

Ref: CO/ITD/287/R1/2022-23

SECTION-V

PART I – Revised Functional and Technical Requirements

Date: _____

The Asst. General Manager
CO:Information Technology Department
Indian Bank
254-260 AvvaiShanmughamSalai
Chennai 600 014.

Dear Sir,

Sub: Request for Proposal for Supply, Installation, Commissioning and Maintenance of video conferencing equipment and display units with 3 years warranty and 3 years AMC for the administrative offices under buyback option.

Ref: RFP No. CO/ITD/287/R1/2022-23 dated 26.05.2022.

Referring to your above Request for Quote (RFP), we submit the compliance details of the specifications given below:

VC Equipment		Display Units	
To be supplied (Qty.)	To be taken under buyback (Qty.)	To be supplied (Qty.)	To be taken under buyback (Qty.)
26	12	26	12

12 nos. of VC endpoints and 12 nos. of display units to be taken as buy back under as is where is condition.

Details of the delivery locations of new VC endpoints and location details of buyback VC endpoints and display units are furnished in the **Annexure X**.



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Revised Technical Specification

1. Technical Specifications of VC endpoint

Make:

Model:

The proposed system must support PAL with a PTZ /P60 camera. The codec must be based on ITU standards The VC End Point should be a codec-based hardware. No software-based solution is accepted here. All components of the VC system like Codec, Camera, Microphone and Touch Control should be from the same OEM.

Sr. No	Description	Specification Parameter	Complied (Yes / No)	OEM Reference
1	Package	Full HD(1060p 60fps) camera, Codec, Microphone Array, cables, and Touch Control/Remote Control.		
2	Video Standards and Resolutions	It should support H.323, SIP standards for communications.		
3		It should support H.264/H.265. It should support 1080p 60 fps, 1080p 30 fps, 720p 60 fps and 720p 30fps		
4	Video Features	Ability to send and receive two live simultaneous video sources in a single call, so that the image from the main camera and PC or document camera can be seen simultaneously.		
		Should support H.239 and BFCP protocols		
		<ul style="list-style-type: none"> • The system must have the ability to connect/pair with laptop for sending content with or without wires to the VC system. • The system must support content sharing through wired mode using HDMI cable while connecting PC/Laptop. • It should also support video & audio from PC/Laptop used for content sharing through wired or wireless mode. 		
		It should transmit both people and content simultaneously to the far end location at 1080p 30fps.		
		In case the above feature is not available natively, then additional components (without any additional cost of bank) can be provided to achieve this.		



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5	Video Input	Should have at least 1 x HDMI/equivalent inputs to connect Full HD cameras.		
		Must have 2 additional HDMI or equivalent inputs to connect two laptops/PC/Camera for presentations supporting minimum Full HD Resolution including 1080p 30fps.		
		Should support the ability to view and share presentations at a resolution of 1080p30fps.		
		<ul style="list-style-type: none"> The system must have the ability to pair/connect with laptop for sending content with/without any wires to the VC system The system must support content sharing through wired or wireless mode as well using PC/Laptop. It should also support video & audio from PC used for content sharing for wired or wireless mode. 		
6	Video Output	Should have at least 2 no.'s of HDMI output to connect Full High-Definition display devices such as plasma and projectors for both Video and Content.(Dual Monitor Support). The codec should support minimum Full HD Resolution including 1080p 60fps.		
		When not in a VC call, it should be possible to view presentation from one or more laptops on each of the screen so that users can collaborate.		
7	Audio standards supported	G.711, G.722, G.722.1, 64 kbps MPEG-4 AAC-LD standard must be supported.		
8	Other Desirable Audio features	Noise Reduction, Automatic Gain control, Acoustic Echo Canceller, Active Lip synchronization		
9	Audio Inputs	<ul style="list-style-type: none"> Should support minimum 2 Microphone inputs to connect 2 microphones. 2 Mics should be provided from the date of installation and should be from same OEM. Microphone should be placed on table top with mute/unmute & on/off indication/synchronisation. Same facility should be provided in touch control/remote control. 		
		The pick-up of the microphones should be at least 10 feet from the microphone.		



