be done as per below mention procedure

Single stage – two envelope procedure.-

- (i) The bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the financial proposal and the technical proposal;
- (ii) the envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion;
- (iii) initially, only the envelope marked “TECHNICAL PROPOSAL” shall be opened;
- (iv) the envelope marked as “FINANCIAL PROPOSAL” shall be retained in the custody of the TDAP without being opened;
- (v) the TDAP shall evaluate the technical proposal, without reference to the price and reject any proposal which does not conform to the specified requirements;
- (vi) during the technical evaluation no amendments in the technical proposal shall be permitted;
- (vii) After the evaluation and approval of the technical proposal the TDAP shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically non-responsive shall be returned un-opened to the respective bidders; and
- (viii) Detailed technical evaluation of the firms will be done on the basis of information provided by bidders annexed at annexure A.

The TDAP's evaluation of responsive bids will take into account technical factors, in addition to cost factors. The following weights will be used in the evaluation of bids:

Description	Weights
Technical Evaluation	70%
Financial Evaluation	30%

5.12 Clarification of Bids

During the bid evaluation, the TDAP may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered, or permitted.

5.13 Preliminary Examination of Financial Bids

5.13.1 The TDAP 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.

5.13.2 Arithmetical errors shall be subject to rectification by the TDAP. If a Bidder does not accept the correction of errors, its bid will be rejected and its bid security may be forfeited.

5.13.3 The TDAP may waive any minor informality, nonconformity, or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

5.13.4 Prior to the detailed evaluation, the TDAP will determine whether each bid is of acceptable quality, is complete, and is substantially responsive. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions, and specifications without material deviations, exceptions, objections, conditionalities, or reservations. A material deviation, exception, objection, conditionality, or reservation is one:

- that limits in any substantial way the scope, quality, or performance of the Information System; or
- that limits, in any substantial way that is inconsistent with the RFP, the TDAP's rights or the successful Bidder's obligations under the Contract; and
- that the acceptance of which would unfairly affect the competitive position of other Bidders who have submitted substantially responsive bids.

5.13.5 If a bid is not substantially responsive, it will be rejected by the TDAP and may not subsequently be made responsive by the Bidder by correction of the nonconformity. The TDAP's determination of bid responsiveness will be based on the contents of the bid itself and any written clarifications submitted by the Bidder.

5.14 Valuation and Comparison of Financial Bids

5.14.1 Bidders who have been qualified on the basis of the preliminary evaluation shall be eligible for a detailed evaluation.

5.14.2 The TDAP will evaluate and compare the bids that have been determined to be substantially responsive. The evaluation will be performed assuming the Contract will be awarded to the Highest Evaluated Bidder.

5.15 Contacting the TDAP

5.15.1 From the time of bid opening to the time of Contract award, if any Bidder wishes to contact the TDAP on any matter related to the bid, it should do so in writing.

5.15.2 If a Bidder tries to directly influence the TDAP or otherwise interfere in the bid evaluation process and the Contract award decision, its bid will be rejected.

5.16 Post Qualification and Award of Contract

Post qualification

5.16.1 The TDAP will determine at its own cost and to its satisfaction whether the Bidder that is selected as having submitted the Highest Evaluated Bid is qualified to perform the Contract satisfactorily.

5.16.2 The TDAP will evaluate the Bidder's financial, technical, design, integration, customization, production, management, and support capabilities and an examination of the documentary evidence of the Bidder's qualifications, as well as other information the TDAP deems necessary and appropriate. This may include visits or interviews with the Bidder's clients referenced in its bids, site inspections, and any other measures.

5.16.3 An affirmative post-qualification determination will be a prerequisite for award of the Contract to the evaluated Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the TDAP will proceed to the next highest evaluated Bidder to make a similar determination of that Bidder's capabilities to perform satisfactorily.

Award Criteria

5.16.4 The TDAP will evaluate and award the Contract to the Bidder whose bid has been determined to be substantially responsive and the Highest Evaluated Bid, provided

further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

5.17 TDAP's Right to Accept Any Bid and to Reject Any or All Bids

5.17.1 The TDAP reserves the right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to Contract award, without thereby incurring any liability to the Bidders.

5.18 Notification of Award

5.18.1 Prior to the expiration of the period of bid validity, the TDAP will notify the successful Bidder in writing by registered letter that its bid has been accepted.

