



**Government of West Bengal
Irrigation & Waterways Directorate
Office of the Executive Engineer
Metropolitan Electrical Division
Jalasampad Bhawan (4th floor)
Salt Lake City, Kolkata-700091
Telephone No-03323215609
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NOTICE INVITING EXPRESSION OF INTEREST

Memo No: 1794/ 7E-16/2018-19

Dated:- 23.08.2018

Request for Expression of Interest for “Supply Installation Testing and Commissioning of Video Conferencing System at 9(nine) different offices of Irrigation & Waterways Department, Govt of West Bengal at different locations with Central Unit to be Installed at Jalasampad Bhawan, Salt Lake, Kolkata-700091” is being invited by the Executive Engineer, Metropolitan Electrical Division, Irrigation & Waterways Directorate on behalf of the Governor of West Bengal from eligible and resourceful agencies having sufficient financial capability and credentials for execution of similar nature of work.

Issue of EoI documents :

The EoI documents can be downloaded from the departmental website www.wbiwd.gov.in

Submission of EoI :

The intending agencies should submit their EoI for the work as cited above in a sealed envelope super scribing on the top “Supply Installation Testing and Commissioning of Video Conferencing System at 9(nine) different offices of Irrigation & Waterways Department, Govt of West Bengal at different locations with Central Unit to be Installed at Jalasampad Bhawan, Salt Lake, Kolkata-700091” in the tender box to be available at the Office of the Executive Engineer, Metropolitan Electrical Division, Jalasampad Bhawan, (4th floor), Bidhannagar, Kolkata – 700091

The intending agencies should submit their EoI as per list of items enclosed herewith. Rates and amounts to should be filled up properly.

The quoted rates should be inclusive of all taxes/duties all complete.

Necessary technical specifications are enclosed as Annexure-I to IV for ready reference for the EOI. Before submitting EOI, the intending contractor/bidder should make themselves acquainted thoroughly with the local conditions prevailing at site of implementation of the work by undertaking field inspections and taking into consideration all probable likely factors and difficulties to be involved in execution of the work as per specification in all respects including transportation of materials, communication facilities, climate conditions, availability of materials in the market etc. and no claim whatsoever will be entertained on those accounts afterwards. He/She may contact this office in any working day in between 11 am to 3 p.m. Intending agencies or their authorized representatives may remain present while opening of the sealed covers containing EoI's.

Selection of appropriate EOI is entirely vested upon the Quotation-cum-Bid Evaluation Committee (QBEC). The committee reserves the right to accept or reject any or all EoIs without assigning any reason thereof

Since, the Notice Inviting Expression of Interests (EoIs) is being made for subsequent e-Tender, no work order will be issued in favour of any agency against the EoI's. No payment whatsoever would be borne by I & W Department for submission of EoIs.

The intending agencies should submit the following and self-attested copies of the same are to be submitted with the EoI.

i) Credential Certificate:-
BOQ duly authenticated by issuing authority and work order.
Completion Certificate of 100% completed work of similar nature.

ii) Annual Turnover from business:-
Profit and loss accounts statement in the prescribed form with annual turnover of last three financial years or during the period since formation of the company/ Firm/society, if it was set up in less than three year period.

iii) Company Details like Trade license and others documents.

iv) Professional Tax Payment Certificate (PTPC) or Challan.

v) PAN Card.

vi) GST Registration Certificate.

vii) Latest I.T. Return.

Pre Bid Meeting :

Pre Bid meeting will be held in the office chamber of the EOI Inviting Authority on 30.08.2017 at 2 pm in order to acclimatize the prospective contractors/bidders through an interactive open session, replying to their queries, and clear doubts in connection with the work/s, if any.

Schedule of Dates for EoI's :

Sl No.	Activity	Date & Time	Remarks
1	Publishing Date	23.08.2018	
3	Pre Bid Meeting	30.08.2017 at 2.00P.M	
4	E.o.I submission start date	31.08.2018 From 11.00 A.M	
5	E.o.I submission end date	07.09.2017 upto 3.00 P.M	
7	E.o.I opening date	07.09.2017 at 3.30 P.M	

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Schedule of Work

Name of Work: Supply Installation Testing and Commissioning of Video Conferencing System at 9(nine) different offices of Irrigation & Waterways Department, Govt of West Bengal at different locations with Central Unit to be Installed at Jalasampad Bhawan, Salt Lake, Kolkata-700091.

