

**Bid for Supply, Installation, Commissioning and Maintenance of Software Based Video Conferencing Facility at various offices of State Tax Department, And Operation & Management services for 5 years on behalf of State Tax Department, Ahmedabad-  
Tender No. HWT251019591**

Sr. No.	Tender Page No/ item no.	Description	Request to Change / Suggestion/ reason	Final Clarification by GIL/CCT
1.	1	<b>Software based Video conferencing Solution Feature/Specifications:</b>		
2.	1.1	Proposed solution should be Client/NonClient (on premises or on cloud base) that connects the participants over secure internet connection. It addition to that it is capable of hosting multiple meetings.		See changes in Corrigendum
3.	1.2	Proposed solution should have facility to pass host controls.	To be removed	See changes in Corrigendum
4.	1.3	White boarding, co annotation, recording, editing, chatting, polling, document sharing, screen sharing should possible.	Remove Co-annotation, Polling, Editing.	See changes in Corrigendum
5.	1.4	Solution should generate Unique meeting ID and should have facility for instant scheduling of meetings.		
6.	1.5	Solution should have mobile user gateway client for Windows desktop, Android, IOS Mobile devices right from day 1	Add MacOS.	See changes in Corrigendum
7.	1.6	It should support minimum 16 videos in continuous presence.	20 Videos	See changes in Corrigendum
8.	1.7	Solution should have capability to share Data in Multipoint to Multipoint conference through link		
9.	1.8	Solution should support and provide video up to 4k resolution and content to 1080p with support of (4:3) and wide screen (16:9) content		
10.	1.9	Solution should support minimum 25 users to join and it should go upto unlimited.	Solution should support minimum 25 numbers 1080p Ports and it should support upto 50 users.	See changes in Corrigendum
11.	1.1	System should be 128-bit Fully Encrypted Video Conference Meetings to ensure encrypted data flows.		
12.	1.11	Solution should have Lock Conference feature so that once the conference is locked even if someone knows the credentials cannot enter the Video conference secession.		
13.	1.12	The Software based Video conferencing Solution shall include 25 users' licenses for 5 years.		
14.	1.13	The MCU should create multiple rooms so that multiple sessions can happen simultaneously. It should be able to create 5 rooms	Point to be added	See changes in Corrigendum

		of 5 or more users each. It should be able to create 8 rooms of 3 users or more. It should work as a true MCU.		
15.	2	<b>High Definition Video Conferencing System 1080p (Minimum Technical Specification) for Head Office at Ahmedabad</b>		
16.	Features	Specifications	Changes	
17.	System	The VC Unit should be delivered with a codec with an integrated/external camera and one external microphone. The unit should be equipped with a panel for operation, microphone cables, presentation cables, network cables, HDMI Cables and wall mount kit.		
18.	Video Standards	H.263 / H.264 or better		
19.		H.264 in an Encrypted call should be possible		
20.		H.264 should be possible when sending or receiving two live video sources e.g. Presenter and Presentation.	Remove this Point	See the Corrigendum
21.	Video Frame Rate	Should support 30 fps or higher (frames per second) with 1080p resolution from day one	Change this to 60 fps or higher	See the Corrigendum
22.	Video Features	Ability to send and receive two live simultaneous video sources in a single call, so that the image from the main camera and PC or document camera can be seen simultaneously.		
23.		Should support H.239 and BFCP protocols with 1080p resolution.		
24.	Video Output	Should have at least 2 HDMI / DVI (High Definition Multimedia Interface) output to connect Full High Definition display devices such as LCD / LED and projectors for both Video and Content. (Dual Monitor or Support).		
25.		It should be possible to display the main video on one HD screen and the presentation / dual video on the other HD screen.		
26.	Video Input	Should have at least one HD video Input to connect HD camera with full functionalities as mentioned in the camera specifications. Or it should have integrated PTZ Camera	Add the point in Red	See the Corrigendum
27.		Should have DVI (Digital Video Interface)/HDMI input to connect PC / Laptop directly to the Video conferencing system and display resolutions WXGA/ HD1080p along with PC Audio.	upto 1080p	See the Corrigendum
28.	Audio Standards	G.711, G.722, G.722.1, 64 kbps MPEG-4 AAC-LD or equivalent standard must be supported		
29.	Other desirable	Noise Reduction, Automatic Gain control, Acoustic Echo Canceller, Active Lip synchronization		

