



HLL Lifecare Limited
(A Government of India Enterprise)
Corporate and Registered Office,
HLL Bhavan, Poojappura,
Thiruvananthapuram– 695 012
Kerala, India.
Phone: 0471 – 2354949
Website: www.lifecarehll.com

Invitation for Bids

Supply, Installation and Configuration of HD based Video Conferencing System and associated AV System

Date	:	Dated 16 th November 2013
IFB No.	:	HLL/IT/CHO/VC/2013

The schedule of the bid is given below.

Last date and time for receipt of bids	:	15.00 Hrs on 25.11.2013
Time and date of opening of Bids	:	15.30 Hrs on 25.11.2013

Dear Sir,

Sub: Supply, Installation and Configuration of HD based Video Conferencing System and associated AV System.

HLL Lifecare Limited (HLL), Thiruvananthapuram invites sealed competitive bids from the eligible and interested suppliers for the supply, installation and configuration of video conferencing equipment (IP based) with associated AV System at our Corporate & Regd Office, Poojappura, Thiruvananthapuram.

Background

- HLL is already having the SD (Standard Definition) based video conferencing facility (multipoint, IP based) at Corporate & Regd. Office, Thiruvananthapuram and 4 of its factories and offices connected through Wide Area Network (WAN) across India.
- It is intended to upgrade the existing video conferencing (VC) facility at Corporate & Regd. Office; Thiruvananthapuram to the latest HD based VC facility at the conference hall supported with AV system.

Requirement and Scope of work:

- The successful bidder has to install and configure the VC system, LED TV and other accessories in the conference hall at our Corporate & Regd. Office, Thiruvananthapuram (Layout is given in **Annexure – I**) for the purpose of video conferencing and presentation.
- The VC system should facilitate conducting VC with outside offices other than HLL through internet (Static/public IP based) and Computers having web camera. The VC system should support multipoint session (minimum 1+3) and VC with presentation. The detailed Schedule of Requirements and Technical specifications are given in **Annexure - II**

Terms and conditions

1. The prospective bidder should have a minimum three (3) years experience in supply, installation, configuration and maintenance of video conferencing equipment for which the supporting documents like purchase order (for the past 3 years) or client certificate etc. should be submitted along with bid.
2. The OEM brand of quoted product (VC system) should be in existence for the past 5-10 years and should be available in the market. The bidder should be an authorized partner for the product quoted. The bidder should submit the Manufacturer Authorization Form (MAF) from the OEM which is addressed to HLL along with the bid.

3. The bidder should have service support centre /authorized service agency in Thiruvananthapuram and the bidder should furnish the address of such location and contact person details along with the bid.
4. The bidder should have not been blacklisted by and state/central Government organizations/firms/institutions for which the self-certificate stating that the bidder has not been blacklisted by any institution of the Central / State Government in past three years may please be submitted.
5. The bidder may submit Certificate of incorporation and Audited Balance Sheet / Profit & Loss Account/Annual Report for the last three financial years along with the bid.
6. The prices for all the quoted products should be quoted as per the format for price schedule enclosed (**Annexure – III**).
7. Rates quoted being door delivery basis, the Supplier shall be fully responsible till full material is received in good condition at consignee's site. As such the Supplier shall despatch the material duly insured.
8. Bids should be clear in all respects and those with ambiguous clauses shall be summarily rejected.
9. The exact make/brand and model of all the quoted products should be clearly mentioned in the bid
10. In the price schedule, if there is any discrepancy between the unit price and total price the unit price shall prevail and the total price shall be corrected by the purchaser accordingly.
11. All breakdown calls should be attended within 2 hours of intimation.
12. Training should be provided at free of cost to the concerned person(s) at HLL for the operation of these items.
13. The bid shall be evaluated by taking the total amount quoted for all the items.
14. The bid shall be valid for a period of 90 days from the date of opening of bids. However HLL will have the right to ask the bidder to increase the validity period if required.
15. The purchase order shall be placed on the first lowest responsive bidder.
16. The bids should contain the complete technical specifications of the equipment supported with illustrative literatures/catalogues/brochures for all the items quoted with compliance statement and other relevant documents mentioned in the bid.
17. All the quoted products should have minimum of **three (3) years** onsite warranty from the date of installation. During this period, repair/replacement of all the defective items/parts shall be provided by the supplier at free of cost.
18. The items should be delivered and installed at the respective location within **4 weeks** from the date of placement of order.
19. Necessary accessories, user manuals /CDs for all the items are to be supplied along with the equipments.
20. HLL will have the right to increase or decrease up to 20% of the quantity of goods and services specified in the schedule of requirements without any change in the unit price or other terms and conditions