SL NO	Description of Items	Qty	Unit	Rate(Rs)	Amount(Rs)
1	<p>Supply Installation Testing Commissioning of new Video Conferencing system at different offices of Irrigation & waterways Department at different 9 (nine)nos location with in the state of West Bengal. Detail materials description as stated below. adequate licenses required for multi conferencing including 3 years warranty after successfully completion of the project</p> <p>i) Room Kit Plus P60 - Codec Plus, P60 cam and Touch 10 ii) Power Cord for Europe 2m 10A iii) Bracket for mounting of Precision 60 Camera iv) Tele Presence Table Microphone 20 v) Table Mic20 extension cable, grey (33ft/10m) vi) Wall Mount Kit for Codec Plus vii) CAB 1.5m GREY HDMI 2.0 - Second Monitor HDMI cable viii) CAB 5 m/ 15 ft GREY ETHERNET ix) Presentation cable 8m GREY HDMI 1.4b (W/ REPEATER) x) Touch10 controller for collaboration endpoints xi) Power supply - AC/DC, 12V, 6.25A, grey xii) Network cable (Ethernet) 8 meter xiii) Installation sheet for Precision 60 Camera bracket xiv) Power Supply 12 VDC 40W xv) Spark Room Kit Codec Plus for Auto Expand xvi) Tele Presence Precision 60 Camera - auto expand only. (Detail Specification as per attached Annexure - I)</p>	9	Nos		
2	<p>Supply installation Testing and commissioning of Central Video Bridge - Multi Conferencing Unit at Jalasampad Bhawan. MCU should support aspect ratio of 16:9 and 4:3 MCU shall support a mix of resolution in both voice activated mode and continuous presence. Each end point shall receive at the maximum of its capacity without reducing the capacity of another, Dynamic CP Layout adjustment etc. Meeting Server 1000 SW Preloaded/2.10 GHz E5-2695 v4/120W 18C/45MB Cache/DDR4 2400MHz/300GB 12G SAS 10K RPM SFF HDD *2 Nos /770W AC Hot-Plug Power Supply for 1U C-Series Rack Server * 2 Nos /8 * 8 GB DDR4-2400-MHz RDIMM/PC4-19200/single rank/x4/1.2v/ RAID 1 Setting/12G SAS Modular Raid Controller/Virtual Edition</p>				

	Meeting Server/ Meeting Server (CMS) 2.x Software image Meeting Server (CMS) PAK Software Release key including 3 years warranty after successfully completion of the project(Detailed specification as per Annexure-II)	1	No		
3	Call control server which must be able to provide Gatekeeper services using H323 protocol. It should be able to integrate with other Gatekeepers using H323 trunks or Neighboring Trunk. The Call control server must also provide SIP registrar and SIP proxy service including 3 years warranty.(Detailed specification as per Annexure-III)	1	No		
4	Supply installation Testing and commissioning of LED 49 INCH including 3 years warranty (Detailed spec as per Annexure-IV)	9	Nos		
5	Supply & Installation of required software & adequate licenses for VC Units including 3 years warranty	9	Nos		
6	Supply & Installation of required software & adequate licenses for Central Video Bridge including 3 years warranty	1	No		
7	Supply & Installation of required software & adequate licenses for Call Control Server including 3 years warranty	1	No		
8	Manpower support for conducting live Video Conferencing with central location at jalasampad Bhawan to out side 10 locations on day to day basis as per direction of EIC.	492	Man Days		
9	Cost for provision of 3 years comprehensive Annual Maintenance contract for hardware and software after successful installation as per direction of EIC.	3	Years		

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ANNEXURES-I
(Technical Specification for Video Conferencing Unit)