	features			
30.	Audio Inputs	Should support 2 Microphone from day one	It should be supplied with 2 Wireless Microphones right from Day One. The mics can be from same OEM or third party wireless Mics with DSP can be used.	See the Corrigendum
31.		The microphones must be standard based microphones. Minimum voice pickup should be 6 feet radially or at least 100 square feet.	9 feet radially	
32.		The pickup of the microphones should be at least 100 square feet from the microphone.	To be removed as mentioned above	See the Corrigendum
33.		Echo Cancellation for every input must be available.		
34.	External Devices	Should have USB port for future usage.	Should have atleast 2 USB Ports	See the Corrigendum
35.	Network Interface	1 LAN / Ethernet -10/100/1000 Mbps full duplex.		
36.		Should have support for IPV4 and IPV6		
37.	Bandwidth	IP-Atleast 6 Mbps		
38.	Network Capabilities	Packet Loss Based Down speeding		
39.	H.323/IP Features	Differentiated Services( QOS):		
40.		DiffServ		
41.		IP adaptive bandwidth management (including flow control)		
42.		Auto Gatekeeper discovery		
43.		Auto Network Address Translation( NAT) support		
44.		Standards based-Packet Loss Recovery feature on H.323 call		
45.		Should support URL Dialing	Remove This Point	See the Corrigendum
46.		Support for H.245 DTMF tones in H.323		
47.	SIP Features	The endpoints must support SIP in addition to H323 protocol. Calls can be made on SIP or H323 without having to restart or reconfigure the endpoint.	Remove marked red	No change. As per RFP. (It's a general protocol)
48.		The endpoint must register with any standard SIP server.		
49.		Must support data sharing capability in SIP calls for dual stream transmit and receive.		
50.	Menu Control	Password protected system menu	Remove this point	See the Corrigendum
51.	Encryption of Video Call	ITU-T standards based Encryption of the video call		
52.		Call should be encrypted end-to-end on IP		

53.		Should support Standards-based: H.235 v3 and AES		
54.		Encryption via Automatic key generation and exchange. The same should be available in a call with Video with presentation (dual video)	Remove this Point	
55.		Ability to manually turn encryption On or OFF should be there.	Remove this Point	NO Change
56.		Automatic key generation and exchange	Remove this Point	
57.	Camera	1/3" CMOS	1/2.7" CMOS	See the Corrigendum
58.		Minimum of 10 x optical zoom	Minimum 12X Optical Zoom	See the Corrigendum
59.		1920 x 1080 pixels progressive @ 30fps	1920x1080p@60 fps	See the Corrigendum
60.		The Camera and codec should be from the same manufacturer.		
61.		Should have at least 65 degrees field of view (horizontal) &	72.5 degrees field of view	See the Corrigendum
62.		at least 39 degree or more vertical field of view.	41 degrees vertical field of view	
63.	Directory Service	Should support Local and Global directories	Remove Global	See the Corrigendum
64.		Should support LDAP and H.350 protocols for directory transfer		
65.	4	<b>USB Based PTZ Web Camera for all field offices</b>		
66.	1	USB based plug-n-play device to operate with various PCs/ Laptop		
67.	2	Motorized PTZ ( Pan, Tilt, Zoom )	PTZ with 5X Optical Zoom and 2X Digital Zoom	See the Corrigendum
68.	3	180 degree PAN, 50 Degrees Tilt and 70 Degree Field View	83.5 Degrees or more Field of View	See the Corrigendum
69.	4	Compliance to USB 2.0 or Better	Compliance to USB 3.0 or better	See the Corrigendum
70.	5	Full HD 1080p 30fps video calling (up to 1920 x 1080 pixels)	Full HD 1080p 60 fps	See the Corrigendum
71.	6	Thermal stabilized Lens such as Carl Zeiss lens with auto focus/ High Precision Lens for clear picture	High Precision Lens.	See the Corrigendum
72.	7	Compliant with software for video recording using H.264 codec		
73.	8	Compliant with various Linux OS including Ubuntu Linux, Windows and MAC OS system		
74.	9	Minimum 5 feet USB connecting cable	Minimum 3 meters USB 3.0 Connecting Cable	See the Corrigendum
75.	10	Compliant low lighting environment	Should have Backlight Compensation	See the Corrigendum
76.	11	Built-in FD Speaker & sound able to heard from 6-7 feet or more	Remove this point	See the Corrigendum
77.	12	Built-in microphones for audio pickup from distance of 6-7 feet or more	Remove this point	See the Corrigendum
78.	13	Remote controller to PTZ functions		
79.	14	10 feet additional USB extension connecting cable	Remove this point as cable already mentioned	See the Corrigendum
80.	5	<b>BLUETOOTH / WIRELESS ENABLED SPEAKER CUM MICROPHONE FOR DESKTOP BASED VC SYSTEM</b>		
81.	1	USB based plug-in-play device to operate with various Linux OS including Ubuntu Linux & Windows Operation System		Item dropped. The bidder may quote "0" in the financial bid of that particular line item.
82.	2	Bluetooth / Wireless connectivity with USB based Dongle to be connected to PC/Laptop	Should support 2.4 Ghz RF Wireless Connection	

