

H.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD.  
(A Unit of H.P. Government Undertaking)



**e-TENDER**  
**For**  
**Supply and Installation/Setup of Hybrid Video Conferencing**  
**and Live Streaming Solution for 12 Courtrooms in Himachal**  
**Pradesh**

(e-Tender No: SEDC/HC/Webcasting/2k24-7956)

H.P. STATE ELECTRONICS DEVELOPMENT CORPORATION LTD.,  
1<sup>st</sup> FLOOR, I.T BHAWAN, MEHLI, SHIMLA-171013, H.P.  
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<https://hptenders.gov.in>

## e-Tender Notice

Online bids are invited from eligible bidders for the supply and installation/setup of Hybrid Video Conferencing and Live Streaming Solution for 12 courtrooms in the High Court of Himachal Pradesh. The bidders need to upload the technical bid along with the scanned copy of the instrument submitted against earnest money (the hard copy of the instrument submitted against earnest money (EMD) in favour of “Managing Director, HPSEDC”, payable at Shimla on or before opening of the tender date and time. The Eligibility-cum-Technical bids and commercial bid shall be uploaded by the prospective bidder(s) on HP Govt. e-procurement Portal i.e. <https://hptenders.gov.in>. The instructions for bidders on how to submit the bid is available on the website i.e. <https://hptenders.gov.in/>.

The prospective bidders are also required to regularly check the eProcurement website and websites of the HPSEDC for updates regarding the tender.

### SCHEDULE OF EVENTS FOR SUBMISSION OF THE TENDERS/ BIDS

S. No.	Information	Details
1.	RFP No. and Date	No: <b>SEDC/HC/Webcasting/2k24-7956</b> Date: 10/09/2024
2.	Price of Tender Document	Rs 5,000/-
3.	Earnest Money Deposit	Rs 5,00,000
4.	Duration of Rate Contract	Six months from date of issuance of empanelment letter/ LOI.
5.	Bid validity period	180 days from the last date (deadline) for submission of e-Tenders.
6.	Pre-Bid Meeting	23/09/2024 at 11:30 PM via VC Video Call link: <a href="https://meet.google.com/xfc-sszn-bza">https://meet.google.com/xfc-sszn-bza</a>
7.	Bid submission start date	04/10/2024 (11:00 AM)
8.	Bid submission End date	09/10/2024 (2:30 PM)
9.	Opening of e-Tenders Bids	10/10/2024 (2:30 PM)
10.	Tender Download Site	<a href="http://www.hpsedc.in">www.hpsedc.in</a> & <a href="https://hptenders.gov.in">https://hptenders.gov.in</a>
11.	Venue	H.P. State Electronics Development Corporation Ltd., 1 <sup>st</sup> Floor, I.T. Bhawan, Mehli, Shimla-171013, H.P.

(i) Eligibility-cum-Technical Bids shall be opened initially, and eligibility documents will be evaluated.

(ii) Thereafter Technical Bids of Eligible Bidders shall be evaluated.

(iii) Commercial Bids of Eligible and Technically qualified bidders will be opened thereafter.

**\*\* Any corrigendum, modifications, changes related to this tender before the day of bid submission shall be notified on website [www.hpsedc.in](http://www.hpsedc.in) or <https://hptenders.gov.in> only.**

**4)** Notwithstanding anything else contained to the contrary in this Tender Document, the Managing Director, H.P. State Electronics Development Corporation Ltd., Shimla reserves the right to cancel/withdraw/ modify fully or partially the “Invitation for Bids” or to reject one or more of the bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.

## TECHNICAL SPECIFICATIONS

Details of equipment and minimum technical specifications/requirements are given below:

### Hardware/Software Specifications:

<b>Hon'ble C.J. Court</b>		
<b>Item Name</b>	<b>Item Details</b>	<b>Qty</b>
PTZ Camera (with mount) (facing towards Hon'ble Bench)	<p> <b>Resolution:</b> 1920x1080px or higher.  <b>Zoom:</b> 15x Optical or higher.  <b>PTZ:</b> 180° Pan and 110° Tilt or higher  <b>Output Ports Supported:</b> USB/HDMI  <b>Remote:</b> IR Remote Control Included  <b>Power:</b> Runs on PoE+ or DC Power  <b>IP Streaming:</b> H.264, H.265, RTMP, RTMPS, RTP, RTSP, SRT, TCP, UDP (1920x1080)  <b>Comprehensive On Site Warranty:</b> 1 Year or as per the product warranty.  <b>Frame Rate:</b> 50 fps at 50Hz or higher in all resolutions.  <b>Image Device:</b> 1/3” CCD/CMOS/MOS or better  <b>Horizontal resolution:</b> 2MP or better  <b>Streaming:</b> Minimum 3 streams  <b>Physical Layer:</b> 10/100 base TX Ethernet 17 or higher  <b>Protocol:</b> Minimum TCP/IP, HTTP, RTP, RTSP  <b>IP Support:</b> Static/Dynamic or both  <b>Lens Type:</b> Varifocal minimum 5-100 mm or better  <b>Shutter speed:</b> 1/50–1/1000 or better  <b>PC Client:</b> PC application client to interact with and control the camera system  <b>Web Client:</b> Viewer through HTTP (minimum) system configuration setting / streaming  <b>Approvals:</b> EMC &amp; IEC – both to be mentioned  <b>Compatibility:</b> Compatible with various Video Conferencing software (e.g., Zoom, Microsoft Teams, Webex, etc.).                     </p> <p> <b>Adjustment Features for wall mount:</b>                      Tilt adjustment: Up to 90 degrees                      Swivel adjustment: Up to 180 degrees  <b>Adjustment Features for ceiling mount:</b>                      180-degree rotation for optimal camera positioning  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.                     </p>	1
PTZ Camera (with mount) (facing towards Advocates)	<p> <b>Resolution:</b> 1920x1080px or higher.  <b>Zoom:</b> 10x Optical or higher.  <b>PTZ:</b> 180° Pan and 110° Tilt or higher  <b>Output Ports Supported:</b> USB/HDMI  <b>Remote:</b> IR Remote Control Included  <b>Power:</b> Runs on PoE+ or DC Power  <b>IP Streaming:</b> H.264, H.265, RTMP, RTMPS, RTP, RTSP, SRT, TCP, UDP (1920x1080)  <b>Comprehensive On Site Warranty:</b> 1 Year or as per the product warranty.  <b>Frame Rate:</b> 50 fps at 50Hz or higher in all resolutions.  <b>Image Device:</b> 1/3” CCD/CMOS/MOS or better  <b>Horizontal resolution:</b> 2MP or better  <b>Streaming:</b> Minimum 3 streams  <b>Physical Layer:</b> 10/100 base TX Ethernet 17 or higher                     </p>	2

	<p><b>Protocol:</b> Minimum TCP/IP, HTTP, RTP, RTSP  <b>IP Support:</b> Static/Dynamic or both  <b>Lens Type:</b> Varifocal minimum 5-100 mm or better  <b>Shutter speed:</b> 1/50–1/1000 or better  <b>PC Client:</b> PC application client to interact with and control the camera system  <b>Web Client:</b> Viewer through HTTP (minimum) system configuration setting / streaming  <b>Approvals:</b> EMC &amp; IEC – both to be mentioned  <b>Compatibility:</b> Compatible with various Video Conferencing software (e.g., Zoom, Microsoft Teams, Webex, etc.).</p> <p><b>Adjustment Features for wall mount:</b>  Tilt adjustment: Up to 90 degrees  Swivel adjustment: Up to 180 degrees  <b>Adjustment Features for ceiling mount:</b>  180-degree rotation for optimal camera positioning  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
<p>Wired Gooseneck Microphones (with stand for Hon'ble Bench)</p>	<p><b>Microphone Type:</b> Gooseneck Condenser Microphone  <b>Polar Pattern:</b> Cardioid  <b>Frequency Response Range:</b> 50 Hz to 20 kHz <b>Sensitivity:</b> -40 dB  <b>Maximum SPL (Sound Pressure Level):</b>  Maximum SPL tolerance 130 dB  <b>Output:</b>  <b>Type:</b> Balanced XLR Output  <b>Flexible Gooseneck:</b>  <b>Length:</b> 18-21 inches  <b>Material:</b> Durable metal alloy construction  <b>Integrated Features:</b>  <b>LED Indicator:</b> High-visibility LED for microphone status (active/on/off)  <b>RF Rejection:</b> Integrated RF shielding to minimize interference  <b>Shock Mount:</b>  Integrated shock mount to reduce handling noise and vibrations  <b>Compatibility:</b>  Compatible with standard DSP mixers and audio equipment  <b>Power Requirements:</b>  Phantom Power: Requires +48V phantom power  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	<p>2</p>
<p>Wired Gooseneck Microphones (with stand for Advocates)</p>	<p><b>Microphone Type:</b> Gooseneck Condenser Microphone  <b>Polar Pattern:</b> Cardioid  <b>Frequency Response Range:</b> 50 Hz to 20 kHz  <b>Sensitivity:</b> -40 dB  <b>Maximum SPL (Sound Pressure Level):</b>  Maximum SPL tolerance 130 dB  <b>Output:</b>  <b>Type:</b> Balanced XLR Output  <b>Flexible Gooseneck:</b>  <b>Length:</b> 30-36 inches  <b>Material:</b> Durable metal alloy construction  <b>Integrated Features:</b>  <b>LED Indicator:</b> High-visibility LED for microphone status (active/on/off)  <b>RF Rejection:</b> Integrated RF shielding to minimize interference  <b>Shock Mount:</b>  Integrated shock mount to reduce handling noise and vibrations  <b>Compatibility:</b></p>	<p>4</p>

	<p><b>Power Requirements:</b> Phantom Power: Requires +48V phantom power <b>Warranty Period:</b> Minimum 1-year comprehensive warranty. (Each microphone should be able to capture clear and intelligible sound from a distance of approximately 3-5 feet.)</p>	
Speakers (with mount)	<p><b>Passive Speaker:</b> Ensure compatibility with the amplifier's power output. <b>Maximum SPL Tolerance:</b> 130 dB <b>Frequency Response</b> <b>Range:</b> 50 Hz to 20 kHz (+/- 3 dB) <b>Power Handling</b> <b>Continuous Power:</b> 200W RMS <b>Peak Power:</b> 400W <b>Sensitivity:</b> <math>\geq 95</math> dB (1W/1m) <b>Drivers</b> <b>Woofers:</b> 8-inch or 10-inch high-performance woofer for low and mid frequencies. <b>Integrated Tweeter:</b> 1-inch compression driver or dome tweeter for high frequencies. <b>Coverage Pattern</b> <b>Horizontal Coverage:</b> 90 degrees Vertical Coverage: 60 degrees <b>Inputs</b> <b>Types:</b> Balanced XLR. <b>Compatibility:</b> Allows connection to various audio sources and mixers. <b>Material:</b> Robust ABS plastic or wood <b>Design:</b> Bass reflex or sealed design for enhanced bass response. <b>Wall Mount:</b> wall mount brackets for fixed installations. <b>Rigging Points:</b> Integrated rigging points for suspended installations. <b>Connectivity and Controls</b> <b>Volume Control:</b> Independent volume control on the speaker. <b>EQ Controls:</b> Basic EQ settings (bass, treble) for on-the-fly adjustments. <b>Protection and Reliability</b> <b>Overload Protection:</b> Protects the speaker from damage due to excessive power. <b>Thermal Protection:</b> Prevents overheating during prolonged use. <b>Short Circuit Protection:</b> Ensures speaker safety in case of wiring faults. <b>Weight:</b> Lightweight for easy installation and handling. <b>Additional Features</b> <b>Integrated Handles:</b> For easy transportation and setup. <b>LED Indicators:</b> Power and signal indicators for monitoring status. <b>Remote Control:</b> IR Enabled Remote Control or equivalent. <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	6
Amplifier	<p><b>Digital Multi-Channel Amplifier:</b> <b>Channels:</b> 6 Input / 6 Output. <b>Minimum Output Power:</b> 50W RMS per channel (into 8 ohms) <b>Total Harmonic Distortion (THD):</b> Less than 0.1% at rated power <b>Frequency Response Range:</b> 20 Hz to 20 kHz (+/- 1 dB) <b>Signal-to-Noise Ratio (SNR)</b> <b>High SNR:</b> <math>\geq 100</math> dB <b>Inputs Types:</b> 6 Balanced XLR. <b>Outputs Types:</b> 6 Balanced XLR, Binding posts, Speakon connectors <b>Flexibility:</b> Provides multiple output options for connecting to various speakers and audio systems. Digital Signal Processing (DSP) <b>Functions:</b> <b>EQ (Equalization):</b> Multi-band EQ for each channel</p>	1

	<p><b>Crossover:</b> Adjustable crossover settings for bi-amping or subwoofer integration</p> <p><b>Limiter:</b> Protects speakers from damage due to excessive levels</p> <p><b>Feedback Suppression:</b> Reduces the risk of audio feedback</p> <p><b>Presets Storage (optional):</b> Save and recall user presets for different courtroom scenarios</p> <p><b>Controls and Features</b></p> <p><b>Gain Control:</b> Independent gain control for each channel</p> <p><b>Front Panel Controls:</b> Easy access to key settings and adjustments</p> <p><b>Remote Control (optional):</b> Remote control for volume and settings adjustment</p> <p><b>PC/Mobile Control:</b> USB or network connectivity for configuration via software.</p> <p><b>Protection and Reliability</b></p> <p><b>Overload Protection:</b> Safeguards against excessive voltage or current.</p> <p><b>Thermal Protection:</b> Prevents overheating during prolonged use.</p> <p><b>Short Circuit Protection:</b> Ensures amplifier and speaker safety in case of wiring faults.</p> <p><b>Compatibility</b></p> <p><b>Speaker Impedance:</b> Supports 4-8 ohms</p> <p><b>Phantom Power:</b> +48V phantom power for microphones</p> <p><b>Design and Build</b></p> <p><b>Enclosure:</b> Robust metal housing for durability</p> <p><b>Cooling:</b> Efficient cooling system (fan-cooled or convection-cooled) to prevent overheating</p> <p><b>Mounting:</b> Rack-mountable design for easy integration into racks.</p> <p><b>Power Requirements</b></p> <p><b>Operating Voltage:</b> 100-240V AC (universal power supply)</p> <p><b>Power Consumption:</b> 200W</p> <p><b>Dimensions and Weight</b></p> <p><b>Compact Size:</b> Suitable for limited space in small courtrooms</p> <p><b>Lightweight:</b> For easy installation and handling</p> <p><b>Additional Features</b></p> <p><b>Network Connectivity:</b> Ethernet port for remote management and firmware updates</p> <p><b>Audio Formats:</b> Support for standard audio formats (e.g., WAV, MP3, or equivalent)</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
Digital Signal Processor	<p><b>Input and Output Channels:</b></p> <p><b>Input Channels:</b> 6 balanced analog inputs (Balanced XLR) for connecting microphones and audio sources.</p> <p><b>Output Channels:</b> 6 balanced analog outputs (Balanced XLR) for sending processed audio to amplifiers, speakers, or recording equipment.</p> <p><b>DSP Cores:</b> Multi-core DSP architecture with sufficient processing power to handle real-time audio processing for all 6 input and output channels simultaneously.</p> <p><b>Echo Cancellation:</b> Built-in automatic echo cancellation.</p> <p><b>Noise Reduction:</b> Advanced noise reduction algorithms.</p> <p><b>Automatic Gain Control (AGC):</b> To maintain consistent audio levels</p> <p><b>Processing Capability:</b> Capable of implementing complex audio algorithms such as EQ (Equalization), dynamics processing, and feedback suppression without introducing noticeable latency.</p> <p><b>Audio Processing Features:</b></p> <p><b>EQ (Equalization):</b> Parametric EQ with adjustable frequency bands (typically 4 to 8 bands per channel), Q factors, and gain levels.</p>	1

	<p><b>Dynamics Processing:</b> Includes compressors, limiters, and expanders for managing audio dynamics.</p> <p><b>Feedback Suppression:</b> Advanced algorithms for detecting and automatically suppressing feedback frequencies.</p> <p><b>Audio Quality and Resolution:</b></p> <p><b>Sample Rate and Bit Depth:</b> 24-bit/48kHz or higher.</p> <p><b>Audio Latency:</b> Low-latency audio processing to minimize delay between audio input and output.</p> <p><b>Connectivity Options:</b></p> <p><b>Analog Inputs/Outputs:</b> 6 balanced analog inputs and outputs (Balanced XLR) for direct connection to microphones, mixers, and other audio equipment.</p> <p><b>Digital Inputs/Outputs:</b> Digital inputs/outputs (AES/EBU, SPDIF) for interfacing with digital audio sources and equipment.</p> <p><b>Network Connectivity:</b> Ethernet port for remote control, monitoring, and integration into networked audio systems.</p> <p><b>Control and Interface:</b></p> <p><b>User Interface:</b> Front panel controls with LCD display for intuitive navigation and real-time monitoring of input and output levels, processing status, and settings.</p> <p><b>Remote Control:</b> Support for remote control via dedicated software application (e.g., web-based interface or proprietary control software).</p> <p><b>Presets Storage:</b> Ability to store and recall multiple presets for different courtroom setups or audio configurations.</p> <p><b>Power Requirements:</b></p> <p><b>Power Supply:</b> Standard AC mains power (110V/220V) or Power over Ethernet (PoE+).</p> <p><b>Mounting:</b> Rack-mountable design with included mounting brackets.</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
Display (with Mount)	<p><b>Resolution:</b> 1920 x 1080 pixel's resolution or higher</p> <p><b>Aspect Ratio:</b> 16:9 widescreen format.</p> <p><b>Screen Size:</b> 55 inches</p> <p><b>Brightness:</b> 400 nits or more.</p> <p><b>Contrast Ratio:</b> Standard contrast ratios of 1000:1 or higher for vivid image quality.</p> <p><b>Response Time:</b> Typical Response Time: 5ms to 7ms (Gary-to-Gary) for smooth video playback and gaming.</p> <p><b>Viewing Angles:</b> Horizontal/Vertical Viewing Angles: Wide viewing angles (typically 178 degree's horizontal and vertical) for clear visibility from different positions.</p> <p><b>Colour Depth:</b> Colour Support: 16.7 million colours (8-bit) for accurate colour representation.</p> <p><b>Refresh Rate:</b> Standard Refresh Rate: 60Hz, suitable for most general-purpose applications.</p> <p><b>Connectivity:</b></p> <p>HDMI in port minimum 2, USB in port minimum 2, Ethernet LAN (RJ-45), Audio Out Stereo Mini Jack, IR in, Wi-Fi, Bluetooth.</p> <p><b>Panel Type:</b> Technology: LED-backlit LCD panel for energy efficiency and vibrant colours.</p> <p><b>IPS (In-Plane Switching) or TN (Twisted Nematic):</b> Depending on the model, IPS for better colour accuracy and wider viewing angles, or TN for faster response times.</p> <p><b>Power Specifications:</b></p> <p><b>Power Consumption:</b> Typically ranges from 20W to 30W in normal operation.</p> <p><b>Power Supply:</b> Supports standard AC mains power (110V/220V, 50/60Hz).</p>	2