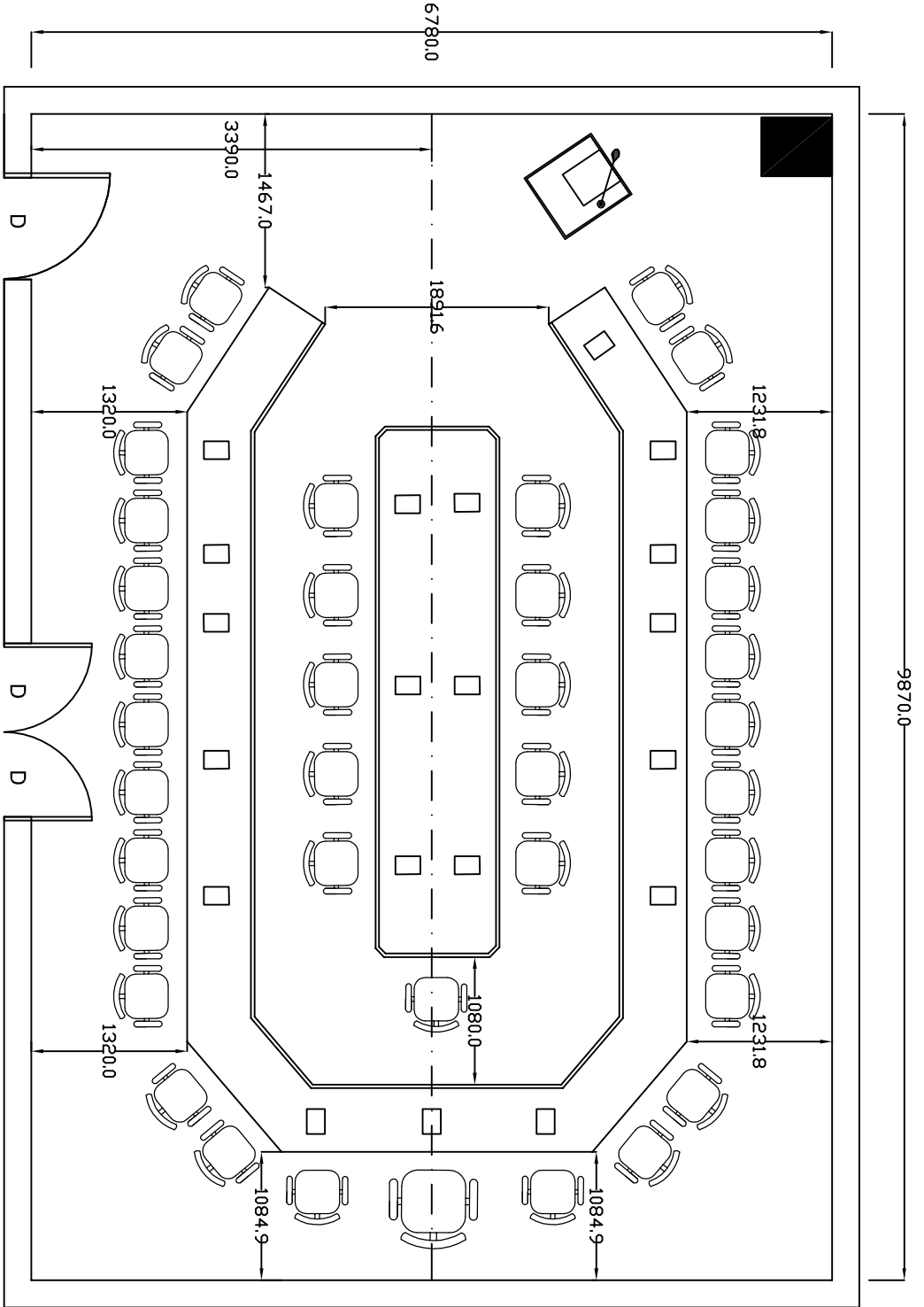
21. Payment of 90% of the total price of goods shall be made on receipt of goods by the purchaser and upon successful completion of installation. For claiming this payment the following documents are to be submitted to the paying authority.
- (i) Invoice (Three copies)
 - (ii) Delivery Challan
 - (iv) Installation certificate signed by both the user and the supplier's representative.
 - (v) Warranty Certificate
- Payment of 10% of the total price of the goods shall be paid within 3 months from the date of installation against a Performance Bank Guarantee from a Nationalized Bank for the 10% of the total value valid till the warranty period.
22. Penalty @ 0.50 % per week delay subject to a maximum of 5 % is applicable for delayed delivery.
23. The bids should be submitted at the following address.
- Associate Vice President (IT)**
HLL Lifecare Limited
Corporate and Regd. Office,
HLL Bhavan, Poojappura,
Thiruvananthapuram – 695 012,
Phone: 0471- 2354949.
24. Bids should be submitted on or before **15:00 Hrs on 25.11.2013** and the same **will be opened at 15.30 Hrs on the same day** at Corporate and Registered Office, HLL Bhavan, Poojappura, Thiruvananthapuram in the presence of the representative of the bidder who chooses to attend. If the bid opening day is declared as holiday, the bid will be opened at the next working day of HLL.
25. No bid will be received after the deadline for submission of bids.
26. HLL reserves the right to accept/reject any or all of the bids without assigning any reason whatsoever.
27. The envelopes containing the bid shall bear the words **DO NOT OPEN BEFORE** ..+(Here insert the time and date of bid opening).
28. No bids through Email or fax will be accepted.
29. Any dispute arising out of the tender/bid document/ evaluation of bids/issue of purchase order shall be subject to the jurisdiction of the competent court at Thiruvananthapuram only.

