

Corrigendum-2 to "GeM Bid ref: GeM bid Ref. No. GEM/2021/B/1534028 dated 20/09/2021 for Procurement and integration of audio video solution with three years warranty and two years AMC/ATS."

It is decided to amend the following in respect of the above GeM bid:

**a. Bid Document:**

Description	Existing details	Amended details
Bid End Date/Time	21-10-2021, 19:00:00	<u>28-10-2021</u> , 19:00:00
Bid Opening Date/Time	21-10-2021, 19:30:00	<u>28-10-2021</u> , 19:30:00

**b. Revised Technical Specifications**

Technical Specification audio video solution			Bidder's Compliance (Yes/No)	Remarks
HDMI and Audio to USB Scaling Bridge				
S. no.	Parameter	Acceptable range for parameters		
1	Type	HDCP complaint USB Bridge that Seamlessly integrates AV devices or systems into software codec applications		
2	Input	1 X DVI/HDMI with local mic/line input port		
3	Output	1 X DVI/HDMI for local display		
4	Resolution Support	1920 x 1200		
5	HDCP	HDCP 1.3 compliant		
6	USB interface	USB 2.0 or better		
7	Audio Input	1 stereo line level, balanced or unbalanced		
8		1 mono mic/line level, balanced or unbalanced		
9		2 stereo USB, embedded		
10	Audio Output	1 stereo, balanced or unbalanced		
11		1 stereo USB (embedded)		
12	Audio de-embedding	Support HDMI de-embedding		
13	AEC	Provide far end AEC reference output for external DSP		
14	Additional Features	In-built audio DSP for mixing and routing mic and program audio		
15	EDID Management	Should be able to automatically manage the EDID communication between connected devices		

16	Audio De-embedding	Yes		
17	Monitoring and Control	RS-232/ Ethernet		
18	Compliance	CE, UL, c-UL		
19	Operating Temperature	Should be operational in up to 45 °C temperature		

Full HD PTZ Camera				
S. no.	Parameter	Acceptable range for parameters		
1	Sensor & Shutter Speed	Sensor: 1/2.8" 2MP CMOS & Shutter Speed: 1/1 ~ 1/10,000 sec		
2	Optical Zoom	20x		
3	Tilting & Panning Angle	-30° ~ +90° & -170° ~ +170°		
4	Preset Positions	128		
5	Video Output (HD)	3G-SDI, HDMI, Ethernet with resolution 1080, 720p		
6	Camera Control Interface	RS-232 / RS-422 / Ethernet		
7	Video Compression	MJPEG, H.264 / SVC		
8	Minimum Illumination	1.0 lux (F1.6, 50IRE, 30fps)		
9	Gain Control	Auto		
10	White Balance	Auto, indoor, outdoor, one-push		
11	Exposure Control	Auto		
12	Image Flip	Yes		
13	Focus System	Auto		
14	Audio Input	Line In / MIC In		
15	Audio Output	Ethernet, SDI and HDMI		
16	Power consumption	On Power: 16W, Standby: 12W		

Cable Access Enclosure				
S. no.	Parameter	Acceptable range for parameters		
1	General	Each box should have minimum 1 no. universal type power socket, 1x USB-C and 1x USB-A outlet for charging mobile devices, cable retraction system for 1x HDMI, 1x VGA with audio cable, 1x LAN, Pass through hole for 1x USB.		
2	Enclosure Type	All metal lid and bezel assembly having black anodized finish		



3	Type	Modular, configurable, and furniture-mountable enclosure.		
4	Features	Should have a lid damper for smooth/Quiet operations and should have enough gap for pulling out cables when the cable cubby lid is in closed position.		
5	USB charging	47.5 total watts combined USB Type C and USB Type A		
6	Finish	Black Anodized		
7	Mount Type	Furniture		
8	Compliance	CE		