	<p><b>Connectivity Options:</b>  <b>Video Inputs:</b> HDMI X 2 or more, DisplayPort, VGA (D-sub) inputs for versatile connectivity to various devices.  <b>Audio:</b> Built-in speakers or audio-out ports for connecting external speakers or headphones.  <b>Display Working/Operations Hours:</b> 16X7 hours or higher.</p> <p><b>Full motion Mount:</b> Wall /Ceiling Mount  <b>Pan:</b> 180/360 degrees  <b>Tilt:</b> -15 to +15 degrees  <b>Weight capacity:</b> As per the display screen size.  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
<p>Smart Table Monitors  (with Mount for Hon'ble  Bench)</p>	<p><b>Screen Size:</b> 21 inches or higher (diagonal measurement).  <b>Resolution:</b> Full HD (1920 x 1080 pixels)  <b>Panel Type:</b> IPS (In-Plane Switching)  <b>Brightness:</b> 300 cd/m<sup>2</sup>  <b>Contrast Ratio:</b> 1000:1  <b>Response Time:</b> 5ms (Gray-to-Gray) or less  <b>Viewing Angles:</b> 178<sup>o</sup> horizontal/vertical  <b>Power Consumption:</b> 25W (typical)  <b>Connectivity:</b> USB, HDMI, DisplayPort, VGA  <b>Features:</b> Slim design, wide colour gamut  <b>Panel Type:</b> LED (Light Emitting Diode) or higher, anti-glare display.  <b>Connectivity:</b> HDMI, DisplayPort, USB and VGA inputs <b>Response Time:</b>5ms or less.  <b>Refresh Rate:</b> Standard 60Hz refresh rate or higher.  <b>Operating System:</b> Built-in OS (such as Android or proprietary OS) for smart functionality.  <b>Browser:</b> Pre-installed web browser for internet access.  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p> <p><b>Table Mount/Stand Design:</b>  <b>Wider and Longer Arm:</b> Support monitors from 21"-35" with load capacity up to 12KG or higher.  <b>VESA Support:</b> Support 75x75mm and 100x100mm or equivalent.  <b>Ergonomic Design:</b> +85° to -30° screen tilt adjustment, 360° rotations for landscape or portrait mode; Upright lift 9.8" (250mm) and +90° to -90° swivel.  <b>Easy Installation:</b> C-clamp or Grommet hole installation or equivalent.</p>	<p>2</p>
<p>HDMI Distribution  Amplifier</p>	<p><b>Configuration:</b> 1 input, 4 outputs (1x4)  <b>HDMI Input:</b> 1 x HDMI Type A (19-pin)  <b>HDMI Outputs:</b> 4 x HDMI Type A (19-pin)  <b>Resolution Support:</b> Up to 4K (3840 x 2160 pixels) at 60Hz  <b>Supported Formats:</b> Full HD (1920 x 1080 pixels), Ultra HD or higher.  <b>HDMI Version:</b> HDMI 1.4, 2.0 or higher  <b>Colour Depth:</b> Supports 8-bit, 10-bit, and 12-bit Deep Colour.  <b>Audio Pass-through:</b> Supports audio pass-through to all outputs.  <b>HDCP Version:</b> HDCP 2.2 compliant  <b>Backward Compatibility:</b> HDCP 1.4 compatible  <b>EDID Management:</b> Supports EDID management for compatibility with different displays  <b>CEC Pass-through:</b> Consumer Electronics Control (CEC) pass-through support  <b>Power Supply:</b> External/inbuilt AC adapter  <b>Input Voltage:</b> 100-240V AC, 50/60Hz  <b>Output Voltage:</b> 5V DC or 12V DC.</p>	<p>1</p>



	<p><b>Power Consumption:</b> Maximum 10W</p> <p><b>Physical and Environmental Specifications:</b></p> <p><b>Operating Temperature:</b> 0°C to 40°C (32°F to 104°F)</p> <p><b>Storage Temperature:</b> -20°C to 60°C (-4°F to 140°F)</p> <p><b>Humidity:</b> 20% to 90% RH (non-condensing)</p> <p><b>Mounting:</b> Rack-mountable design with included mounting brackets.</p> <p><b>LED Indicators:</b> Power, signal status for each output</p> <p><b>Firmware Upgradable:</b> Via USB or network connection</p> <p><b>Signal Amplification:</b> Built-in signal amplification for extended cable lengths.</p> <p><b>Remote Control:</b> IR remote control or web-based management interface (if applicable)</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
HDMI Extender (as per requirements)	<p><b>HDMI Extender:</b></p> <p><b>Compatibility:</b> HDMI 1.4, HDMI 2.0</p> <p><b>Maximum Distance:</b></p> <p><b>Over CAT5e/6:</b> Up to 70 meters (230 feet) for 1080p; up to 40 meters (131 feet) for 4K</p> <p><b>Over Fiber Optic:</b> Up to 300 meters (984 feet)</p> <p><b>Resolution Support:</b></p> <p>Up to 4K UHD (3840 x 2160) at 60Hz</p> <p>HDCP 2.2 compliance</p> <p><b>Audio Formats Supported:</b></p> <p>LPCM, DTS-HD Master Audio, Dolby TrueHD</p> <p><b>Ports:</b></p> <p><b>Transmitter:</b> 1 x HDMI input, 1 x RJ45 output</p> <p><b>Receiver:</b> 1 x RJ45 input, 1 x HDMI output</p> <p><b>Power Supply:</b></p> <p>External power adapter included</p> <p>PoE (Power over Ethernet) options available</p> <p><b>Additional Features:</b></p> <p>EDID pass-through for seamless communication between devices</p> <p>IR pass-through for remote control extension</p> <p>LED indicators for power and link status</p> <p><b>Environmental Specifications:</b></p> <p><b>Operating Temperature:</b> 0°C to 50°C (32°F to 122°F)</p> <p><b>Storage Temperature:</b> -20°C to 70°C (-4°F to 158°F)</p> <p><b>Humidity:</b> 10% to 90% non-condensing</p> <p><b>Safety Standards:</b> UL listed</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	3
USB Extender (as per requirements)	<p><b>General Specifications:</b></p> <p><b>Type:</b> USB3.0</p> <p><b>Transmission Method:</b> CAT5e/6/7 Ethernet cables or fiber optics or other high speed cable extenders.</p> <p><b>USB Extender:</b></p> <p><b>Compatibility:</b> USB 2.0, USB 3.0</p> <p><b>Maximum Distance:</b></p> <p><b>Over CAT5e/6:</b> Up to 100 meters</p> <p><b>Data Transfer Rate:</b> USB 3.0: Up to 5 Gbps</p> <p><b>Ports:</b></p> <p><b>Power Supply:</b></p> <p>External power adapter included</p> <p>USB-powered options available for shorter distances</p> <p><b>Additional Features:</b></p> <p>Plug and play, no driver installation required</p>	3

	<p>LED indicators for power and data transmission status</p> <p><b>Environmental Specifications:</b>  <b>Operating Temperature:</b> 0°C to 50°C (32°F to 122°F)  <b>Storage Temperature:</b> -20°C to 70°C (-4°F to 158°F)  <b>Humidity:</b> 10% to 90% non-condensing  <b>Safety Standards:</b> UL listed</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
Cables	Generic Cables (Lump Sum)	1
Codec/Computer System/ or similar	<p style="text-align: center;"><b>Codec</b></p> <p><b>Video Standards and Resolutions:</b>  <b>Standards Supported:</b> H.323 &amp; SIP for video conferencing protocols.  <b>Video Compression:</b> Supports bandwidth-efficient video compression formats such as H.264 AVC, H.264 High Profile, and H.265 (HEVC).  <b>Resolution Support:</b> Capable of transmitting video up to 4K resolution at 15 frames per second (fps).  <b>Content Standards and Resolutions:</b>  <b>Content Sharing:</b> Supports both wired and wireless content sharing without requiring additional applications on user devices.  <b>Content Transmission:</b> Ability to transmit content to remote locations at up to 4K resolution (15fps).  <b>Audio Standards and Features:</b>  <b>Audio Codecs Supported:</b> G.711, G.728, G.729A, G.722, G.722.1, G.719 or higher for clear audio transmission.  <b>Microphone Inputs:</b> Includes 3 or more mic inputs with support for digital omnidirectional microphones with at least 20 feet pickup range.  <b>Line Inputs:</b> RCA/3.5mm stereo line-in for connecting to DSP or audio mixer.  <b>Video and Audio Inputs:</b>  <b>Video Inputs:</b> 3 x HDMI/USB/HDCI inputs for connecting Full HD or better cameras.  <b>Content Input:</b> 1 x HDMI/USB input for sharing 4K/Full HD content from various sources (PC, laptop, document camera, PTZ camera).  <b>Video and Audio Outputs:</b>  <b>Video Outputs:</b> 2 x HDMI outputs for connecting primary and secondary 4K(UHD)/Full HD displays.  <b>Audio Outputs:</b> 1 x RCA/3.5mm stereo line-out for connecting to amplifiers and speakers.  <b>Touch Panel:</b>  <b>Display:</b> Includes a 10-inch screen or larger.  <b>Power:</b> Supports Power over Ethernet (PoE) with IEEE 802.3af standard.  <b>USB Pass-Thru:</b>  <b>Functionality:</b> System supports using the VC system as an external camera and microphone when connected to a laptop or PC via USB.  <b>Seamless Integration:</b> No external hardware required for USB pass-thru functionality with major cloud-based VC platforms like Cisco Webex, Zoom, Microsoft Teams, Google Meet, etc.  <b>Included Cable:</b> Supplied with a 10 meters single USB 3.0 cable from the OEM for USB pass-thru mode.  <b>Cloud Integration:</b>  <b>Native Registration:</b> Capable of natively registering with Microsoft Teams Room and Zoom Room accounts for cloud-based video calling features.  <b>Functionality in Teams/Zoom Mode:</b> USB pass-thru mode available and functional when operating in Microsoft Teams Room or Zoom Room mode.</p>	1

	<p>Or</p> <p><b>Type: Tower Computer System/Desktop</b>  <b>Processor:</b> Processor x86Processor i.e. Intel i5,12000series/AMDRyzen5, 5000 series (Six Core and Twelve thread or higher), 4.4 GHz or higher turbo frequency) or better.  <b>Chipset:</b> Suitable chipset for quoted processor with upgradable support.  <b>Memory:</b> 8GB DDR-53200 MHz or higher expandable up to 64GB.  <b>Storage:</b> 512GB SSD or higher  <b>Graphics Card:</b> Integrated HD Graphics or better Graphic controller.  <b>Network:</b> Integrated Gigabit Ethernet controller with RJ-45 connector, WIFI and Bluetooth 5.0 or higher.  <b>External Ports:</b> 2xUSB2.0 or higher and 3xUSB 3.0 or higher ports, 2 HDMI ports, 1 DP port.  <b>Audio:</b> Integrated sound controller.</p> <p><b>Keyboard:</b> Standard 104 Keys OEM Keyboard with Rupee Symbol and USB Interface  <b>Mouse:</b> OEM Optical USB Scroll Mouse with Mousepad <b>Display:</b> 23” or higher LCD/TFT display non-touch having FHD (1920x1080) or better resolution and TCO/BIS certified.  <b>Webcam:</b> Full HD with integrated mic  <b>Power Management &amp; DMI:</b> System with Power management features &amp; Desktop Management Interface implementation  <b>Power efficiency:</b> Minimum 85%  <b>OS Support:</b> Latest version of Windows 64 bit <b>Accessories:</b> System user manual and all other necessary accessories  <b>Compliance &amp; Certifications:</b> Complete system should be BIS registered, BEE / Energy Star certified and RoHS Complied and EPR Complied  <b>Stand:</b> Standard Height adjustable</p> <p><b>Warranty of Codec/Computer System/ or similar:</b> Complete systems with minimum Three (3) / Five (5) Years OEM on site comprehensive warranty support. MAF from OEM is a must</p>	
24U Rack	<p><b>Type and Size:</b>  <b>Rack Height:</b> 24U  <b>Rack Width:</b> Standard 19-inch  <b>Rack Depth:</b> Adjustable, minimum 24 inches  <b>Construction Material:</b> High-quality SPCC cold-rolled steel with black powder-coated finish  <b>Dimensions and Weight Capacity:</b>  <b>Height:</b> 42 inches (106.68 cm)  <b>Width:</b> 23.6 inches (60 cm) outer, 19 inches (48 cm) inner  <b>Depth:</b> Adjustable, minimum 24 inches (61 cm)  <b>Weight Capacity:</b> Minimum 75 kg (165 lbs)</p> <p><b>Note: The bidder can quote the rack with dimensions compatible with computer hardware required in the proposed solution.</b></p> <p><b>Doors and Panels:</b>  <b>Front Door:</b> Perforated and lockable  <b>Rear Door:</b> Perforated and lockable  <b>Side Panels:</b> Removable with quick-release latches</p>	1

	<p><b>Cooling and Ventilation:</b>  <b>Pre-installed Fans:</b> One 120mm top-mounted fan  <b>Ventilation:</b> Perforated doors for passive airflow  <b>Optional Fans:</b> Additional fan mounts available  <b>Cable Management:</b>  <b>Vertical Cable Management:</b> Included (bars or rings)  <b>Horizontal Cable Management:</b> Included (bars or rings)  <b>Cable Entry Points:</b> Top and bottom with grommets  <b>Mounting and Rails:</b>  <b>Mounting Rails:</b> Adjustable depth, with U markings  <b>Compatibility:</b> Standard 19-inch rack equipment  <b>Grounding:</b> Grounding points included  <b>Additional Features:</b>  <b>Casters:</b> Optional, with locking brakes  <b>Leveling Feet:</b> Included  <b>Colour:</b> Black  <b>Compliance and Standards:</b>  <b>Certifications:</b> Must comply with relevant industry standards and certifications for safety and durability.  <b>Warranty:</b> Complete system with minimum Three (3) / Five (5) Years OEM on site comprehensive warranty support. MAF from OEM is a must.</p>	
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<b>Court No. 1</b>		
<b>Items</b>	<b>Item Details</b>	<b>Qty</b>
PTZ Camera (with mount)	<p><b>Resolution:</b> 1920x1080px or higher.  <b>Zoom:</b> 10x Optical or higher.  <b>PTZ:</b> 180° Pan and 110° Tilt or higher  <b>Output Ports Supported:</b> USB/HDMI  <b>Remote:</b> IR Remote Control Included  <b>Power:</b> Runs on PoE+ or DC Power  <b>IP Streaming:</b> H.264, H.265, RTMP, RTMPS, RTP, RTSP, SRT, TCP, UDP (1920x1080)  <b>Comprehensive On Site Warranty:</b> 1 Year or as per the product warranty.  <b>Frame Rate:</b> 50 fps at 50Hz or higher in all resolutions.  <b>Image Device:</b> 1/3” CCD/CMOS/MOS or better  <b>Horizontal resolution:</b> 2MP or better  <b>Streaming:</b> Minimum 3 streams  <b>Physical Layer:</b> 10/100 base TX Ethernet 17 or higher  <b>Protocol:</b> Minimum TCP/IP, HTTP, RTP, RTSP  <b>IP Support:</b> Static/Dynamic or both  <b>Lens Type:</b> Varifocal minimum 5-100 mm or better  <b>Shutter speed:</b> 1/50–1/1000 or better  <b>PC Client:</b> PC application client to interact with and control the camera system  <b>Web Client:</b> Viewer through HTTP (minimum) system configuration setting / streaming  <b>Approvals:</b> EMC &amp; IEC – both to be mentioned  <b>Compatibility:</b> Compatible with various Video Conferencing software (e.g., Zoom, Microsoft Teams, Webex, etc.).  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p> <p><b>Adjustment Features for wall mount:</b>  Tilt adjustment: Up to 90 degrees  Swivel adjustment: Up to 180 degrees  <b>Adjustment Features for ceiling mount:</b></p>	3

	180-degree rotation for optimal camera positioning	
Wired Gooseneck Microphones (with stand for Hon'ble Bench)	<p><b>Microphone Type:</b> Gooseneck Condenser Microphone  <b>Polar Pattern:</b> Cardioid  <b>Frequency Response Range:</b> 50 Hz to 20 kHz  <b>Sensitivity:</b> -40 dB  <b>Maximum SPL (Sound Pressure Level):</b>  Maximum SPL tolerance 130 dB  <b>Output:</b>  <b>Type:</b> Balanced XLR Output  <b>Flexible Gooseneck:</b>  <b>Length:</b> 18-21 inches  <b>Material:</b> Durable metal alloy construction  <b>Integrated Features:</b>  <b>LED Indicator:</b> High-visibility LED for microphone status (active/on/off)  <b>RF Rejection:</b> Integrated RF shielding to minimize interference  <b>Shock Mount:</b>  Integrated shock mount to reduce handling noise and vibrations  <b>Compatibility:</b>  Compatible with standard DSP mixers and audio equipment's  <b>Power Requirements:</b>  Phantom Power: Requires +48V phantom power  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	2
Wired Gooseneck Microphones (with stand for Advocates)	<p><b>Microphone Type:</b> Gooseneck Condenser Microphone  <b>Polar Pattern:</b> Cardioid  <b>Frequency Response Range:</b> 50 Hz to 20 kHz  <b>Sensitivity:</b> -40 dB  <b>Maximum SPL (Sound Pressure Level):</b>  Maximum SPL tolerance 130 dB  <b>Output:</b>  <b>Type:</b> Balanced XLR Output  <b>Flexible Gooseneck:</b>  <b>Length:</b> 30-36 inches  <b>Material:</b> Durable metal alloy construction  <b>Integrated Features:</b>  <b>LED Indicator:</b> High-visibility LED for microphone status (active/on/off)  <b>RF Rejection:</b> Integrated RF shielding to minimize interference  <b>Shock Mount:</b>  Integrated shock mount to reduce handling noise and vibrations  <b>Compatibility:</b>  Compatible with standard DSP mixers and audio equipment's.  <b>Power Requirements:</b>  Phantom Power: Requires +48V phantom power  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.  (Each microphone should be able to capture clear and intelligible sound from a distance of approximately 3-5 feet.)</p>	2
Speakers	As per Hon'ble C.J. Court	2
Amplifier	<p><b>Digital Multi-Channel Amplifier:</b>  <b>Channels:</b> 4 Input / 4 Output.  <b>Minimum Output Power:</b> 50W RMS per channel (into 8 ohms)  <b>Total Harmonic Distortion (THD):</b> Less than 0.1% at rated power  <b>Frequency Response Range:</b> 20 Hz to 20 kHz (+/- 1 dB)  <b>Signal-to-Noise Ratio (SNR)</b></p>	1

