REQUEST FOR QUALIFICATION (RFQ) CUM REQUEST FOR PROPOSAL (RFP) FOR APPOINTMENT OF MASTER SYSTEM INTEGRATOR FOR DESIGN, SUPPLY, INSTALL, TEST, INTEGRATE, COMMISSIONING, OPERATION AND MAINTENANCE OF ICT COMPONENTS IN CLUSTER A1 OF ACTIVATION AREA

Addendum - 1

Sr. No.	Page No.	Clause No.	Original Clause	To be Replaced by
1	20	Volume 1, Instructions to Bidders, 2.2.1. Pre-Qualification Criteria, Point No. 6	Integrated Operations Centre / Command and Control Centre The Bidder (any member in case of consortium) shall have successfully implemented and commissioned at least two (2) projects related to implementation of Integrated Operations Centre/Command and Control Centre integrating at least three (3) different city/campus- wide applications from among the modules defined in this RFQ cum RFP at the command and control centre with a minimum value of INR 10 crores per project (excluding civil works) during last Seven (7) years.	Integrated Operations Centre / Command and Control Centre The Bidder (any member in case of consortium) shall have successfully implemented and commissioned at least two (2) projects related to implementation of Integrated Operations Centre/Command and Control Centre integrating at least **two (2)** different city/campus- wide applications from among the modules defined in this RFQ cum RFP at the command and control centre with a minimum value of **INR 5 crores** per project (excluding civil works) during last **Ten (10) years**.
2	23	Volume 1, Instructions to Bidders, 2.2.2. Technical Qualification cum Evaluation Criteria, Point No. 1.1	Project Experience The Bidder (any member in case of consortium) shall have successfully commissioned at least two (2) projects related to implementation of Integrated Operations Centre/Command and Control Centre integrating at least Three (3) different city/campus- wide applications / sensors at the command and control centre with a minimum value of INR 10 crores per project (excluding civil works) during last Seven (7) years. Number of Projects: • =2: 4 Marks • 1 marks for each additional Project up to 3 projects	Project Experience The Bidder (any member in case of consortium) shall have successfully commissioned at least two (2) projects related to implementation of Integrated Operations Centre/Command and Control Centre integrating at least **Two (2)** different city/campus- wide applications / sensors at the command and control centre with a minimum value of **INR 5 crores** per project (excluding civil works) during last **Ten (10)** years. Number of Projects: • =2: 4 Marks • 1 marks for each additional Project up to 3 projects

3	503	Volume 2, MSI-Scope of Work, Functional requirements, UC-SP-1.35 , Pg. No.503	Should Provide Alert When Available: User should be able to Set the client to notify him/her when a contact becomes available. User should be notified the first time the user next becomes available. A message notification should be given to alert the user that the user is available	Should Provide Notification When Available: User should be able to Set the client to notify him/her when a contact becomes available. User should be notified the first time the user next becomes available
4	527	Volume 2, MSI-Scope of Work, Technical requirements, UC-UCM-1.6, Pg. No.527	The call control system should be fully redundant solution with NO single point of failures & should provide 1:1 redundancy. Both the server should do call processing all the time and act as backup in case of the failure of one server.	The call control system should be fully redundant solution with NO single point of failures & should provide 100% High Availability at the data centre. Both the server should worked in active-active or active-standby mode. If one server fails, secondary server must automatically take control of telephony operations without affecting ongoing or progressing calls
5	527	Volume 2, MSI-Scope of Work, Technical requirements, UC-UCM-1.15, Pg. No.527	CODEC support - G.711, G.729, G.729ab, g.722, iLBC	CODEC support - G.711, G.729, G.729ab, g.722
6	530	Volume 2, MSI-Scope of Work, Technical requirements, UC-UCM-1.68, Pg. No.530	"Clusters" of Call-Servers for scalability, redundancy, and load balancing	Call-Servers in proposed solution should be able to support high volume of concurrent call (in multiple of ten thousand's) and there should not be a single point of failure. Each call processing server at different locations must support equivalent capacity.
7	531	Volume 2, MSI-Scope of Work, UC-UCM-1.84, Pg. No.531	Trace setting and collection utility	The said functionality stands deleted

