

**GOVERNMENT OF INDIA**  
**(Ministry of Home Affairs)**  
**DIRECTORATE GENERAL**  
**CENTRAL RESERVE POLICE FORCE**  
**EAST BLOCK-7, SEC-1, R.K. PURAM, NEW DELHI-110066**  
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No. B.V-7/2022-23-C (CVC)

Dated, the 2<sup>nd</sup> May'2022

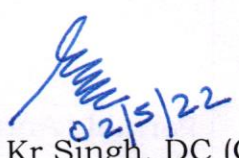
To

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|---|--|
| 1. DIG (Comn), ITBP<br>Block No. 2, CGO Complex<br>Lodhi Road, New Delhi-03 | 2. DIG (Comn), NSG<br>Meharam Nagar<br>Palam, New Delhi-37                       |
| 3. DIG (Comn), SSB<br>East Block-V, R.K Puram<br>New- Delhi-66              | 4. AIG (Comn), CISF<br>Block No. 13, CGO, Complex<br>Lodhi Road, New Delhi-03    |
| 5. DIG (Prov), BSF<br>Block No. 10, CGO Complex<br>Lodhi Road, New Delhi-03 | 6. Liaison Office, Assam Rifle<br>Room No-171, North Block, MHA<br>New Delhi -01 |

**Subject: Regarding approved QRs/TDs of "On-Premises SVC (Scalable Video Coding) based Video Conferencing Solution".**

Please find enclosed QRs/TDs of "On-Premises SVC (Scalable Video Coding) based Video Conferencing Solution" as Annexure-"A" duly approved by the competent authority is forwarded herewith for further necessary action.

Encl: (Approved QRs & TDs of "On-Premises SVC (Scalable Video Coding) based Video Conferencing Solution")

  
{Sunil Kr Singh, DC (Comn)}  
**For DIG (Equipment)**  
**Directorate General, CRPF**



## QRs /TDs for On-Premises SVC (Scalable Video Coding) Based Video Conferencing Solution

Video Conferencing Capabilities		Trial Directive
1	VC Solution should support up to 250 users participating in a single video conference using laptops, desktops, mobile devices.	Board will verify with OEM Technical Brochure and check the functionality in Console Software.
2	VC Solution should support minimum 15 live concurrent group conferences from day 1 where the total number of participants does not exceed 250.	Board will verify with OEM Technical Brochure or by Demo /POC of the product.
3	Solution must support minimum <b>36 speaker-cum-participant</b> videos simultaneously displayed on screen, i.e. in continuous presence (CP) mode, on every participant's screen in Multipoint Group Conference.	Board will verify with OEM Technical Brochure or by Demo /POC of the product.
4	Solution should allow <b>unlimited Virtual Rooms</b> creation for holding conferences	Board will verify with OEM Technical Brochure or by Demo /POC of the product.
5	<b>Live Streaming Integration:</b> Every Live Conference should be able to be streamed to viewers through integration with YouTube for unlimited stream viewers.	Board will verify with OEM Technical Brochure and by sending live stream to Youtube during Demo / POC
6	<b>Meetings with Guest Participants:</b> Logged in user shall be able to upto 200 participants who may join such a conference via a secure link through a Meeting ID without logging-in.	Board will verify with OEM Technical Brochure or by Demo /POC of the product
7	<b>Dynamic Optimization of VC Quality:</b> Video streams resolution, compression ratio and frame rate must be adjusted dynamically and independently for every participant.	Board will verify with OEM Technical Brochure and from admin Console of VC Software or by doing Demo / POC of the product
8	Proposed solution should be available on <b>On-Premises</b> and all the data should be locally available and under the control of the end customer using the solution and not the System Integrator/OEM.	Board will verify with OEM Technical Brochure.
9	Proposed solution should provide for <b>High Availability / Failover support</b> along with Auto Scaling feature to support for additional users.	Board will verify with OEM Technical Brochure and from admin Console of VC Software.
10	Proposed video web conferencing solution shall be integrable with the email system and to its other sub-components. End users shall be able to schedule meeting through any email client.	Board will verify with OEM Technical Brochure and from admin Console of VC Software and doing integration in Demo / POC