	<p><b>High SNR:</b> <math>\geq 100</math> dB</p> <p><b>Inputs</b>  <b>Types:</b> 4 Balanced XLR.</p> <p><b>Outputs</b>  <b>Types:</b> 4 Balanced XLR, Binding posts, Speakon connectors  <b>Flexibility:</b> Provides multiple output options for connecting to various speakers and audio systems.  Digital Signal Processing (DSP)</p> <p><b>Functions:</b>  <b>EQ (Equalization):</b> Multi-band EQ for each channel  <b>Crossover:</b> Adjustable crossover settings for bi-amping or subwoofer integration  <b>Limiter:</b> Protects speakers from damage due to excessive levels  <b>Feedback Suppression:</b> Reduces the risk of audio feedback  <b>Presets Storage (optional):</b> Save and recall user presets for different courtroom scenarios</p> <p><b>Controls and Features</b>  <b>Gain Control:</b> Independent gain control for each channel  <b>Front Panel Controls:</b> Easy access to key settings and adjustments  <b>Remote Control (optional):</b> Remote control for volume and settings adjustment  <b>PC/Mobile Control:</b> USB or network connectivity for configuration via software.</p> <p><b>Protection and Reliability</b>  <b>Overload Protection:</b> Safeguards against excessive voltage or current.  <b>Thermal Protection:</b> Prevents overheating during prolonged use.  <b>Short Circuit Protection:</b> Ensures amplifier and speaker safety in case of wiring faults.</p> <p><b>Compatibility</b>  <b>Speaker Impedance:</b> Supports 4-8 ohms  <b>Phantom Power:</b> +48V phantom power for microphones</p> <p><b>Design and Build</b>  <b>Enclosure:</b> Robust metal housing for durability  <b>Cooling:</b> Efficient cooling system (fan-cooled or convection-cooled) to prevent overheating  <b>Mounting:</b> Rack-mountable design for easy integration into racks.</p> <p><b>Power Requirements</b>  <b>Operating Voltage:</b> 100-240V AC (universal power supply)  <b>Power Consumption:</b> 200W</p> <p><b>Dimensions and Weight</b>  <b>Compact Size:</b> Suitable for limited space in small courtrooms  <b>Lightweight:</b> For easy installation and handling</p> <p>Additional Features  <b>Network Connectivity:</b> Ethernet port for remote management and firmware updates  <b>Audio Formats:</b> WAV, MP3 or equivalent  <b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
Digital Signal Processor	<p><b>Input Channels:</b> 4 balanced analog inputs (Balanced XLR) for connecting microphones and audio sources.  <b>Output Channels:</b> 4 balanced analog outputs (Balanced XLR) for sending processed audio to amplifiers, speakers, or recording equipment.  <b>DSP Cores:</b> Multi-core DSP architecture with sufficient processing power to handle real-time audio processing for all 4 input and output channels simultaneously.  <b>Echo Cancellation:</b> Built-in automatic echo cancellation.  <b>Noise Reduction:</b> Advanced noise reduction algorithms.</p>	1

	<p><b>Automatic Gain Control (AGC):</b> To maintain consistent audio levels</p> <p><b>Processing Capability:</b> Capable of implementing complex audio algorithms such as EQ (Equalization), dynamics processing, and feedback suppression without introducing noticeable latency.</p> <p><b>Audio Processing Features:</b></p> <p><b>EQ (Equalization):</b> Parametric EQ with adjustable frequency bands (typically 4 to 8 bands per channel), Q factors, and gain levels.</p> <p><b>Dynamics Processing:</b> Includes compressors, limiters, and expanders for managing audio dynamics.</p> <p><b>Feedback Suppression:</b> Advanced algorithms for detecting and automatically suppressing feedback frequencies.</p> <p><b>Audio Quality and Resolution:</b></p> <p><b>Sample Rate and Bit Depth:</b> 24-bit/48kHz or higher.</p> <p><b>Audio Latency:</b> Low-latency audio processing to minimize delay between audio input and output.</p> <p><b>Connectivity Options:</b></p> <p><b>Analog Inputs/Outputs:</b> 4 balanced analog inputs and outputs (Balanced XLR) for direct connection to microphones, mixers, and other audio equipment.</p> <p><b>Digital Inputs/Outputs:</b> Digital inputs/outputs (AES/EBU, SPDIF) for interfacing with digital audio sources and equipment.</p> <p><b>Network Connectivity:</b> Ethernet port for remote control, monitoring, and integration into networked audio systems.</p> <p><b>Control and Interface:</b></p> <p><b>User Interface:</b> Front panel controls with LCD display for intuitive navigation and real-time monitoring of input and output levels, processing status, and settings.</p> <p><b>Remote Control:</b> Support for remote control via dedicated software application (e.g., web-based interface or proprietary control software).</p> <p><b>Presets Storage:</b> Ability to store and recall multiple presets for different courtroom setups or audio configurations.</p> <p><b>Power Requirements:</b></p> <p><b>Power Supply:</b> Standard AC mains power (110V/220V) or Power over Ethernet (PoE+).</p> <p><b>Mounting:</b> Rack-mountable design with included mounting brackets.</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p>	
Display	<p><b>Resolution:</b> 1920 x 1080 pixel's resolution or higher</p> <p><b>Aspect Ratio:</b> 16:9 widescreen format.</p> <p><b>Screen Size:</b> 43 inches</p> <p><b>Brightness and Contrast:</b> Brightness: Typically ranges from 250 to 350 cd/m<sup>2</sup> for indoor use.</p> <p><b>Contrast Ratio:</b> Standard contrast ratios of 1000:1 or higher for vivid image quality.</p> <p><b>Response Time:</b> Typical Response Time: 5ms to 7ms (Grey-to-Grey) for smooth video playback and gaming.</p> <p><b>Viewing Angles:</b> Horizontal/Vertical Viewing Angles: Wide viewing angles (typically 178 degree's horizontal and vertical) for clear visibility from different positions.</p> <p><b>Colour Depth:</b> Colour Support: 16.7 million colours (8-bit) for accurate colour representation.</p> <p><b>Refresh Rate:</b> Standard Refresh Rate: 60Hz, suitable for most general-purpose applications.</p> <p><b>Connectivity:</b> HDMI in port minimum 2, USB in port minimum 2, Ethernet LAN (RJ-45), Audio Out Stereo Mini Jack, IR in, Wi-Fi, Bluetooth.</p>	0

	<p><b>Panel Type:</b> Technology: LED-backlit LCD panel for energy efficiency and vibrant colours.</p> <p><b>IPS (In-Plane Switching) or TN (Twisted Nematic):</b> Depending on the model, IPS for better colour accuracy and wider viewing angles, or TN for faster response times.</p> <p><b>Power Specifications:</b></p> <p><b>Power Consumption:</b> Typically ranges from 20W to 30W in normal operation.</p> <p><b>Power Supply:</b> Supports standard AC mains power (110V/220V, 50/60Hz).</p> <p><b>Connectivity Options:</b></p> <p><b>Video Inputs:</b> HDMI, DisplayPort, VGA (D-sub) inputs for versatile connectivity to various devices.</p> <p><b>Audio:</b> Built-in speakers or audio-out ports for connecting external speakers or headphones.</p>	
Wall /Ceiling Mount for existing Displays	<p><b>Full motion Mount:</b> Wall /Ceiling Mount</p> <p><b>Pan:</b> 180/360 degrees</p> <p><b>Tilt:</b> -15 to +15 degrees</p> <p><b>Weight capacity:</b> As per the display screen size.</p> <p><b>Compatibility:</b> Compatible with existing Display</p>	2
Smart Table Monitors	As per Hon'ble C.J. Court	2
HDMI Distribution Amplifier	As per Hon'ble C.J. Court	1
HDMI Extender (as per requirements)	As per Hon'ble C.J. Court	3
USB Extender (as per requirements)	As per Hon'ble C.J. Court	3
Cables	Generic Cables (Lump Sum)	1
Computer System/ Codec/ or similar	As per Hon'ble C.J. Court	1
24U Rack	As per Hon'ble C.J. Court	1

**NOTE:** Displays will be used from existing hardware.

<b>Court No. 2, 3 , 4, 5, 6 and 7</b>		
<b>Items</b>	<b>Item Details</b>	<b>Qty</b>
PTZ Camera (with mount)	As per Court No. 1	2
Wired Gooseneck Microphones (with stand facing towards Hon'ble Bench)	As per Court No. 1	2
Gooseneck Microphones (with stand facing towards Advocates)	As per Court No. 1	2
Speakers	As per Court No. 1	2
Amplifier	As per Court No. 1	1
Digital Signal Processor	As per Court No. 1	1
Display (with Mount)	<p><b>Resolution:</b> 1920 x 1080 pixel's resolution or higher</p> <p><b>Aspect Ratio:</b> 16:9 widescreen format.</p> <p><b>Screen Size:</b> 32 inches</p> <p><b>Brightness and Contrast:</b> Brightness: Typically ranges from 250 to 350 cd/m<sup>2</sup> for indoor use.</p>	2



	<p><b>Contrast Ratio:</b> Standard contrast ratios of 1000:1 or higher for vivid image quality.</p> <p><b>Response Time:</b> Typical Response Time: 5ms to 7ms (Gary-to-Gary) for smooth video playback and gaming.</p> <p><b>Viewing Angles:</b> Horizontal/Vertical Viewing Angles: Wide viewing angles (typically 178 degree's horizontal and vertical) for clear visibility from different positions.</p> <p><b>Colour Depth:</b> Colour Support: 16.7 million colours (8-bit) for accurate colour representation.</p> <p><b>Refresh Rate:</b> Standard Refresh Rate: 60Hz, suitable for most general-purpose applications.</p> <p><b>Connectivity:</b> HDMI in port minimum 2, USB in port minimum 2, Ethernet LAN (RJ-45), Audio Out Stereo Mini Jack, IR in, Wi-Fi, Bluetooth.</p> <p><b>Panel Type:</b> Technology: LED-backlit LCD panel for energy efficiency and vibrant colours.</p> <p><b>IPS (In-Plane Switching) or TN (Twisted Nematic):</b> Depending on the model, IPS for better colour accuracy and wider viewing angles, or TN for faster response times.</p> <p><b>Power Specifications:</b></p> <p><b>Power Consumption:</b> Typically ranges from 20W to 30W in normal operation.</p> <p><b>Power Supply:</b> Supports standard AC mains power (110V/220V, 50/60Hz).</p> <p><b>Connectivity Options:</b></p> <p><b>Video Inputs:</b> HDMI, DisplayPort, VGA (D-sub) inputs for versatile connectivity to various devices.</p> <p><b>Audio:</b> Built-in speakers or audio-out ports for connecting external speakers or headphones.</p> <p><b>Warranty Period:</b> Minimum 1-year comprehensive warranty.</p> <p><b>Full motion Mount:</b> Wall /Ceiling Mount</p> <p><b>Pan:</b> 180/360 degrees</p> <p><b>Tilt:</b> -15 to +15 degrees</p> <p><b>Weight capacity:</b> As per the display screen size.</p>	
Wall /Ceiling Mount for existing Camera	As per Court No. 1	1
Smart Table Monitors	As per Court No. 1	2
HDMI Distribution Amplifier	As per Court No. 1	1
HDMI Extender (as per requirements)	As per Court No. 1	3
USB Extender (as per requirements)	As per Court No. 1	3
Cables	Generic Cables (Lump Sum)	1
Codec/Computer System/ or similar	As per Court No. 1	1
24U Rack	As per Court No. 1	1

**NOTE:** if required, Computer System will be used from existing hardware for VC and Live Streaming Solution control/monitor or any other device required, may be added to the BOQ sheet, one camera in each court will be used from existing hardware.

<b>Court No. 8, 9 and 10</b>		
<b>Items</b>	<b>Item Details</b>	<b>Qty</b>
PTZ Camera (with mount)	As per Court No. 1	2

Gooseneck Microphones (with stand for Hon'ble Bench)	As per Court No. 1	1
Gooseneck Microphones (with stand for Advocates)	As per Court No. 1	2
Speakers	As per Court No. 1	2
Amplifier	As per Court No. 1	1
Digital Signal Processor	As per Court No. 1	1
Displays	As per Court No. 2	0
Wall /Ceiling Mount for existing Camera	As per Court No. 1	1
Wall /Ceiling Mount for existing Displays	As per Court No. 1	2
Smart Table Monitors	As per Court No. 1	1
HDMI Distribution Amplifier	As per Court No. 1	1
HDMI Extender (as per requirements)	As per Court No. 1	3
USB Extender (as per requirements)	As per Court No. 1	3
Cables	Generic Cables (Lump Sum)	1
Computer System/Codec/similar	As per Court No. 1	1
24U Rack	As per Court No. 1	1

**NOTE:** if required, Computer System will be used from existing hardware for VC and Live Streaming Solution control/monitor or any other device required, may be added to the BOQ sheet, one camera and one Display in each court will be used from existing hardware.

<b>Court No. 11</b>		
<b>Items</b>	<b>Item Details</b>	<b>Qty</b>
PTZ Camera (with mount)	As per Court No. 1	2
Microphones	As per Court No. 1	0
Speakers	As per Court No. 1	0
Amplifier and audio Interface	As per Court No. 1	0
Digital Signal Processor	As per Court No. 1	1
Displays	As per Court No. 2	0
Wall /Ceiling Mount for existing Displays	As per Court No. 1	2
Wall /Ceiling Mount for existing Camera	As per Court No. 1	1
Smart Table Monitors	As per Court No. 1	1
HDMI Distribution Amplifier	As per Court No. 1	1
HDMI Extender (as per requirements)	As per Court No. 1	3
USB Extender (as per requirements)	As per Court No. 1	3
Cables	Generic Cables (Lump Sum)	1

Computer System/Codec/similar	As per Court No. 1	1
24U Rack	As per Court No. 1	1

**NOTE:** if required, Computer System will be used from existing hardware for VC and Live Streaming Solution control/monitor or any other device required, may be added to the BOQ sheet, Microphones, speakers, amplifier, audio interface, Displays and one camera will be used from existing hardware.

Video Backup server	<p><b>Total Capacity:</b> 30 TB usable storage space or higher.  <b>Drive Type:</b> Enterprise-grade SATA or SAS HDDs, with each drive having a minimum of 4 TB capacity.  <b>Redundancy:</b> RAID 6 or RAID 10 for redundancy and fault tolerance.  <b>Processor</b>  <b>Type:</b> Dual Intel Xeon Scalable processors or equivalent.  <b>Cores:</b> Minimum 16 cores per processor.  <b>Clock Speed:</b> Minimum 2.6 GHz.  <b>Memory</b>  <b>Total Memory:</b> Minimum 64 GB ECC DDR4 RAM, expandable up to 256 GB.  <b>Type:</b> ECC (Error-Correcting Code) for data integrity.  <b>Networking</b>  <b>Network Interface Cards (NICs):</b>  <b>Primary:</b> Dual 10 Gigabit Ethernet ports.  <b>Secondary:</b> Additional dual 1 Gigabit Ethernet ports for management and redundancy.  <b>Connectivity</b>  <b>USB Ports:</b> Minimum 4 USB 3.0 ports.  <b>External Connectivity:</b> Support for external storage and backup via USB 3.0 and eSATA ports.  <b>Operating System</b>  <b>OS Support:</b> Compatible with Windows Server, Linux, or a specialized NAS operating system like FreeNAS or Unraid.  <b>License:</b> Appropriate licenses for operating system and any backup software.  <b>Backup and Recovery</b>  <b>Backup Software:</b> Pre-installed with enterprise-grade backup software supporting incremental, differential, and full backups.  <b>Cloud Integration:</b> Support for cloud backup integration (AWS, Azure, Google Cloud).  <b>Security</b>  <b>Encryption:</b> Support for AES-256 encryption for data at rest.  <b>Access Control:</b> Role-based access control (RBAC) and integration with Active Directory (AD).  <b>Antivirus:</b> Built-in or compatible with leading antivirus solutions.  <b>Power Supply</b>  <b>Redundant Power Supplies:</b> Dual hot-swappable power supplies, 750W each.  <b>Power Consumption:</b> Energy-efficient with power management features.  <b>Cooling</b>  <b>Cooling System:</b> Redundant cooling fans with dynamic fan speed control.  <b>Temperature Monitoring:</b> Sensors for monitoring and alerting on temperature thresholds.  <b>Form Factor</b>  <b>Rack-Mountable:</b> 2U or 4U rack-mountable chassis.  <b>Rails:</b> Included with adjustable mounting rails for standard 19-inch server racks.  <b>Expansion</b>  <b>Drive Bays:</b> Minimum 12 hot-swappable 3.5" drive bays.  <b>PCIe Slots:</b> Minimum 2 free PCIe 3.0 slots for future expansion.  <b>Management</b></p>	1
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	<p><b>Remote Management:</b> Integrated IPMI 2.0 or equivalent for remote management and monitoring.</p> <p><b>Console:</b> Dedicated console port for direct management.</p> <p><b>Warranty:</b> Minimum 3-year comprehensive warranty with 24/7 support.</p> <p><b>Additional Features</b></p> <p><b>Snapshot Support:</b> Ability to take and manage storage snapshots.</p> <p><b>Deduplication and Compression:</b> Support for data deduplication and compression to optimize storage usage.</p> <p><b>Alerts and Monitoring:</b> Built-in monitoring and alerting system for hardware and software issues.</p>	
Display Monitors (with stand)	<p><b>Resolution:</b> 1920 x 1080 pixel's resolution or higher</p> <p><b>Aspect Ratio:</b> 16:9 widescreen format.</p> <p><b>Screen Size:</b> 21-23 inches</p> <p><b>Brightness and Contrast:</b> Brightness: Typically ranges from 250 to 350 cd/m<sup>2</sup> for indoor use.</p> <p><b>Contrast Ratio:</b> Standard contrast ratios of 1000:1 or higher for vivid image quality.</p> <p><b>Response Time:</b> Typical Response Time: 5ms to 7ms (Gary-to-Gary) for smooth video playback and gaming.</p> <p><b>Viewing Angles:</b> Horizontal/Vertical Viewing Angles: Wide viewing angles (typically 178 degree's horizontal and vertical) for clear visibility from different positions.</p> <p><b>Colour Depth:</b> Colour Support: 16.7 million colours (8-bit) for accurate colour representation.</p> <p><b>Refresh Rate:</b> Standard Refresh Rate: 60Hz, suitable for most general-purpose applications.</p> <p><b>Connectivity:</b> HDMI, USB, Ethernet LAN (RJ-45), Audio Out Stereo Mini Jack, IR in, Wi-Fi, Bluetooth.</p> <p><b>Panel Type:</b> Technology: LED-backlit LCD panel for energy efficiency and vibrant colours.</p> <p><b>IPS (In-Plane Switching) or TN (Twisted Nematic):</b> Depending on the model, IPS for better colour accuracy and wider viewing angles, or TN for faster response times.</p> <p><b>Power Specifications:</b></p> <p><b>Power Consumption:</b> Typically ranges from 20W to 30W in normal operation.</p> <p><b>Power Supply:</b> Supports standard AC mains power (110V/220V, 50/60Hz).</p> <p><b>Connectivity Options:</b></p> <p><b>Video Inputs:</b> HDMI, DisplayPort, VGA (D-sub) inputs for versatile connectivity to various devices.</p> <p><b>Audio:</b> Built-in speakers or audio-out ports for connecting external speakers or headphones.</p> <p><b>Full motion Mount:</b> Wall /Ceiling Mount</p> <p><b>Pan:</b> 180/360 degrees</p> <p><b>Tilt:</b> -15 to +15 degrees</p> <p><b>Weight capacity:</b> As per the display screen size.</p>	5
VC Solution Licence	For each courtrooms (12)	12

All the above mentioned components should meet the **regulatory standards or certifications** as mentioned below:

**Safety Certifications:** BIS standards and TEC certification.

**Electromagnetic Compatibility (EMC) compliance as per BIS and TEC.**

**Environmental Compliance: RoHS** (Restriction of Hazardous Substances), EPR (Extended Producer Responsibility) or any other relevant Compliance and regional safety regulations.