83.	3	Should cover distance of typical distance of 20-25 feet from the dongle using Bluetooth/Wireless connectivity	Should work in RF Environment to cover more distance.	
84.	4	Built-in Echo cancellation		
85.	5	Volume control button for increase and decrease according to local preference		
86.	6	Local Microphone Mute/ Un-mute button with visual indication such as bi- color LED		
87.	7	Frequency Response for microphone 200 Hz -7 KHz or better	Frequency Response for speakersphone 100 Hz to 16KHz	
88.	8	HD Quality speaker output / 220Hz to 14 KHz or better	Remove this point as mentioned above	
89.	9	Firmware upgradable through USB	Remove this Point	
90.	10	with 10 feet additional USB extension connecting cable	Remove this Point as it has to be wireless	
91.	<b>1</b>	<b>Software based Video conferencing Solution Feature/Specifications:</b>		
92.	1.3	White boarding, co annotation, recording, editing, chatting, polling, document sharing, screen sharing should possible.	Co-annotation, Polling, Editing remove	See the Corrigendum
93.	1.9	Solution should support minimum 25 users to join and it should go upto unlimited.	minimum 25 numbers Full HD Ports and it should support upto 100 users.	See the Corrigendum
94.	1.13	It should allow multiple sessions to happen simultaneously. It should be able to create 4 rooms of 6 or more users each. It should be able to create 6 rooms of 4 users or more. It should work as a true MCU.	Requesting you Add this Function to get MCU Functions on Cloud/on Premises	See the Corrigendum
95.		Kindly Share MCU Specification	Kindly Share MCU Specification	See the Corrigendum
96.	<b>2</b>	<b>High Definition Video Conferencing System 1080p (Minimum Technical Specification) for Head Office at Ahmedabad</b>		
97.	Features	Specifications	Changes	
98.	Video Frame Rate	Should support 30 fps or higher (frames per second) with 1080p resolution from day one	60 FPS or higher	See the Corrigendum
99.	Video Input	Should have at least one HD video Input to connect HD camera with full functionalities as mentioned in the camera specifications. Or	Or it should have integrated PTZ Camera	See the Corrigendum
100.		Should have DVI (Digital Video Interface)/HDMI input to connect PC / Laptop directly to the Video conferencing system and display resolutions WXGA/ HD1080p along with PC Audio.	upto 1080p	See the Corrigendum
101.		The microphones must be standard based microphones. Minimum voice pickup should be 6 feet radially or at least 100 square feet.	9 feet radially	See the Corrigendum
102.		The pickup of the microphones should be at least 100 square feet from the microphone.	remove this point	See the Corrigendum