Thanking you,

Yours faithfully,

P. Sivakumar
Sr. Manager (Hardware)

Layout of Conference Hall



Schedule of Requirements

Sl. No	Description of the Item	Quantity in Nos	Preferable make
1.	Full High Definition Video Conferencing Unit	1	Polycom/ CISCO/ Tandberg or equivalent OEM
2.	80 Inch Professional LED Display	1	Panasonic /Samsung /Sony/Sharp
3.	Wall mounting bracket for the display	1	Custom
4.	Wall Plate Type 1	1	Creston / AMX / Jupiter
5.	Wall Plate Type 2	1	
6.	Switcher & Distribution Amplifier	1	
7.	High Definition Scaler	1	
8.	Patch Cables Type 1	3	Creston / AMX / Belden
9.	Patch Cables Type 2	2	
10.	Patch Cables Type 3	2	
11.	Patch Cables Type 4	1	
12.	Patch Cables Type 5	1	
13.	Patch Cables Type 6	2	
14.	Powered Speaker with Mounting Kit in pair	1	JBL/Bose/Tan noy
15.	Wireless Extender for HDMI at 1080P	1	Creston / Gefen / Jupiter
16.	Mounting accessories	Lot	Custom
17.	Bulk Cables & Connectors	Lot	Creston / AMX / Belden
18.	Standalone Application for Video Communication	5	Same as VC