**Quality and Performance Standards:** ISO 9001 Certified Quality Management System, IEC 62368-1 Compliance for safety requirements or higher.

**Hybrid Video Conferencing and Live Streaming Platform, having following specifications/features:**

**Compatibility:**

- The platform should be compatible and able to connect multiple participants from various locations using video and audio on demand using PCs, Laptops, Mac, Mobile devices such as Android, iPhone, iPad and must offer cross-platform functionality, ensuring seamless operation across various operating systems including Windows, Linux, and macOS, should ensure optimal browser compatibility, enabling access to Hybrid Video Conferencing through modern web browsers without extra plugins or installations.

**Features:**

- The proposed Hybrid Video Conferencing solution must support Full HD video quality and must be fully compatible with legacy Video Conferencing systems using H.323/SIP and WebRTC protocols and offer server-side video and audio recording, secure storage, and MP4 playback.
- The platform should accommodate multiple users, including court officials and technical staff and provide features such as delayed live streaming, face masking, sound distortion, and the ability to pause the stream or display custom images (e.g., “dictation in progress”) with no audio or video. Additionally, it should enable same control and management from a dedicated control room, ensuring adherence to the rules governing the live streaming of court proceedings in the High Court of Himachal Pradesh.
- The platform should have the capability to Integrate with the court Case Information System(CIS) and be Scalable to support all courts in the state, High court/District Court/Other courts under one roof if required.
- The platform should secure video conference access with multi-factor authentication (MFA), SSO, using email, SMS codes, or authenticator apps, to prevent unauthorized entry.
- The platform should support SSO integration, compatible with India's PARICHAY, JanParichay frameworks, allowing government officials to access the platform with existing credentials, streamlining logins and enhancing security through established identity verification systems.
- The platform should support Live streaming to RTMP-based platforms and must be compatible with major video codecs.
- The platform must support a document camera as a secondary video source, enabling live sharing of physical documents inside the virtual rooms and support integrated webinars/VC and RTMP streaming for real-time broadcasts to larger audiences or external platforms.
- User-friendly interface with role-based access control with intuitive admin dashboard to analyse the entire process from the backend and other features related to role based access can be modified from the admin panel.
- The Platform should provide the complete access log of the different users with extended reports including IP/ Device details/ Application details should be provided with each meeting room.
- The platform should support end-to-end (E2E) encrypted messaging and platform communications must use SSL encryption for data integrity and confidentiality in transit, and Elliptic Curve Cryptography (ECC) / RSA (Rivest–Shamir–Adleman) / AES 256-bit encryption to secure stored data.

- Should also be equipped with advanced security features to safeguard sensitive communications and data, adhering to the highest standards of data privacy and security protocols.
- The platform should feature a multilingual user interface expansion with enhanced capabilities for multilingual transcription and translation, supporting (Hindi and English).
- The platform may have a provision to broadcast Live Stream content on **specific URL/Domain in addition to Social Media Streaming Platforms like** (You Tube, Facebook, etc.).
- Platform should be robust and flexible, capable of adapting to future technological advancements and expanding user base.
- It is assumed that the features related to live streaming, pause, video content manipulation and other features as per rules are integrated in Hybrid VC Solution, if any other component is required for the above mentioned features, please specify.
- Detailed documentation of the Live Streaming and Recording of Court Proceedings of the High Court of Himachal Pradesh is at <https://hphighcourt.nic.in/pdf/rules%20live%20streaming.pdf>.
- Or any other feature that can be helpful for the Hybrid Video conference and live streaming of court proceedings.

#### **IMPORTANT NOTE FOR ALL PROSPECTIVE BIDDERS:**

- The successful bidder would be required to initially install the setup for Hybrid Video Conferencing & Live Streaming Solution in one court room only on pilot basis during non-court working days/after court hours within a week and after satisfaction of the Authorities of the High Court, the setup for rest of the courts will be done within 30 days or as per the directions of Authorities.
- **The cost of Hybrid VC and Live Streaming Solution should also include complete installation charges such as cabling, installation of LAN Ports, LAN wiring and any other work related to installation/setup etc.**
- Quantity can be increased/decreased at the discretion of HPSEDC/ High Court of Himachal Pradesh at any point of time.
- Any other component either (hardware or software) essential for Hybrid Video Conference and live streaming Solution that is not already mentioned in the above list (e.g. video mixer, touch panels, USB/HDMI splitters or any other component) may also be included in the BOQ sheet in “**any other components cost**” column, separated by comma for multiple components, keeping in view the other connected components compatibility, the number of court rooms and size of each court room.
- Ensure the mount can support the weight of the displays, monitor’s and speaker’s.
- Ensure HDMI Distribution Amplifier should be compatible with the existing VC setup HD Display Screens (i.e. 43 inches and 32 inches)
- Computer systems for technical person in DCR will be used from existing 10 Mini PC’s currently in use for Hybrid Video Conferencing.
- Computer systems for the technical staff in the **Dedicated Control Room (DCR)** will be used to modify the live streaming content within the fixed delay time, add custom images or text to the live feed as needed, and monitor the content being streamed to ensure compliance with regulations.
- The Hybrid Video Conference and Live Streaming Solution will also include the setup and installation of LAN ports, LAN cables, power points, and any other necessary infrastructure in the Dedicated Control Room (DCR) and each courtroom.
- **After approval from the Authorities of the High Court the Prospective bidders can inspect the site on Saturday i.e. 21/09/2024 between 11:00am to 4:00pm.**

#### **ELIGIBILITY CRITERIA FOR BIDDERS**

1. The tenderer must have its own office or must have a service agent stationed in Shimla Himachal Pradesh, and the tenderer is required to furnish certificate in this behalf. If no office or service agent

is present in Shimla, an undertaking stating that the firm will establish an office or service agent in Shimla, within one month of the signing of the contract, if selected. Tenderer should provide escalation matrix for their sales & support function. The tenderer must have a strong telephone/web based customer care cell and complaint registration mechanism.

2. A copy of the Registration number of the firm with attested copies of Articles of Association (in case of Registered Company), Byelaws and certificates of registration (in case of registered co-operative society), partnership deed (in case of partnership firm) should be submitted. Proprietorship establishment need to submit PAN Card and other valid licenses/registration certificates. The bidder must have been in existence for the last 3 years.
3. The tenderer shall have to attach the details of its Company in the format as per **Annexure-A**.
4. The tenderer must attach OEM authorization form as per **Annexure-H** (Authorization to be taken from the hardware OEM). The tenderer also must provide the official email ID of the OEM for verification of MAF.
5. The Certificate in **Annexure-C** from the Company Secretary or the Managing Director in respect of the Company and from the Managing Partner in respect of a firm and from the Proprietor in the case of a proprietorship concern to the effect that the bidder is not currently blacklisted by any Government organization/agency in India or abroad in last 3 years.
6. The commercial proposal submission form (On Bidder's letter head) as per **Annexure-D** is also required to be uploaded with the Technical Bid.
7. The tenderer must have a turnover of Rs. 1 Crore consolidated for the last three financial years and a certificate to this effect duly issued by a Chartered Accountant must be annexed with **Annexure-A**.
8. The tenderer must be an income tax assessee for the last three financial years and copies of income tax returns for three financial years must be submitted with **Annexure-A**.
9. The Tenderer shall attach the documents (if any) in support of any experience in supply and installation/setup of tendered product or about any experience in supply and installation/setup of similar or other item to Courts/ Government Departments.

**Note:** *The bidder will have to produce the original documents at Sl. No. 1 to 9 (as above) as and when demanded.*

## **COMMERCIAL / FINANCIAL BID**

1. The commercial bid must specify the rate for the supply, installation, and technical support or any other charges including GST for the Hybrid VC and Live Streaming Solution.
2. The commercial bid must contain a clear stipulation that the warranty would be comprehensive onsite as per Technical Offer form (**Annexure-F**).
3. The commercial bid must be submitted in the **BoQ Sheet** format available with the uploaded tender documents on H.P. Tenders separately. However, the undertaking as per **Annexure-D** is also to be uploaded on the eProcurement Web Portal along with other required documents.
4. The rates approved after calling tender shall remain valid for the period of 6 (Six) months from the date of issue of supply order, so that the hardware may be purchased as per the additional future requirement.

## **TERMS AND CONDITIONS**

### **1. Instructions to Bidder:**

- a) The instructions for bidders on how to submit the bid is available on the website i.e. <https://hptenders.gov.in>
- b) The bid is non-transferable.
- c) The bidder shall have to furnish earnest money deposit (EMD) for Rs. 4,00,000/-, which should be submitted in the form of bank draft in the name of Managing Director, HPSEDC or RTGS in HPSEDC A/C No. 050010200006521, IFS Code: UTIB0000050, Axis Bank, SDA Complex, Shimla-9, HP.). However, exemption in depositing EMD is applicable as per rules subject to

submission of valid documentary proof. Exemption, if any in evaluation criteria or any other terms & conditions of this document, will be as per Notification No. 4-Ind/SP/Misc/F/6-10/4/80-Vol-V dated 16.05.2020 issued by Controller of Stores Himachal Pradesh or any other orders issued by Govt. of Himachal Pradesh in case the committee deems it fit.

It is reiterated that Purchaser's decision regarding Bidder's eligibility will be final and binding on all the Bidders.

The earnest money of unsuccessful tenderer shall be returned within a reasonable time. No interest will be payable on the amount of the EMD. The successful tenderer shall have to furnish requisite Performance Security and enter into formal agreement with HPSEDC/ High Court within 15 days of award of work order as mentioned hereinafter in the tender document.

- d) The Bidders are expected to examine all instructions, forms, terms and specifications in the bidding Documents. Failure to furnish all the information required in the bidding Documents or submission of a Bid not substantially responsive to the bidding Documents in every respect, shall be at the Bidder's risk and may result in rejection of the Bid. The Bid is liable to be rejected outright without any intimation to the Bidder, if complete information as called for in the Tender Document is not given therein or if any particulars asked for in the Forms/ proforma in the Tender are not fully furnished.
- e) The Bids shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case, such corrections shall be initialled by the person or persons signing the Bid in original.
- f) Copy of all documents at Sl. No. 1 to 9 as defined under **Eligibility Criteria**, in a single file (.pdf) along with Bill of Quantity (BoQ) (.xlsx/.xls) and Annexures- A to H should only be uploaded on the e-procurement website i.e. <https://hptenders.gov.in>. The original instrument of earnest money be sent to the office of "**Managing Director, HP State Electronics Development Corporation Ltd., 1<sup>st</sup> Floor, IT Bhawan, Mehli, Shimla-171013**" in the envelop with super scription on the top "**Tender/Bid for the Supply and Installation/setup of Hybrid Video Conference and Live Streaming Solution**".
- g) The successful Bidder shall not depute any such person in the HPSEDC/ High Court who is a party to a litigation pending in this Court.
- h) The Technical Bid shall be complete in all respects and contain all information asked for, **except prices**. It shall not contain any price information.

## **2. Amendment of Tender Document:**

- a) The HPSEDC/ High Court may, at its discretion, extend the deadline for submission of Bids by amending the Tender Document. In such case, all rights and obligations of the Tender Issuer and Bidder, subject to the deadline will thereafter be subject to the deadline as extended.
- b) At any time prior to the submission of Bids, the Tendering Authority may, for any reason, whether on its own initiative or in response to a clarification requested by a prospective Bidder, modify, change, incorporate or delete certain conditions in the Tender Document.
- c) The corrigendum regarding amendments, if any, shall be published on e-procurement website i.e. <https://hptenders.gov.in> or HPSEDC web site i.e. [www.hpsehc.in](http://www.hpsehc.in). Bidders are advised to periodically browse/ check this website to find out any further Corrigendum/ Addendum/ Notice published with respect to this Tender. All such amendments shall be binding on them.

## **3. Opening of Bid:**

Bids shall be opened by the Tendering Authority in the presence of bidder or its representative who chooses to attend the same as per the Schedule. The Bidder's representative who is present shall sign evidencing their attendance. Only one representative per bidder shall be permitted to be present at the time of opening the Bids.

## **4. Evaluation of Bids:**



- a) The Tender Evaluation Committee constituted by the HPSEDC/ High Court, shall evaluate the Tenders. The decision of the Evaluation Committee in the evaluation of the Technical Bids and Commercial Bids shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Committee.
- b) Only technically qualified Bids will be processed for Financial/ Commercial Evaluation.
- c) High Court may call any or all Bidders for negotiation.

**HPSEDC/ High Court may waive any minor informality or non-conformity or irregularity in a Bid.**

#### **5. Award of Contract:**

- a) Award Criteria: HPSEDC/ High Court will award the Contract to the successful Bidder, on the basis of techno-commercial evaluation and it will not be binding upon the High Court, to accept the lowest Bid. High Court reserves the right to award Contract to one or more Bidders.
- b) Right to Accept/ Reject any Bid or all Bids: HPSEDC/ High Court reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for Tendering Authority's action.
- c) Notification of Award: Prior to the expiration of the period of Bid validity, Tendering Authority will issue Purchase/ Supply order to the successful bidder in writing and same shall be presumed as award of Contract. The notification of award will constitute the formation of the Contract. The successful tenderer has to enter into a comprehensive agreement, as per **Annexure-G**, with HPSEDC/ the Registrar General, H.P. High Court, Shimla. Terms and Conditions specified in the Tender Document shall become the part and parcel of the Contract Document. The agreement shall be executed within 15 days of issuance of the Purchase Order.
- d) The Bid Security (EMD) may be forfeited: If a bidder withdraws his bid or increases his quoted prices during the period of Bid validity or its extended period, if any; or in the case of a Successful Bidder, if the Bidder fails to sign the Contract or to furnish Performance Bank Guarantee within the specified duration

#### **PROOF OF CONCEPT (POC): -**

- a) **The technically qualified L1 bidder may be required to initially deploy the solution as Proof of Concept (POC) in one of the Hon'ble Court Rooms in the real-time environment as per directions of the Hon'ble Authorities. After the satisfaction of the Hon'ble Authorities, further process with regard to award of contract/ placing the purchase order would take place.**
- b) **If technically qualified L1 bidder fails to deploy the proof of concept to the satisfaction of the Hon'ble Authorities, technically qualified L2, L3 bidders may be asked for POC as per the directions of the Hon'ble Authorities.**

#### **6. Delivery and Installation:**

- a) The vendor has to deliver and complete the installation/setup of Hybrid VC & Live Streaming Solution within 30 days of issuance of purchase/ supply order. The vendor has to supply and install the complete solution in the High Court of Himachal Pradesh.
- b) The Vendor has to provide the training related to Hybrid Video Conferencing and Live Streaming Solution to the Court/Technical staff.

#### **7. Performance Bank Guarantee:**

- a) The successful Bidder shall at its own expense submit within fifteen (15) days of the date of notice of award of the Contract or prior to signing of the Contract, whichever is earlier, an unconditional and irrevocable Performance Guarantee as per **Annexure-C** from a Nationalized or Scheduled Bank acceptable to the Tendering Authority, payable on demand, for the due performance and fulfilment of the Contract by the Bidder.
- b) The Performance Security will be for an amount equivalent to 5% of Contract value.
- c) The Performance Bank Guarantee shall be valid until the end of two months after the completion of the Contract with the successful Bidder.
- d) The Performance Bank Guarantee shall be discharged/ returned upon being satisfied that there has been due performance of the obligations of the Bidder under the Contract. However, no interest shall be payable on the Performance Bank Guarantee.
- e) In the event of the Bidder being unable to service the Contract for whatever reason, Tendering Authority would invoke the Performance Bank Guarantee. Notwithstanding and without prejudice to any rights whatsoever of the High Court under the Contract in the matter, the proceeds of the Performance Bank Guarantee shall be payable to the HPSEDC/ High Court as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract. HPSEDC/ High Court shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default.