8	514	Volume 2, MSI-Scope of Work, UC-MCU-1.167, Pg. No.514	The MCU should support 40 ports or more at HD 1080p (transmit and receive) up to 4Mbps on IP in continuous presence mode with 30fps, 500 audio ports for conferencing IP Phone users, 100 WebRTC connections and H.264 resolution and AES encryption on MCU	The MCU should support 40 ports or more at HD 1080p (transmit and receive) up to 4Mbps on IP in continuous presence mode with 30fps, 500 audio ports for conferencing IP Phone users, 100 WebRTC connections and H.264 resolution and AES encryption on MCU
9	509	Volume 2, MSI-Scope of Work, Technical requirements, UC-IPPBX-1.66, Pg. No.509	Hotline and private line automated ringdown (PLAR)	Hotline
10	510	Volume 2, MSI-Scope of Work, Technical requirements, UC-IPPBX-1.84, Pg. No.510	Call-Server should provide a common control agent for signaling, configuration, and serviceability for voice or video end points	Call server/collaboration solution should provide control agents for signaling, configuration and serviceability for voice/video end points.
11	531	Volume 2, MSI-Scope of Work, Technical requirements, UC-UCM-1.93, Pg. No.531	Call-Server should provide a common control agent for signaling, configuration, and serviceability for voice or video end points	Call server/collaboration solution should provide control agents for signaling, configuration and serviceability for voice/video end points.
12	510	Volume 2, MSI-Scope of Work, Technical requirements, UC-IPPBX-1.83, Pg. No.510	Call-Server should have the infrastructure to handle codec and video capabilities of the endpoints, bandwidth negotiation to determine if video/audio call can take place, single point of administration, management of media devices such as gateways and MCUs	Call-Server/Collaboration solution should have the infrastructure to handle codec and video capabilities of the endpoints, bandwidth negotiation to determine if video/audio call can take place, single point of administration, management of media devices such as gateways and MCUs.
13	512	Volume 2, MSI-Scope of Work, Technical requirements, UC-VCD-1.129, Pg. No.512	Audio System : The system should have two stereo front speakers with inbuilt microphones, wideband speakers	Audio System: The system should have two stereo front speakers with inbuilt/external microphones, wideband speakers.

14	204	Volume 2, Network Access Control & Authentication Specifications, Pg. No.204	Supports a wide range of authentication protocols, including PAP, MS-CHAP, Extensible Authentication Protocol (EAP)-MD5, Protected EAP (PEAP), EAP-Flexible Authentication via Secure Tunnelling (FAST), and EAP-Transport Layer Security (TLS).	Supports a wide range of authentication protocols, including PAP, MS-CHAP, Extensible Authentication Protocol (EAP)-MD5, Protected EAP (PEAP), EAP-Transport Layer Security (TLS).
15	26	Volume 1, 2.2.2, Technical Qualification cum Evaluation Criteria, Sr. No. 3.1, Pg. No.26	Project Director - Bachelor of Engineering degree and preferably having MBA/M.Tech/MS and having more than 20 years of experience in implementation and management of similar ICT projects involved in complete project lifecycle. Must have at least five (5) relevant projects (e-governance, ERP or command and control centre). Project Director shall be a full-time employee of the MSI/Consortium Bidder.	Project Director - Bachelor of Engineering degree and preferably having MBA/M.Tech/MS and having more than **15 years** of experience in implementation and management of **IT / ICT** projects involved in complete project lifecycle. Must have at least five (5) relevant projects (e-governance, ERP or command and control centre). Project Director shall be a full-time employee of the MSI/Consortium Bidder.
16	22	Volume 1, 2.2.1, Pre-Qualification Criteria, Sr. No. 11, Pg. No. 22	I. Proposed CIOC software comprising of Pre-Integrated Visualization layer & Normalization/Integrated operation platform should at least 1 City/Utilities /PSU/ULB in India operational for more than six months with minimum 3 city domains/ applications / use cases mentioned in the tender.	I. Proposed CIOC software comprising of Pre-Integrated Visualization layer & Normalization/Integrated operation platform should at least 1 City/Utilities /PSU/ULB in India operational for more than six months with minimum **2** city domains/ applications / use cases mentioned in the tender.
17	505	Volume 2, Scope of Work, Functional Requirements, UC-ACD-1.85, Pg. No. 505	In future if required, the ACD should support active and standby server mode, where the server can be put in DC and DR. In case of Main server in the Data center fail the standby server in DR should take over seamlessly. ACD solution should support placing of Main and Stand by server in DC and DR respectively	It is required the ACD should support active and standby server mode, where the server can be put in DC and DR. In case of Main server in the Data Centre fail the standby server in DR should take over seamlessly. ACD solution should support placing of Main and Stand by server in DC and DR respectively
18	527	Volume 2, Scope of Work, Functional Requirements, UC-UCM-1.7, Pg. No.527	The call control should support clustering/segmentation over WAN	Proposed Solution should support redundancy on WAN. Data(Call, User) between multiple locations must be synchronized automatically without any human intervention

