

M P STATE ELECTRONICS DEVELOPMENT CORPORATION LTD
(A Govt. of M.P Undertaking)

Revised Tender Document

For

Supply, Installation and Maintenance of Desk top, projector, Web camera, UPS, LED DISPLAY and Accessories for virtual class room

(Tender no. MPSEDC/MKT/2012/271)

(All pages of this document except for Commercial-bid to be submitted in original duly signed on each page along with the technical bid envelope. The Commercial bid in original is to be enclosed in a separate sealed envelope)

M.P. State Electronics Development Corporation Ltd.

147, Zone-I, M.P. Nagar, Bhopal-462011 (M.P.)

Ph.0755-2579871, 2769816

Fax: 0755-2769824

INVITATION FOR BIDS

Project Director (swan), MPSEDC Ltd., Bhopal invites sealed bids, under two envelopes system, from bidders for Supply, Installation and Maintenance of Desk top, projector, Web camera, LED DISPLAY, UPS and Accessories for virtual class room. Interested bidders may obtain further information from the office of MPSEDC Ltd., Bhopal Bids are invited for the work mentioned hereunder:

S n	Items	Description
A	Scope of Work	Supply, Installation and Maintenance of Desk top, projector, Web camera, UPS, LED DISPLAY and Accessories for virtual class room
B	Cost of bid document	Rs.1000.00 (non-refundable) by Demand Draft/Cash
C	Expected cost of project	Rs.431 lakhs
D	Sale of bid documents	Date 9.10.12 to 30.10.12 (Between 10.30 AM to 5.30 PM)
E	Pre bid meeting	Date 17.10.12 on 3 PM at MPSEDC office
F	Last date of submission of bid	Date 31.10.12 up to 3.00 PM.
G	Date of opening of technical bid	Date 31.10.12 at 4.00 PM.
H	EMD	Rs.8,25,000/- in the form of Demand Draft payable to MPSEDC Ltd at Bhopal
I	Place of opening of bids:	Office of MPSEDC LTD., 147, Zone-1, Maharana Pratap Nagar, BHOPAL (M.P.)
J	Address for communication:	MPSEDC LTD., 147, Zone-1, Maharana Pratap Nagar, BHOPAL (M.P.)

Note; Tender can be downloaded from the website **www.mpsedc.com**. In case tender form has been downloaded from the website, the tenderer will have to enclose a Demand Draft of Rs.1000/- (Rupees One thousand only) of any scheduled bank in favor of MPSEDC Ltd. payable at Bhopal along with the tender.

***Any future Corrigenda/Information shall be posted only on our website www.mpsedc.com**

1. BACKGROUND

Virtual classroom Project setup in 313 Block headquarter High/Higher Secondary Schools and 100 colleges.

The School Education Department, Higher education and Tribal Welfare Department, Government of Madhya Pradesh is in the process of starting Virtual Classrooms in all the 313 Model Schools located in Block headquarters and 100 colleges. The program will be broadcasted from the teaching end at RCVN Noronha Academy of Administration, Bhopal. The students of 313 Schools and 100 colleges will be able to watch the programs being broadcasted using the SWAN/Broadband connectivity and other hardware as being mentioned below. The students will be able to interact with the teacher at RCVN Noronha teaching end in case of any questions on the topic.

The Arrangement has three main Parts. The details are as below

- a. Connectivity to various schools: MPSEDC has provided State wide Area network connecting various PoPs located at districts and their Tehsil with State Headquarter at Bhopal. Various offices located in Districts/Tehsil/Block are then connected to the nearest PoP. In this case schools will be connected to the nearest PoPs through service providers leased line. MPSEDC has also taken Broadband connectivity from service provider. In quite a few cases the connectivity will be provided to these schools/colleges using Broadband
- b. End terminal equipments and virtual class room software: each school/colleges will be given one Desktop, LED Screen, DLP Projector, Screen, UPS, Webcam, wireless mic system etc. The virtual class room software is available with NIC. This is a web based solution accessible through Internet. Each school/college will be given a URL for a particular class.
- c. Contents: will be managed by RCVN.