#### **8. Warranty:**

- a) The Hybrid VC & Live Streaming Solution should have on site comprehensive warranty support service from the date of installation.
- b) The vendor should fulfil following conditions during warranty period:
  - i. Vendor would provide the help-desk support services through telephone/ e-mail where users can lodge their complaint.  
During Minimum 1-year comprehensive warranty.
  - ii. period, any failure in the quoted Items, Components should be attended within maximum period of 1 working day and should be rectified within maximum of 5 days from the date of lodging of the complaint by providing the standby hardware item so that work of Court should not hamper.
  - iii. On completion of the Warranty period, the Security Deposit without any interest accrued shall be released after satisfying that proper free warranty support has been provided during warranty period. If considered necessary, suitable amount of penalty shall be recovered from the Vendor out of either already due payments or from their Performance Security Deposit while releasing the Performance Security Deposit.

#### **9. Penalty:**

- a) Failure in maintaining the delivery and installation schedule - 0.5% (Zero point five percent) per day subject to maximum of 15 days on the Purchase Order Value, thereafter the HPSEDC/ High Court holds the option for cancellation of the Order and re-procure the same from any other Vendor at the cost of the supplier and forfeit the Earnest Money Deposit of the Vendor.
- b) Maintenance during warranty period - During the warranty period any failure in the equipment supplied/ any accessories thereof should be attended within maximum of One (1) working day and should be rectified within maximum period of Five (5) working days from the date of lodging the complaint. Thereafter penalty of 0.5% (Zero point five percent) per day on the Purchase Order Value of impacted machine shall be imposed and if the defect in the equipment supplied/ any accessories thereof is repaired from elsewhere (in case of non-rectification of the failure within maximum of 5 days), the tenderer shall have to pay the charges of such maintenance/repair along with the penalty or it may be recovered from the Security Amount of Performance.
- c) Replacement of the faulty system - Any component, failing at system and subsystem level at least three times in three months, displaying chronic system design or manufacturing defects or Quality Control problem or where the penalty amount on account of downtime has crossed 15% of the

system value, will be totally replaced by the Vendor at his cost and risk within 30 days, from the date of last failure.

- d) Limitation of Liability - Taking into consideration all the above cases, the total penalty that can be levied on the Vendor shall not exceed the purchase order value.

**10. FAILURE TO AGREE WITH THE TERMS & CONDITIONS OF THE BID/ CONTRACT:**

Failure of successful bidder to agree with the Terms and Conditions of the Bid/ Contract shall constitute sufficient grounds for the annulment of the award in which event; Tendering Authority may make the award to the next Best Value Bidder or call for new Bids.

**11. PAYMENT TERMS AND CONDITIONS:**

The terms and conditions for making the payment shall be regulated as per Rule 108 of the H.P.F.R, 2009, an extract whereof is annexed as **Annexure- J**.

**12. Corrupt or Fraudulent Practices:**

- a) The Tendering Authority will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract in question.
- b) The Tendering Authority will declare a Bidder ineligible, either indefinitely, or for a stated period of time, to be awarded a Contract if the Tendering Authority at any time determines that the Bidder has engaged in corrupt and fraudulent practices in competing for or in executing a Contract.

**13. Indemnity:**

Bidder shall indemnify, protect and save the Tendering Authority against all claims, losses, cost damages, expenses, action suits and other proceeding, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the Hardware and Software supplied.

**14. Publicity:**

Any publicity by the Bidder in which the name of the HPSEDC/ High Court of Himachal Pradesh should be done only with the explicit written permission of the High Court.

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### Latest instructions for OEMs/ Bidders:

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated here in before, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means: -
  - a) An entity incorporated, established or registered in such a country; or
  - b) A subsidiary of an entity incorporated, established or registered in such a country; or
  - c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
  - d) An entity whose beneficial owner is situated in such a country; or
  - e) An Indian (or other) agent of such an entity; or
  - f) A natural person who is a citizen of such a country; or
  - g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The beneficial owner for the purpose of (III) above will be as under:
  1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation —

    - a) "Controlling ownership interest" means ownership of or entitlement to more **than twenty-five per cent** of shares or capital or profits of the company;
    - b) "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholder's agreements or voting agreements;
  2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
  3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
  4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
  5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

**VI.** The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

**[The Bidder has to provide following declarations a/w Technical Bid (duly signed and stamped)]:**

**Declaration 1 of Latest instructions to OEMs/ bidders**

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I hereby certify that this bidder is not from such a country and is eligible to be considered."

**Declaration 2 of Latest instructions to OEMs/ bidders**

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]

**Declaration 3 of Latest instructions to OEMs/ bidders**

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached]"

**Note:** Interested bidder may refer to Office Memorandum (F. No. 6/18/2019-PPD) dated 23.07.2020 of Department of Expenditure, Ministry of Finance, Govt. of India for further details and all the requirement will be in accordance with this memorandum.

At the first instance the technical bids shall be opened and financial bids of only the technically qualified bidders shall be opened for financial evaluation. The interested tenderers may also attend the process of opening the technical bids at the relevant date and time. The interested tenderer shall furnish earnest money to the extent of 2% of the total amount of tender in the shape of a bank draft/ cheque from any recognized banking Institution and the successful tenderer shall have to furnish performance security to the extent of 5% of the total consideration amount of the contract in the shape of a bank guarantee as per format at **Annexure-C** and also enter into a comprehensive agreement with the Registrar General, H.P. High Court, Shimla.

**Exemption to prospective bidders such as MSME's, Start-ups etc. shall be applicable as per govt. terms and conditions, subject to submission of valid documentary proof regarding exceptions to such units.**

**The e-Bids submitted without any earnest money or after the last date, or not as per the requirement of this tender document, shall be liable to be summarily rejected and High Court reserves every**

**right to select or reject any or all the tender(s)/ bid(s) received, without assigning any reason, whatsoever.**  
However, the Registrar General, may, in view of the facts and circumstances relax the technical criteria.

<b>Encls: Annexures as above.</b>	<b>By Order etc. Managing Director, HPSEDC</b>
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**Endst. No. As above.**

**Dated: \_\_/\_\_/2024.**

Copies forwarded to:

- 1.** Co-Ordinator, NIC, High Court of HP, Shimla, with a request to upload the above tender on the website of the High Court, for larger publicity **(through email only)**.
- 2.** The Director, H.P. Judicial Academy, 16 Mile, Shimla-Mandi National Highway, District Shimla-171014, with a request to upload the above tender on the website of H.P. Judicial Academy for larger publicity **(through email only)**.
- 3.** The Member Secretary, H.P. State Legal Services Authority, Block No. 22, SDA Complex, Kasumpti, Shimla-171009, with a request to upload the above tender on the website of H.P. State Legal Services Authority for larger publicity **(through email only)**.

**-Sd-**

**Central Project Co-ordinator.**

All pages shall be serially numbered. Enclosures in the Technical Bid are to be uploaded along with following Check-List:

<b>Sr. No.</b>	<b>Description</b>	<b>Compliance (Y/N)</b>	<b>Refer Page No. in the Bid</b>
1	Details of the Tenderer ( <b>Annexure-A</b> )		
2	OEM Authorization Form ( <b>Annexure-H</b> )		
3	Clean Track Record Declaration ( <b>Annexure-B</b> )		
4	Commercial Proposal Submission Form ( <b>Annexure-D</b> )		
5	Technical Bid ( <b>Annexure-F</b> )		
6	Letter for acceptance of all Terms and Conditions of Tender Document ( <b>Annexure-E</b> )		
7	Company Turnover Certificate		
8	Last Three Years ITRs		
9	Authorization letter of the person involved in the bidding process.		



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**Annexure A:           DETAILS OF TENDERER**

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Details filled in this form must be accompanied by sufficient documentary evidence, in order to verify the correctness of the information.

<b>Sr. No.</b>	<b>Particulars</b>	<b>Details</b>
a)	Name of the Company	
b)	Mailing Address	
c)	Telephone No.	
d)	Fax No.	
e)	Turn-over of the Company for 2021-2022, 2022-2023 and 2023-2024.	
f)	Profit of the Company 2021-2022, 2022-2023 and 2023-2024.	
g)	Valid Income Tax Clearance Certificate	
h)	Whether direct manufacturer or Authorized Dealer	
i)	No. of Technical Personnel Employed	
j)	Particulars of any litigation pending in any Court or Judicial body, if any.	

**Date:**

**Authorized Signatory:**

Date: \_\_\_\_\_

Tender Reference No.: **SEDC/HC/Webcasting/2k24-7956**

To

**The Managing Director,  
HPSEDC, Mehli, Shimla-13**

**Subject: Declaration regarding clean track record of the firm / company / proprietorship concern.**

Sir,

I have carefully gone through the Terms and Conditions contained in the **Tender Reference No. SEDC/HC/Webcasting/2k24-7956**, I hereby declare that my company/ firm/ proprietorship concern has not been *debarred/ black listed/ penalized* by any Government/ Semi Government organization in India or abroad during last 3 years. I further certify that the competent authority in my company/ firm/ proprietorship concern has authorized me to make this declaration.

Yours Sincerely,

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company/firm: \_\_\_\_\_

Proprietorship concern. \_\_\_\_\_

Address: \_\_\_\_\_

(Stamp &amp; Signature)

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**Annexure-C: PERFORMANCE SECURITY FORM**

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To,

The Managing Director,  
HPSEDC, Mehli, Shimla-13

WHEREAS \_\_\_\_\_ (Name of Tenderer) has undertaken the Contract, as per Tender No. \_\_\_\_\_ dated \_\_\_\_\_ to supply \_\_\_\_\_ (Description of goods and Services) hereinafter called “the Contract”.

(Guarantee shall be restricted to an amount not exceeding INR \_\_\_\_\_).

1. In consideration of **HP State Electronics Development Corporation** (hereinafter called “HPSEDC”) having agreed to exempt M/S \_\_\_\_\_ (hereinafter called “ the said Contractor(s)”) from the demand under the terms and conditions of Tender No. \_\_\_\_\_ issued by the High Court of Himachal Pradesh for purchase of \_\_\_\_\_ for \_\_\_\_\_ from security deposit for the due fulfillment by the said contractor of the terms and conditions contained in the said Tender of a Bank Guarantee for \_\_\_\_\_ on demand.
2. We \_\_\_\_\_ (Bank Name) a company incorporated under the Companies Act, 1956 and a banking company within the meaning of Banking Regulation Act, 1949 and having Registered Office at \_\_\_\_\_ and one of its branches at \_\_\_\_\_ do hereby undertake to pay INR \_\_\_\_\_, the amounts due and payable under this guarantee without any demur or delay, merely on a demand from the HPSEDC. Any such demand made on the Bank by the HPSEDC shall be conclusive as regards the amount due and payable by the Bank under this guarantee. The Bank Guarantee shall be completely at the disposal of the HPSEDC and we \_\_\_\_\_, bound ourselves with all the directions given by HPSEDC regarding this bank guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding \_\_\_\_\_.
3. We \_\_\_\_\_ undertake to pay to the HPSEDC any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding before any court or Tribunal or Arbitrator etc. relating thereto, our liability under these presents being absolute, unequivocal and unconditional.
4. We \_\_\_\_\_, further agree that the performance guarantee herein contained shall remain in full force and effective up to \_\_\_/\_\_\_/\_\_\_ and that it shall continue to be enforceable for above specified period till all the dues of HPSEDC under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the HPSEDC certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We \_\_\_\_\_, further agree with the HPSEDC that the HPSEDC/ HPHC shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercised by the HPSEDC / HPHC against the said contractor(s) and to forbear or enforce

any of the conditions of tender document for selection of the vendor for purchase of \_\_\_\_\_ for \_\_\_\_\_ and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part the HPSEDC / HPHC or any indulgence by the HPSEDC / HPHC to the said contractor(s) or by any such matter or thing whatsoever which would but for this provision, have effect of so relieving us.

6. The liability of us \_\_\_\_\_ (Bank Name) under this guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We \_\_\_\_\_, lastly undertake not to revoke this guarantee except with the prior consent of the HPSEDC / HPHC in writing.
8. This performance guarantee shall remain in valid and in full effect until it is decided to be discharged by the HPSEDC / HPHC. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to INR \_\_\_\_\_.
9. It shall not be necessary for the HPSEDC / HPHC to proceed against the contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the HPSEDC / HPHC may have obtained or obtain from the contractor.
10. We \_\_\_\_\_, verify that we have a branch at \_\_\_\_\_. We undertake that this Bank Guarantee shall be payable at \_\_\_\_\_. If the last day of expiry of Bank Guarantee happens to be a holiday of the Bank, the Bank Guarantee shall expire on the close of the next working day.
11. We hereby confirm that we have the power(s) to issue this guarantee in your favour under the memorandum and articles of Association/constitution of our bank and the undersigned is/ are the recipient of authority by express delegation of power(s) and has /have full power(s) to execute this guarantee for the management delegation issued by the bank.

**Annexure-D: COMMERCIAL PROPOSAL SUBMISSION FORM (ON BIDDER'S LETTER HEAD)**

Date: \_\_\_\_\_

Tender Document No. **SEDC/HC/Webcasting/2k24-7956**

To

**The Managing Director  
HPSEDC, Mehli, Shimla-13**

Sir,

We, the undersigned, offer to undertake the work of Hybrid Video Conferencing and Live Streaming Solution mentioned in this tender.

We have uploaded the Commercial bid in the format of Bill of Quantity (BOQ) sheet on the e-procurement website i.e. <https://hptenders.gov.in>

Our Financial Proposal shall be binding upon us up to expiration of the validity period of the proposal i.e. six months. We also understand you are not bound to accept any proposal you receive either from us or from any other person.

**Methodology –**

1. Our Bid shall be valid for a period of **180 days** i.e. **six months** from the last date fixed for submission of the bids in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period and on acceptance it shall remain binding on us till the conclusion of the entire contract.
2. If our Bid is accepted, we commit to submit a performance bank guarantee to the extent of 5% of the total tendered amount in accordance with the Bidding Documents.
3. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal comprehensive contract is executed;
4. We also understand that you can reject any bid without assigning any reason.
5. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

**Yours sincerely**

**Name**.....

**In the capacity of**.....

**Signed**.....

**Duly authorized to sign the Application for and on behalf of**.....

**Stamp / Seal**.....



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**Annexure-E: LETTER OF ACCEPTANCE OF TERMS AND CONDITIONS**

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(Letter to the Registrar General, High Court of Himachal Pradesh, Shimla on the Tenderer's Letter Head.)

To,

The Managing Director  
HPSEDC, Mehli, Shimla-13

Sir,

Sub: - Out Bid for \_\_\_\_\_.

With reference to our Bid, having examined and understood the instruction, terms and conditions forming part of the Bid, we hereby enclose our offer for the Hybrid Video Conferencing and Live Streaming Solution as detailed in your above referred Tender Document.

We further confirm that the Offer is in conformity with the terms and conditions as mentioned in your above referred Tender Document and these shall also be the part of the Agreement at **Annexure-G**.

We also understand that the Registrar General, High Court of Himachal Pradesh, Shimla, is not bound to accept the Offer either in part or in full and the Registrar General, High Court of Himachal Pradesh, Shimla, has right to reject the Offer in full or in part without assigning any reasons whatsoever.

We affirm that the information contained within these documents is true to the best of my knowledge and belief.

We understand and acknowledge that providing false information or documentation is a serious offense. In the event that any document submitted by us is found to be false, misleading, or fraudulent at any stage of the tender process or during the execution of the contract, we accept that it may result in the immediate disqualification of my bid, termination of any resulting contract, and possible legal action as deemed appropriate by your organization.

Yours Faithfully,

Authorized Signatories,  
(Name & Designation, Seal of the Firm)

Date: \_\_\_\_\_

**Annexure-F: TECHNICAL OFFER FORM**

Sr. No.	Required Hardware Specifications	Compliance Y/N	Offered Specifications
1	<b><u>PTZ Camera (with mount)</u></b>		
1.01	<b>Resolution:</b> 1920x1080px or higher.		
1.02	<b>Zoom:</b> 15x Optical or higher.		
1.03	<b>PTZ:</b> 180° Pan and 110° Tilt or higher		
1.04	<b>Output Ports Supported:</b> USB/HDMI		
1.05	<b>Remote:</b> IR Remote Control Included		
1.06	<b>Power:</b> Runs on PoE+ or DC Power		
1.07	<b>IP Streaming:</b> H.264, H.265, RTMP, RTMPS, RTP, RTSP, SRT, TCP, UDP (1920x1080)		
1.08	<b>Frame Rate:</b> 50 fps at 50Hz or higher in all resolutions.		
1.09	<b>Image Device:</b> 1/3” CCD/CMOS/MOS or better		
1.10	<b>Horizontal resolution:</b> 2MP or better		
1.11	<b>Streaming:</b> Minimum 3 streams		
1.12	<b>Physical Layer:</b> 10/100 base TX Ethernet 17 or higher		
1.13	<b>Protocol:</b> Minimum TCP/IP, HTTP, RTP, RTSP		
1.14	<b>IP Support:</b> Static/Dynamic or both		
1.15	<b>Lens Type:</b> Varifocal minimum 5-100 mm or better		
1.16	<b>Shutter speed:</b> 1/50–1/1000 or better		
1.17	<b>PC Client:</b> PC application client to interact with and control the camera system		
1.18	<b>Web Client:</b> Viewer through HTTP (minimum) system configuration setting / streaming		
1.19	<b>Approvals:</b> EMC & IEC – both to be mentioned		
1.20	<b>Compatibility:</b> Compatible with various Video Conferencing software (e.g., Zoom, Microsoft Teams, Webex, etc.).		
	<b>Adjustment Features for wall mount:</b>		
1.21	<b>Tilt adjustment:</b> Up to 90 degrees		
1.22	<b>Swivel adjustment:</b> Up to 180 degrees		
	<b>Adjustment Features for ceiling mount:</b>		
1.23	180-degree rotation for optimal camera positioning		
1.24	<b>Comprehensive Warranty (Onsite)</b>		
2	<b><u>PTZ Camera (with mount)</u></b>		
2.01	<b>Resolution:</b> 1920x1080px or higher.		
2.02	<b>Zoom:</b> 10x Optical or higher.		
2.03	<b>PTZ:</b> 180° Pan and 110° Tilt or higher		
2.04	<b>Output Ports Supported:</b> USB/HDMI		
2.05	<b>Remote:</b> IR Remote Control Included		
2.06	<b>Power:</b> Runs on PoE+ or DC Power		