19	515	Volume 2, Scope of Work, Functional Requirements, UC-VCP55-1.200, Pg. No. 515	The system should have integrated 55" monitor	The system should have 55" monitor
20	517	Volume 2, Scope of Work, Functional Requirements, UC-VCP55-1.220, Pg. No. 517	1080p60 with automatic speaker tracking camera	1080p60 with automatic speaker tracking camera or with pre-set settings
21	503	Volume 2, Scope of Work, Functional Requirements, UC-SP-1.46, Pg. No. 503	Screen share and Remote Desktop Sharing in Group Chat (1 : Many): Users must have the capability to share screen with up to 5 people in group chat session using the IM-Only-desktop-sharing feature	Screen share and Remote Desktop Sharing in Group Collaboration (1: Many): Users must have the capability to share screen with up to 5 people in group collaboration session. Should be able to start the collaboration session from UC client itself.
22	77	Volume 2, Scope of Work, Industrial Switches, Pg. No. 77	Line-swap fast recovery	Line-swap fast recovery/RSTP/ERP/Portfast/equivalent
23	77	Volume 2, Scope of Work, Industrial Switches, Pg. No. 78	IGMPv1/v2/v3, GMRP, GVRP, SNMPv1/v2c/v3, DHCP	IGMPv1/v2/v3, GMRP/MVR, GVRP/VTP, SNMPv1/v2c/v3, DHCP
24	78	Volume 2, Scope of Work, Industrial Switches, Pg. No. 78	Server/Client, DHCP Option 66/67/82, BootP, TFTP, SNTP, SMTP/SNMP	Server/Client, DHCP Option 66/67/82, BootP, TFTP, SNTP/NTP, SMTP/SNMP
25	506	Volume 2, Scope of Work, Technical Requirement, UC-IPPBX-1.13, Pg. No. 506	The system should support an inbuilt reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality	The system should support an inbuilt/external reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality
26	507	Volume 2, Scope of Work, Technical Requirement, UC-IPPBX-1.18, Pg. No. 507	The system should support an inbuilt reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality	The system should support an inbuilt/external reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality

27	527	Volume 2, Scope of Work, Technical Requirement, UC-UCM-1.13, Pg. No. 527	The system should support an inbuilt reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality	The system should support an inbuilt/external reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality
28	527	Volume 2, Scope of Work, Technical Requirement, UC-UCM-1.18, Pg. No. 527	The system should support an inbuilt reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality	The system should support an inbuilt/external reporting tool for calls. Reports that are provided include Calls on a user basis, Calls through gateways, Simplified Call Quality
29	508	Volume 2, Scope of Work, Technical Requirement, UC-IPPBX-1.38, Pg. No. 508	The architecture should support single Server Clustering to provide scalability to offer support for 30,000 IP devices and also to provide redundancy. All the 30,000 users to be managed in a single database which is managed centrally, no multiple databases	The architecture should support Server Clustering to provide scalability to offer support for 30,000 IP devices and also to provide redundancy. All the 30,000 users to be managed in a single database which is managed centrally, no multiple databases
30	510	Volume 2, Scope of Work, Functional Requirement, UC-IPPBX-1.83, Pg. No. 510	Call-Server should have the infrastructure to handle codec and video capabilities of the endpoints, bandwidth negotiation to determine if video/audio call can take place, single point of administration, management of media devices such as gateways and MCUs	Solution should have the infrastructure to handle codec and video capabilities of the endpoints, bandwidth negotiation to determine if video/audio call can take place, administration, management of media devices such as gateways and MCUs
31	514	Volume 2, Scope of Work, Functional Requirement, UC-MCU-1.178, Pg. No. 514	Along with the support for basic algorithms like G.711 and G.722.1 the MCU should also support wideband Audio protocols like MPEG 4 AAC - LC and MPEG 4 AAC - LD	Along with the support for basic algorithms like G.711 and G.722.1 the MCU should also support wideband Audio protocols like MPEG 4 AAC - LC / MPEG 4 AAC - LD or better
32	532	Volume 2, Scope of Work, Functional Requirement, UC-UCM-1.118, Pg. No. 532	Along with the support for basic algorithms like G.711 and G.722.1 the MCU should also support wideband Audio protocols like MPEG 4 AAC - LC and MPEG 4 AAC - LD	Along with the support for basic algorithms like G.711 and G.722.1 the MCU should also support wideband Audio protocols like MPEG 4 AAC - LC / MPEG 4 AAC - LD or better