In future many such schools and colleges will be brought on virtual class room platform

The IT department has developed a State Wide Area Network (SWAN) through which blocks have been connected with districts through 100 MBPS data lines. The network will be used for establishing two-way video conferencing. The following facilities at school level:

- The learning end will be established in Model School of each 313 block head quarter and 100 colleges.
- One dedicated room for housing the computer and other projection accessories.
- One dedicated ICT trained custodian/teacher who can manage the equipment will need to be posted in such schools/colleges.

2 SCOPE OF WORK

1. Following is the scope of work to be performed by the selected vendor:

S. no	Scope of Work Area	Description of Scope of Work/ Deliverables for the Activity
1.	General	<ol style="list-style-type: none">1. The selected vendor must sign SLA at the time of agreement with MPSEDC.2. The selected vendor must Deliver, install, configure equipment mentioned in this tender.3. Will integrate the equipment with NIC virtual Classroom software using SWAN/Broadband.4. Will train local teachers or staff to operate the equipment and

		run virtual class room 5. The selected vendor must provide necessary maintenance support post installation
2.	Testing and Acceptance	The selected vendor must build up an overall plan for testing and acceptance of system, in which specific methods and steps should be clearly indicated. The acceptance test plan will be defined by the selected vendor, agreed and approved by MPSEDC and include all the necessary steps to ensure complete functionality, operation and performance of the system. i. All levels of testing will be conducted at the installation sites. ii. Testing must demonstrate that the new system satisfies the operational and technical performance criteria. Vendor must demonstrate virtual class room by actual logging to the NIC site iii. The selected vendor must provide necessary documentation/licenses to the person identified by RCVP
3.	External Tie Ups & Certification Support	The selected vendor will support and provide necessary inputs for Integrating the IT Infrastructure by coordinating with Application Developer for commissioning and smooth maintenance of the system.

3 ELIGIBILITY CRITERIA

The following are the conditions, which are to be necessarily fulfilled, to be eligible for evaluation of the proposed solution. Only those interested bidders who satisfy the following eligibility criteria should respond to this Tender:

1. In case of the representative/ dealer, the representative/dealer must attach tender specific authorization letter (in the enclosed format in the tender form) from respective manufacturer for all the products quoted by him.
2. In case of dealer the bidder must have turnover more than Rs. 5 crore, for the year 2009-2010 or 2010-2011 or 2011-2012. Attach copy of the audited balance sheet.
3. Bidder or manufacturer must have successfully executed at least 1 project of system integration (in the last three years) of Information technology product for a minimum value of Rs 100 lakhs in the government sector (attach satisfactory completion from the authorized representatives of the client along with the work order).
4. The Bidder must have working office and service center in the state of Madhya Pradesh for at least three years (attach copy of MPST / CST / TIN issued by M.P. If the vendor does not have an office in M.P. he should establish the same within one month of receiving work order).

4 INSTRUCTIONS TO BIDDERS

a. Amendments To Tender

Any changes, additions or deletions in the tender will be available on the website **www.mpsedc.com**. No written communication will be circulated.

b. Tender Evaluation & Contract Award

Any changes, additions or deletions in the tender will be available on the website issued by the Project Director (SWAN/SDC), MPSEDC, Bhopal. No written communication will be circulated.

c. Sealing and Marking of Bids

The bidders shall submit EMD, technical bid (containing the technical specifications offered, literature leaflets etc and the technical and commercial deviation if any) and one original copy of commercial bid in separate, envelopes should be sealed in one main envelope. All the envelopes should be distinctly marked EMD, technical bid, and commercial bid.