1. Video Conferencing Unit

Sl. No	Description	Specification	Compliance	Remarks
The End Point should be a codec based hardware				
1.	Package Should Include:	Full HD 1080p camera, codec, Microphone Array, cables and remote control		
2.	Video Standards and Protocols	H.261, H.263, H.264. The system should be Capable to support futuristic protocols like SVC. H.239, H.263 & H.264 Video error concealment		
3.	Video Input	1 x Full HD camera as input. 1 x HDMI port. 1 x VGA port		
4.	Video Out	At least 2 x HDMI port to connect displays.		
5.	People Video Resolution	1080p, 60 fps from 1740 Kbps, 1080p, 30 fps from 1024 Kbps, 720p, 60 fps from 832 Kbps, 720p, 30 fps from 512 Kbps, 4SIF/4CIF, 60 fps from 512 Kbps, 4SIF/4CIF, 30 fps from 128 Kbps, SIF (352 x 240), CIF (352 x 288) from 64 kbps, QSIF (176 x 120), QCIF (176 x 144) from 64 kbps, w288p from 128 kbps, w448 from 384 kbps, w576p from 512 Kbps, The System should also support 1080p, 60 fps from day one.		
6.	Input and Output Content Video Resolution	Input: WUXGA (1920 x 1200), HD (1920 x 1080i), HD (1920 x 1080p), WSXGA+ (1680 x 1050), UXGA (1600 x 1200), SXGA (1280 x 1024), WXGA (1280 x 768), HD (1280x720p), XGA (1024 x 768), SVGA (800 x 600) Output: WUXGA (1920 x 1200), HD (1920 x 1080), WSXGA+ (1680 x 1050), SXGA+ (1400 x 1050), SXGA (1280 x 1024), HD (1280 x 720), XGA (1024 x 768), VGA (640 x 480), Content sharing on LAN network. The Content Frame Rate of 30/60 fps @1080p resolution. Content frame rate of 1080 p at 5 frames to 60 frames. S+B13 to do Content Sharing during a VC call.		

7.	Camera specifications	Full HD, 1280 x 1080p CCD imager, Optical Zoom - 12X or more, Field of View 72 Degree		
8.	Audio Input ports	1 x Microphone Array (supporting a total of 2 microphones) 1 x HDMI (digital audio) port 1 x 3.5mm Stereo Line-in port		
9.	Audio Output ports	1 x HDMI (digital audio) port 1 x 3.5mm Stereo Line-in port		
10.	Other Interfaces	2 x USB 2.0, 1 x RS-232 Mini-DIN 8-Pin port		
11.	Audio Standards and Protocols	Siren 22,AAC-LD, 20 kHz bandwidth with G.719, 14 kHz bandwidth with Siren 14, G.722.1 Annex C, 7 kHz bandwidth with G.722, G.722.1, 3.4 kHz bandwidth with G.711,G.728, G.729A or Equivalent or Better Should support the following Automatic gain control, Automatic noise suppression, Keyboard noise reduction, Live music mode, Instant adaptation echo cancellation, Audio error concealment, Lost Packet Recovery or equivalent technology, Stereo Surround technology		
12.	Other Supported Standards	H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460, Should also support BFCP (RFC 4562),		
13.	Network parameters	At least 1 x 10/100/1000 Ethernet, Should support the following Auto-MDIX, H.323 and/or SIP up to 6 Mbps, reconfigurable MTU size, RS232 with API, Microsoft Office Communications server integrations, Microsoft ICE, Microsoft Lync,IBM Sametime		
14.	Security specifications	a. Algorithms: SHA-1, SHA-256, AES (256- bit, CBC/OFB/counter), PRNG b. Authenticated access to admin menus, web interface and telnet API, c. FIPS 140-2 Validated Cryptography (Validation Certificate #918)		

		<p>d. PKI & certificate management (TLS 1.0 and SSL 3.0) , 1+3 location multiparty capability in High Definition CP mode. Multipoint conferencing should be HDCP supported.</p> <p>Should be possible to integrate a conference phone (Optional) and to integrate a Audio Mixer through a digital interface or equivalent interface.</p>		
15.	Electrical specifications	Auto sensing power supply,		
16.	Standard operating voltage/power specifications should be complied:	125VA @ 230V @ 60Hz		
17.	Environmental Specification	<p>a. Operating temperature: 0-40°C,</p> <p>b. Operating humidity: 15 - 80%</p>		

