

Paper Four

VIDEO CONFERENCING IN INDIAN COURTS:

A PATHWAY TO THE JUSTICE PLATFORM

April 2020

*Whitepaper Series
On Next Generation
Justice Platform*

DAKSH



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VIDEO CONFERENCING IN INDIAN COURTS: A PATHWAY TO THE JUSTICE PLATFORM

DAKSH

Whitepaper Series on
Next Generation Justice Platform

Executive Summary



Video conferencing in the judiciary has generated much discussion recently. Courts and tribunals in the country have used video conferencing facilities for some specific hearings in the past few years. In the wake of the COVID 19 pandemic and the countrywide lockdown, the Supreme Court highlighted the need to use video conferencing technology to conduct proceedings. Amidst the lockdown, an order was passed by the Supreme Court requiring courts in the country to transition to video conferencing technology so that the delivery of justice is not disrupted, and high courts were required to frame rules in this regard. These circumstances call for the need to examine video conferencing technology for the judiciary in greater detail to ensure that it is used optimally in the future, even after the pandemic. There are several questions that arise here: How can the use of video conferencing techniques be expanded in courts? What are the challenges that courts may face? What should be the guidelines regarding the use video conferencing? These are some of the crucial questions that this paper addresses.

1. Uses of Video Conferencing in Courts and Challenges

To understand the manner in which video conferencing techniques are used by courts, it is important to focus on events that shaped the use of technology in the judiciary in India. The paper delves into various landmark cases, amendments and practices that led to the use of video conferencing in

courts. Over the course of two decades, video conferencing has slowly found acceptance in the Indian judiciary and is today used in both civil and criminal cases at various levels of the judiciary. In the past few years, the government and the Supreme Court's e-committee have taken measures to provide video conferencing facilities in courts across the country.

However, in addition to these measures, there is also a need to improve the related processes like e-filing, evidence management, case and document management, and listing practices which are all critical processes, interlinked and essential for the success of a virtual court. While highlighting the importance of video conferencing, the paper further proposes different mechanisms to decide how video conferencing can be expanded in courts which include:

- a.** Nature of the case: Certain types of cases based on their sensitive nature and simplicity can be adjudicated by way of video conferencing.
- b.** Specific stages/circumstances: Cases that have an outstation witness/expert witness can have testimonies conducted through video conferencing.
- c.** Application based: In some instances, the parties should have the ability to use video conferencing by making an application to the concerned judge.
- d.** Urgent cases in an emergency: During emergencies video conferencing should be the norm and physical appearance should be an exception. High courts should lay out detailed plans to tackle emergency situations and define 'urgent' matters in this context.

While proposing these measures, the paper also acknowledges that in the Indian context, factors like the current state of technology, infrastructure and digital illiteracy need to be taken into account.

2. Architectural Set Up for Video Conferencing and Due Process Concerns

The paper examines various architectural requirements to make virtual courts a reality in India. These include various features that focus on how to list cases for online hearings, how to verify the identity of parties, how hearings can be conducted, how documents can be shared, and how judges can pass orders. It also provides a gradation of the features from an implementation perspective. While doing so, various due process concerns must not be swept under the carpet. The paper examines safeguards that need to be kept in mind while adopting these features. Some of these safeguards include - the use of video conferencing for testimonies of vulnerable witnesses, e.g. by the use of anonymous testimony or a screen, curtain, or two-way mirror to shield the witness while giving testimony; complying with Guidelines for Indian Government Websites (GIGW) so that people with disabilities can use it effectively; ensuring that during video conferencing the defendant is represented by a lawyer, etc. Further, the concerns of transparency must be balanced with those of privacy of citizens.

...there is also a need to improve the related processes like e-filing, evidence management, case and document management, and listing practices which are all critical processes, interlinked and essential for the success of a virtual court.

3. International Overview, Technology and Implementation Strategy

The paper also contains a comparison of video conferencing practices in the United States (US), Canada, Australia and the United Kingdom. The usage and in certain scenarios, the public access to the hearings are centred around judicial discretion in these jurisdictions. Countries such as the US have taken measures to protect privacy of participants. Different countries use various private platforms such as Zoom, Skype, Webex etc. To ensure the best security standards, the paper focusses on detailed system requirements in terms of hardware, software, formats of the files in terms of archival and storage, compression techniques, content delivery network and finally video analytics, all combining together as a virtual court ecosystem. The ecosystem should combine a multitude of essential collaboration tools in a single interconnected platform, and the paper provides details on these aspects.

Lastly, the paper provides an implementation framework for the successful adoption of video conferencing. Carrying out an evaluation study of current usage is critical before committing additional resources. Conducting pilot studies is one of the effective methods by which video conferencing can be employed in courts in the long run. Importantly, the paper also provides a framework for the rules to be drafted by high courts.