The bid will consist of the following:

- i. The bidder should have service support network in Madhya Pradesh for after sales services. (Details of which to be submitted along with the bid).
- ii. Technical deviations if any, from the terms, conditions and specifications as specified in the bid document.
- iii. Bid form duly filled in, signed and complete in all respects
- iv. The price should be firm, exclusive of all taxes and local levies if any. On FOR destination basis.
- v. The rates should be free from all escalation. However, all Tax and duty benefits if applicable should be passed on to us.
- vi. The inner and outer envelopes shall be addressed to the competent authority at the following address:
THE Project Director (SWAN/SDC)
M.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD.
147, Zone-I, Maharana Pratap Nagar, BHOPAL-462011
- vii. The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late."
- viii. If the outer envelope is not sealed and marked, the competent authority will assume no responsibility for the bids, misplacement or premature opening.
- ix. Telex; cable facsimile or fax bids will be rejected.
- x. Conditional bids are liable to be rejected.

d. Deadline for Submission of Bid

Bids must reach to the competent authority at the address specified but not later than the time and date specified in the invitation of Bids. In the event of the specified date for the submission of bids being declared a holiday for the office of the competent authority, the bids will be received up to the appointed time on the next working day.

e. Late Bid

Any bid received after the deadline for submission of bids prescribed by the competent authority, will not be accepted and returned unopened to the bidder.

f. Modifications and Withdrawal of Bid

The bidder may modify or withdraw its bid after bid's submission, provided that written notice of the modification or withdrawal is received by the competent authority prior to the deadline prescribed for submission of bids.

g. Bid Process

i. Opening of Bids

Since it is a Two-bid system, Technical and EMD envelope will be opened first by the Committee constituted for this purpose. If the technical bid specifications offered, EMD and deviations asked (if any) are found in order, the Committee will open commercial bid only for the eligible bidders.

The Committee will open the bids, in the presence of Bidders' representatives who choose to attend on the date specified at the following location:

Project Director (SWAN/SDC)
M.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD.
147, Zone-I, Maharana Pratap Nagar, BHOPAL-462011

Prospective Bidder representatives shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for the office the Competent Authority, the bids shall be opened at the specified time and location on the next working day.

In case, the commercial bid is not opened on the same or next day of opening of technical bid the Committee may decide to open the commercial bid on subsequent dates. In such case the date, time and place of opening of commercial bid will be intimated to the bidders or their representatives.

ii. Preliminary Examination

Before starting evaluation, the bids will be examined 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. In case of computational error the basic price will prevail. In case of error in totals and grand total, the sub total will prevail.

If bid is determined as not substantially responsive, the competent authority will reject it and only the substantially responsive commercial bids will be considered.

The process of evaluation of commercial bid is as follows:

- The Committee, appointed by the Corporation, will first verify that the Bank Draft for Bid Security is in order and as per requirement of the bid. The Committee will examine the bid on Eligibility Criteria as specified. The scrutiny of technical proposals will be based on the Evaluation Criteria determined.
- The Commercial bid will be opened only for the proposals, which are found eligible and technically acceptable by the Committee and approved. On the day specification for the opening of bid, the Committee, appointed by the Corporation, will open the commercial bids of eligible bidders and scrutinize the same minutely.
- The bidder is required to quote for all the items mentioned in price schedule. Therefore any bid, which does not indicate price for all the items, and any item have been left blank, it will be considered that the cost of item has been included in the other items and the total of the price quoted include for all the required items. In case complete product is left blank it will be considered as non-responsive bid and thus liable for rejection.
- After scrutiny, the Corporation after having examined the proposal may accept the same or accept the bid price of any other bidder found suitable or

reject all or any proposal. The decision of the Corporation in this regard shall be final and binding.

- The corporation reserves the right to negotiate the prices with bidder/bidders.
- The quantity mentioned in the tender document is as per our estimate only however, Corporation reserves the right to place order for the less/higher quantity or segregated delivery schedule depending on the actual requirement.

Rejection of Bids

The Competent Authority reserves the right to reject bids which are non responsive, including without limitation, bids which contain or involve the following:

- i. Late or incomplete Tenders
- ii. Failure to conform to the rules or requirements contained in the Tender
- iii. Failure to sign the Tender as an authorized representative
- iv. Proof of collusion among bidders, in which case all Tenders involved in the collusive action will be rejected
- v. Non compliance with applicable law, unauthorized additions or deletions, conditional bids, incomplete bids or irregularities of any kind which may tend to make the bid incomplete, indefinite or ambiguous as to its meaning.
- vi. Any exclusion of requirement within the Tender.

h. Contacting the Competent Authority

No Bidder shall contact on its own, the Competent Authority on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded.