5.18.2 The notification of award will constitute the formation of the Contract.

5.18.3 Upon the successful Bidder's furnishing of the signed Contract Form and a performance security, the TDAP will promptly notify each unsuccessful Bidder and will discharge its bid security.

5.19 Signing of Contract

5.19.1 At the same time as the TDAP notifies the successful Bidder that its bid has been accepted, the TDAP will send the Bidder the Contract Form, incorporating all agreements between the parties.

5.19.2 As soon as practically possible, but no more than fourteen (14) days following receipt of the Contract Form, the successful Bidder shall sign and date the Contract Form and return it to the TDAP.

5.19.3 The TDAP and successful Bidder may also agree to meet to finalize the Contract Agreement.

5.20 Payment Terms

The payment terms shall be as follows:

Description	Payment
Mobilization Advance	50%
Within One Week of Successful Installation	20%
UAT, Training, Successful Operation, Signoff	30%
Total	100%

5.21 Withholding Tax

The Bidders are hereby informed that the TDAP shall deduct tax at the rate prescribed under the tax laws of Pakistan, from all payments for services rendered by any Bidder who signs a contract with the TDAP.

5.22 Support and Warranties

5.22.1 The Bidders should mention the warranties they propose for products and services to be rendered.

5.22.2 After the final deployment these applications at TDAP's site, the Bidder as part of the Bid should provide on call support for twenty four (24) months.

5.23 Ownership

5.23.1 The ownership of all products and services rendered under any contract arising as a result of this RFP, including any source code developed, will be the sole property of Government of Pakistan. The RO will be bound to provide the source code to TDAP for usage/modifications for its own use and train the TDAP staff so that some modifications can be done on TDAP side. The TDAP will have full right to modify the source code according to its changing business requirements. The RO can modify and sell the code anywhere else.

5.24 Governing Law

5.24.1 This RFP and any contract executed pursuant to this RFP shall be governed by and construed in accordance with the laws of Pakistan. The Government of Pakistan and all Bidders responding to this RFP and parties to any contract executed pursuant to this RFP shall submit to the exclusive jurisdiction of the Pakistani Courts.

5.25 Performance Bond (Upon execution of Contract)

5.25.1 The successful vendor shall be required to deposit in the form of a Bank Guarantee, a Performance Bond upon execution of the contract, a sum equivalent to ten percent (10%) of the contract value. The value of the performance bond will be reviewed on a yearly basis and will be adjusted to the value of the outstanding deliverables of the contract.

5.25.2 This Bank Guarantee shall be issued by a scheduled bank operating in Pakistan and the value for the outstanding deliverables of the contract will remain valid until the final and formal termination of Contract by TDAP (this includes the warranty period).

5.25.3 The Government shall forfeit the Performance Bond if the responding organization breaches any of its obligations under the contract, including slippages in the committed schedules.

5.26 Acceptance of Proposals

5.26.1 The TDAP reserves the right not to accept the lowest or any proposal and to annul the bidding process without assigning any reason whatsoever.

6. IMPLEMENTATION PLAN & SUPPORT

The Bidder shall consider the following in the Implementation:

6.1.1 Appropriateness of the Plan-Time Frame

6.1.2 The Plan should focus on achieving the implementation targets with time frames to be indicated for the Trade Development Authority Offices:

6.1.3 Implementation Plan must clearly show the following:

- Activities
- Duration of each activity
- Stages
- Milestones
- Deliverables
- Reports & meetings

6.1.4 The implementation team would play a pivotal role in the implementation of the systems and be responsible for harmonizing the business and other technology requirements.

Operational Acceptance Testing

6.1.5 Bidders are required to provide a framework, including but not limited to time frame and methodologies, for successful achievement of Operational Testing.

- Operational Acceptance (OA) Testing will be carried out to ensure whether the System conforms to the Technical Requirements and meets the standard of performance quoted in the Suppliers Bid.

7 TRAINING PLAN

7.1 Training plan should be comprehensive and flexible to cater to the current and future requirements of the proposed systems as well as requirements arising out of new software releases. It should encompass all ranges of users i.e., functional, operational, managerial and trainers. Training schedules, training material / documentation should also be established for each category of users. Training material should be prepared so that the staff may later use it, in order to conduct training courses. A self-learning approach to the whole documentation would be preferred. The training plan should also have a provision for follow-up training sessions and refresher courses.