33	517	Volume 2, Scope of Work, Functional Requirement, UC-VCST-1.231, Pg. No. 517	Should have at least 3 no.'s of HDMI / DVI (High Definition Multimedia Interface) output to connect3 Nos. Full High Definition display devices such as plasma /LCD/LED /projectors for both Video and Content	Should have 2 or more HDMI / DVI (High Definition Multimedia Interface) output to connect 2 or more Nos. Full High Definition display devices such as plasma /LCD/LED /projectors for both Video and Content
34	518	Volume 2, Scope of Work, Functional Requirement, UC-VCST-1.233, Pg. No. 518	Should have minimum 3 x HDMI Video Inputs to connect 2 Nos. Full HD automatic voice tracking Cameras of 1080p30fps resolution	Should have minimum 3 x HDMI Video Inputs to connect 2 Nos. Full HD automatic voice tracking or Pre-set Cameras of 1080p30fps resolution
35	518	Volume 2, Scope of Work, Functional Requirement, UC-VCST-1.239, Pg. No. 518	Should support up to 4 OEM Microphone inputs from day one, with 3 microphones supplied day one. The microphone and microphone cables should be from same the OEM as that of the video endpoint. 1 x OEM cables of length 9mts and 2x OEM cables of 18mts should be supplied	Should support up to 4 Microphone inputs from day one, with 3 microphones supplied day one. 1 x Mic cables of length 9mts and 2x Mic cables of 18mts should be supplied
36	518	Volume 2, Scope of Work, Functional Requirement, UC-VCST-1.240, Pg. No. 518	The system should have 3 x HDMI digital audio inputs	The system should have 2 or more x HDMI digital audio inputs
37	519	Volume 2, Scope of Work, Functional Requirement, UC-VCST-1.250, Pg. No. 519	The system should have dual-camera approach for fast, direct switching which moves automatically moves on sensing voice, wherein, one camera quickly locates a close-up of the active speaker while the other gets ready to seek and display the next active speaker	The unit should be supplied with 2 x automatic voice tracking 1080p 60fps camera or with pre-set setting, 2 or more Microphones, automatic voice tracking or pre-set cameras and a touch panel or other smart devices controller
38	520	Volume 2, Scope of Work, Functional Requirement, UC- VC70D-1.268, Pg. No. 520	Should support 8 Microphone inputs from day one, with 8 microphones supplied day one. The microphone cables should be OEM make and minimum 5 Mtr and 15 mts respectively	Should support 8 Microphone inputs from day one, with 8 microphones supplied day one. Cable length to be considered is 5 Mtr and 15 mts respectively

39	522	Volume 2, Scope of Work, Functional Requirement, UC-VC70D-1.300, Pg. No. 522	The system should have dual-camera approach for fast, direct switching which moves automatically moves on sensing voice, wherein, one camera quickly locates a close-up of the active speaker while the other gets ready to seek and display the next active speaker	The unit should be supplied with 2 x automatic voice tracking 1080p 60fps camera or with pre-set setting, 2 or more Microphones, automatic voice tracking or pre-set cameras and a touch panel or other smart devices controller
40	528	Volume 2, Scope of Work, Technical Requirement, UC-UCM-1.37, Pg. No. 528	The architecture should support single Server Clustering or equivalent to provide scalability to offer support for 30,000 IP devices and also to provide redundancy. All the 30,000 users to be managed in a single database which is managed centrally, no multiple databases.	The architecture should support Server Clustering to provide scalability to offer support for 30,000 IP devices and also to provide redundancy. All the 30,000 users to be managed in a single database which is managed centrally, no multiple databases
41	538	Volume 2, Scope of Work, Functional Requirement, UC-UCM-1.240, Pg. No. 538	Spell Check must be available in chat	Spell Check must be available
42	538	Volume 2, Scope of Work, Functional Requirement, UC-UCM-1.241, Pg. No. 538	Print Chat: The user should have the ability to print a conversation from a chat window	Print Chat: The user should have the ability to print a conversation.
43	503	Volume 2, Scope of Work, Functional Requirement, UC-SP-1.41, Pg. No. 503	Persistent chat: Persistent chat rooms should be supported to share ideas and information in a chat room and should be active even after participants leave the room. When participants come back to the room, they can scroll back to read the messages that they missed. Persistent chat room should have the capability to be password protected	Persistent chat: Persistent chat rooms should be supported to share ideas and information in a chat room and should be active even after participants leave the room. When participants come back to the room, they can scroll back to read the messages that they missed.
44	76	Volume 2, Scope of Work, SA Distribution Device/Switch, Pg. No. 76	Should support at least 100K IPv4 and IPv6 routes with 10K Multicast Routes	Should support at least 100K IPv4 and IPv6 routes with Multicast Routes