Any effort on part of a Bidder to influence the Competent Authority or members or Technical/Monitoring committee, in its decisions on bid evaluation; bid comparison or contact award may result in rejection of the bidder's bid.

The Bid Security may be Forfeited

If a Bidder withdraws its bid during the period of bid validity specified by the bidder on the bid Form or In case of a successful Bidder, if the Bidder fails:

- i. To accept the order
- ii. To furnish performance security
- iii. If the Vendor, after accepting the purchase order fails to deliver the material/services as per the order.

i. Bid Price

- i. The bidders shall indicate on the prescribed Price Schedule, including item-wise and final Bid Price of the items listed
- ii. Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and shall not be subject to variation on any account.
- iii. A bid submitted with an adjustable price will be treated as non-responsive and rejected.

Terms and Conditions

1. Performance Security:

The project will carry a performance guarantee for 40 months. This guarantee may be invoked on violation of any of the condition (s) given below:

If any of equipments or services, which shall be given by you, does not perform satisfactorily

The observed output/deliverables of the project is not in accordance with the approved specification.

The security system is not foolproof, with unauthorized person being able to access/infiltrate into the system.

In order to take care of the concerns outlined above, the tenderer is required to furnish Performance Guarantee worth of 20% of the value of project, valid up to a period of 40 months. Performance security should be submitted within 15 days of receiving the work order. The Performance Security can be in the form of Bank Guarantee or FDR Pledged in favour of MPSEDC Ltd., Bhopal.

2. Project Time line and Payment Milestone: Total period for Supply, Installation and Commissioning of required hardware and other accessories will be 90 days.

Payment shall be released by MPSEDC as per the following terms:

Payment for 90% of the value of Hardware supplied shall be released against proof of delivery of consignment on submission of bills in triplicate. Balance 10% of the value of the Hardware supplied shall be released on successful installation.

3. Installation Verification & Quality Check: Checking will be conducted by the officer/agency appointed by the Competent Authority.

4. Penalty

- i. Delay in time line – A delay in supply, installation & commissioning of Desk top, projector, Web camera, LED DISPLAY, UPS and Accessories would invite a penalty of 0.5 % of the Desk top, projector, Web camera, LED DISPLAY, UPS and Accessories cost per week. A delay of more than 4 weeks may result in cancellation of contract & forfeiture of Performance Guarantee.

K. Service support requirement

- a. Successful bidder must have a **Service centre at District level**. If the bidder does not have a Service Centre at District Level, he should establish the same within three months of receiving work order
- b. Successful bidder will ensure the proper monitoring and ensure the timely call attending.
- c. The delay in rectification of calls would cause the penalty.
- d. In case of prolonged pending call the schools of Education, Higher Education, Tribal department, GoMP reserves the right to get the defective component repaired from other agencies at the risk of the supplier, and would recover the cost of repair from the supplier.

- e. The delay in call attending / closure will be treated as poor quality of service support and may lead to disqualification of bidder from participation in future bidding/purchases of Education/ Tribal department GoMP, Bhopal.
- f. The following penalty would be deducted for the delay in call rectification.
 - i. Rs.300/- per week for the first two week or part thereof for each computer hardware and other equipment related to the system remained unrectified / unreplaced for more than the above-mentioned period.
 - ii. Rs.700/- per week after the first two weeks are lapsed for next two weeks (ie upto 4th week)
 - iii. Rs.1,000/- per week after the first four weeks are lapsed till the redressal of the complaint

L. Complaint Registration / Redressal System:

L.1 Provide a web based software solution within 3 months from the date of contract along with user manual for raising, maintaining and monitoring complaints logged by users (User rights/license should be provided to concern department after the contract period)

L.2 Setting up centralised managed facility for various offices of the Purchaser to log complaints related to any problems in the laptops. The call logging facility should be available from 10:00 hours to 20:00 hours, all seven days a week, except GoMP declared holidays. In this regard the Supplier should provide complaint ID Nos as well as redressal messages to the user through SMS or e-mail.

L.3 Complaints should be attended within 72 hrs or 3 days (excluding national holidays and Sundays) from the day of lodging of complaint has to be complied. The complaint will be lodged by School representative.