103.	External Devices	Should have USB port for future usage.	Should have atleast 2 USB Ports	
104.		Should support URL Dialing	Remove This Point	See the Corrigendum
105.		Encryption via Automatic key generation and exchange. The same should be available in a call with Video with presentation (dual video)	Remove this Point	See the Corrigendum
106.		Automatic key generation and exchange	Remove this Point	
107.	Camera	1/3" CMOS	1/2.8" CMOS	See the Corrigendum
108.		Minimum of 10 x optical zoom	Minimum 12X Optical Zoom	See the Corrigendum
109.		1920 x 1080 pixels progressive @ 30fps	1920x1080p@60 fps	See the Corrigendum
110.		The Camera and codec should be from the same manufacturer.		
111.		Should have at least 65 degrees field of view (horizontal) &	70 degrees field of view	See the Corrigendum
112.		at least 39 degree or more vertical field of view.	41 degrees vertical field of view	
113.	<b>4</b>	<b>USB Based PTZ Web Camera for all field offices</b>		
114.	2	Motorized PTZ ( Pan, Tilt, Zoom )	PTZ with 4X Optical Zoom and 2X Digital Zoom	See the Corrigendum
115.	3	180 degree PAN, 50 Degrees Tilt and 70 Degree Field View	84.5 Degrees or more Field of View	See the Corrigendum
116.	4	Compliance to USB 2.0 or Better	Compliance to USB 3.0 or better	See the Corrigendum
117.	5	Full HD 1080p 30fps video calling (up to 1920 x 1080 pixels)	Full HD 1080p 60 fps	See the Corrigendum
118.	6	Thermal stabilized Lens such as Carl Zeiss lens with auto focus/ High Precision Lens for clear picture	High Precision Lens.	See the Corrigendum
119.	11	Built-in FD Speaker & sound able to heard from 6-7 feet or more	Remove this point	See the Corrigendum
120.	12	Built-in microphones for audio pickup from distance of 6-7 feet or more	Remove this point	See the Corrigendum
121.	<b>5</b>	<b>BLUETOOTH / WIRELESS ENABLED SPEAKER CUM MICROPHONE FOR DESKTOP BASED VC SYSTEM</b>		
122.	2	Bluetooth / Wireless connectivity with USB based Dongle to be connected to PC/Laptop	Should support 2.4 Ghz RF Wireless Connection	Item dropped. The bidder may quote "0" in the financial bid of that particular line item.
123.	3	Should cover distance of typical distance of 20-25 feet from the dongle using Bluetooth/Wireless connectivity	Should work in RF Environment to cover more distance.	
124.	7	Frequency Response for microphone 200 Hz -7 KHz or better	Frequency Response for speakersphone 200 Hz to 16KHz	
125.	8	HD Quality speaker output / 220Hz to 14 KHz or better	Remove this point	
126.	10	with 10 feet additional USB extension connecting cable	Remove this Point	
127.	<b>4</b>	<b>USB Based PTZ Web Camera for all field offices</b>		
128.	2	Motorized PTZ ( Pan, Tilt, Zoom )	PTZ with 4X Optical Zoom and 2X Digital Zoom	See the Corrigendum
129.	3	180 degree PAN, 50 Degrees Tilt and 70 Degree Field View	84.5 Degrees or more Field of View	See the Corrigendum
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131.	5	Full HD 1080p 30fps video calling (up to 1920 x 1080 pixels)	Full HD 1080p 60 fps	See the Corrigendum
132.	6	Thermal stabilized Lens such as Carl Zeiss lens with auto focus/ High Precision Lens for clear picture	High Precision Lens.	See the Corrigendum

133.	11	Built-in FD Speaker & sound able to heard from 6-7 feet or more	Remove this point	See the Corrigendum
134.	12	Built-in microphones for audio pickup from distance of 6-7 feet or more	Remove this point	See the Corrigendum
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138.	7	Frequency Response for microphone 200 Hz -7 KHz or better	Frequency Response for speakers phone 200 Hz to 16KHz	
139.	8	HD Quality speaker output / 220Hz to 14 KHz or better	Remove this point	
140.	10	with 10 feet additional USB extension connecting cable	Remove this Point	
141.		Bidder must have experience of supply, installation & maintenance of software based Video Conferencing system. Bidder should have received and executed at least 2 work orders of above mentioned work of minimum value of Rs. 10 lacs each in last 3 years. Customer references & Purchase orders must be attached along with the bid	Experience should be asked for : "IT Infrastructure" experience instead of "software based Video Conferencing system"	See the Corrigendum