2.07	<b>IP Streaming:</b> H.264, H.265, RTMP, RTMPS, RTP, RTSP, SRT, TCP, UDP (1920x1080)		
2.08	<b>Frame Rate:</b> 50 fps at 50Hz or higher in all resolutions.		
2.09	<b>Image Device:</b> 1/3" CCD/CMOS/MOS or better		
2.10	<b>Horizontal resolution:</b> 2MP or better		
2.11	<b>Streaming:</b> Minimum 3 streams		
2.12	<b>Physical Layer:</b> 10/100 base TX Ethernet 17 or higher		
2.13	<b>Protocol:</b> Minimum TCP/IP, HTTP, RTP, RTSP		
2.14	<b>IP Support:</b> Static/Dynamic or both		
2.15	<b>Lens Type:</b> Varifocal minimum 5-100 mm or better		
2.16	<b>Shutter speed:</b> 1/50–1/1000 or better		
2.17	<b>PC Client:</b> PC application client to interact with and control the camera system		
2.18	<b>Web Client:</b> Viewer through HTTP (minimum) system configuration setting / streaming		
2.19	<b>Approvals:</b> EMC & IEC – both to be mentioned		
2.20	<b>Compatibility:</b> Compatible with various Video Conferencing software (e.g., Zoom, Microsoft Teams, Webex, etc.).		
	<b>Adjustment Features for wall mount:</b>		
2.21	<b>Tilt adjustment:</b> Up to 90 degrees		
2.22	<b>Swivel adjustment:</b> Up to 180 degrees		
	<b>Adjustment Features for ceiling mount:</b>		
2.23	180-degree rotation for optimal camera positioning		
2.24	<b>Comprehensive Warranty (Onsite)</b>		
3	<b><u>Wired Gooseneck Microphones (with stand)</u></b>		
3.01	<b>Microphone Type:</b> Gooseneck Condenser Microphone		
3.02	<b>Polar Pattern:</b> Cardioid		
3.03	<b>Frequency Response Range:</b> 50 Hz to 20 kHz		
3.04	<b>Sensitivity:</b> -40 dB		
	<b>Maximum SPL (Sound Pressure Level):</b>		
3.05	Maximum SPL tolerance 130 dB		
3.06	<b>Output Type:</b> Balanced XLR Output		
	<b>Flexible Gooseneck:</b>		
3.07	<b>Length:</b> 18-21 inches		
3.08	<b>Material:</b> Durable metal alloy construction		
	<b>Integrated Features:</b>		
3.09	<b>LED Indicator:</b> High-visibility LED for microphone status (active/on/off)		
3.10	<b>RF Rejection:</b> Integrated RF shielding to minimize interference		
	<b>Shock Mount:</b>		
3.11	Integrated shock mount to reduce handling noise and vibrations		
	<b>Compatibility:</b>		

3.12	Compatible with standard DSP mixers and audio equipment		
	<b>Power Requirements:</b>		
3.13	<b>Phantom Power:</b> Requires +48V phantom power		
3.14	<b>Comprehensive Warranty (Onsite)</b>		
4	<b><u>Wired Gooseneck Microphones (with stand)</u></b>		
4.01	<b>Microphone Type:</b> Gooseneck Condenser Microphone		
4.02	<b>Polar Pattern:</b> Cardioid		
4.03	<b>Frequency Response Range:</b> 50 Hz to 20 kHz		
4.04	<b>Sensitivity:</b> -40 dB		
	<b>Maximum SPL (Sound Pressure Level):</b>		
4.05	Maximum SPL tolerance 130 dB		
4.06	<b>Output Type:</b> Balanced XLR Output		
	<b>Flexible Gooseneck:</b>		
4.07	<b>Length:</b> 30-36 inches		
4.08	<b>Material:</b> Durable metal alloy construction		
	<b>Integrated Features:</b>		
4.09	<b>LED Indicator:</b> High-visibility LED for microphone status (active/on/off)		
4.10	<b>RF Rejection:</b> Integrated RF shielding to minimize interference		
	<b>Shock Mount:</b>		
4.12	Integrated shock mount to reduce handling noise and vibrations		
	<b>Compatibility:</b>		
4.13	Compatible with standard DSP mixers and audio equipment		
	<b>Power Requirements:</b>		
4.14	<b>Phantom Power:</b> Requires +48V phantom power		
4.15	(Each microphone should be able to capture clear and intelligible sound from a distance of approximately 3-5 feet.)		
4.16	<b>Comprehensive Warranty (Onsite)</b>		
5	<b><u>Speakers:</u></b>		
5.01	<b>Passive Speaker:</b> Ensure compatibility with the amplifier's power output.		
5.02	<b>Maximum SPL Tolerance:</b> 130 dB		
	<b>Frequency Response</b>		
5.03	<b>Range:</b> 50 Hz to 20 kHz (+/- 3 dB)		
	<b>Power Handling</b>		
5.04	<b>Continuous Power:</b> 200W RMS		
5.05	<b>Peak Power:</b> 400W		
5.06	<b>Sensitivity:</b> ≥ 95 dB (1W/1m)		
	<b>Drivers</b>		
5.07	<b>Woofers:</b> 8-inch or 10-inch high-performance woofer for low and mid frequencies.		

5.08	<b>Integrated Tweeter:</b> 1-inch compression driver or dome tweeter for high frequencies.		
<b>Coverage Pattern</b>			
5.09	<b>Horizontal Coverage:</b> 90 degrees		
5.10	<b>Vertical Coverage:</b> 60 degrees		
<b>Inputs</b>			
5.11	<b>Types:</b> Balanced XLR.		
5.12	<b>Compatibility:</b> Allows connection to various audio sources and mixers.		
5.13	<b>Material:</b> Robust ABS plastic or wood		
5.14	<b>Design:</b> Bass reflex or sealed design for enhanced bass response.		
5.15	<b>Wall Mount:</b> wall mount brackets for fixed installations.		
5.16	<b>Rigging Points:</b> Integrated rigging points for suspended installations.		
<b>Connectivity and Controls</b>			
5.17	<b>Volume Control:</b> Independent volume control on the speaker.		
5.18	<b>EQ Controls:</b> Basic EQ settings (bass, treble) for on-the-fly adjustments.		
<b>Protection and Reliability</b>			
5.19	<b>Overload Protection:</b> Protects the speaker from damage due to excessive power.		
5.20	<b>Thermal Protection:</b> Prevents overheating during prolonged use.		
5.21	<b>Short Circuit Protection:</b> Ensures speaker safety in case of wiring faults.		
5.22	<b>Weight:</b> Lightweight for easy installation and handling.		
<b>Additional Features</b>			
5.23	<b>Integrated Handles:</b> For easy transportation and setup.		
5.24	<b>LED Indicators:</b> Power and signal indicators for monitoring status.		
5.25	<b>Remote Control:</b> IR Enabled Remote Control or equivalent.		
5.26	<b>Comprehensive Warranty (Onsite)</b>		
<b>Amplifier:</b>			
6			
6.01	<b>Channels:</b> 6 Input / 6 Output.		
6.02	<b>Minimum Output Power:</b> 50W RMS per channel (into 8 ohms)		
6.03	<b>Total Harmonic Distortion (THD):</b> Less than 0.1% at rated power		
6.04	<b>Frequency Response Range:</b> 20 Hz to 20 kHz (+/- 1 dB)		
6.05	<b>Signal-to-Noise Ratio (SNR)</b>		
6.06	<b>High SNR:</b> $\geq 100$ dB		
6.07	<b>Inputs Types:</b> 6 Balanced XLR.		

6.08	<b>Outputs Types:</b> 6 Balanced XLR, Binding posts, Speakon connectors		
6.09	<b>Flexibility:</b> Provides multiple output options for connecting to various speakers and audio systems.		
6.10	Digital Signal Processing (DSP)		
	<b>Functions:</b>		
6.11	<b>EQ (Equalization):</b> Multi-band EQ for each channel		
6.12	<b>Crossover:</b> Adjustable crossover settings for bi-amping or subwoofer integration		
6.13	<b>Limiter:</b> Protects speakers from damage due to excessive levels		
6.14	<b>Feedback Suppression:</b> Reduces the risk of audio feedback		
6.15	<b>Presets Storage (optional):</b> Save and recall user presets for different courtroom scenarios		
6.16	<b>Controls and Features</b>		
6.17	<b>Gain Control:</b> Independent gain control for each channel		
6.18	<b>Front Panel Controls:</b> Easy access to key settings and adjustments		
6.19	<b>Remote Control (optional):</b> Remote control for volume and settings adjustment		
6.20	<b>PC/Mobile Control:</b> USB or network connectivity for configuration via software.		
	<b>Protection and Reliability</b>		
6.21	<b>Overload Protection:</b> Safeguards against excessive voltage or current.		
6.22	<b>Thermal Protection:</b> Prevents overheating during prolonged use.		
6.23	<b>Short Circuit Protection:</b> Ensures amplifier and speaker safety in case of wiring faults.		
	<b>Compatibility</b>		
6.24	<b>Speaker Impedance:</b> Supports 4-8 ohms		
6.25	<b>Phantom Power:</b> +48V phantom power for microphones		
	<b>Design and Build</b>		
6.26	<b>Enclosure:</b> Robust metal housing for durability		
6.27	<b>Cooling:</b> Efficient cooling system (fan-cooled or convection-cooled) to prevent overheating		
6.28	<b>Mounting:</b> Rack-mountable design for easy integration into racks.		
	<b>Power Requirements</b>		
6.29	<b>Operating Voltage:</b> 100-240V AC (universal power supply)		
6.30	<b>Power Consumption:</b> 200W		
6.31	<b>Dimensions and Weight</b>		
6.32	<b>Compact Size:</b> Suitable for limited space in small courtrooms		
6.33	<b>Lightweight:</b> For easy installation and handling		

<b>Additional Features</b>		
6.34	<b>Network Connectivity:</b> Ethernet port for remote management and firmware updates	
6.35	<b>Audio Formats:</b> Support for standard audio formats (e.g., WAV, MP3, or equivalent)	
6.36	<b>Comprehensive Warranty (Onsite)</b>	
7	<b><u>Amplifier:</u></b>	
7.01	<b>Channels:</b> 4 Input / 4 Output.	
7.02	<b>Minimum Output Power:</b> 50W RMS per channel (into 8 ohms)	
7.03	<b>Total Harmonic Distortion (THD):</b> Less than 0.1% at rated power	
7.04	<b>Frequency Response Range:</b> 20 Hz to 20 kHz (+/- 1 dB)	
7.05	<b>Signal-to-Noise Ratio (SNR)</b>	
7.06	<b>High SNR:</b> $\geq 100$ dB	
7.07	<b>Inputs Types:</b> 4 Balanced XLR.	
7.08	<b>Outputs Types:</b> 4 Balanced XLR, Binding posts, Speakon connectors	
7.09	<b>Flexibility:</b> Provides multiple output options for connecting to various speakers and audio systems.	
7.10	Digital Signal Processing (DSP)	
<b>Functions:</b>		
7.11	<b>EQ (Equalization):</b> Multi-band EQ for each channel	
7.12	<b>Crossover:</b> Adjustable crossover settings for bi-amping or subwoofer integration	
7.13	<b>Limiter:</b> Protects speakers from damage due to excessive levels	
7.14	<b>Feedback Suppression:</b> Reduces the risk of audio feedback	
7.15	<b>Presets Storage (optional):</b> Save and recall user presets for different courtroom scenarios	
<b>Controls and Features</b>		
7.16	<b>Gain Control:</b> Independent gain control for each channel	
7.17	<b>Front Panel Controls:</b> Easy access to key settings and adjustments	
7.18	<b>Remote Control (optional):</b> Remote control for volume and settings adjustment	
7.19	<b>PC/Mobile Control:</b> USB or network connectivity for configuration via software.	
<b>Protection and Reliability</b>		
7.20	<b>Overload Protection:</b> Safeguards against excessive voltage or current.	
7.21	<b>Thermal Protection:</b> Prevents overheating during prolonged use.	
7.22	<b>Short Circuit Protection:</b> Ensures amplifier and speaker safety in case of wiring faults.	

	<b>Compatibility</b>		
7.23	<b>Speaker Impedance:</b> Supports 4-8 ohms		
7.24	<b>Phantom Power:</b> +48V phantom power for microphones		
7.25	<b>Design and Build</b>		
7.26	<b>Enclosure:</b> Robust metal housing for durability		
7.27	<b>Cooling:</b> Efficient cooling system (fan-cooled or convection-cooled) to prevent overheating		
7.28	<b>Mounting:</b> Rack-mountable design for easy integration into racks.		
	<b>Power Requirements</b>		
7.29	<b>Operating Voltage:</b> 100-240V AC (universal power supply)		
7.30	<b>Power Consumption:</b> 200W		
7.31	<b>Dimensions and Weight</b>		
7.32	<b>Compact Size:</b> Suitable for limited space in small courtrooms		
7.33	<b>Lightweight:</b> For easy installation and handling		
7.34	Additional Features		
7.35	<b>Network Connectivity:</b> Ethernet port for remote management and firmware updates		
7.36	<b>Audio Formats:</b> Support for standard audio formats (e.g., WAV, MP3, or equivalent)		
7.37	<b>Comprehensive Warranty (Onsite)</b>		
8	<b><u>Digital Signal Processor</u></b>		
	<b>Input and Output Channels:</b>		
8.01	<b>Input Channels:</b> 6 balanced analog inputs (Balanced XLR) for connecting microphones and audio sources.		
8.02	<b>Output Channels:</b> 6 balanced analog outputs (Balanced XLR) for sending processed audio to amplifiers, speakers, or recording equipment.		
8.03	<b>DSP Cores:</b> Multi-core DSP architecture with sufficient processing power to handle real-time audio processing for all 6 input and output channels simultaneously.		
8.04	<b>Echo Cancellation:</b> Built-in automatic echo cancellation.		
8.05	<b>Noise Reduction:</b> Advanced noise reduction algorithms.		
8.06	<b>Automatic Gain Control (AGC):</b> To maintain consistent audio levels		
8.07	<b>Processing Capability:</b> Capable of implementing complex audio algorithms such as EQ (Equalization), dynamics processing, and feedback suppression without introducing noticeable latency.		
	<b>Audio Processing Features:</b>		
8.08	<b>EQ (Equalization):</b> Parametric EQ with adjustable frequency bands (typically 4 to 8 bands per channel), Q factors, and gain levels.		

8.09	<b>Dynamics Processing:</b> Includes compressors, limiters, and expanders for managing audio dynamics.		
8.10	<b>Feedback Suppression:</b> Advanced algorithms for detecting and automatically suppressing feedback frequencies.		
	<b>Audio Quality and Resolution:</b>		
8.11	<b>Sample Rate and Bit Depth:</b> 24-bit/48kHz or higher.		
8.12	<b>Audio Latency:</b> Low-latency audio processing to minimize delay between audio input and output.		
	<b>Connectivity Options:</b>		
8.13	<b>Analog Inputs/Outputs:</b> 6 balanced analog inputs and outputs (Balanced XLR) for direct connection to microphones, mixers, and other audio equipment.		
8.14	<b>Digital Inputs/Outputs:</b> Digital inputs/outputs (AES/EBU, SPDIF) for interfacing with digital audio sources and equipment.		
8.15	<b>Network Connectivity:</b> Ethernet port for remote control, monitoring, and integration into networked audio systems.		
8.16	<b>Control and Interface:</b>		
8.17	<b>User Interface:</b> Front panel controls with LCD display for intuitive navigation and real-time monitoring of input and output levels, processing status, and settings.		
8.18	<b>Remote Control:</b> Support for remote control via dedicated software application (e.g., web-based interface or proprietary control software).		
8.19	<b>Presets Storage:</b> Ability to store and recall multiple presets for different courtroom setups or audio configurations.		
	<b>Power Requirements:</b>		
8.20	<b>Power Supply:</b> Standard AC mains power (110V/220V) or Power over Ethernet (PoE+).		
8.21	<b>Mounting:</b> Rack-mountable design with included mounting brackets.		
8.22	<b>Comprehensive Warranty (Onsite)</b>		
9	<b><u>Digital Signal Processor</u></b>		
	<b>Input and Output Channels:</b>		
9.01	<b>Input Channels:</b> 4 balanced analog inputs (Balanced XLR) for connecting microphones and audio sources.		
9.02	<b>Output Channels:</b> 4 balanced analog outputs (Balanced XLR) for sending processed audio to amplifiers, speakers, or recording equipment.		
9.03	<b>DSP Cores:</b> Multi-core DSP architecture with sufficient processing power to handle real-time audio processing for all 4 input and output channels simultaneously.		
9.04	<b>Echo Cancellation:</b> Built-in automatic echo cancellation.		
9.05	<b>Noise Reduction:</b> Advanced noise reduction algorithms.		