7.2 The training sessions being conducted for master trainers should be focused to fully equip them with application knowledge and training material required for training

courses at remote sites. There should be a checklist available for each session to ensure the completion of training requirements

7.3 The TDAP would provide the training location where the supplier will conduct the training courses. All requirements along with detailed training plan for each user category should be provided to the TDAP.

7.4 Following are the guidelines for arranging training courses:

- All the training courses will have to be designed in a modular form clearly focused on different user categories. Following user categories must be considered
 - Functional Staff
 - Operational Staff
 - Managerial Staff
 - Technical Staff
- A complete training schedule should be provided covering the following requirements:
 - Total number of training courses to be conducted
 - Components of each training course
 - Target users of each training course
 - Nature of courses (Subjective or Practical)
 - Maximum No. of participants per training session
 - Duration (Number of days) of each course and iterations of each
 - Documentation/manuals being provided which each course
- Training staff should have following capabilities
 - Excellent product knowledge
 - Experience of government culture
 - Working experience in similar projects & similar roles
- Specify total number of training programs to be offered.
- Training material used by supplier for giving training would be required by the TDAP for future usage. Training course material should be arranged for self-learning by future users.
 - Manuals on Compact Disk for each user.
 - Manuals in printed form for each user.

7.5 TECHNOLOGY OUTAGE REQUIREMENTS

In case of technology outage, Bidder is required to propose the strategy to run the office work smoothly and to be able to bring the system into synchronization with current state of work.

8 Contract Award Time Frame

1. Signing of contract Two Weeks from Issuance of LOI
2. Supply of Equipment Three – Four weeks from date of signing of contract
3. Installation and Configuration of Equipment One week from Supply of Equipment
4. Successful testing and acceptance (Issuance of Performance Guarantee by Vendor). The performance guarantee shall be valid for one year from the date of acceptance.

TECHNICAL EVALUATION SHEET

1. Company Name: _____
2. Company Profile
 - Establishment, Date of Incorporation: _____
 - Location of Head *Office*: _____
 - Details of Branch *Offices* across Pakistan: _____
 - Human Resource strength: _____
(provide Organogram)
 - Major Business Partnership and Relationship Status: _____
3. Team Composition (Staff dedicated on project with role (designation), strength, Shared, Full Time)
4. Company Relevant Experience in the field of Video Conferencing Business
5. License for providing Video Conferencing Services
6. Projects Detail
 - 6.1. Video Conferencing related projects.
 - 6.1.1. Number of projects so far completed with Organization Name and year of completion (Most recent first): (with Contact Details)
 - 6.1.1.1. _____
 - 6.1.1.2. _____
 - 6.1.1.3. _____
 - 6.1.1.4. _____
 - 6.1.1.5. _____
 - 6.1.2. Number of ongoing projects in hand with Organization Name and year of acquirement (Most recent first): (with Contact Details)
 - 6.1.2.1. _____
 - 6.1.2.2. _____
 - 6.1.2.3. _____
 - 6.1.2.4. _____
 - 6.1.2.5. _____
7. Video Conferencing Facility studios/centers available? Yes/No. Also specify locations in Pakistan
8. Do you support expense for 5 TDAP officials, if required to visit your premises.
 Yes No
9. Number of dedicated Technical Staff for Video Conferencing
10. Annual Turnover in PKR only from Video Conferencing Business