VIDEO CONFERENCING ENDPOINT AT CENTRAL LOCATION

	Features	Specifications	Compliance (Yes/No)
	Video Standards	H.263/H.264 and H.265	
		H.264 in an Encrypted call should be possible	
		H.264 should be possible when sending or receiving two live video sources e.g. Presenter and Presentation.	
	Video Frame Rate	Should support 30 fps & 60fps (frames per second) with 1080p resolution from day one	
	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 with 1080p resolution	
	Video Output	Should have at least 2 HDMI / DVI (High Definition Multimedia Interface) output to connect Full High Definition display devices such as LCD / LED and projectors for both Video and Content. (Dual Monitor Support)	
		It should be possible to display the main video on one HD screen and the presentation / dual video on the other HD screen.	

	Video Input	Should have at least two HD video Input to connect full HD speaker tracking camera with full functionalities as mentioned in the camera specifications.	
		Should have DVI (Digital Video Interface) input to connect PC / Laptop directly to the Video conferencing system and display resolutions WXGA / HD720p along with PC Audio.	
	Audio		
	Audio standards supported	G.711, G.722, G.722.1, 64 kbps MPEG-4 AAC-LD or equivalent standards must be supported.	
	Other Desirable features	Noise Reduction, Automatic Gain control, Acoustic Echo Canceller, Active Lip synchronization	
	Audio Inputs	Should support minimum 2 Microphone inputs. 2 needs to be supplied from day one.	
		The microphones must be standard based microphones.	
		The pickup of the microphones should be at least 10 feet from the microphone.	
		Echo Cancellation for every input must be available.	
	External devices	Should have USB port for future usage.	
	Network Interfaces	1 LAN / Ethernet - 10/100/1000 Mbps	
		Should have support for IPV4 and IPV6	
	Bandwidth	IP - at least 6 Mbps	
	Network Capabilities	Packet Loss Based Downspeeding	
	H.323/ IP Features	Differentiated Services(QOS):	
		DiffServ	
		IP adaptive bandwidth management	
	Security		
	Menu Control	Password protected system menu	
	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 key generation and exchange. The same should be available in a call with Video with presentation (dual video)	
		Ability to manually turn encryption On or OFF should be there.	
		Automatic key generation and exchange	

	Camera	The camera should be 5K Ultra HD Camera with automatic speaker tracking and framing	
		The camera should be able to cover a room of size 30ft or better	
		1920 x 1080 pixels progressive @ 30fps	
		The Camera and codec should be from the same manufacturer.	
		Should have at least 80 degrees field of view (horizontal)	
	Directory services	Should support Local and Global directories.	
		Should support LDAP and H.350 protocols for directory transfer.	
		It should support remote software update using HTTP, HTTPS	
	Interoperability	VC endpoint must inter operate from day one using standards based video and audio compression with other open standards based VC endpoints and MCUs from various OEMs. Any additional hardware / software required should be supplied day one.	

ANNEXURES-II
(Technical Specification for Multi Conferencing Unit)

SL.NO	Features	Specifications	Compliance (Yes/No)
	System Capacity	MCU should support 12ports 1080p60fps/24 ports at 1080p 30fps on IP in continuous presence mode with 30fps and H.264 resolution and AES encryption.	
		Multi-point video Conferencing Solution should be capable of offering a Full High Definition 1080p 30fps in real-time for 24 number of concurrent ports / users in single call in continuous presence and voice activation mode & with intelligent built-in capability for dynamic bandwidth, resolution matching to give each user an experience basis his available bandwidth.	
		It should as well provide network flexibility for a reliable distributed architecture and cost-effective scalability for future requirements.	
		MCU should be on secure platform.	
	Video Standards and Resolutions	Should be able to support to connect H.323 and SIP devices directly or using additional hardware / Software. In case, additional	
		Hardware / Software is required same should be supplied along with the MCU.	
		The MCU should support H.263, H.264 AVC	