9.06	<b>Automatic Gain Control (AGC):</b> To maintain consistent audio levels		
9.07	<b>Processing Capability:</b> Capable of implementing complex audio algorithms such as EQ (Equalization), dynamics processing, and feedback suppression without introducing noticeable latency.		
<b>Audio Processing Features:</b>			
9.08	<b>EQ (Equalization):</b> Parametric EQ with adjustable frequency bands (typically 4 to 8 bands per channel), Q factors, and gain levels.		
9.09	<b>Dynamics Processing:</b> Includes compressors, limiters, and expanders for managing audio dynamics.		
9.10	<b>Feedback Suppression:</b> Advanced algorithms for detecting and automatically suppressing feedback frequencies.		
<b>Audio Quality and Resolution:</b>			
9.11	<b>Sample Rate and Bit Depth:</b> 24-bit/48kHz or higher.		
9.12	<b>Audio Latency:</b> Low-latency audio processing to minimize delay between audio input and output.		
<b>Connectivity Options:</b>			
9.13	<b>Analog Inputs/Outputs:</b> 4 balanced analog inputs and outputs (Balanced XLR) for direct connection to microphones, mixers, and other audio equipment.		
9.14	<b>Digital Inputs/Outputs:</b> Digital inputs/outputs (AES/EBU, SPDIF) for interfacing with digital audio sources and equipment.		
9.15	<b>Network Connectivity:</b> Ethernet port for remote control, monitoring, and integration into networked audio systems.		
<b>Control and Interface:</b>			
9.16	<b>User Interface:</b> Front panel controls with LCD display for intuitive navigation and real-time monitoring of input and output levels, processing status, and settings.		
9.17	<b>Remote Control:</b> Support for remote control via dedicated software application (e.g., web-based interface or proprietary control software).		
9.18	<b>Presets Storage:</b> Ability to store and recall multiple presets for different courtroom setups or audio configurations.		
<b>Power Requirements:</b>			
9.19	<b>Power Supply:</b> Standard AC mains power (110V/220V) or Power over Ethernet (PoE+).		
9.20	<b>Mounting:</b> Rack-mountable design with included mounting brackets.		
9.21	<b>Comprehensive Warranty (Onsite)</b>		
<b>10 <u>Displays (with Mount)</u></b>			
10.01	<b>Resolution:</b> 1920 x 1080 pixel's resolution or higher		



10.02	<b>Aspect Ratio:</b> 16:9 widescreen format.		
10.03	<b>Screen Size:</b> 55 inches		
10.04	<b>Brightness and Contrast:</b> Brightness: Typically ranges from 250 to 350 cd/m <sup>2</sup> for indoor use or more.		
10.05	<b>Contrast Ratio:</b> Standard contrast ratios of 1000:1 or higher for vivid image quality.		
10.06	<b>Response Time:</b> Typical Response Time: 5ms to 7ms (Gary-to-Gary) for smooth video playback and gaming.		
10.07	<b>Viewing Angles:</b> Horizontal/Vertical Viewing Angles: Wide viewing angles (typically 178 degree's horizontal and vertical) for clear visibility from different positions.		
10.08	<b>Colour Depth:</b> Colour Support: 16.7 million colours (8-bit) for accurate colour representation.		
10.09	<b>Refresh Rate:</b> Standard Refresh Rate: 60Hz, suitable for most general-purpose applications.		
10.10	<b>Connectivity:</b> HDMI in port minimum 2, USB in port minimum 2, Ethernet LAN (RJ-45), Audio Out Stereo Mini Jack, IR in, Wi-Fi, Bluetooth.		
10.11	<b>Panel Type:</b> Technology: LED-backlit LCD panel for energy efficiency and vibrant colours.		
10.12	<b>IPS (In-Plane Switching) or TN (Twisted Nematic):</b> Depending on the model, IPS for better colour accuracy and wider viewing angles, or TN for faster response times.		
	<b>Power Specifications:</b>		
10.13	<b>Power Consumption:</b> Typically ranges from 20W to 30W in normal operation.		
10.14	<b>Power Supply:</b> Supports standard AC mains power (110V/220V, 50/60Hz).		
	<b>Connectivity Options:</b>		
10.15	<b>Video Inputs:</b> HDMI X 2 or more, DisplayPort, VGA (D-sub) inputs for versatile connectivity to various devices.		
10.16	<b>Audio:</b> Built-in speakers or audio-out ports for connecting external speakers or headphones.		
10.17	<b>Display Working/Operations Hours:</b> 16X7 hours or higher.		
10.18	<b>Full motion Mount:</b> Wall /Ceiling Mount		
10.19	<b>Pan:</b> 180/360 degrees		
10.20	<b>Tilt:</b> -15 to +15 degrees		
10.21	<b>Weight capacity:</b> As per the display screen size.		
10.22	<b>Comprehensive Warranty (Onsite)</b>		
	<b><u>Displays (with Mount)</u></b>		
11	<b>Resolution:</b> 1920 x 1080 pixel's resolution or higher		
11.01	<b>Aspect Ratio:</b> 16:9 widescreen format.		
11.02	<b>Screen Size:</b> 32 inches		

11.03	<b>Brightness and Contrast:</b> Brightness: Typically ranges from 250 to 350 cd/m <sup>2</sup> for indoor use.		
11.04	<b>Contrast Ratio:</b> Standard contrast ratios of 1000:1 or higher for vivid image quality.		
11.05	<b>Response Time:</b> Typical Response Time: 5ms to 7ms (Grey-to-Grey) for smooth video playback and gaming.		
11.06	<b>Viewing Angles:</b> Horizontal/Vertical Viewing Angles: Wide viewing angles (typically 178 degree's horizontal and vertical) for clear visibility from different positions.		
11.07	<b>Colour Depth:</b> Colour Support: 16.7 million colours (8-bit) for accurate colour representation.		
11.08	<b>Refresh Rate:</b> Standard Refresh Rate: 60Hz, suitable for most general-purpose applications.		
11.09	<b>Connectivity:</b> HDMI in port minimum 2, USB in port minimum 2, Ethernet LAN (RJ-45), Audio Out Stereo Mini Jack, IR in, Wi-Fi, Bluetooth.		
11.10	<b>Panel Type:</b> Technology: LED-backlit LCD panel for energy efficiency and vibrant colours.		
11.11	<b>IPS (In-Plane Switching) or TN (Twisted Nematic):</b> Depending on the model, IPS for better colour accuracy and wider viewing angles, or TN for faster response times.		
<b>Power Specifications:</b>			
11.12	<b>Power Consumption:</b> Typically ranges from 20W to 30W in normal operation.		
11.13	<b>Power Supply:</b> Supports standard AC mains power (110V/220V, 50/60Hz).		
<b>Connectivity Options:</b>			
11.14	<b>Video Inputs:</b> HDMI, DisplayPort, VGA (D-sub) inputs for versatile connectivity to various devices.		
11.15	<b>Audio:</b> Built-in speakers or audio-out ports for connecting external speakers or headphones.		
11.16	<b>Warranty Period:</b> Minimum 1-year comprehensive warranty.		
11.17	<b>Full motion Mount:</b> Wall /Ceiling Mount		
11.18	<b>Pan:</b> 180/360 degrees		
11.19	<b>Tilt:</b> -15 to +15 degrees		
11.20	<b>Weight capacity:</b> As per the display screen size.		
11.21	<b>Comprehensive Warranty (Onsite)</b>		
12	<b><u>Smart Table Monitors (with Mount for Hon'ble Bench)</u></b>		
12.01	<b>Screen Size:</b> 21 inches (diagonal measurement).		
12.02	<b>Resolution:</b> Full HD (1920 x 1080 pixels)		
12.03	<b>Panel Type:</b> IPS (In-Plane Switching)		
12.04	<b>Brightness:</b> 300 cd/m <sup>2</sup>		
12.05	<b>Contrast Ratio:</b> 1000:1		

12.06	<b>Response Time:</b> 5ms (Gray-to-Gray) or less		
12.07	<b>Viewing Angles:</b> 178 <sup>0</sup> horizontal/vertical		
12.08	<b>Power Consumption:</b> 25W (typical)		
12.09	<b>Connectivity:</b> HDMI, DisplayPort, VGA		
12.10	<b>Features:</b> Slim design, wide colour gamut		
12.11	<b>Panel Type:</b> LED (Light Emitting Diode) or higher.		
12.12	<b>Connectivity:</b> HDMI, DisplayPort, USB and VGA inputs		
12.13	<b>Response Time:</b> 5ms or less.		
12.14	<b>Refresh Rate:</b> Standard 60Hz refresh rate or higher.		
12.15	<b>Operating System:</b> Built-in OS (such as Android or proprietary OS) for smart functionality.		
12.16	<b>Browser:</b> Pre-installed web browser for internet/local applications access.		
<b>Table Mount/Stand Design:</b>			
12.17	<b>Wider and Longer Arm:</b> Support monitors from 21"-35" with load capacity up to 12KG or higher.		
12.18	<b>VESA Support:</b> Support 75x75mm and 100x100mm or equivalent.		
12.19	<b>Ergonomic Design:</b> +85° to -30° screen tilt adjustment, 360° rotations for landscape or portrait mode; Upright lift 9.8" (250mm) and +90° to -90° swivel.		
12.20	<b>Easy Installation:</b> C-clamp or Grommet hole installation or equivalent.		
12.21	<b>Comprehensive Warranty (Onsite)</b>		
13	<b><u>HDMI Distribution Amplifier</u></b>		
13.01	<b>Configuration:</b> 1 input, 4 outputs (1x4)		
13.02	<b>HDMI Input:</b> 1 x HDMI Type A (19-pin)		
13.03	<b>HDMI Outputs:</b> 4 x HDMI Type A (19-pin)		
13.04	<b>Resolution Support:</b> Up to 4K (3840 x 2160 pixels) at 60Hz		
13.05	<b>Supported Formats:</b> Full HD (1920 x 1080 pixels), Ultra HD or higher.		
13.06	<b>HDMI Version:</b> HDMI 1.4, 2.0 or higher		
13.07	<b>Colour Depth:</b> Supports 8-bit, 10-bit, and 12-bit Deep Colour.		
13.08	<b>Audio Pass-through:</b> Supports audio pass-through to all outputs.		
13.09	<b>HDCP Version:</b> HDCP 2.2 compliant		
13.10	<b>Backward Compatibility:</b> HDCP 1.4 compatible		
13.11	<b>EDID Management:</b> Supports EDID management for compatibility with different displays		
13.12	<b>CEC Pass-through:</b> Consumer Electronics Control (CEC) pass-through support.		
13.13	<b>Power Supply:</b> External/inbuilt AC adapter		
13.14	<b>Input Voltage:</b> 100-240V AC, 50/60Hz		
13.15	<b>Output Voltage:</b> 5V DC or 12V DC.		

13.16	<b>Power Consumption:</b> Maximum 10W		
	<b>Physical and Environmental Specifications:</b>		
13.17	<b>Operating Temperature:</b> 0°C to 40°C (32°F to 104°F)		
13.18	<b>Storage Temperature:</b> -20°C to 60°C (-4°F to 140°F)		
13.19	<b>Humidity:</b> 20% to 90% RH (non-condensing)		
13.20	<b>Mounting:</b> Rack-mountable design with included mounting brackets.		
13.21	<b>LED Indicators:</b> Power, signal status for each output		
13.22	<b>Firmware Upgradable:</b> Via USB or network connection		
13.23	<b>Signal Amplification:</b> Built-in signal amplification for extended cable lengths.		
13.24	<b>Remote Control:</b> IR remote control or web-based management interface (if applicable)		
13.25	<b>Comprehensive Warranty (Onsite)</b>		
14	<b><u>HDMI Extender (as per requirements)</u></b>		
14.01	<b>Transmission Medium:</b> Cat5e/6 cables, optical fiber cables, or other high speed cable extenders.		
	<b>Video Specifications:</b>		
14.02	<b>Maximum Resolution Support:</b> Up to 4K (3840 x 2160 pixels) @ 60Hz		
14.03	<b>Lower Resolution Support:</b> 1080p (1920 x 1080 pixels) @ 60Hz		
14.04	<b>HDMI Version:</b> HDMI 1.3 or higher		
14.05	<b>Audio Pass-through:</b> Supports audio pass-through to ensure audio quality is maintained		
	<b>HDCP Compliance:</b>		
14.06	<b>HDCP Version:</b> Compatible with HDCP 1.4 and HDCP 2.2		
	<b>Connectivity:</b>		
14.07	<b>HDMI Input:</b> 1 x HDMI Type A (19-pin) or equivalent		
14.08	<b>HDMI Output:</b> 1 x HDMI Type A (19-pin) or equivalent		
14.09	<b>RJ45 Ports:</b> 1 x RJ45 (for Cat5e/6 connection)		
14.10	<b>Optical Ports:</b> [if required]		
14.11	<b>EDID Management:</b> Supports EDID management for compatibility with different displays		
14.12	<b>CEC Pass-through:</b> Consumer Electronics Control (CEC) pass-through support		
	<b>Power Specifications:</b>		
14.13	<b>Power Supply:</b> External AC adapter		
14.14	<b>Input Voltage:</b> 100-240V AC, 50/60Hz		
14.15	<b>Output Voltage:</b> 5V DC or 12V DC (as per model specifications)		
14.16	<b>Power Consumption:</b> approx. 5W to 10W		

	<b>Physical and Environmental Specifications:</b>		
14.17	<b>Operating Temperature:</b> 0°C to 40°C (32°F to 104°F)		
14.18	<b>Storage Temperature:</b> -20°C to 60°C (-4°F to 140°F)		
14.19	<b>Humidity:</b> 20% to 90% RH (non-condensing)		
	<b>Design:</b>		
14.20	<b>Mounting:</b> Wall-mountable or rack-mountable design		
	<b>Additional Features:</b>		
14.21	<b>LED Indicators:</b> Power, link status, and signal indicators		
14.22	<b>Firmware Upgradable:</b> Via USB or network connection		
14.23	<b>Signal Amplification:</b> Built-in signal amplification for extended cable lengths		
14.24	<b>IR Pass-through:</b> Supports IR pass-through for remote control functionality.		
14.25	<b>Comprehensive Warranty (Onsite)</b>		
15	<b><u>USB Extender (as per requirements)</u></b>		
	<b>General Specifications:</b>		
15.01	<b>Type:</b> USB3.0		
15.02	<b>Transmission Method:</b> CAT5e/6/7 Ethernet cables or fiber optics or other high speed cable extenders.		
	<b>USB Extender:</b>		
15.03	<b>Compatibility:</b> USB 2.0, USB 3.0		
	<b>Maximum Distance:</b>		
15.04	<b>Over CAT5e/6:</b> Up to 100 meters		
15.05	<b>Data Transfer Rate:</b> USB 3.0: Up to 5 Gbps		
15.06	<b>Power Supply:</b>		
15.07	External power adapter included		
15.08	USB-powered options available for shorter distances		
	<b>Additional Features:</b>		
15.09	Plug and play, no driver installation required		
15.10	LED indicators for power and data transmission status		
	<b>Environmental Specifications:</b>		
15.11	<b>Operating Temperature:</b> 0°C to 50°C (32°F to 122°F)		
15.12	<b>Storage Temperature:</b> -20°C to 70°C (-4°F to 158°F)		
15.13	<b>Humidity:</b> 10% to 90% non-condensing		
	<b>Compliance and Certifications:</b>		
15.14	<b>Certifications:</b> BIS, ROHS, other relevant certifications and compliance.		
15.15	<b>Safety Standards:</b> UL listed		
15.16	<b>Comprehensive Warranty (Onsite)</b>		
16	<b><u>Generic Cables (Lump Sum)</u></b>		
16.01	Generic Cables		
17	<b><u>Codec / Computer System / or similar</u></b>		

	<b>Video Standards and Resolutions:</b>		
17.01	<b>Standards Supported:</b> H.323 & SIP for video conferencing protocols.		
17.02	<b>Video Compression:</b> Supports bandwidth-efficient video compression formats such as H.264 AVC, H.264 High Profile, and H.265 (HEVC).		
17.03	<b>Resolution Support:</b> Capable of transmitting video up to 4K resolution at 15 frames per second (fps).		
	<b>Content Standards and Resolutions:</b>		
17.04	<b>Content Sharing:</b> Supports both wired and wireless content sharing without requiring additional applications on user devices.		
17.05	<b>Content Transmission:</b> Ability to transmit content to remote locations at up to 4K resolution (15fps).		
	<b>Audio Standards and Features:</b>		
17.06	<b>Audio Codecs Supported:</b> G.711, G.728, G.729A, G.722, G.722.1, G.719 or higher for clear audio transmission.		
17.07	<b>Microphone Inputs:</b> Includes 3 or more mic inputs with support for digital omnidirectional microphones with at least 20 feet pickup range.		
17.08	<b>Line Inputs:</b> RCA/3.5mm stereo line-in for connecting to DSP or audio mixer.		
	<b>Video and Audio Inputs:</b>		
17.09	<b>Video Inputs:</b> 3 x HDMI/USB/HDCI inputs for connecting Full HD or better cameras.		
17.10	<b>Content Input:</b> 1 x HDMI/USB input for sharing 4K/Full HD content from various sources (PC, laptop, document camera, PTZ camera).		
	<b>Video and Audio Outputs:</b>		
17.11	<b>Video Outputs:</b> 2 x HDMI outputs for connecting primary and secondary 4K(UHD)/Full HD displays.		
17.12	<b>Audio Outputs:</b> 1 x RCA/3.5mm stereo line-out for connecting to amplifiers and speakers.		
	<b>Touch Panel:</b>		
17.13	<b>Display:</b> Includes a 10-inch screen or larger.		
17.14	<b>Power:</b> Supports Power over Ethernet (PoE) with IEEE 802.3af standard.		
	<b>USB Pass-Thru:</b>		
17.15	<b>Functionality:</b> System supports using the VC system as an external camera and microphone when connected to a laptop or PC via USB.		
17.16	<b>Seamless Integration:</b> No external hardware required for USB pass-thru functionality with major cloud-based VC platforms like Cisco Webex, Zoom, Microsoft Teams, Google Meet, etc.		