Technical Specifications Karachi Head Office

S#	Detail Specification of Video Conferencing Equipment
1	<p>Audio Requirement Stereo Quality Audio 14 kHz bandwidth on IP, ISDN, and IP/ISDN mixed calls 7 kHz bandwidth with G.722, G.722.1</p> <ul style="list-style-type: none"> • 3.4 kHz bandwidth with G.711, G.728, G.729A, G.722.1 annex C <p>Integrated Dynamic Echo Cancellation, Automatic Gain Control (AGC), Automatic Noise Suppression (ANS) Audio Add in Using Latest Industries Highest Audio Conferencing Phones Audio add-in over ISDN Audio add-in over POTS</p>
2	<p>Audio input Audio Inputs: 6 Connectors 1 x Conference link Supports up to (3) microphones Supports Industry Best Quality Audio conference phone 2 x RCA/Phono, line level input for VCR, DVD player or audio mixer 2 x Phoenix connectors; balanced line level or direct microphone inputs with 24 V Phantom power 1 x RJ-11 for analog speaker telephone</p>
3	<p>Audio Outputs Audio Outputs: 6 Connectors 2 x Phoenix connectors; balanced line level output 2 x RCA/Phono, Line Level output for VCR record 2 x RCA/Phono, Line Level output for speakers</p>
4	<p>Videoconference system able to connect Audio conference system The Wideband audio conferencing system should significantly enhances the performance of conferencing</p>
5	<p>Video Format: NTSC, PAL, VGA, SVGA and XGA</p>
6	<p>Video Standard Supported: H.264, , SIP and other older protocols</p>
7	<p>Video Inputs: 4 Connectors 1 x S-Video; Professional Y/C BNCs (main video camera) 1 x DB15; PowerCam and PowerCam Plus power, PTZ control, IR, mic input 1 x S-Video; 4-pin mini DIN (second camera with PTZ control) 1 x S-Video; 4-pin mini DIN (VCR or DVD player) 1 x VGA (Content input from laptop)</p>
8	<p>Video Outputs: 4 Connectors 1 x S-Video; Professional Y/C BNCs (main display) 1 x S-Video; 4-pin mini DIN (second display) 1 x S-Video; 4-pin mini DIN (VCR or DVD player) 1 x VGA (Content display)</p>
9	<p>Serial Data Port: 2 Connectors 2 x DB9 Control port for custom integration with remote devices such as Crestron and AMX control systems Integration with Industry Best Quality Voice Products Communication port for transmission of serial data (i.e. medical devices) over ISDN calls Auxiliary camera control</p>

10	Frame Rates (Point-to-Point) The Video Conferencing equipment should intelligently selects frame rate for best performance video 30 fps at 56 kbps up to 2 Mbps 60 fields per second up to 2 Mbps
11	Bandwidth Maximum Data Rate IP and Serial/V.35: Up to 2 Mbps Maximum Data Rate ISDN: Up to 2 Mbps
12	Security Feature: COMSEC, KG-194/KIV-7 encryptor Ability to disable remote interfaces (FTP, Telnet, HTTP, SNMP) Ability to disable mixed protocol multipoint calls Auto-Answer (On/Off) Allow access to user settings (On/Off)
13	Embedded Encryption: AES and other older encryption protocols
14	User Interface User-friendly graphical interface Customizable home screen and color themes Kiosk mode with scrolling marquee User-selectable camera icons and ring tones Up to (99) user defined camera presets Dual-Monitor Emulation Date, Time Server accessibility Calendar and Conference scheduling Alert Signal on home page
15	Quality of Service Feature: RSVP, IP Precedence, ToS Video Error Concealment Audio Error Concealment Universal Plug and Play (UPnP) Dynamic Bandwidth Allocation Proactive Network Monitoring Packet and jitter control
16	Network Interface: IP (LAN, DSL, cable modem), Ethernet 10/100, up to 2 Mbps ISDN, Quad BRI S/T, up to 2 Mbps V.35/RS-449 with RS-366 dialing, up to 2 Mbps Voice-only and voice-add calls over ISDN and IP Optional wireless IP via USB
17	Web Streaming: Web Streaming in and out of a call, RTP based,suitable with QuickTime® players
18	Collaboration Solution Show content from laptop/PC over IP network connection No resolution adjustment required on presenter's laptop/PC Supports CIF, SIF, 4CIF, 4SIF, VGA, SVGA, XGA display resolutions Zoom control Supports Windows 2000 and Windows XP
19	Management Tools: Web based management using HTTP, FTP, and Telnet
20	Camera: Silent, motorized pan-tilt-zoom camera with embedded microphones enables pointing to presets Tilt Range: +/- 25° (Up/Down) Pan Range: +/- 100° (Left/Right) Horizontal field of view: 65° Total Field of View: 265°