L.4 The successful bidder will maintain the sufficient inventory of spare items

L.5 In case of Faulty component / PC are replaced with new one before taking the old one back, as far as possible to avoid delay.

L.6 Update the status of the calls in the call logging system within the same day.

L.7 Provide access to the authorized persons from concern department side to access the complaint call-logging system and track/ monitor the various calls as well as to monitor Service Levels

L.8 Facilitate upgrades of the antivirus during the support period.

6 GENERAL INFORMATION AND EMD DETAILS

1	EMD Details DD No and date: Amount in Rs. Name of the Bank:	
2	Name and Address of the Tenderer:	
3	Contacts:	
4	Telephones:	
5	Fax:	
6	E-mail:	
7	Mobile No:	
8	Category of the tenderer (Whether company, partnership firm or Proprietary concern)	
9	Name of Chief Executive Officer and Telephone No.	
10	Year of Establishment	
11	Sales Tax/Commercial Tax/ CST nos.	
12	Income Tax PAN/GIR No.	
13	Yearly Turn over of the Last 2 years.	
14	Name and Address of the Banker	
15	List of major Clients and the size of orders executed	

Note: Separate sheets may be attached wherever necessary.

Signature of the Tenderer
With stamp and date

Letter for Submission of tender

The _____
MPSEDC
Bhopal,
Madhya Pradesh
Reference. Tender No.Dated.....

Sir,

Having examined the tender document relating to the Selection of Vendor for Supply, Installation and Maintenance of Desk top, projector, Web camera, UPS, LED DISPLAY and Accessories for virtual class room as detailed in your tender, Conditions and Scope of Work etc, and having understood the provision & requirement relating to the preparation and all other factors governing the tender , We hereby submit our offer to carry out the Selection of Vendor for Supply, Installation and Maintenance of Desk top, projector, Web camera, LED DISPLAY, UPS and Accessories for virtual class room in accordance with the terms & conditions and confirm our acceptance to execute the order within the time period specified in the tender document, at the rates quoted by us in the accompanying Technical & Commercial bid.

If after the tender document is accepted, we fail to complete the Selection of Vendor for Supply, Installation and Maintenance of Desk top, projector, Web camera, LED DISPLAY, UPS and Accessories for virtual class room as per the order, we agree that, MPSEDC Ltd, Bhopal shall have full authority to forfeit the earnest money and cancel our order with no obligation on their part.

We further confirm that,

1. We have successfully executed orders of similar nature and have sufficient experience & financial strength in handling orders of this value.
2. We have sufficient qualified manpower & necessary materials to execute the order efficiently in the specified time schedule. The quoted rates shall be valid till the completion of the order.
3. We further confirm that all chapters of the tender have been read & understood & signed & there is no deviation/discrepancy.

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

We confirm that we have not been blacklisted by any Government/ Government organization in India.

The information given along with the Bid is true and we understand that if the information provided by us is found to be wrong at any point of time during the Bid Process or Contract period our Bid/Contract may be cancelled and the Bid Security/Performance Guarantee may be forfeited.

Signature of the Tenderer
With stamp and date

Annexure - Manufacturers Authorization Form

Ref No:

Dated:

To,
The Project Director (SWAN/SDC)
M.P. State Electronics Development Corporation Limited
147, Zone-I, Maharana Pratap Nagar, Bhopal-462011

Tender No:..... Due Date:

Dear Sir,

We _____ who are established and reputed
Manufacturers of _____ having factories at _____
(address of the
factory) do hereby authorize M/s _____ (Name &
Address of the Bidder) to submit a bid, and subsequently negotiate and sign the contract
with you against the above tender.

We hereby extend our full guarantee, warranty and support and also in meeting
warranty obligations by providing necessary spares in time for the goods & services
offered by the above firm against this tender, as per standard as well as MPSEDC
warranty terms.

Yours faithfully

(Name)
(Name of the manufacturer)

Note: This letter of authority should be on the letterhead of the manufacturer be signed
by a person competent and having a power of attorney to bind the manufacturer. The
bidder in its bid should include it.