2. LED TV Display (Professional)

Sl. No	Description	Specifications	Compliance	Remarks
1.	Screen Size	Minimum 80 % (Inch)		
2.	Panel Type	LED		
3.	Aspect Ratio	16:9		
4.	Minimum Display Area	1770 x 990		
5.	Number Of Pixels	1920x1080		
6.	Minimum Brightness	700 cd / m2		
7.	Contrast Ratio	Min 4800:1		
8.	Response Time	Max 10 ms		
9.	Inputs Terminals	Minimum HDMI . 3 Nos		
10.		DVI D 24 Pin . 1 no		
11.		Audio In M3 Jack x 1		
12.		Mini D Sub 15 Pin		
13.	Out Put Terminal	DVI D 24 Pin . 1no		
14.	Control Port	RS232 x 1 In & Out, 1 No LAN RJ 45		
15.	Looping	DVI D In-Out		
16.	Audio	Switched Audio line Out		
17.	Expansion Function Slot	1 No		
18.	Function Card support	HD- SDI		
19.	Continuous Operation	24x7		
20.	Video Wall Expansion	Should be expandable by placing the same model in a matrix up to 3x3		
21.	Mounting	Wall Mount Kit		

3. Presentation Plate Type 1

Sl. No	Description	Specifications	Compliance	Remarks
1.	Wall Plate	1 No female DB15 HD connector (i.e., HD-15, DE15) and one (1) 1/8" mini-TRS connector, labeled for computer VGA and stereo audio. A bulkhead type feed-thru connector is used, providing a female DB15HD connection at the rear of the wall plate, facilitating installation using a standard VGA cable. Audio wiring is connected via a 3-pin terminal block.		

4. Presentation Plate Type 2

Sl. No	Description	Specifications	Compliance	Remarks
1.	Wall Plate	1 No Type A HDMI connector. A bulkhead type feed-thru connector is used, providing a female HDMI connection at the rear of the wall plate to facilitate installation using a standard HDMI cable.		

5. Switcher & Distribution Amplifier

Sl. No	Description	Specifications	Compliance	Remarks
1.	Video Input	HDMI		
2.	Video Format Supported	HDMI w/Deep Color & 3D, DVI, HDCP content protection support		
3.	Input Resolution	640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz,852x480@60Hz, 854x480@60Hz, 1024x768@60Hz,1024x852@60Hz, 1024x1024@60Hz,1280x720@50Hz(720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24),1920x1080@25Hz (1080p25),920x1080@50Hz (1080p50),1920x1080@60Hz(1080p60),1920x 1200 @		

		60Hz,2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock		
4.	Input Resolutions, Interlaced	720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock		
5.	Output Resolutions	Matched to inputs		
6.	Audio Switching	3x1		
7.	Audio Signal Types	HDMI, Display Port Multimode[1], SPDIF coaxial, SPDIF optical (TOSLINK), HDMI, SPDIF coaxial, analog 2-channel		
8.	Audio Formats	HDMI only: Dolby Digital Plus, Dolby® True HD, DTS-HD High Res, DTS-HD Master Audio , Up to 8ch PCM Analog: Stereo 2-channel Digital to Analog conversion: 24-bit 48 kHz		
9.	Audio Performance	Frequency Response: 20Hz to 20kHz ±1dB S/N Ratio: >70dB, 20Hz to 20kHz A-weighted THD+N: <0.2% @ 1kHz Stereo Separation: >60dB		
10.	Communications	USB: For console, USB 2.0 client,HDMI: Passes CEC (between HDMI IN & HDMI OUT 1 only), provides EDID and HDCP key management		
11.	Connectors	Audio In (Optical) (1) JIS F05 female (TOSLINK) optical fiber connector; S/PDIF optical digital audio inputRCA female; Audio in SPDIF: S/PDIF coaxial digital audio input; Input Impedance: 75 Ohms Audio out:1) RCA female; S/PDIF coaxial digital audio output; Output Impedance: 75 Ohms (2) RCA female; Unbalanced stereo line-level audio output; Maximum Output Level: 2 Vrms; Output Impedance: 100 Ohms nominal HDMI digital video/audio input; Also supports DVI and Display Port Multimode HDMI Out 1-2: (2) 19-pin Type A HDMI female; HDMI digital video/audio outputs; Also supports DVI[1] Computer: (1) USB Type B female; USB 2.0 computer console port		
12.	Controls and Indicators	8 Toggle DIP Switches; configure audio source, audio format, audio EDID, and video EDID 16-position rotary DIP Switch, selects number of HDCP keys, Red/green dual-color LED - Green indicates valid HDMI input signal presence, Red indicates HDMI source requires authentication Red/green dual-color LEDs - Green indicates presence of a non-HDCP signal, Red indicates presence of an HDCP signal		

