



| Sr. No. | Service Code | Service Description          | UOM | Quantity | Unit Price | Unit Price(PKR)<br>Inclusive Of<br>ICT/PST | Total Price(PKR)<br>Inclusive Of<br>ICT/PST |
|---------|--------------|------------------------------|-----|----------|------------|--|---|
| 7.1     | 12000030     | INSTALLATION & COMMISSIONING | LSM | 1        |            |  |   |

**Bid Validity Period:** 180 DAYS FROM TECHNICAL BID OPENING DATE  
**Delivery Period:** WITHIN 90 DAYS AFTER ISSUANCE OF PO  
**Payment Terms:** AFTER DELIVERY AND INSPECTION

## Annex-I

### Technical Specifications of Meeting Room Based Endpoint for OGDCL Head Office

The proposed system must be based on ITU standards & hardware based. No software-based solution will be accepted.

All Components of the VC & AV system like Codec, Camera, Audio Processor and Microphones should be from the same OEM.

| Sr.No. | Description                       | Specification Parameter   | Compliance (Yes/No) |
|--------|-----------------------------------|---|---------------------|
| 1      | Package                           | UHD 4K Dual Lenses 20 Megapixel CAMERA along Automatic group framing & Automatic speaker tracking feature, separate Codec, IP Microphone Array, Touch Control Panel and cables with PoE adopter. 3 year replacement warranty.   |                     |
| i      | Video Standards and Resolutions   | <ul style="list-style-type: none"> <li>• It should support H.323, SIP standards for communications.</li> <li>• It should support H.261, H.263, H.264 AVC, H.264 High Profile, H.264, SVC, H.265, RTV</li> <li>• It should support UHD/4K, 1080p 60 fps, 1080p 30 fps, 720p 60 fps, 720p 30fps &amp; 4CIF</li> </ul>   |                     |
| ii     | Content Standards and Resolutions | <ul style="list-style-type: none"> <li>• It should support content sharing using standard based H.239 &amp; BFCP. It should also support audio from PC used for content sharing, additionally system should support content sharing through iOS, Android, MSFT wirelessly and at least two source at same time.</li> <li>• It should transmit and receive content both to the far end location at UHD (3840x2160), HD (1920x1080p), WSXGA+ (1680x1050) and all below resolutions</li> </ul> |                     |
| iii    | Audio Standards and Features      | <ul style="list-style-type: none"> <li>• It should support G.711, G.728, G.729A, G.722, G.722.1, AAC-LD or better</li> <li>• It should support 20 kHz or better bandwidth with crystal clear audio and stereo sound.</li> <li>• Automatic Gain Control and Automatic Noise Suppression</li> <li>• Keyboard noise reduction and instant adaptation echo cancellation</li> </ul>  |                     |

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| iv   | Video and Audio Inputs   | <ul style="list-style-type: none"> <li>• 1 x HDMI/HDCI and 1 x USB input for connecting main HD camera supporting 4K/UHD/1080p60fps with 12x optical zoom.</li> </ul>   |  |
|      |                          | <ul style="list-style-type: none"> <li>• 1 x HDMI input to share HD content from PC/Laptop/Document camera (other than wireless connectivity of content through iOS, Android or PC/Mac)</li> </ul>  |  |
|      |                          | <ul style="list-style-type: none"> <li>• 3 x Microphone Input</li> </ul>  |  |
|      |                          | <ul style="list-style-type: none"> <li>• 1 x 3.5mm stereo line-in</li> </ul>  |  |
| v    | Video and Audio Outputs  | <ul style="list-style-type: none"> <li>• 2 x HDMI output for connecting main and 2nd monitor/display</li> </ul>   |  |
|      |                          | <ul style="list-style-type: none"> <li>• 1 x 3.5 mm stereo line-out</li> </ul>  |  |
| vi   | Video Resolution Support | <ul style="list-style-type: none"> <li>• 4K, 30 fps (TX &amp; RX) from 2048 Kbps, • 1080p, 60 fps from 1740 Kbps, • 1080p, 30 fps from 1024 Kbps, 720p, 60 fps from 832 Kbps and up to CIF/SD</li> </ul>  |  |
| vii  | Other Interfaces         | <ul style="list-style-type: none"> <li>• 1 x 10/100/1000 LAN port</li> </ul>  |  |
|      |                          | <ul style="list-style-type: none"> <li>• 1 x USB C port to use this equipment as Auxiliary device with any Video Soft Client</li> </ul>   |  |
|      |                          | <ul style="list-style-type: none"> <li>• 1 x USB 3.0 for software upgrade and connecting external devices</li> </ul>  |  |
|      |                          | <ul style="list-style-type: none"> <li>• Bluetooth, Wi-Fi (Multichannel Concurrency)</li> </ul>   |  |
| vii  | Camera                   | <ul style="list-style-type: none"> <li>• UHD 4K Dual Lenses 20 Megapixel CAMERA with capability of enhancing video conferencing experience with advanced voice &amp; face-recognition technology such that it automatically scans the room and seamlessly commands the main camera to appropriately frame the users/speaker during a call without any manual intervention. it should be capable for transmitting Speaker and Other people in room as PIP so that far end can see all in one screen</li> </ul> |  |
|      |                          | <ul style="list-style-type: none"> <li>• 120°Field of View or Better to cover width of room from Small Distance</li> </ul>  |  |
|      |                          | <ul style="list-style-type: none"> <li>• Camera and Codec should be controlled using same remote control</li> </ul>   |  |
|      |                          |   |  |
| viii | Network Features         | <ul style="list-style-type: none"> <li>• IPv4 and IPv6 support from day one</li> </ul>  |  |
|      |                          | <ul style="list-style-type: none"> <li>• Auto Gatekeeper Discovery, IP Precedence &amp; QoS with support for H.323 based lost</li> </ul>  |  |