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<b>Video Conferencing Solution Endpoint: Client-Side Capabilities</b>		<b>Trial Directive</b>
1	<b>BYOD:</b> Solution to include client apps compatible with all major Operating Systems prevailing. Solution should have client applications for all platforms namely Windows, Mac OS X, iOS, Android.	Board will verify with OEM Technical Brochure and by installing clients on various platform in Demo / POC
2	If required, User can download the client from a server and login to the VC system. Client accounts should not be tied to specific devices, they should be login id-password based so that it can be used from any device.	Board will verify with OEM Technical Brochure and from admin Console of VC Software
3	Client should support Layout Switching from day 1 & should support Layout Control from within App.	Board will verify with OEM Technical Brochure and from admin Console of VC Software
4	Client app should have built-in echo cancellation, noise suppression features.	and verifying functionality in Demo / POC
5	There should be a facility to mute all Participants who has joined	
6	Solution should have Conference Scheduling facility with auto-dial facility to send call to all participants automatically.	
7	<b>Video Resolution</b> (minimum): Point-to-Point video calls: 2160p30, 1080p, 720p60, 720p30, 480p, 360p, 180p. For multipoint conferences: 1080p30, 720p30, 480p, 360p, 180p per stream.	

<b>Webinar Capability in VC Solution</b>		<b>Trial Directive</b>
1	<b>WebRTC Compatible:</b> It should support Https WebRTC connections in same conference as desktop & mobile apps.	Board will verify with OEM Technical Brochure and from admin Console of VC Software
2	<b>Browser based conference</b> should have an option for Guest to join in without pre-requisite of login id and password i.e just by using conference ID, guest should be able to join with audio and video.	and verifying functionality in Demo / POC
3	Conference link must work in Mobile Browser of Android devices and iOS devices from Day1.	
4	The Proposed solution should also support a Lecture Style meeting where participants camera and audio is not enabled. It should have a provision for enabling audio / video of participants selectively for them to ask questions	



<b>Recording Facility in VC Solution</b>		<b>Trial Directive</b>
1	Server-side Recording should be available with an option to switch on and off this functionality.	Board will verify with OEM Technical Brochure and from admin Console of VC Software and verifying functionality in Demo / POC
2	It should have client-side video conferencing recording with the ability to switch it on and off at admin level.	

<b>Video Conferencing Collaborative Tools</b>		<b>Trial Directive</b>
1	<b>Dual Video Support:</b> i.e. Person's Video along with Screen Shared must be supported simultaneously.	Board will verify with OEM Technical Brochure and from admin Console of VC Software and verifying functionality in Demo / POC
2	Personal and group instant messaging must be available. All the messages should be saved in internal database.	
3	All chats must be saved in a Database from Day 1	
4	Address book with user groups and participants list must be available.	
5	Solution should provide access to user's directory, search and calls history.	
6	Availability of PowerPoint Presentation, PDF, Desktop & Application Sharing	
7	Slide shows must be supported	
8	Screen and Application sharing must be supported including video audio playing during conference	
9	<b>Content Resolution:</b> Content sharing: identical to source up to 1080p or better. Slide shows up to 1280x1024 must be supported.	
10	The Proposed Solution should be seamless integrated with a Persistent Chat solution which should also allow for all the chat which is done in a meeting to be continued in a Chat Room without any action to be done by the user. All the participants in the meeting should be part of that chat room automatically.	
11	The proposed solution should support a unique meeting generator which cannot be repeated for security purposes	
12	The Proposed solution should support Single, Multiple, Group Chats all through multiple clients accessible from desktop, web and mobile.	