Technical Specifications

Note: Bidder has to provide the following items as required.

1. Desktop for web based Videoconferencing (those brands which figure in top 5 ranking of IDC market analysis (For PC market in INDIA) (Latest quarterly analysis report)

- a) It should be Desktop PC with Intel 2nd Generation i5 Dual Core Processor, 3.1GHz clock, / AMD Phenom II x4 Processor, 3.1GHz clock, 2GB DD3 SDRAM expandable to 4 GB, 500 GB Hard disk Drive, internal DVD recorder, with Windows 7 or latest operating system.
- b) Shall have minimum 4 USB ports to connect various USB devices
- c) Shall have integrated HD Audio Controller
- d) Shall have integrated Gigabit Ethernet card
- e) Shall have PS2 Keyboard and optical Mouse
- f) shall have Dual Display Adapter to support 1920x1080 pixel resolution or more on both the display ports with VGA Port (DB-15) and DVI-I interfaces
- g) Shall have 16x DVD RW Drive
- h) 21" or bigger TFT/LED/LCD display monitor DVI and VGA inputs to support 1920x1080 pixel resolutions
- i) Preloaded Windows 7 or latest OS with all necessary Drivers in a Optical Media as recovery disk
- j) Desktop shall be Energy Star certified
- k) operating conditions 230v, 50Hz AC power supply

2. USB Based Microphones cum Speaker with built-in Echo Canceller (Clear One Chat-50 / Jabra 410 or any other equivalent)

- a. Should be USB based plug-n-play device to operate with various Windows OS, Linux and Mac systems
- b. Shall have good pickup of about 1.5 meters (6-7 feet) distance from the Microphone coverage of 360 Deg.
- c. shall operate in Full Duplex (Speak and listen simultaneously)
- d. Shall have a Built-in Echo Cancellation
- e. Shall have Volume control button for increase and decrease according to local preferences
- f. Shall have a Local Microphone Mute/Un-mute button with visual indication such as bi-colour LED
- g. Frequency response for microphone shall be 100 Hz - 7 KHz or better
- h. Shall deliver a HD quality speaker output / 220 Hz to 14KHz or better.
- i. Shall have an 3.5 mm mini phone connector to connect to external devices such as speakers and Microphones with echo cancellation
- j. Firmware shall be upgradable
- k. Should be supplied with a 10 feet additional USB extension connecting cable.

3.USB based Logitech HD Pro Web Cam 920/ Microsoft Lifecam C910 or equivalent etc

- a. Should be USB based plug-n-play device to operate with various PC / Laptops
- b. Shall support Full HD 1080p video calling (up to 1920 x 1080 pixels)
- c. Shall support 720p video recording
- d. Shall have Thermal stabilized Lens such as Carl Zeiss® lens with autofocus / High Precision Lens for clear picture
- e. Shall have software for video recording using H.264 codec.
- f. Shall work with Windows, MAC and Linux operating systems
- g. Shall have minimum 5 feet USB connecting cable
- h. Shall work with low lighting environment

- i. Shall have built-in microphones for audio pickup from distance of 5 feet.
- j. shall have Wide angle lens to capture more people
- k. Shall have suitable stand/Fixture to mount on Laptop/PC monitor screens

4. 40"LED Display

- a. LED Monitor should be of 40" size or bigger
- b. Should support native resolution of 1920x1080 pixels (Full HD)
- c. One HDMI, DVI input along with Audio input and should work satisfactorily
- d. DVI/D-sub 15 pin input for PC connectivity with Audio input
- e. Selectable HD Component/Composite video input along with Audio input
- f. Built-in audio amplifier for 10W RMS power with speakers
- g. Easy to use infrared Remote Controller
- h. Display should have CE,UL,FCC and energy star 5.0 Certification
- i. OEM supplied Wall mount kits
- j. 230 V, 50 Hz AC input
- k. Should have capability of multi-media playback via USB, supporting Movie & Photo formats : Mpeg (1,2,4), H.264, DivX, FHD @ 30 fps, JPEG, JPG, JPE, PNG, BMP, MP3,WMV