		The MCU should support 1080p 60fps, 30 fps, 720p 30 and 60 fps.	
	Content Standards and Resolutions	The MCU should support content sharing using standard based H.239 and BFCP over SIP with HD1080 resolution.	
		The MCU should support H.239 and encryption in SIP & H.323 modes	
		The MCU should have a provision for minimum 2 concurrent sessions simultaneously	
	Audio Stand and Features	It should support G.711, G.722	
	MCU Features	The MCU shall support aspect ratio of 16:9 and 4:3.	
		The MCU shall support a mix of resolutions in both Voice Activated mode and Continuous Presence. Each endpoint shall receive at the maximum of its capacity without reducing the capacity of another.	
		Dynamic CP layout adjustment (MCU will choose the best video layout according to the number of participants in the conference).	
		The MCU should support distributed architecture with intelligent and automatic call routing.	
		The MCU should be able to natively register and authenticate with H.323 gatekeeper / SIP registrar.	
		The VC endpoints , MCU, call control should be from same OEM	
		The OEM should be placed in the Gartners leaders magic quadrant for last 3 years	

ANNEXURES-III
(Technical Specification for Call Control Server)

TECHNICAL FEATURES		Complied
	The Call control server must be able to provide Gatekeeper services using H323 protocol. It should be able to integrate with other Gatekeepers using H323 trunks or Neighboring Trunk. The Call control server must also provide SIP registrar and SIP proxy service.	
H323 registration:	The video conferencing endpoints and MCU must be able to register with the H323 Gatekeeper.	
SIP registration:	The video conferencing endpoints and MCU must be able to register with the SIP Server.	
H.323-SIP interworking	The Call control device should be able to connect calls between "H323 only device" and "SIP only device".	
IPV4-IPV6 Interworking	The Call control device should be able to interwork between IPV4-IPV6 networks.	
Capacity	Should allow at least 15 device registrations and minimum 12 concurrent calls from day one.	
	The H323 registration over TCP/UDP should support H323 ID.	
	The SIP registration over TCP/UDP should support SIP URI.	
Call Control	Should provide flexibility such as creation of dialing pattern, Setting Search policies, Transform dial patterns or modifying the dial plan.	
Security	Security and authentication for registration of HD VC Endpoints. This should support at least authentication using login ID and password	
Bandwidth management	Should allow restricting the bandwidth at the server level so that calls cannot exceed the defined bandwidth.	
Authentication and Registration	Registration to the server should be restricted by creation of either an allow list or deny list.	
	Ability to allow registration to the server only upon authentication of the device.	
	Creation of local authentication database or pulling of authentication credentials from an LDAP or AD server.	
	Firewall Traversal Solution to allow Video calls to be made from the SWAN's network to the Internet and vice versa. The calls should be H323 and SIP and must be able to support HD resolutions.	
Standards	Should support firewall traversal solution using the H.460.18 and H.460.19 protocol.	
Dial plan and call connectivity	The solution should support ability to call to public IP addresses. The proposed Video conference solution should be interoperable with the proposed IP Telephony solution such that two way audio and video call is possible between the two using the single dial plan	
	Should support the ability for devices on the internet to be reached using a H323 ID or E.164 alias.	
Integration with DNS	The Firewall Traversal Solution must have integration with DNS using SRV records or AAA records so as to have domain name based calling.	
Capacity	Should support at least 5 concurrent calls with H.264 video compression from day one and must have the scalability to upgrade to 10 concurrent calls traffic with H.264 video compression in future on the same hardware. The solution should be IPV4 and IPV6 compliant.	
Protocols	Should support all the H323 and SIP functionalities such as: H.239, BFCP, AES encryption, H.235	

Authentication and Registration	The solution must support the ability to create authentication credentials for a VC device to be registered and make calls.	
Management	Management of recommended Video Conferencing devices and Infrastructure shall be deployed centrally	
	The Management application should provide system management capabilities of all the proposed full high definition solution comprising of video conferencing endpoints, MCU, Gate keepers, firewall traversal. It should be possible to get detailed configuration of these devices.	
	It should allow monitoring of conferences and participant	
	The system must be able to manage minimum 15 devices including endpoints and call control from day one	

ANNEXURES-IV
(Technical Specification for 49" LED Display)