Two Input Multi-Format Wall Plate Twisted Pair Transmitter				
S. no.	Parameter	Acceptable range for parameters		
1	General Description	Wall plate type Twisted pair/HD BaseT transmitter for HDMI and VGA with audio.		
2	Input	1x HDMI, 1x VGA with audio on 3.5 mm jack		
3	Output	Twisted pair / HD BaseT on RJ 45 port		
4	Resolution Support	4K or more		
5	Auto-switching between inputs	Yes		
6	Video Data Rate	10.2 Gbps		
7	Transmission distance	70 meters or more over twisted pair cable		
8	Audio Embedding	Yes		
9	Remote Power Capability	Yes		
10	HDCP	HDCP 1.4 compliant		
11	Operating Temperature	Should be operational in upto 45 °C temperature.		
12	Compliance	CE, c-UL, UL.		
All in one Scaling Presentation Matrix Switcher with HDCP Complaint 10x8 Seamless 4K Scaling Presentation				
S. no.	Parameter	Acceptable range for parameters		
1	Video Input	Minimum 06 or more HDMI inputs and 04 or more Twisted Pair Inputs over RJ-45 connector		
2	Video Output	04 or more HDMI Output, 04 or more HD BaseT/Twisted Pair Output,		
3	Signal Extension	100 Meters over shielded twisted pair cable		
4	Resolution Support	640x480 to 4096x2160, 480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 2K, 3840x2160 (up to 60 Hz) to 4096x2160		

		(up to 60 Hz), Data rate of 10.2 Gbps or higher		
5	Scaled resolution	Four or more scaled output, resolution: 640x480 up to 4096x2160 including 4K/UHD. Built in or external scaling.		
6	Seamless Transition	Seamless freeze/cut, freeze/fade, cut through black, and fade through black transition effects		
7	EDID	Should automatically manage EDID communication between connected device;		
8		Should support custom EDID and output resolutions		
9	HDCP	HDCP 1.4 Compliant; should support content-protected media interoperability with other HDCP-compliant devices		
10	Audio input	Minimum 04 mono, mic/line, balanced/unbalanced (with phantom power);		
11		minimum 06 stereo, analog line level inputs, balanced or unbalanced		
12	Audio Output	Minimum 04 stereo balanced/unbalanced analog (variable)		
13	Audio de-embedding/ embedding	Shall provide built in audio de-embedding and embedding		
14	Audio Breakaway	Should breakaway audio signal from video signal to route to other destination		
15	Audio Options	Should be capable of supporting AEC and mic ducking		
16	Logo placement	Support logo placement as a foreground image, wherein we can place company logo on live videos, min. 12 logo presets, resolution up to 4096x2160		
17				
18	RS-232/IR over Twisted Pair cable	Should support RS-232 and IR pass-through connections to TP endpoints,		
19		Should support RS-232 to be inserted from the Ethernet connection		
20	Remote power	All the CATx Inputs & Output should be capable of powering endpoint devices connected over twisted pair		
21	Mounting	Rack		
22	Chassis Type	Fixed		
23	Control port	Ethernet/RS 232		
24	Operating Temperature	Should be operational in upto 45 °C temperature		



25	Compliance	CE, c-UL, UL		
<b>Twisted Pair 4k Transmitter</b>				
S. no.	Parameter	Acceptable range for parameters		
1	Video Input	1x HDMI 1.4		
2	Video Output	Twisted pair on RJ 45 port		
3	Resolution Support	4K or more with minimum 10.2 Gbps data rate on single port		
4	Transmission distance	70 Meters or more over twisted pair cable		
5	Audio Input	1 analog stereo, balanced/unbalanced		
6	Control Input	1 or More RS232, 1 or More IR		
7	HDCP	HDCP 2.3 Compliant		
8	EDID	Should support EDID pass-through		
9	Compatibility	Transmitter should be compatible with supplied matrix switcher		
10	Signal Transmission	Audio, video, control, and power		
11	Audio Output	Transmits analog stereo audio over the TP cable to the receiver		
12	Remote power	Transmitter should support both local power supply and direct remote powering.		
13	CEC	Should support CEC pass-through		
14	Operating Temperature	Should be operational in upto 45 °C temperature.		
15	Compliance	CE, UL		
<b>Twisted Pair 4k Receiver</b>				
S. no.	Parameter	Acceptable range for parameters		
1	Video Input	Twisted pair on RJ 45 port		
2	Video Output	1x HDMI 1.4		
3	Resolution Support	4K or more with minimum 10.2 Gbps data rate on single port		
4	Transmission distance	70 Meters or more over twisted pair cable		
5	Audio Output	1 analog stereo, balanced/unbalanced		
6	Control Output	1 or More RS232, 1 or More IR		
7	HDCP	HDCP 2.3 Compliant		
8	EDID	Should support EDID pass-through		
9	Compatibility	Transmitter should be compatible with supplied matrix switcher and to be supplied with necessary mounting accessories		
10	Signal Transmission	Audio, video, control, and power		
11	Audio Input	Receives analog stereo audio over the TP cable from the transmitter		