5. Wireless Hand-Held Microphones (Ahuja, Studio master, shure, sennheiser, Samson or equivalent)

- 1. It shall be UHF/VHF handheld microphone with auto selection of channel.
- 2. Shall have dual receiver for simultaneous reception of Lapel Microphone with body pack and Hand Held Microphone.
- 3. Shall have good pickup for a typical distance of 1 feet
- 4. shall have audio frequency response of 80Hz to 15 KHz.
- 5. It should work with an operating distance of 50 ft. from its base stations.
- 6. shall have RF frequency stability +/- 0.05% with PLL control
- 7. Total Harmonic distortion should be less than 1%
- 8. Microphone (i.e., Lapel Microphone / Hand held Microphone) shall have Mic on/off switch locally
- 9. Receive shall indicate Microphone On/Off status
- 10. Shall have necessary mounting accessories for mounting in 19" Rack.
- 11. Battery of Wireless microphone must have 2 hrs backup.
- 12. Shall operate with 230V, 50Hz power supply

6. XGA Projector systems and Screen(Nikon, mitsubhushi, infocus, acer, Panasonic, optima, sony, sharp, or equivalent)

- 1. Projector should have brightness of 3000 ANSI Lumens or more for colour and white light output
- 2. shall have suitable DLP based technology
- 3. Should support XGA input resolution with native resolution of 1024x768 or more pixels
- 4. One HDMI / DVI input along with Audio input and should work satisfactorily with HD VC systems
- 5. DVI/D-sub 15 pin input for PC connectivity with Audio input
- 6. HD Component /Composite Video along with Audio input
- 7. All inputs of the projector should be supplied with 10 m connecting Cables with suitable interface converters.
- 8. Image inversion & keystone adjustments for ceiling mount operations
- 9. Easy to Use infrared Remote Controller
- 10. Ceiling mount kit
- 11. Replacement of the projector Lamps and other consumables, if necessary during the warranty period.

12. 230 V, 50 Hz AC input
13. High gain Screen of 8'x6' along with necessary mounting kits with a provision to retract the screen when not in use.

7. Cables and Connectors

- a. 3 mts length - DVI to HDMI Cable
- b. 10 mts length - DVI to HDMI Cable
- c. 3 mts length - Phono to 3.5 mm mini Phono Cable
- d. 5 mts 3.5 mm Phono Stereo to 3.5 mm Phono Stereo Audio cable
- e. 5 mts VGA Cable along with Audio (3.5 mm stereo)

8. TECHNICAL SPECIFICATIONS UPS 1000 VA, ON-LINE, 1 HOUR BACKUP

Technology: PWM technology in true On-Line configuration with double conversion using IGBTs in Inverter and IGBT/SCR in converter

	Description/ Parameter	Specifications Required
01	Input Voltage Range	230v + 15 –30 % Single Phase
02	Input Frequency Range	47 Hz To 53 Hz
03	Output Voltage Regulation	230 V \pm 1%
04	Output Frequency	50 Hz \pm 0.1% Free Running 50 Hz \pm 6% synchronized to mains
05	Output Power Rating	1000 VA/700 Watts
06	Output Waveform	Sine Wave
07	Total Harmonic Distortion For Linear And Non-Linear Loads	Less than 5%
08	Overload Capacity	110 % For 10 Minutes 150 % For 1 Minute
09	Transient Response For 100% Step Load	\pm 10% With Recovery Within 3 Cycles.
10	Efficiency Overall Inverter	Better than 85% Better than 90%
11	Crest Factor	3:1
12	Operating Temperature	0-50 degrees Centigrade
13	Relative humidity	0 % to 95%, non condensing
14	Battery Charger	Built In Float Cum Boost Charger With CC & CV Mode. Should be able to charge a fully discharged battery in 10 hours
15	Protections	-Input And Output Under Voltage And Over Voltage Protection,-Output Short-Circuit Protection, Output Overload Protection- Full Isolation Between Input & Output.
16	Indications	Mains ON, Charger ON, Battery Low, Inverter ON, System Trip / Inverter Trip
17	Alarms	-Low Battery, Mains Failure
18	Metering	Input Voltage, Output Voltage and Current, Battery Voltage And Current.
19	Power management software	Software suite CD ROM (Bundled with UPS)
20	Nominal DC Voltage	(To Be Specified)
21	Backup Time	1 Hour on Full Resistive Load Of 700 Watts
22	No. Of Batteries	(To Be Specified)
23	Type Of Batteries	Sealed, maintenance free
24	Capacity Of Batteries	Minimum 1440 VAH
25	Make Of Batteries	(To Be Specified Only reputed makes will be considered)
26	Manual Bye Pass	To Be Provided
27	Static Bye Pass	To Be Provided if required with changeover within 4 ms
28	Audible noise	Not more than 55 dbA
29	Accessories	Power cables, media, manageability software, documentation etc