45	74	Volume 2, 3.1.2, Scope of Work, Functional Requirements , Pg. No.74	The network must be able to grow and scale 100% with respect to control-plane and forwarding plane capabilities. The Core and distribution routers should be 100G ready.	The network must be able to grow and scale 100% with respect to control-plane and forwarding plane capabilities. The Core routers should be 100G ready.
46	169	Volume 2, Scope Of Work, Internet Router Specifications, E8.7 , Pg. No.169	Router should support min 8k Multicast routes	Router should support min 16k IPv4 and 16k IPv6 Multicast routes.
47	518	Volume 2, Scope of Work, Functional Requirements, UC-VCST-1.248, Pg. No. 518	Dual 10x optical zoom cameras with 1920x1080p 60 frames per second. Codec and cameras should be from same OEM	Dual 10x optical zoom cameras / 30ft room length with 1920x1080p 60 frames per second. Codec and cameras should be from same OEM
48	519	Volume 2, Scope of Work, Functional Requirements, UC-VCST-1.249, Pg. No. 519	Pan range: +/-100 degrees, Tilt range: +/-20 degrees	Pan range: +/-100 degrees , Tilt range: +/-20 degrees or 80 degrees field of view
49	522	Volume 2, Scope of Work, Functional Requirements, UC-VC70D-1.298, Pg. No. 522	Dual 10x optical zoom cameras with 1920x1080p 60 frames per second. Codec and cameras should be from same OEM	Dual 10x optical zoom cameras or 30ft room length with 1920x1080p 60 frames per second. Codec and cameras should be from same OEM
50	522	Volume 2, Scope of Work, Functional Requirements, UC-VC70D-1.299, Pg. No. 522	Pan range: +/-90 degrees, Tilt range: +/-10 degrees	Pan range: +/-100 degrees , Tilt range: +/-20 degrees or 80 deg field of view
51	94	Volume 1, APPENDIX 26: FINANCIAL PROPOSAL SUBMISSION FORM, Pg. No. 94	I/ We shall keep this offer valid for 120 (one hundred and Twenty) days from the BID Due Date specified in the RFP.	I/ We shall keep this offer valid for **180 (one hundred and Eighty)** days from the BID Due Date specified in the RFP.
52	21	Volume 1, 2.2.1. Pre-Qualification Criteria - Network , Pg. No.21	The Bidder (any member in case of consortium) shall have successfully implemented and commissioned at least three (3) networking projects with minimum	The Bidder (any member in case of consortium) shall have successfully implemented and commissioned at least three (3) networking projects with **minimum**

			linear distance of 20 Km. covering both Active and Passive components during last Seven (7) years.	**distance of 20 Km. or 5 Sq. Km** covering both Active and Passive components during last Seven (7) years.
53	24	Volume 1, 2.2.2. Technical Qualification cum Evaluation Criteria - Network , Pg. No.24	The Bidder (any member in case of consortium) shall have successfully commissioned at least two (2) projects related to implementation of Networking projects with minimum linear distance of 20 Km. covering both Active and Passive components during last Seven (7) years. Number of Projects: = 1 mark for each project maximum 5 projects.	The Bidder (any member in case of consortium) shall have successfully commissioned at least two (2) projects related to implementation of Networking projects with **minimum distance of 20 Km. or 5 Sq. Km** covering both Active and Passive components during last Seven (7) years. Number of Projects: = 1 mark for each project maximum 5 projects.