	Horizontal resolution: 460 (PAL)/470 (NTSC) TV lines Zoom range: 10x Auto focus/white balance/brightness/iris Standards-based, far-end camera control (FECC)
21	Must support document camera , VCR and media projectors
22	Must be able to support image sharing perspective of Video Conferencing
23	The equipment must be bundled with high quality Industry Leader Audio conferencing phone
24	The Video Conferencing Equipment must be able to share Voice+Content The Video Conferencing Equipment able to Share any type of visual content from computer and Compatible with all wired, analog conference phones
25	<p>Voice + Content Equipment</p> <p>Maximum Bandwidth Requested</p> <ul style="list-style-type: none"> • H.323 link to other appliances Up to 1 Mbps • HTTP link to each Web viewer up to 256 kbps <p>IP Protocols</p> <ul style="list-style-type: none"> • TCP/IP • HTTP <p>Network Interfaces Supported</p> <ul style="list-style-type: none"> • IP (LAN, DSL, cable modem) • Single 10/100 Ethernet port (10 Mbps/100Mbps/Auto) <p>Internal Multipoint Features</p> <p>Enables up to 15 total sites in meeting</p> <ul style="list-style-type: none"> • 5 appliance-based locations • 10 PC Viewer links <p>Network Features</p> <ul style="list-style-type: none"> • Error Concealment • TCP/IP, DNS, WINS, DHCP, ICMP, ARP, HTTP, FTP, Telnet <p>Security</p> <ul style="list-style-type: none"> • Secure password authentication for each session • Administrator password • Password for Web viewer access • Ability to disable remote interfaces (FTP, Telnet, HTTP) <p>Embedded Encryption</p> <ul style="list-style-type: none"> • Advanced Encryption Standard (AES) • 128-bit key length <p>User Interface</p> <p>Physical UI</p> <ul style="list-style-type: none"> • Tabletop puck • LED indicators for status (idle, preview) • Share button • Info button • Integrated VGA cable to Base unit • VGA in for PC (cable included) <p>Soft Interface</p> <ul style="list-style-type: none"> • Info alerts for new participants and connection status • Info screen on demand: Meeting IP address, Password, Content Status,

	<p>Meeting Participants System Management</p> <ul style="list-style-type: none"> • Diagnostics and software upgrades via PC, LAN • Integrated Web management tool <p>Quality of Service and Experience</p> <ul style="list-style-type: none"> • IP Precedence (ToS) - default • Dynamic Bandwidth Allocation • Proactive Network Monitoring • Packet and jitter control • TCP/UDP fixed-port firewall support <p>Web Viewer Requirements</p> <p>Browsers</p> <ul style="list-style-type: none"> • Internet Explorer 6.0 and higher - Windows® 2000 and XP • Netscape® 7.1 and higher - Windows 2000 and XP • Safari 1.2.4 and higher - Mac® OS 10 <p>Web Viewer Login</p> <ul style="list-style-type: none"> • Login interface for user name & password <p>Web Viewer network requirements</p> <ul style="list-style-type: none"> • 56k and higher
26	<p>The Video Conferencing equipment should support atleast 4 remote Video Conferencing Sites</p>

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S#	Detail Specification of Video Conferencing Equipment
1	<p>Audio Requirement Stereo Quality Audio 14 kHz bandwidth on IP, ISDN, and IP/ISDN mixed calls 7 kHz bandwidth with G.722, G.722.1 3.4 kHz bandwidth with G.711, G.728, G.729A, G.722.1 annex C Integrated Dynamic Echo Cancellation, Automatic Gain Control (AGC), Automatic Noise Suppression (ANS) ISDN Voice Calls Audio Add in Using Latest Industries Highest Audio Conferencing Phones</p>
2	<p>Audio input</p> <ul style="list-style-type: none"> • Built-in dual microphones with wide coverage area • 2X RCA stereo line level for VCR
3	<p>Audio Outputs</p> <ul style="list-style-type: none"> • Built-in dual speakers, with separate audio volume control on video conferencing and PC monitor functionalities • Headphone in front panel (3.5 mm stereo mini jack) • Auxiliary line-level in back panel (3.5 mm stereo mini jack)
4	<p>Videoconference system able to connect Audio conference system ISDN voice callers can be added within the internal multipoint function The Wideband audio conferencing system should significantly enhances the performance of conferencing</p>
5	<p>Video Format: NTSC, PAL,</p>
6	<p>Video Standard Supported: H.264 and other older protocols</p>
7	<p>Video Inputs:</p> <ul style="list-style-type: none"> • Integrated main camera • 1 x Composite; RCA/Phono (Document camera, VCR or second camera)
8	<p>Frame Rates (Point-to-Point) The Video Conferencing equipment should intelligently selects frame rate for best performance 30 fps at 56 kbps up to 2 Mbps 60 fields per second up to 2 Mbps</p>
9	<p>Bandwidth</p> <ul style="list-style-type: none"> • Maximum Data Rate IP: Up to 2 Mbps • Maximum Data Rate ISDN: Up to 512 kbps
10	<p>Embedded Encryption:</p> <ul style="list-style-type: none"> • Advanced Encryption Standard (AES) • FIPS validated by National Institute of Standards & Technology (NIST) certified agency • 128-bit key length • AES software encryption on ISDN, IP (up to 2 Mbps) • Standards-based H.235V3 (IP) • Standards-based H.233/H.234 (ISDN/Serial) • Automatic key generation and exchange
11	<p>User Interface User-friendly graphical interface Customizable home screen and color themes Kiosk mode with scrolling marquee User-selectable camera icons and ring tones Up to (99) user defined camera presets</p>