Compliance/ Technical Specification for 49" Industrial Display				
Sl. No.	Section	Item Description	Detailed Specification	Complied Yes/No
1	Approved Make	SONY/LG/NEC/SAMSUNG		
2	Certified Bidder	A] Authorization Certificate From Local Business Incharge of The OEM attached		
3		B] Authorization Certificate From Local Service Incharge of The OEM attached		
4	Warranty	3 years		
5	Panel	Screen Size	49" or above	
6		Panel Technology	IPS	
7		Aspect Ratio	16:09	
8		Native Resolution	1,920 x 1,080 (Full HD)	
9		Brightness	450cd/m2 or higher	
10		Viewing Angle (H x V)	178 x 178	
11		Contrast Ratio	1,100 : 1 or higher	
12		Dynamic CR	4000,000 : 1 or higher	
13		Orientation	Portrait & Landscape	
14		Circuit board Protection	Dust & Humidity SRC Protection Coated	
15		Viewing Angle (H x V)	178 x 178 degree	
16	Connectivity	Inputs	HDMI (2), DP, DVI-D, RGB, Audio, USB 3.0	
17		Outputs	DP, Audio	
18		External Control	RS232C in/out, RJ in, IR Receiver, Pixel Sensor	
19	Special	Features	Temperature Sensor, Auto Brightness Sensor, Tile Mode (Up to 15x15), DPM Select, DPM Wake Up, Energy Saving, Smart Energy Saving, File Play with USB, PIP/PBP (2), Internal Memory (8 GB), USB Cloning, Easy Brightness Control, Holiday Schedule, Limited Mode, Wake on LAN, Fail Over, Built in Wi-Fi, 24x7, Mirroring, SoftAP, BEACON, Embedded Template	
20	Environment Conditions	Operation Temperature	0 °C to 40 °C	
21		Operation Humidity	10 % to 80 %	
22	Power	Power Supply	100-240V~, 50/60Hz	
23		Power Type	Built-In Power	
24		Power Consumption	Typ.85W , Smart Energy Saving 60W or better	
25	Industrial Grade/ Certification	Safety	UL / cUL / CB / TUV / KC	
26		EMC	FCC Class "A" / CE / KCC	
27		Energy Star	Energy Star 7.0	

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I & W Dte., Govt. of West Bengal

Memo No: 1794/1(9)/ 7E-16/2018-19

Dated:- 23.08.2018

Copy submitted for favour of kind information to:

- 1) The Secretary to the Govt. of West Bengal, I&W Department.
- 2) The Chief Engineer, South, I&W Directorate, Govt of West Bengal.
- 3) The Joint Secretary (Works) to the Govt of West Bengal, I&W Department.
- 4) The Deputy Secretary (Works) to the Govt of West Bengal, I&W Department.
- 5) The Superintending Engineer, Metropolitan Drainage Circle, I&W Dte., Govt. of West Bengal.
- 6) The Superintending Engineer, Western Circle-I, I&W Dte., Govt. of West Bengal.
- 7) The Superintending Engineer, Eastern Circle, I&W Dte., Govt. of West Bengal.
- 8) The Superintending Engineer, Mechanical & Electrical Circle, I&W Dte., Govt. of West Bengal.
- 9) The Executive Engineer, Metropolitan Drainage Mechanical Division, I&W Dte.

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Metropolitan Electrical Division,
I & W Dte., Govt. of West Bengal

Memo No: 1794/2(7)/ 7E-16/2018-19

Dated:- 23.08.2018

Copy forwarded for favours of kind information to:

- 1) The Assistant Engineer, Metropolitan Electrical Division.
- 2) The SDO/ Metropolitan Electrical Sub-Division.
- 3) The SDO/ Dredger Sub Division No-II.
- 4) The Director of information, Department of Information & cultural Affairs, Nabanna, Shibpur, Mandirtala, Howrah-711102 for wide circulation.
- 5) The Estimating Section, Metropolitan Electrical Division.
- 6) The Accounts Section, Metropolitan Electrical Division.
- 7) Notice Board of Metropolitan Electrical Division.

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