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|      |                          | packet recovery.  |  |
| ix   | Security                 | <ul style="list-style-type: none"> <li>Media Encryption (H.323, SIP): AES-256</li> <li>Authenticated access to admin menus, web interface and telnet API.</li> </ul>  |  |
| x    | Touch Control            | <ul style="list-style-type: none"> <li>7" or Above Touch Control for easy use</li> <li>Local account password policy configuration</li> </ul>   |  |
| xi   | Other Standards/features | <ul style="list-style-type: none"> <li>H224/H.281, H.323 Annex Q, H.225, H.245, H.241, H.239, H.243, H.460</li> <li>It should support native integration with on latest video platforms like TEAMS, ZOOM, Blue Jeans, Goto Meeting etc. without involvement of PC</li> <li>The codec must support direct integration with audio conference system.</li> </ul> |  |
| xii  | OEM                      | <ul style="list-style-type: none"> <li>The complete solution including central infrastructure &amp; video endpoints should be from the same OEM.</li> </ul>   |  |
| xiii | Zoom & Microsoft Teams   | <ul style="list-style-type: none"> <li>Zoom and Microsoft Teams with interoperability services (with active feature of SIP &amp; H.323 Service) for 1 Years</li> <li>Zoom pro allowed 100 participants and meeting duration limit is 24 hrs- 1 license</li> <li>1 year subscription charges per device</li> </ul>   |  |

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| 2 | 98" 4K QLED Smart TV | 98" 4K QLED TV<br>Sony/Panasonic/Samsung/TCL/LG |  |
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| 3   | <b>WIRELESS PRESENTER</b>      |   |  |
| i   | Wireless Receiver              | <ul style="list-style-type: none"> <li>Minimum 2 wireless Receiver or Above which support plug in and share with ease, supports wireless conferencing</li> </ul>                  |  |
| ii  | I/O                            | <ul style="list-style-type: none"> <li>1 HDMI input , 2X USB , LAN and Above</li> </ul>   |  |
| iii | Full Body BYOD Support         | <ul style="list-style-type: none"> <li>Supports plug and play with the clickshare button, windows or MAC OS , Airplay, Google cast, Miracast and native apps available</li> </ul> |  |
| iv  | Touch Screen and Interactivity | <ul style="list-style-type: none"> <li>Touch Back and control your PC, collaborate annotation and Black boarding</li> </ul>   |  |

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| v | Support UC&C Platform | <ul style="list-style-type: none"> <li>Compatible with Microsoft Teams, Zoom, Cisco, WebEx, Google Hangout and many more</li> </ul> |  |
|---|-----------------------|---|--|

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| 4 | CEILING LED LIGHTS | 2 x2 Qty:16 |  |
|---|--------------------|-------------|--|

|   |                    |                               |  |
|---|--------------------|-------------------------------|--|
| 5 | CEILING MICROPHONE | IP Ceiling Microphone Qty : 2 |  |
|---|--------------------|-------------------------------|--|

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|---|--|--|--|
| 6 | INSTALLATION OF VIDEO CONFERENCING SYSTEM INCLUDING COMMISSIONING SPARES |  |  |
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## Terms & Conditions

### TECHNICAL PROPOSAL

Technical Proposal should be submitted covering the following details;

- Brief company profile with years of service experience of the same product.
- Technical expertise available for this support (complete list of technical manpower to be provided indicating position, qualification, certification and experience)
- List of clients where bidder has provided the same nature of services or Hardware mentioned above

### TECHNICAL EVALUATION CRITERIA

Technical evaluation criteria;

- Bidder must be an authorized Partner of the OEM of quoted items and must have at least 10 Projects of a similar nature (Provision of evidence). Bid will be rejected in case of non-provision
- Experience of Technical work force of bidder. Less than two years of experience will be rejected.
- Bidder must provide MAL of manufacturer. Bid will be rejected in case of non-provision
- Bidder must provide Technical DEMO/Illustration of solution in the real scenario at Office. Bid will be rejected in case of non-compliance
- Bidder must have Support Service facilities in Pakistan.

### TERMS AND CONDITIONS OF THE TENDER

- Bidder must confirm Ex-Stock availability and deliver the VC System within 90 days.
- The vendor is responsible for the complete coverage of sound & Light quality at meeting as per the requirement and any additional speaker & light required for coverage shall be the responsibility of the vendor without any additional cost to OGDCL.