12	Remote power	Receiver should support both local power supply and direct remote powering		
13	CEC	Should support CEC pass-through		
14	Operating Temperature	Should be operational in upto 45 °C temperature.		
15	Compliance	CE, UL		

#### Wireless Presentation System

S. no.	Parameter	Acceptable range for parameters		
1	Input	1 X HDMI 2.0		
2	Output	1 X HDMI with separate analog stereo audio		
3	HDCP	HDCP 2.3		
4	Max. video data rate	18 Gbps		
5	Simultaneous content display	Four or more different devices over a single screen		
6	Resolution Support	4K@60 with 4:4:4 color sampling		
7	EDID Management	Should be able to automatically manage the EDID communication between connected devices		
8	PoE Support	Yes (Additional power supply will also be acceptable)		
9	Wireless Access point	Inbuilt/External both acceptable		
10	Ethernet Port	Should provide Gigabit Ethernet port		
11	Control	1 unidirectional RS-232		
12	Screen Mirroring	Supports in-built screen mirroring from iOS, Android without installing app.		
13	Welcome screen	Customizable welcome screen support		
14	Content Sharing	Enable attendees to view slide images on personal devices via a wireless connection and a Web browser		
15	CEC Control	Yes		
16	Compliance	CE, UL		

#### Twisted Pair USB Transmitter

S. no.	Parameter	Acceptable range for parameters		
1	General Description	Extend USB peripherals up to 330 feet (100 meters) over one twisted pair cable.		
2	Tx Input	1 female USB type B		
3	Tx Output	1 Female RJ 45		
4	USB data rate	high speed (480 Mbps)		
5	Ethernet Port	1 female RJ-45		



6	Ethernet Protocol	TCP/IP, UDP, IPv4, UDP, DHCP, Unicast		
7	Mounting Accessories	Shall be provided with under table mountable accessories		
8	Compliance	CE, FCC, RoHS, WEEE		

Twisted Pair USB Receiver				
S. no.	Parameter	Acceptable range for parameters		
1	General Description	Extend USB peripherals up to 330 feet (100 meters) over one twisted pair cable.		
2	Rx Input	1 female RJ45		
3	Rx Output	1x Hub of 4 USB Type A		
4	USB data rate	high speed (480 Mbps)		
5	Ethernet Port	1 female RJ-45		
6	Ethernet Protocol	TCP/IP, UDP, IPv4, UDP, DHCP, Unicast		
7	Compliance	CE, FCC, RoHS, WEEE		

Twisted Pair USB Matrix Controller				
S. no.	Parameter	Acceptable range for parameters		
1	General Description	Centralized control system to manage USB matrix switching over the network		
2	Serial	1 Bidirectional RS232		
3	SDRAM	512 MB		
4	Flash Memory	512 MB		
5	Ethernet Port	1 female RJ-45 with 10/100/1000Base-T, half/full duplex with autodetect data rate		
6	Ethernet Protocol	DHCP, DNS, HTTP, HTTPS, SFTP, SMTP, SNMP, SSH, TCP/IP, UDP/IP		
7	Operating Temperature	0 to + 45 °C		
8	Compliance	CE, FCC, RoHS, WEEE		

