## **HD Visual Communications System**

Sr	Name of Item	Required Technical Specification and Standards
01	Quantity	1 (One)
02	Video Standards	H.261 , H.263, H263+, H.263++ , H.264 High Profile, H.264 Baseline Profile
03	Video Frame Rate	Should support 60 fps with 1080p resolution from day one
04	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.
05		Should support H.239 and BFCP protocols with 1080p resolution
06	Multi-Point Feature	Should have 4 way SIP/H.323 in 1080p/60fps Multipoint video conference feature enabled from day one.
07	Video	Should support 2 monitors for Self View, Remote View and Content all in separate Monitors.
08	Video Output	Should have at least 2 nos. of HDMI / or equivalent (High Definition Multimedia Interface) output to connect Full High Definition display devices such as plasma and projectors for both Video and Content.(Dual Monitor Support)
09		Should support 2 monitors for Self View, Remote View and Content all in separate Monitors
10	Video Input	Should have at least 2 HD video Input to connect full HD cameras.
11		Should have at least one additional video Input to connect auxiliary full HD camera.
12		Should have VGA/DVI/HDMI port to connect PC/ Laptop directly to the Video conferencing system and display resolutions up to 1080p
13	Audio : Audio standards supported	G.711, G.722,G.722.1, 64 kbps MPEG-4 AAC-LD or equivalent standard must be supported.
14	Other Desirable features	Noise Reduction, Automatic Gain control, Acoustic Echo Canceller,
15	Audio Inputs	Should support 4 Microphone inputs from day one
16		Bidder should supply 1 tabletop microphone.
17		The microphones must be standard based microphones.
18		The pick up of the microphones should be at least 10 feet from the microphone
19		Echo Cancellation for every input must be available
20	External devices	Should have USB port
21	Network Interfaces	1 LAN /Ethernet-10/100/1000 Mbps full duplex. Should have support for IPV4 networks
22	Bandwidth	IP at least 6 Mbps and up to 18 Mbps
23	Security : Menu Control	Password protected system menu

28	Authorization Letter Must	be provided for this unit from the date of successful commissioning  Co. Authorization Letter Mandatory
		number should be quoted, minimum 3 [Three] year warranty should
27	Warranty	Mentioning manufacturer warranty part
26	Specifications:	Pan range: +/-100 degrees, Tilt range: +/-20 degrees
25	Camera	12x optical zoom cameras with 1920x1080p 60 frames per second.
24	Encryption of video call	<ul> <li>ITU-T standards based Encryption of the video call</li> <li>Call should be encrypted end-to-end on IP</li> <li>Should support Standards-based: SRTP (AES 128 bit), H.235 (AES 128 bit)</li> </ul>