6. High Definition Scaler

Sl. No	Description	Specifications	Compliance	Remarks
1.	Input Signal Types:	HDMI, DVI, Display Port Multimode RGB, component (YPbPr), S-Video (Y/C) composite		
2.	Output Signal Types:	HDMI, DVI		
3.	Formats	HDMI, DVI, HDCP content protection support, RGBHV/RGBS/RGsB up to UXGA/WUXGA, HDTV up to 1080p60, NTSC or PAL		
4.	Scaler Output Resolutions, Interlaced:	1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30)		
5.	Analog-To-Digital Conversion	10-bit 165 MHz per each of 3 channels		
6.	Audio Format Digital	Audio Format Digital: Dolby® Digital, Dolby Digital EX, DTS®, DTS-ES, DTS 96/24, Up to 8ch PCM Formats, Analog: Stereo 2-channel Analog-To-Digital Conversion: 24-bit 48 kHz Frequency Response: 20Hz to 20kHz ±0.75dB; S/N Ratio: >90dB, 20Hz to 20kHz A-weighted; THD+N: <0.05% @ 1kHz; Stereo Separation: >90dB		
7.	Audio Input	3.5mm TRS mini phone jack; Unbalanced stereo line-level audio input; Input Impedance: 10k Ohms; Input Level: 2 Vrms maximum		
8.	RGB HV Input	DB15HD female; RGB (VGA), component, S-Video, or composite video input[3]; Formats: RGBHV, RGBS, RGsB, YPbPr, Y/C, NTSC, PAL; Input Levels: 0.5 to 1.5 Vp-p with built-in DC restoration; Input Impedance: 75 Ohms; Sync Input Type: Autodetect RGBHV, RGBS, RGsB, YPbPr; Sync Input Level: 3 to 5 Vp-p; Sync Input Impedance: 1k ohms		

9.	HDMI Input	19-pin Type A HDMI female; HDMI digital video/audio input; Also supports DVI and Display Port Multimode		
10.	HDMI Output	19-pin Type A HDMI female; HDMI digital video/audio output; Also need to support DVI		

7.Patch Cable Type 1 (HDMI)

Sl. No	Description	Specifications	Compliance	Remarks
1.	Length	3 Feet		
2.	Speed	High speed category 2 HDMI Cable		
3.	Resolution	Should support 1080P60 HDTV with 16 bit colour depth, Need to handle computer resolutions up to WQXGA.		
4.	Connector	24k gold plated 19 pin Type A connectors, High flex CL3 rated Jack.		

8.Patch Cable Type 2 (HDMI)

Sl. No	Description	Specifications	Compliance	Remarks
1.	Length	6 Feet		
2.	Speed	High speed category 2 HDMI Cable		
3.	Resolution	Should support 1080P60 HDTV with 16 bit colour depth, Need to handle computer resolutions up to WQXGA.		
4.	Connector	24k gold plated 19 pin Type A connectors, High flex CL3 rated Jack.		

9.Patch Cable Type 3(HDMI)

Sl. No	Description	Specifications	Compliance	Remarks
1.	Length	12 Feet		
2.	Speed	High speed category 2 HDMI Cable		
3.	Resolution	Should support 1080P60 HDTV with 16 bit colour depth, Need to handle computer resolutions up to WQXGA.		
4.	Connector	24k gold plated 19 pin Type A connectors,High flex CL3 rated Jack.		