12 X 8 Audio DSP with AEC, USB Audio				
S. no.	Parameter	Acceptable range for parameters		
1	General Description	12 mono, mic/line, inputs and 8 outputs Audio Digital Signal Processor with Audio Expansion and USB audio interface		
2	Audio Inputs	12 mono, mic/line, balanced/unbalanced inputs with AEC (acoustic echo cancellation) and phantom power on 8 inputs		
3	Audio Outputs	8 mono line level output balanced/unbalanced		
4	A/D & D/A Conversion	24-bit/48 kHz analog-to-digital and digital-to-analog converter		
5	Processing Elements	Mixers: standard, automatic, matrix, parametric, Equalizers, feedback suppresser, HPF, LPF, leveler, limiter, ducker, Delays, AEC		
6	Signal to Noise Ratio	>105 dB @ maximum output		
7	CMRR	>60 Db		
8	THD + Noise	<0.01%, 20 Hz to 20 kHz,		
9	Monitoring and Control	RS-232/ Ethernet		
10	Compliance	CE, UL		
11	Power Supply	100-240 VAC, 50-60 Hz		
12	Operating Temperature	Should be operational in up to 45° C temperature.		

10" Tabletop Touch panel				
S. no.	Parameter	Acceptable Range for parameters		
1	Type	10" Capacitive/Resistive touch panel		
2	Resolution	1280 x 800 or better		
3	Brightness	420 nits (cd/m2) or more		
4	Contrast	800:1 or better		
5	Storage Memory	2 GB or more RAM and 8GB or more Flash memory		
6	Ethernet Data rate	10/100/1000Base-T		
7	Viewing angle	Min ±85° vertical & horizontal.		
8	Inbuilt Sensors	Should have motion and light sensor		
9	Communication Port	RJ-45 connector		
10	Mounting Accessories	Should be supplied with all required accessories including mount and POE injector.		
11	Compatibility	Should be compatible with the control processor of same manufacturer.		



12	Operating Temperature	Should be operational in up to 40°C temperature.		
13	Power	Should be supplied with PoE injector		
14	Compliance	CE, c-UL, UL, BIS		

#### AV Control Processor

S. no.	Parameter	Acceptable Range for parameters		
1	Type	Rack mountable AV control Processor to control AV devices with provided user touch interface. Shall be provided with necessary license to integrate iOS/Android device		
2	Serial	1x RS232/RS422/RS485, 7x Bidirectional RS232		
3	IR/Serial	Min 2x IR/Serial		
4	Relay	Min 4x Relay		
5	Storage Memory	1 GB or more SDRAM and 8GB or more Flash memory		
6	Data rate	10/100/1000Base-T		
7	Protocols	DHCP, DNS, HTTP, HTTPS, IEEE 802.1X, NTP, SFTP, SMTP, SNMP, SSH, TCP/IP, UDP/IP		
8	Built in/External IR Lerner	Yes		
9	Communication Port	Min 2 or more RJ-45 connector		
10	License	Shall be provided with necessary license to integrate third party touch user interface such as iOS/Android device to be used as graphical user interface for control of devices.		
11	Ethernet Devices	Shall be able to control minimum 30 devices over ethernet.		
12	Operating Temperature	Should be operational in up to 48°C temperature.		
13	Power	Should be supplied with PoE injector		
14	Compliance	CE, c-UL, UL		

#### 6' High speed HDMI Cable

S. no.	Parameter	Acceptable Range for parameters		
1	Cable Length	6 Feet		
2	Signal Type	HDMI 2.0		
3	Video Data rate support	18 Gbps or better		
4	Supported Resolution	4K or more		
5	Connector Type	Gold plated contacts.		
6	Compliances	UL.		

Shielded Twisted Pair Cable				
S. no.	Parameter	Acceptable Range for parameters		
1	Type	4 core Shielded twisted pair cable		
2	Bandwidth	450 Mhz or better		
3	Conductor Type	Solid copper conductor of 24 AWG or better		
4	Protection from outside electrical interference	Yes		
5	NEC compliance	Yes		
6	Nominal pair-to-pair skew	> 8ns & < 25 ns per 100 meters		

Shielded RJ-45 Plug for Shielded Twisted Pair Cable				
S. no.	Parameter	Acceptable Range for parameters		
1	Type	Shielded RJ-45 connectors for Shielded Twisted Pair Cable		
2	Metal strain relief	Yes		
3	Shielding for EMI/RFI environments	Yes		
4	Crosstalk Protection	Shall Provide Conductor alignment guide for reduce crosstalk and signal interference		
5	Contacts	Gold plated		