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		Echo Cancellation for every input must be available.		
10	Audio Outputs	Should support audio output		
11	Network Interfaces	1 LAN /Ethernet--10/100/1000 Mbps full duplex Min. 1 X USB 1 X RS-232 Mini-DIN 8-Pin or equivalent		
12	Bandwidth	H323/SIP up to 6 Mbps point-to-point.		
13	Network Capabilities	Packet Loss Based Down speeding		
14	H.323/ IP Features	QoS--DiffServ		
		IP adaptive bandwidth management (including flow control)		
		Auto Gatekeeper discovery/ Manual Gatekeeper Discovery.		
		Auto Network Address Translation(NAT) support		
		Standards based- Packet Loss Recovery feature		
		System should support IPv4 and IPv6 from day one.		
		Should support URL Dialling		
		Support for H.245 DTMF tones in H.323		
15	Menu Control	Password protected system menu.		
16	Encryption of video call	ITU-T standards-based Encryption of the video call		
		Call should be encrypted end-to-end on IP		
		Should support Standards-based : H.235 v3 and AES Encryption via Automatic/Manual key generation and exchange The same should be available In a call with Video with presentation (dual video)		
		Ability to manually turn encryption ON/ OFF should be there.		
		Automatic/Manual key generation and exchange.		
17	Management	Management : System Management using HTTPS or SSH.		
18	Camera	Minimum of 10x optical zoom.		
		1920 x 1080 pixels progressive @ 60fps		
		Each camera should have minimum +20°/-20° tilt, +/- 90° pan		



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		The Camera and codec should be from the same manufacturer. Should have at least 65 degrees static field of view.		
19	Directory services	Should support Local and Global / Central directories. Should support preferably LDAP and H.350 protocols for directory transfer.		
20	User Interface	In order to provide a good user experience, the unit must be equipped with an intuitive Touch Screen/Panel/Remote Control for controlling the VC unit. Must have ability to browse the directory, search a contact, change layouts, mute/ unmute, increase-decrease volume, video on/off.		
21	Inclusions	System should be supplied with 1 Nos of HDMI/equivalent Cables for connecting Camera and 2 Nos of HDMI for Display and content sharing. Each cable should be minimum 5 meters.		
22	Interoperable with Bank's existing MCU	Endpoint should seamlessly work and interoperable with Bank's existing MCU (poly RMX 2000) resource manager & Gatekeeper		

2. Technical Specifications of Display units

Make:

Model:

SL NO	Technical Specification		Complied (Yes/No)	OEM Datasheet Reference
	Panel			
1	Type	A+ Grade Panel by any reputed brand		
2	Diagonal Size	65 Inch		
3	Type	LED		
4	Resolution	3840*2160 (4K UHD)		
5	Brightness(Typ.)	350 nit or above		
6	Contrast Ratio	1000:1		
	Sound			
7	Speaker Type	Built in Speaker (10W + 10W)		
	Input			
8	Video	HDMI 2.0 (2)		
9	HDCP	HDCP 2.2		
10	Audio	Stereo Mini Jack /HDMI/Audio (Common)		
11	USB	USB 2.0 x 2		



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	Output			
12	Audio	Stereo Mini Jack		
13	External Control	RS232C(in) / RJ45		
14	External Sensor	IR		
	Power			
15	Power Supply	AC 100 - 240 V~ (+/- 10 %), 50/60 Hz		
	Internal Player			
16	Processor	1.1GHz Quad-Core/Dual Core CPU or higher.		
17	On-Chip Cache Memory	512 KB above		
18	Clock Speed	1.1GHz or higher		
19	Main Memory Interface	2 GB DDR4 1.5GHz 64bit or higher		
20	Graphics	Graphic resolution: 1920x1080 Output resolution: 3840x2160 (Scale up from graphic processing result.)		
21	Storage (FDM)	7.5 GB or above (min. 3.50 GB Free space)		
22	IO Ports	USB 2.0		

We certify that the goods to be supplied, we offer for the tender conforms to the specifications stipulated by you with the following deviations (deviations, if any).

List of Deviations:

- 1)
- 2)

(If left blank, it will be construed that there is no deviation from the specifications given above)

We agree to terms and conditions of this tender.

For

Office Seal

(Authorised Signatory)

Place:

Date:

Name:

Designation:

Mobile No:

e-mail id:

Company Name:

Business Address:

Telephone No:

