

**The Judiciary’s video conferencing facilities
for remote hearings for civil business**

Parties who wish to participate in remote hearings have to be equipped with the following items:

- (a) video conferencing (“VC”) unit;
- (b) laptop computer;
- (c) display unit;
- (d) camera;
- (e) speaker system; and
- (f) microphone.

(I) Options for VC unit

2. From 2 January 2021, the Judiciary will support an additional technical option called “browser-based option” for connecting to the court’s video-conferencing facilities (“VCF”). Compared with the earlier two technical options, this new option provides a more user-friendly and low-cost mode of connection.

3. Taking all the technical options together, court users may use any one of the following three alternatives in terms of VC units for connecting to the court’s VCF as from 2 January 2021:

- (a) hardware option;
- (b) software option; or
- (c) browser-based option.

(a) Hardware Option

4. For the hardware option, court users will continue to be connecting to the Judiciary’s VCF using some hardware VC units. Please refer to paragraph 8(a)(i) below for more information.

(b) Software Option

5. For the software option, court users will continue to be able to use normal desktop or laptop computer devices, with installation of appropriate software, to connect to the Judiciary’s VCF. Please refer to paragraph 8(a)(ii) below for more information.

(c) **Browser-based Option**

6. For the browser-based option, court users will be able to use common web browsers and normal desktop or laptop computer devices (but not mobile devices) to connect to the Judiciary’s VCF. Please refer to paragraph 8(a)(iii) below for more information.

7. With this VCF solution, participant(s) will be informed of a unique meeting login ID and passcode for identity authentication. Only those connection requests associated with valid meeting login IDs and passcode pairs will be accepted by the Judiciary for the conduct of VCF hearings.

(II) **Technical Requirements of Court Users**

8. Connection to the Judiciary’s VCF can be made by means of either the hardware, software or browser-based VC units. The technical requirements of these categories of VC units are as follows:

(a) **VC Unit**

(i) **Hardware VC Unit** (i.e. hardware option)

Protocol	ITU H.323, H.320 and SIP compliant
Connection	Internet; or Integrated Services Digital Network (“ISDN”)
Speed	Up to 6 Mbps for Internet connection; or Up to 512 kbps for ISDN connection
Video resolution	from 352x240 up to 1920x1080
Security	embedded encryption to support <ul style="list-style-type: none">➤ direct end-to-end encryption with the Judiciary’s VCF ^[1]➤ encryption strength of at least 128-bit AES➤ encryption protocol:<ul style="list-style-type: none">- H.235 for H.323 connections or- TLS/SRTP for SIP connections

(ii) Software VC Unit (i.e. software option)

Protocol	SIP compliant
Connection	Internet
Speed	at least 2 Mbps
Video resolution	from 352x240 up to 1920x1080
Security	embedded encryption to support <ul style="list-style-type: none"> ➤ direct end-to-end encryption with the Judiciary’s VCF ^[1] ➤ encryption strength of at least 128-bit AES ➤ encryption protocols of SSL/TLS

(iii) Browser-based VC Unit (i.e. browser-based option)

Desktop or laptop computer	<ul style="list-style-type: none"> ➤ CPU : <ul style="list-style-type: none"> - Intel Core i5 8th Generation or AMD Ryzen 5 Zen+ or equivalent - 1.6GHz or above; ➤ Memory : 8GB or above
Operating system	<ul style="list-style-type: none"> ➤ Microsoft Windows 10 ➤ MacOS version 10.15.6 or above
Browser software	<ul style="list-style-type: none"> ➤ Google Chrome version 84 or above ➤ Microsoft Edge (Chromium-based version) ➤ Safari version 11.1 or above
Connection	Internet (wired LAN connection to computer)
Speed	at least 10 Mbps (for hearings with 2 parties connected remotely)
Video resolution	HD720p or above
Security	end-to-end encryption is implemented and controlled at the video-conferencing server system of the Judiciary

^[1] end-to-end encryption is a mandatory requirement unless directed otherwise by the presiding Judges and Judicial Officers (“JJOs”)

9. Besides, functional requirements of the common items to be used in the conduct of remote hearings are as follows:

(b) **Laptop Computer**

As a secondary channel transmission, receipt and display of document view, to be set up side-by-side the camera view as an additional function of the hardware VC unit.

(c) **Display Unit**

Appropriately sized display unit supporting high definition screen display to facilitate the conduct of remote hearings.

(d) **Camera**

For capturing the participant's facial and other views to facilitate the conduct of remote hearings. The camera shall be compatible with the VC unit of the participant, both in terms of connectivity and video resolution, and supports at least panning and zoom views

(e) **Speaker System**

The speaker shall be connected to the VC unit of the participant for the participant to hear the voices of the other participants audibly to facilitate the conduct of remote hearings. The system shall be equipped with feedback control feature.

(f) **Microphone**

The microphone shall be connected to the VC unit of the participant for capturing his/her voice to facilitate the conduct of remote hearings.

(III) Technical Specifications of the Court's VCF

10. The technical specifications of the VCF of the Judiciary are given below for reference.

(a) Video Conferencing Server System

Protocol	ITU H.323, H.320, SIP and WebRTC compliant
Connection	Internet; or Integrated Services Digital Network ("ISDN")
Speed	Up to 1 Gbps for Internet connection; or Up to 512 kbps for ISDN connection
MCU compatibility	H.241 and H.231
Video resolution	from 352x240 up to 1920x1080
Security	embedded encryption ^[2]
Multi-site conference	up to nine (9) remote sites

(b) Camera, Speakers and Microphone

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^[2] VC connection may not be encrypted, depending on the compatibility with the remote VC unit(s)