Wireless Access Point (WAP)				
S. no.	Parameter	Acceptable Range for parameters		
1	<p>The 'Wireless Access Point' (WAP) shall be used as a standalone central control device for wireless connection and control of the Wireless Devices.</p> <ul style="list-style-type: none"> <li>• Truly wireless, no need for an additional WiFi router for tablet control.</li> <li>• Easy and intuitive web interface for system setup, configuration, control and licensing.</li> <li>• Native support for camera control.</li> <li>• Range test function to guarantee that all Wireless Devices are in range independent of the selected WiFi frequency.</li> <li>• Remote interfacing, using API to control microphones and 3rd party camera systems.</li> </ul> <p>Zero Interference</p> <ul style="list-style-type: none"> <li>• Seamless automatic wireless frequency channel switching; up to 44 channels in the 2.4/5 GHz band.</li> <li>• Packet Loss Concealment to mask the effects of lost or discarded packets.</li> </ul> <p>Standard WiFi</p> <ul style="list-style-type: none"> <li>• Visibility in the IT infrastructure.</li> <li>• Coexistence with other WiFi network</li> <li>• 5 band parametric equalizer.</li> <li>• Camera control and HD-SDI switcher configuration.</li> <li>• Wireless network SSID and WPA2 settings.</li> <li>• Wired network host name setting (DHCP and zero config protocol based on Bonjour, fixed IP address is not supported).</li> <li>• Upload of custom logo, which shall be shown in the Wireless Device Extended.</li> <li>• GUI language setting.</li> </ul>			
Power Over Ethernet (PoE)				
S. no.	Parameter	Acceptable Range for parameters		
1	Type	Managable Switch		
2	Technology	PoE+		
3	Number of 1G Copper Ports	16		
4	Powe Supply	Dual		
8 Input HDMI switcher				
S. no.	Parameter	Acceptable Range for parameters		
1	Type	8 port HDMI Switcher		
2	Resolution	4K @60, 4:4:4 chroma sampling		
3	Data Rate	18 Gbps		

4	Input	8 HDMI		
5	Output	1 HDMI		
6	Control	RS232/Ethernet		

Microphone with Transmitter and Receiver	Specifications
Model	Transmitter with inbuilt microphone.
	Table-mount wireless model
	Short or long stem microphone.
	LED indication for in call and mute options.
	Shall have removable/non-removable rechargeable battery.
	Receiver with minimum distance of 100 meters coverage.
	Low susceptibility to interference from mobile phones.
	Battery should have minimum 2000mah capacity.
Frequency response	20 Hz - 18kHz
Latency	4 - 20 ms
S/N ratio	>90 - 105 dB
Frequency range	470 - 698 Mhz
Channels	64
Battery life	minimum 8 hours
Encryption	Latest WPA2 standard.
Microphone Battery charger	Should charge minimum 6 microphones / microphone batteries at a time.
	Charging of the 6 batteries from 0 to 100 % should be completed in 4 hours.

Date

Signature with Seal

Name :

Designation :



c. Bill of Material:

Revised Annexure-12

Bill of Material

SUB: GeM Bid for Procurement and integration of audio video solution with three years warranty and two years AMC/ATS in Canara Bank head office Bangalore.

Ref: GeM Bid Ref. No. GEM/2021/B/1534028 dated 20/09/2021.

Notes

1. These details should be on the letterhead of Bidder and each & every page should be signed by an Authorized Signatory with Name and Seal of the Company.
2. Please be guided by RFP terms, subsequent amendments and replies to pre-bid queries (if any) while quoting.
3. Do not change the structure of the format nor add any extra items.
4. No counter condition/assumption in response to commercial bid will be accepted. Bank has a right to reject such bid.