17.17	<b>Included Cable:</b> Supplied with a 10 meters single USB 3.0 cable from the OEM for USB pass-thru mode.		
<b>Cloud Integration:</b>			
17.18	<b>Native Registration:</b> Capable of natively registering with Microsoft Teams Room and Zoom Room accounts for cloud-based video calling features.		
17.19	<b>Functionality in Teams/Zoom Mode:</b> USB pass-thru mode available and functional when operating in Microsoft Teams Room or Zoom Room mode.		
<b><u>OR</u></b>			
<b>Type: Tower PC</b>			
17.20	<b>Processor:</b> Processor x86Processor i.e. Intel i5,12000series/AMDRyzen5, 5000 series (Six Core and Twelve thread or higher), 4.4 GHz or higher turbo frequency) or better.		
17.21	<b>Chipset:</b> Suitable chipset for quoted processor with upgradable support.		
17.22	<b>Memory:</b> 8GB DDR-53200 MHz or higher expandable up to 64GB.		
17.23	<b>Storage:</b> 512GB SSD or higher		
17.24	<b>Graphics Card:</b> Integrated HD Graphics or better Graphic controller.		
17.25	<b>Network:</b> Integrated Gigabit Ethernet controller with RJ-45 connector, WIFI and Bluetooth 5.0 or higher.		
17.26	<b>External Ports:</b> 2xUSB2.0 or higher and 3xUSB 3.0 or higher ports, 1 HDMI port, 1DPport.		
17.27	<b>Audio:</b> Integrated sound controller.		
17.28	<b>Keyboard:</b> Standard 104 Keys OEM Keyboard with Rupee Symbol and USB Interface		
17.29	<b>Mouse:</b> OEM Optical USB Scroll Mouse with Mousepad <b>Display:</b> 23" or higher LCD/TFT display non-touch having FHD (1920x1080) or better resolution and TCO/BIS certified.		
17.30	<b>Webcam:</b> Full HD with integrated mic		
17.31	<b>Power Management &amp;DMI:</b> System with Power management features & Desktop Management Interface implementation		
17.32	<b>Power efficiency:</b> Minimum 85%		
17.33	<b>OS Support:</b> Latest version of Windows 64 bit <b>Accessories:</b> System user manual and all other necessary accessories		
17.34	<b>Compliance &amp; Certifications:</b> Complete system should be BIS registered, BEE / Energy Star certified and RoHS Complied and EPR Complied		
17.35	<b>Stand:</b> Standard Height adjustable		
17.36	<b>Comprehensive Warranty (Onsite)</b>		

18	<b><u>24U RACK</u></b>		
	<b>Type and Size:</b>		
18.01	<b>Rack Height:</b> 24U		
18.02	<b>Rack Width:</b> Standard 19-inch		
18.03	<b>Rack Depth:</b> Adjustable, minimum 24 inches		
18.04	<b>Construction Material:</b> High-quality SPCC cold-rolled steel with black powder-coated finish		
	<b>Dimensions and Weight Capacity:</b> <i>(The bidder can quote the rack with dimensions compatible with hardware components required in the proposed solution)</i>		
18.05	<b>Height:</b> 42 inches (106.68 cm)		
18.06	<b>Width:</b> 23.6 inches (60 cm) outer, 19 inches (48 cm) inner		
18.07	<b>Depth:</b> Adjustable, minimum 24 inches (61 cm)		
18.08	<b>Weight Capacity:</b> Minimum 75 kg (165 lbs)		
	<b>Doors and Panels:</b>		
18.09	<b>Front Door:</b> Perforated and lockable		
18.10	<b>Rear Door:</b> Perforated and lockable		
18.11	<b>Side Panels:</b> Removable with quick-release latches		
	<b>Cooling and Ventilation:</b>		
18.12	<b>Pre-installed Fans:</b> One 120mm top-mounted fan		
18.13	<b>Ventilation:</b> Perforated doors for passive airflow		
18.14	<b>Optional Fans:</b> Additional fan mounts available		
	<b>Cable Management:</b>		
18.15	<b>Vertical Cable Management:</b> Included (bars or rings)		
18.16	<b>Horizontal Cable Management:</b> Included (bars or rings)		
18.17	<b>Cable Entry Points:</b> Top and bottom with grommets		
	<b>Mounting and Rails:</b>		
18.18	<b>Mounting Rails:</b> Adjustable depth, with U markings		
18.19	<b>Compatibility:</b> Standard 19-inch rack equipment		
18.20	<b>Grounding:</b> Grounding points included		
	<b>Additional Features:</b>		
18.21	<b>Casters:</b> Optional, with locking brakes		
18.22	<b>Leveling Feet:</b> Included		
18.23	<b>Colour:</b> Black		
	<b>Compliance and Standards:</b>		
18.24	<b>Certifications:</b> Must comply with relevant industry standards and certifications for safety and durability.		
18.25	<b>Comprehensive Warranty (on site):</b> Complete system with minimum Three (3) / Five (5) Years OEM on site comprehensive warranty support. MAF from OEM is a must.		
19	<b><u>Wall /Ceiling Mount for Displays and Cameras</u></b>		
19.01	<b>Full motion Mount:</b> Wall /Ceiling Mount		
19.02	<b>Pan:</b> 180/360 degrees		
19.03	<b>Tilt:</b> -15 to +15 degrees		



19.04	<b>Weight capacity:</b> As per the display screen size.		
19.05	<b>Compatibility:</b> Compatible with existing Displays and cameras.		
19.06	<b>Comprehensive Warranty (Onsite)</b>		
20.00	<b><u>Video Backup Server</u></b>		
20.01	<b>Total Capacity:</b> 30 TB usable storage space or higher.		
20.02	<b>Drive Type:</b> Enterprise-grade SATA or SAS HDDs, with each drive having a minimum of 4 TB capacity.		
20.03	<b>Redundancy:</b> RAID 6 or RAID 10 for redundancy and fault tolerance.		
	<b>Processor</b>		
20.04	<b>Type:</b> Dual Intel Xeon Scalable processors or equivalent.		
20.05	<b>Cores:</b> Minimum 16 cores per processor.		
20.06	<b>Clock Speed:</b> Minimum 2.6 GHz.		
	<b>Memory</b>		
20.07	<b>Total Memory:</b> Minimum 64 GB ECC DDR4 RAM, expandable up to 256 GB.		
20.08	<b>Type:</b> ECC (Error-Correcting Code) for data integrity.		
	<b>Network Interface Cards (NICs):</b>		
20.09	<b>Primary:</b> Dual 10 Gigabit Ethernet ports.		
20.10	<b>Secondary:</b> Additional dual 1 Gigabit Ethernet ports for management and redundancy.		
	<b>Connectivity</b>		
20.11	<b>USB Ports:</b> Minimum 4 USB 3.0 ports.		
20.12	<b>External Connectivity:</b> Support for external storage and backup via USB 3.0 and eSATA ports.		
	<b>Operating System</b>		
20.13	<b>OS Support:</b> Compatible with Windows Server, Linux, or a specialized NAS operating system like FreeNAS or Unraid.		
20.14	<b>License:</b> Appropriate licenses for operating system and any backup software.		
	<b>Backup and Recovery</b>		
20.15	<b>Backup Software:</b> Pre-installed with enterprise-grade backup software supporting incremental, differential, and full backups.		
20.16	<b>Cloud Integration:</b> Support for cloud backup integration (AWS, Azure, Google Cloud).		
	<b>Security</b>		
20.17	<b>Encryption:</b> Support for AES-256 encryption for data at rest.		

20.18	<b>Access Control:</b> Role-based access control (RBAC) and integration with Active Directory (AD).		
20.19	<b>Antivirus:</b> Built-in or compatible with leading antivirus solutions.		
<b>Power Supply</b>			
20.20	<b>Redundant Power Supplies:</b> Dual hot-swappable power supplies, 750W each.		
20.21	<b>Power Consumption:</b> Energy-efficient with power management features.		
<b>Cooling</b>			
20.22	<b>Cooling System:</b> Redundant cooling fans with dynamic fan speed control.		
20.23	<b>Temperature Monitoring:</b> Sensors for monitoring and alerting on temperature thresholds.		
<b>Form Factor</b>			
20.24	<b>Rack-Mountable:</b> 2U or 4U rack-mountable chassis.		
20.25	<b>Rails:</b> Included with adjustable mounting rails for standard 19-inch server racks.		
<b>Expansion</b>			
20.26	<b>Drive Bays:</b> Minimum 12 hot-swappable 3.5" drive bays.		
20.27	<b>PCIe Slots:</b> Minimum 2 free PCIe 3.0 slots for future expansion.		
<b>Management</b>			
20.28	<b>Remote Management:</b> Integrated IPMI 2.0 or equivalent for remote management and monitoring.		
20.29	<b>Console:</b> Dedicated console port for direct management.		
<b>Compliance and Certifications</b>			
20.30	<b>Certifications:</b> BIS, RoHS, EPR Complied or other compliance and certifications.		
20.31	<b>Warranty:</b> Minimum 3-year comprehensive warranty with 24/7 support.		
<b>Additional Features</b>			
20.32	<b>Snapshot Support:</b> Ability to take and manage storage snapshots.		
20.33	<b>Deduplication and Compression:</b> Support for data deduplication and compression to optimize storage usage.		
20.34	<b>Alerts and Monitoring:</b> Built-in monitoring and alerting system for hardware and software issues.		
20.35	<b>Comprehensive Warranty (Onsite)</b>		
<b>Display Monitors with stand</b>			
21			
21.01	<b>Screen Size:</b> 21-23 inches (diagonal measurement).		
21.02	<b>Panel Type:</b> LED (Light Emitting Diode) for energy efficiency and good colour reproduction.		

21.03	<b>Connectivity:</b> HDMI, DisplayPort, USB, VGA input for versatile connectivity with various devices.		
21.04	<b>Response Time:</b> Fast response time (e.g. 5ms or less) to minimize motion blur, suitable for viewing moving images.		
21.05	<b>Refresh Rate:</b> Standard 60Hz refresh rate or higher.		
21.06	<b>Comprehensive Warranty (Onsite)</b>		
22	Video Conference Solution Licence		
23	Any other component cost. (Please specify).		
24	Any other installation cost ( <b>LAN Port/LAN Cabling/Power Points, etc.</b> ) Please specify.		

Sr. No	Required Hybrid VC Solution Specifications	Compliance Y/N	Offered Specifications
1	The platform should be compatible and able to connect multiple participants from various locations using video and audio on demand using PCs, Laptops, Mac, Mobile devices such as Android, iPhone, iPad and must offer cross-platform functionality, ensuring seamless operation across various operating systems including Windows, Linux, and macOS, should ensure optimal browser compatibility, enabling access to Hybrid Video Conferencing through modern web browsers without extra plugins or installations.		
2	The proposed Hybrid Video Conferencing solution must support Full HD video quality and must be fully compatible with legacy Hybrid Video Conferencing systems using H.323/SIP and WebRTC protocols and offer server-side video and audio recording, secure storage, and MP4 playback.		
3	The platform should have a support to multiple users like (court officials and technical person) they can add the features like Delayed Live Stream, Face Masking in the live streaming content, Sound Distortion, Pause the stream or show custom images for events like “dictation in progress” with no audio and video of each courtroom as per rules, <b>controlled and managed from Dedicated Control Room.</b>		
4	The platform should have the capability to Integrate with the court Case Information System(CIS) and be Scalable to support all courts in the state, High court/District Court/Other courts can be under one roof if required.		
5	The platform should secure video conference access with multi-factor authentication (MFA), SSO, using email, SMS codes, or authenticator apps, to prevent unauthorized entry.		
6	The platform should support SSO integration, compatible with India's PARICHAY and AADHAAR frameworks, allowing government officials to access the platform with existing credentials, streamlining logins and enhancing security through established identity verification systems.		
7	The platform should support Live streaming to RTMP-based platforms and must be compatible with major video codecs.		
8	The platform must support a document camera as a secondary video source, enabling live sharing of physical documents inside the virtual		

	rooms and support integrated webinars/VC and RTMP streaming for real-time broadcasts to larger audiences or external platforms.		
9	User-friendly interface with role-based access control with intuitive admin dashboard to analyse the entire process from the backend and Role-based feature settings can be modified from the admin panel.		
10	The Platform should provide the complete access log of the different users with extended reports including IP/ Device details/ Application details should be provided with each meeting room.		
11	The platform should support end-to-end (E2E) encrypted messaging and platform communications must use SSL encryption for data integrity and confidentiality in transit, and Elliptic Curve Cryptography (ECC) / RSA (Rivest–Shamir–Adleman) / AES 256-bit encryption to secure stored data.		
12	Should also be equipped with advanced security features to safeguard sensitive communications and data, adhering to the highest standards of data privacy and security protocols.		
13	The platform should feature a multilingual user interface expansion with enhanced capabilities for multilingual transcription and translation, supporting (Hindi and English).		
14	The platform may have a provision to broadcast Live Stream content on <b>specific URL/Domain in addition to Social Media Streaming Platforms like</b> (You Tube, Facebook, etc.).		
15	Platform should be robust and flexible, capable of adapting to future technological advancements and expanding user base.		
16	It is assumed that the features related to live streaming, pause, video content manipulation and features as per rules are integrated in Hybrid VC Solution, if any other component is required for the above mentioned features, please specify.		
17	Other features as per requirements in the Rules for Live Streaming and Recording of Court Proceedings Rules of the High Court of Himachal Pradesh at: <a href="https://hphighcourt.nic.in/pdf/rules%20live%20streaming.pdf">https://hphighcourt.nic.in/pdf/rules%20live%20streaming.pdf</a> .		
18	Or any other feature that can also be helpful for the Hybrid Video Conference and Live Streaming Solution of court proceedings.		
19	Video Conferencing Solution Licence for minimum 3 Years		
20	24X7 support.		

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**Annexure-G: COMPREHENSIVE AGREEMENT**

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**Agreement**

This agreement is made on this the \_\_\_ day of \_\_\_\_\_ between the High Court of Himachal Pradesh, Shimla through its Registrar General (hereinafter referred to as “Purchaser”) AND M/s \_\_\_\_\_, through its Authorized Executive/ Personnel Shri/Ms. \_\_\_\_\_ (hereinafter referred to as “Tenderer”), as follows:

Whereas the Purchaser desirous of purchasing Hybrid VC and Live Streaming Solution for High Court of Himachal Pradesh, had published Tender and in response the Tenderer accepting the terms and conditions set out in the Tender notice submitted bid which was accepted.

And whereas the Tenderer accepts the terms and conditions of Purchase/ Supply Order for delivery and installation of the Hybrid Video Conferencing and Live Streaming Solution with comprehensive warranty with onsite support at the total cost of Rs. \_\_\_\_\_/- only.

And whereas the Tenderer has deposited with the Purchaser a sum of Rs \_\_\_\_\_ as a security (Performance Security) in the form of Bank Guarantee for the fulfilment of this Agreement, which shall remain valid for a period of sixty days (60 days) from the date of completion of contract including warranty period to the best satisfaction of the Purchaser.

NOW IT IS HEREBY AGREED between the parties hereto as follows:

1. The tenderer is to do the supply and installation/setup of required solution within 30 days from the date of placement of Purchase Order and if the installation does not get completed within stipulated time period, penalty as per terms and conditions of the Tender Document shall be imposed.
2. That the Tenderer agrees to assure the onsite warranty of product supplied against supply/ purchase orders No. \_\_\_\_\_ dated \_\_\_\_\_ w.e.f \_\_\_\_\_ to \_\_\_\_\_. However, warranty shall not cover damage from manual breakage, physical damages.
3. The Tenderer shall be fully responsible for the manufacturer’s Warranty for all equipment, accessories, spare parts etc. against any defects arising from design, material, manufacturing, workmanship or any defect that may develop under normal use of supplied hardware/ equipment during the Warranty period.
4. That Purchaser/ High Court/ District Court/ State Judicial Academy where the product is installed, can lodge calls in respect of faults/defects in the purchased component or any part thereof at centralized telephone numbers \_\_\_\_\_, OR email at mail-id \_\_\_\_\_.
5. That the Tenderer agrees to attend the call within One (1) working day and to rectify the fault within maximum period of Five (5) working days from the date of lodging the complaint. Thereafter penalty of 0.5% (Zero point five percent) per day on the Purchase Order Value of impacted machine shall be imposed and if the defect in the equipment’s supplied/ any accessories

thereof, is got repaired from elsewhere (in case of non-rectification of the failure within maximum of 5 days), the tenderer shall pay the charges of such maintenance/repair along with the penalty or it may be recovered from the Security Performance of amount.

6. Record will be maintained by Tenderer as well as Purchaser / High Court/ District Courts / State Judicial Academy where the product is installed, about machine failures including nature of failure, date and time of the complaint and duration of the total down time.
7. Upon determination of this Agreement, the deposit of Performance Security shall be returned to Tenderer but without interest and after deducting there-from any sum due by Tenderer to the Purchaser under the terms and conditions of this Agreement.
8. That in addition, the Tenderer shall abide by all the terms and conditions set forth in the Tender Document.
9. That in case of any dispute or difference, it shall be referred to the Arbitrator, as shall be nominated by Hon'ble the Chief Justice, High Court of Himachal Pradesh, in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and the rules framed thereunder.

All disputes arising shall be subject to the jurisdiction of appropriate court High Court of Himachal Pradesh, India alone and shall be governed by the law of India.

In case of any dispute following arbitration clause will apply: -

Any question, dispute or difference arising under the contract, shall be referred to the sole arbitrator appointed by Hon'ble the Chief Justice, High Court of Himachal Pradesh. The award of the arbitrator shall be final and binding on both the parties to the contract. The place of arbitration shall be at Shimla only.

The expense of arbitration will be incurred by the parties asked and subject to final award. The Arbitration & Conciliation Act 1996 and the rules there under, any statutory modification thereof for the time being in force shall be deemed to apply to the arbitration proceedings under this contract.

10. All legal disputes are subject to the jurisdiction of Shimla Courts only, preceded by Arbitration.

FOR AND ON BEHALF OF PURCHASER	FOR AND ON BEHALF OF TENDERER
SIGNATURES: NAME: DESIGNATION: DATE: WITNESSES: IN THE PRESENCE OF SIGNATURES: NAME: DESIGNATION: DATE:	SIGNATURES: NAME: DESIGNATION: DATE: IN THE PRESENCE OF SIGNATURES: NAME: DESIGNATION: DATE:

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**Annexure-H: OEM Authorization Form**

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(Authorization to be taken from Hardware OEM)

Ref. No. \_\_\_\_\_

Date: \_\_\_\_\_

To

The Managing Director  
HPSEDC, Mehli, Shimla-13

**Subject: Tender reference No. SEDC/HC/Webcasting/2k24-7956.**

Sir,

Please refer to your Notice Inviting Tenders for supply and installation/setup of Hybrid Video Conference and Live Streaming Solution in the High Court of Himachal Pradesh.

M/S \_\_\_\_\_ (Bidder), who is our reliable distributor/ partner for the last \_\_\_\_\_ years, is hereby authorised to quote on our behalf for the subject mentioned tender.

M/S \_\_\_\_\_ (Bidder) is likely to continue as our business partner during years to come.

We undertake the following regarding the supply and installation/setup of Hybrid Video Conference and Live Streaming Solution in the High Court of Himachal Pradesh as described in the said tender:

We confirm that the product(s) quoted are not “end of life or end of sale products” as on Bid Submission date. If in case the support for the product quoted has been stopped/ withdrawn till the time of delivery of equipment, the same will be changed with the equivalent or superior product at no extra cost.

We also undertake that the support including spares, patches, and upgrades for the quoted products shall be available for 7 years from the signing of contract.

Yours faithfully,

(Name of Manufacturer)

**Note:** This letter of authority should be on the letter head of the manufacturer and should be signed by a person competent and having Authorization Letter to bind the manufacturer. It should be included by the Bidder in its bid.

- 108. Advance or On Account payment to supplier.** - (1) Payment for services rendered or supplies made shall be released only after the services have been rendered or supplies made; provided that Advance or On Account payments may be made in the following cases, namely: -
- (a) to the contractors executing maintenance contracts for servicing of machinery and electronic equipments; and
  - (b) to the contractors executing fabrication contracts, or turn-key contracts.
- (2) Where it is essential to make advance payment under sub-rule (1), the amount shall not exceed the following limits, namely: -
- (a) thirty percent of the contract value to the private contractors; and
  - (b) forty percent of the contract value to a State or Central Government Organization or a Public Sector Undertaking;
- (3) Pro-rata on account payment upto 80% of the supplies made or service rendered may be made pending completion of contract, after assessing the same.
- (4) The Government may relax, the ceilings (including percentage laid down for advance payment) mentioned under sub-rules (2) and (3). While making any advance payment, adequate safeguards in the form of bank guarantee shall be obtained from the contractor.
- (5) Part payment to contractors may be released after he dispatches the goods from his premises depending upon the terms and conditions of the contract.