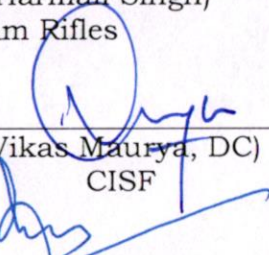
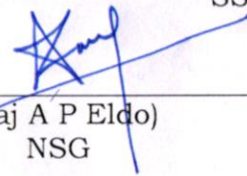

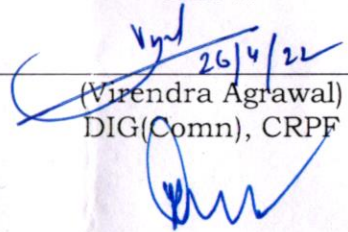
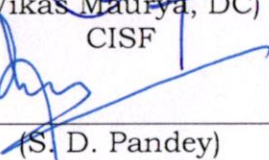
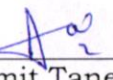
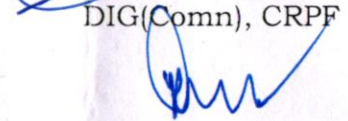
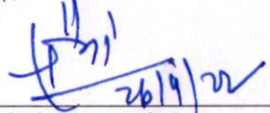
<b>Video Conferencing Management &amp; Control</b>		<b>Trial Directive</b>
1	VC Solution should be designed to be used in private networks (LAN/VPN) as well as over Internet if allowed by the Organization.	Board will verify with OEM Technical Brochure and from admin Console of VC Software and verifying functionality in Demo / POC
2	To ensure highest level of fidelity and security within private networks from day 1	Board will verify with OEM Technical Brochure and from admin Console of VC Software
3	Solution should be suitable for dedicated i.e. physical and virtualized infrastructures (vCPU) equally well in performance terms.	Board will verify with OEM Technical Brochure and from admin Console of VC Software and verifying functionality in Demo / POC
4	The Solution shall support unlimited deployment of Desktop clients / Mobile Clients.	Board will verify with OEM Technical Brochure and from admin Console of VC Software.
5	There should be no hardware lock on client apps.	
6	Admin Panel must be provided to manage tasks such as Server registration, start, stop and state monitoring.	
7	VC Server should be manageable remotely via web browser.	
8	For security of installation, access to admin console can be enabled only from select IPs or localhost.	
9	Moderators & Operator rights for user groups: Members of the group with operator rights automatically become moderators when entering any conference on the server. Several moderators can be assigned while creating a group conference in control panel.	
10	Server log viewing both simple and advanced/detailed logging should be featured.	
11	Registration of new users, activation and deactivation must be available.	
12	Group conferencing of different modes must be available to create permanent or semi-permanent Rooms.	
13	Protocol(s) Supported: WebRTC, SIP at the minimum.	
14	Encryption AES-128 or better, TLS. Via WebRTC: SRTP DTLS at the minimum.	
15	Server should support integration with LDAP/MS Active Directory	

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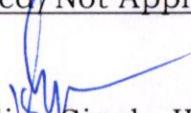


<b>eLearning (like Moodle) Integration Capability</b>		<b>Trial Directive</b>
1	The VC Solution must support hosting of Live Virtual Lectures in synchronisation with LMS.	Board will verify with OEM Technical Brochure and from admin Console of VC Software and verifying functionality in Demo / POC
2	For the purpose of integration with LMS, API support & detailed API documentation as well as easy integration with third-party websites should be available from Day 1.	

**General** - Functionality of any of the above features can be verified by the Client / B.O.O.

 _____ (Nb/Sub Harmail Singh) Assam Rifles	 _____ (Manpal Singh, AC) CRPF	 _____ (Daud Topno, AC(Comn)) SSB	 _____ (Er. Pankaj Kumar, DC(IT)) ITBP
 _____ (Vikas Maurya, DC) CISF	 _____ (Maj A P Eldo) NSG	 _____ (H S Srihari, DD) DCPW	 _____ (Virendra Agrawal) DIG(Comn), CRPF
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 _____ (Syed Mohd Hasnain) IG(Comn & IT), CRPF			

Approved/Not Approved

  
\_\_\_\_\_  
(Kuldip Singh, IPS)  
DG, CRPF