30	Supported os for manageability software	Windows 2003 server, win 2000 pro, Win Xp, Windows Vista
31	Warranty	Three years on site including Batteries.

9.Server Rack: Technical Specifications

SN	Feature	Description
	Make	to be filled by bidder
	Model	to be filled by bidder
1	Width	19"
2	Height	42U
3	Depth	1000mm
4	Frame	Floor Standing Heavy Duty Extruded Aluminium Frame. Top cover with FHU provision. Top & Bottom cover with cable entry gland plates. Heavy Duty Top and Bottom frame of MS. Two pairs of 19" mounting angles with 'U' marking. 3 pairs of Depth support channels.
5	Overall weight carrying Capacity	Minimum 1000 Kg
6	Bracket	Vertical sliding brackets to mount patch panels vertically between bayed position of the cabinets
7	Standards	Conform to EIA-310 Standard for Cabinets, Racks, Panels and Associated Equipment and accommodate industry standard 19" rack mount equipment.
8	Door	Steel (solid / grill / mesh) front / rear doors and side panels. Racks should NOT have glass doors / panels. Front and Rear doors must have the ability to open from the left and right without the need for any field modifications or tools.
9	Door Hinges	Dual hinged front, Quad hinged rear doors, Open from left or right, Easily removable
10	Perforation	Front and Back doors should be perforated hexagonal with minimum 70% Perforation and 100% air perforation area to 19" mounting angles.
11	Lock & Key	Rack should be lockable on all sides
12	Cooling System	Racks should be compatible with floor-throw as well as top-throw data centre cooling system
13	Fan Housing & Environment Monitoring	Fan Housing Unit with minimum 4 Fans of :90CFM 230VAC 4" dia or better, Top Mounted with Thermostat based monitoring, The Fans should switch on based on the Temperature within the rack. The temperature setting should be factory settable. equipped with humidity & temperature sensors
14	Power Distribution Unit Per Rack	Suitable to give power to all components PC, TV, Projector etc: 5 A 10 nos and 15 A 5 nos
15	Interface Adapter Per Rack	1x PS/2 Interface adapter, 1xUSB Interface Adapter
16	Mechanical / Electrical Properties	Adjustable mounting depth, Multi-operator component compatibility, Numbered U positions, Powder coat paint finish and Protective grounding provisions.

17	Minimum Accessories to be supplied Per Rack	Mounting hardware : 2 Packs Blanking Panel 4U - 5 U size : 1 No. Keyboard Tray with BB slides (Rotary type) : 1 No. 627mm Stationary Shelf : 2 Nos.
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FINANCIAL BID

SI No.	Component	Unit	Qty	Rate per unit	Amount (inclusive of taxes and three year warranty)
1	Desktop	1	413		
2	USB Based Microphones cum Speaker with built-in Echo Cancellor	1	413		
3	USB based Logitech HD Pro Web Cam 920/ Microsoft Lifecam C910 or equivalent etc.	1	413		
4	40" LED DISPLAY	1	413		
5	Wireless Hand-Held Microphones	2	826		
6	XGA Projector systems and Screen	1	413		
7	Cables and Connectors	-	-		
8	UPS (1KVA) with 1 hr backup	1	413		
9	42 U Rack	1	413		
10	Earthing 0.5 to 1 ohms	1	413		

The quantity of hardware may be changed as per requirement. Payment shall be made as per actual quantity installed.

Signature and Seal of Bidder