10. Patch Cable Type 4 (VGA)

Sl. No	Description	Specifications	Compliance	Remarks
1.	Length	3 Feet		
2.	Band width	High bandwidth Computer VGA cable with audio		
3.	Audio	Integrated mini TRS stereo audio cable		
4.	Resolution	Support resolution up to WUXGA		
5.	Connectors	High density 15 pin connectors, High flex CL3 rated jacket.		

11. Patch Cable Type 5 (VGA)

Sl. No	Description	Specifications	Compliance	Remarks
1.	Length	12 Feet		
2.	Band width	High bandwidth Computer VGA cable with audio		
3.	Audio	Integrated mini TRS stereo audio cable		
4.	Resolution	Support resolution up to WUXGA		
5.	Connectors	High density 15 pin connectors, High flex CL3 rated jacket.		

12. Patch Cable Type 6 (DVI)

Sl. No	Description	Specification	Compliance	Remarks
1.	Length	6 Feet		
2.	Type	Converts HDMI to DVI or DVI to HDMI		
3.	Resolution	Support 1080p60 HDTV and WUXGA computer resolutions		
4.	Connectors	24 k Gold plated HDMI Type A and DVI-D connectors, High flex CL3-rated jacket.		

13. Powered Speaker with Mounting Kit

Sl. No	Description	Specifications	Compliance	Remarks
1.	Amplifier Power:	35 Watts per Channel		
2.	Frequency Range:	80 Hz - 20 kHz LF: 135 mm (5.25 in) low frequency loudspeaker HF: 19 mm (.75 in) Polycarbonate dome tweeter		
3.	SPL	Maximum : 115 dB SPL Per Pair		
4.	Cross over frequency	4.2 Khz		
5.	Input Sensitivity	+4 dBu XLR 1/4"; 0 dBu RCA		
6.	Audio Port	Head phone jack 3.5mm		
7.	Mounting kit	OEM Mount kit		

14. Wireless Extender for HDMI at 1080P

Sl. No	Description	Specifications	Compliance	Remarks
1.	Frequency Band Range:	5,150 - 5,250 GHz		
2.	Video Input Connector (Sender):	1x HDMI Type A, 19-pin, male		
3.	Video Output Connector (Receiver):	1x HDMI Type A, 19-pin, female		
4.	USB Connector (Sender / Receiver):	1x Mini-B		
5.	Resolutions to be support	HDTV: 1080p60, 1080p50, 1080p24, 1080i60, 1080i50, 720p60, 720p50, 576p50, 576i50, 480p60, 480i60 VESA: 1600x1200, 1366x768, 1280x1024, 1024x768, 800x600, 640x48		
6.	Features required	Wireless extension of HDMI up to 25 meters - Supports resolutions up to 1080p Full HD - HDMI Features Supported Dolby® TrueHD, DTS-HD® Master Audio, and PCM digital audio streams up to 7.1 channels are supported 3DTV pass-through HDCP pass-through Lip Sync		

		<ul style="list-style-type: none"> - Uncompressed High Definition A/V from source to display - No latency - IR remote for switching between up to eight Sender units - WHDI 1.0, FCC Part 15, and ETSI-compliant 		
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15. Standalone Application for Video Communication

Sl. No	Description	Specifications	Compliance	Remarks
1.	Features required	<ul style="list-style-type: none"> -Should be integrated with Video Conference and infrastructure without renewal of licenses -Protocol support: H.323 - Should support HD 720p from 512 Kbps 		

Price Schedule					Annexure – III			
Sl.NO	Description of item / work	Unit	Quantity	Basic Price (Rs)	Taxes/ Duties (Rs)	Other incidental costs if any (Rs)	Total Price for each unit (Rs)	Amount (Rs)
1	2	3	4	5	6	7	8= 5+6+7	9= 4 * 8

Total Price (in Figure) : Rs.....

Total Price (in words) : Rs.