Table -A

Price details for Audio video solution in Canara Bank

[Amount in Rupees]

Sl. No.	Requirement Details	Unit Price with Three years Comprehensive onsite warranty and support (Excl. of Tax)	4 <sup>th</sup> year AMC/ATS Charge (Excl. of tax)	5 <sup>th</sup> year AMC/ATS Charge (Excl. of tax)	Unit Price with Three Years Comprehensive Onsite Warranty & Support and Two Years AMC/ATS after Warranty period (Excl. of tax)	Quantity	Total Cost with Three Years Comprehensive Onsite Warranty & Support and Two Years AMC/ATS after Warranty period (Excl. of tax)	Tax for Column F		Total Cost with Three Years Comprehensive Onsite Warranty & Support and Two Years AMC/ATS after Warranty period (Incl. of tax)
		A	B	C	D= A+B+C		F= D*E	G= % of tax	H= Tax Amt	I= F+H
1.	HDMI and Audio to USB Scaling Bridge					1				
2.	Full HD PTZ Camera					6				
3.	Cable Access Enclosure					9				
4.	Two Input Multi-Format Wall Plate Twisted Pair Transmitter					9				



5.	All in one Scaling Presentation Matrix Switcher with HDCP Complaint 10x8 Seamless 4K Scaling Presentation					1				
6.	Twisted Pair 4k Transmitter					7				
7.	Twisted Pair 4k Receiver					16				
8.	Wireless Presentation System					1				
9.	Twisted Pair USB Transmitter					9				
10.	Twisted Pair USB Receiver					1				
11.	Twisted Pair USB Matrix Controller					1				
12.	12 X 8 Audio DSP with AEC, USB Audio					1				
13.	10" Tabletop Touch panel					1				
14.	AV Control Processor					1				
15.	6' High speed HDMI Cable					As per require-ment				
16.	Shielded Twisted Pair Cable					As per require-ment				
17.	Shielded RJ-45 Plug for Shielded Twisted Pair Cable					As per require-ment				
18.	Wireless Access Point (WAP)					2				
19.	Power Over Ethernet (PoE)					1				
20.	Microphone with transmitter and receiver					30				
21.	Microphone charger					5				
22.	8 Input HDMI Switcher					2				
23.	One time Development, Implementation and Customization cost of audio video solution covering all functional requirements.									
24.	<b>Total Cost of Ownership for Five years contract period (Sum of column I of rows 1, to 23)</b>									

**Table-B**

**Charges for Onsite Resources**

Sl. No.	Description	Charges for one resource Per Month [Excl. of Taxes]	No. of Months	No. of Resources	Total Charges for resources [Excl. of Taxes]	Tax for Column d		Total Charges for resources [Incl. of Taxes]
						Tax %	Tax Value	
		a	b	c	d=a <b>x</b> b <b>x</b> c	e	f	g=d+f
1	Dedicated Onsite Support charges(as per scope of work)		60	2				



**Table-C**  
**Total Cost for 5 Years Contract Period**

		[Amount in Rupees]
Sl. No.	Details	Cost (inclusive of tax)
1.	Total Cost as per Table-A [Total of Column I of Sl. No. 24]	
2.	Charges for Onsite Resource as per Table-B [Column g of Sl. No. 1]	
3.	Total Cost of Ownership [Sum of 1 and 2 of Table C]	

**Declaration**

- The cost for AMC/ATS will be paid on quarterly basis on arrears.
- Bill of material is submitted on the letter head and is signed by an Authorized Signatory with Name and Seal of the Company.
- We confirm that we have gone through RFP clauses, subsequent amendments and replies to pre-bid queries (if any) and abide by the same.
- We have not changed the structure of the format nor added any extra items. We note that any such alternation will lead to rejection of Bid.
- We agree that no counter condition/assumption in response to commercial bid will be accepted by the Bank. Bank has a right to reject such bid.
- We are agreeable to the payment schedule as per "Payment Terms" of the RFP document.
- The Offer must be made in Indian Rupees only as per Bill of Material.

Date

Signature with seal

Name :

Designation :

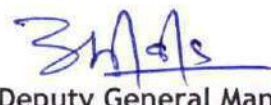
Note: Masked Bill of Material should be submitted with the technical proposal and Commercials (Bill of Material) will be submitted after opening Commercial proposal.

All the other Instructions and Terms & Conditions of the above GeM bid shall remain unchanged.

Please take note of the above amendments while submitting your response to the subject GeM bid.

Date: 21/10/2021

Place: Bengaluru

  
Deputy General Manager