	<p>Dual-Monitor Emulation Date, Time Server accessibility Calendar and Conference scheduling Alert Signal on home page</p>
12	<p>Quality of Service Feature: RSVP, IP Precedence, ToS Video Error Concealment Audio Error Concealment Universal Plug and Play (UPnP) Dynamic Bandwidth Allocation Proactive Network Monitoring Packet and jitter control Network Address Translation (NAT) support Automatic NAT discovery Configurable video/audio/FECC service value Asymmetric speed control Alternate Gatekeeper TCP/UDP fixed-port firewall support Lip synchronization Echo cancellation Echo suppression Auto gatekeeper discovery Automatic gateway dialing profiles Specify outbound call routing for gateway/ISDN</p>
13	<p>Network Feature:</p> <ul style="list-style-type: none"> • Integration with Cisco Systems Call Manager V4.0 • Automatic IP/ISDN calling • Down speeding over IP and ISDN • IP address conflict warning • Fast Connect IP for quick video connections • Maximum call length digital timer • Auto SPID detection and line number configuration • TCP/IP, DNS, WINS, DHCP, ARP, HTTP, FTP, Telnet
14	<p>Web Streaming: Web Streaming in and out of a call, RTP based, suitable with QuickTime® players</p>
15	<p>PC Monitor functionality</p> <ul style="list-style-type: none"> • Alternative use of display as PC monitor • VGA input (up to SXGA, 1280x1024) • VGA output as pass-through of VGA input • Built-in stereo speakers for PC audio, with separate audio volume control from video conferencing functionality • Video call audible indication when incoming call during PC monitor use
16	<p>The Video Conferencing Equipment should support atleast 1remote Video Conferencing site (Point-to-Point)</p>
17	<p>Must support document camera , VCR and media projectors</p>
18	<p>The Video Conferencing Equipment must be able to share Voice+Content. The Video Conferencing Equipment able to Share any type of visual content from computer and Compatible with all wired, analog conference phones.</p>
19	<p>Voice + Content Equipment Maximum Bandwidth Requested</p> <ul style="list-style-type: none"> • H.323 link to other appliances Up to 1 Mbps • HTTP link to each Web viewer up to 256 kbps <p>IP Protocols</p> <ul style="list-style-type: none"> • TCP/IP • HTTP

Network Interfaces Supported

- IP (LAN, DSL, cable modem)
- Single 10/100 Ethernet port (10 Mbps/100Mbps/Auto)

Internal Multipoint Features

Enables up to 15 total sites in meeting

- 5 appliance-based locations
- 10 PC Viewer links

Network Features

- Error Concealment
- TCP/IP, DNS, WINS, DHCP, ICMP, ARP, HTTP, FTP, Telnet

Security

- Secure password authentication for each session
- Administrator password, Password for Web viewer access
- Ability to disable remote interfaces (FTP, Telnet, HTTP)

Embedded Encryption

- Advanced Encryption Standard (AES)
- 128-bit key length

User Interface

Physical UI

- Tabletop puck
- LED indicators for status (idle, preview)
- Share button
- Info button
- Integrated VGA cable to Base unit
- VGA in for PC (cable included)

Soft Interface

- Info alerts for new participants and connection status
- Info screen on demand: Meeting IP address, Password, Content Status,

Meeting Participants

System Management

- Diagnostics and software upgrades via PC, LAN
- Integrated Web management tool

Quality of Service and Experience

- IP Precedence (ToS) - default
- Dynamic Bandwidth Allocation
- Packet and jitter control
- TCP/UDP fixed-port firewall support

Web Viewer Requirements

Browsers

- Internet Explorer 6.0 and higher - Windows® 2000 and XP
- Netscape® 7.1 and higher - Windows 2000 and XP
- Safari 1.2.4 and higher - Mac® OS 10

Web Viewer Login

- Login interface for user name & password

Web Viewer network requirements

- 56k and higher