Carrying out an evaluation study of current usage is critical before committing additional resources. Conducting pilot studies is one of the effective methods by which video conferencing can be employed in courts in the long run.

Introduction

With a countrywide lockdown and the enforcement of social distancing, courts across India are using video conferencing to carry on some of their work. This is driven by a need to ensure that citizens continue to have access to justice and to avoid a justice gridlock. This pandemic has highlighted gaps in the capacity and readiness of courts to move online in situations such as these. It has also provided an opportunity for the judiciary to accelerate the process of digitisation and create a framework for working online, as far as possible.

Enabling video and audio technologies in judicial proceedings, when implemented with other measures like e-filing and better cause-list management, can fundamentally alter how citizens can access justice through the judiciary. While written submissions cannot be done away with completely in judicial proceedings, video technology can be an excellent complement to it. It could help humanise the proceedings by enabling recording and storing of depositions by parties and witnesses, and arguments by lawyers. These could be invaluable when cases are appealed.

Enabling participation through video could help give access to many who are located far away from courts and are more comfortable transacting in Indian languages. The availability of transcription technology has further opened up the possibility of these technologies at scale.

Video conferencing can be used in three aspects of the justice system: legal aid, alternate dispute resolution mechanisms, and dispute resolution. Video and audio technologies can play a huge part in educating citizens about their rights, informing them of the dispute resolution options, and giving them legal assistance, where they are eligible. Distance and cost act as significant barriers in accessing legal assistance and prevent many from taking their disputes to a logical conclusion. Imagine the situation of migrant workers not familiar with the local language and who want to pursue a dispute against their employer.



Given these possibilities of improving access to justice, the video conferencing system to be used needs to be designed keeping the end-users in mind and built with appropriate checks and balances for the safety of citizens and the security of their data. The technology and architecture of the video conferencing platform should take into account vulnerabilities of witnesses and due process concerns. There is much that can be learnt from other jurisdictions who have been using this technology actively over the years. The key as always lies in effective implementation and institutional mechanisms in place to achieve these outcomes.

This paper provides an overview of the existing implementation of video conferencing and attempts to create a framework for the implementation of virtual courts in the future. The first section of this paper describes the current status of video conferencing in various courts and tribunals across India. The second section gives an overview of other digital processes that should accompany video conferencing to make it effective. The third section describes the circumstances required to make video conferencing effective. The fourth section explains what the architecture of a virtual court should look like. The fifth section points out the due process concerns to be kept in mind while implementing virtual courts. The sixth section highlights the issues of transparency and privacy in the implementation and rollout of virtual courts. The seventh section describes the standards for the technology (software and hardware) required for implementation of virtual courts. The eighth section provides an overview of international experiences with virtual courts. The ninth section gives an overview of the implementation of virtual courts, given the Indian context. The tenth section describes the way forward for virtual courts in India. The eleventh section describes a framework for the rules which should be enacted for the implementation of virtual courts.



1

Current Status

1.1 CITIZEN ORIENTED PROCESS

Various judgments of the Supreme Court and high courts along with certain procedural amendments have paved way for video conferencing in trials. Introducing a video conferencing mechanism for various circumstances in a case has helped in reducing the time it takes for witnesses to travel, or for undertrial prisoners to be taken to court. To save time and cost in litigation, video conferencing today is used in various levels of the judiciary. The different initiatives launched by the government and the Supreme Court's e-committee over the decade have expanded the use of video conferencing in jails and courts across the country.

The beginning of the millennium proved to be a turning point for introducing video conferencing in Indian courts. The *Salem Advocate Bar Association, Tamil Nadu v. Union of India*¹ was one of the first cases that broadly interpreted the provisions of the Civil Procedure Code, 1908 (C.P.C) and allowed for the use of electronic media during the evidence stage. Order 18 of

the C.P.C which deals with the examination of witnesses, states that the court or the Commissioner, 'shall record evidence either in writing or mechanically...'² The Supreme Court while interpreting this provision held that the word mechanically indicates that evidence can be recorded with the help of electronic media including audio or audio-visual apparatus.³ A year later in another judgment of the Karnataka High Court wherein a petition was filed to cross-examine a witness located in the United States through video conferencing in a civil suit, the High Court relied upon the *Salem Advocate* case to allow remote cross-examination.⁴ In doing so, the High Court laid down several safeguards while carrying out such audio-visual examination of witnesses, which included, inter alia, filing of an affidavit/undertaking, administration of oath, etc.⁵ These judgments have carved the way for the use of video conferencing in civil suits in India and today, several courts in different parts of the country use this technology to examine witnesses and parties located in a different location.

¹ (2003) 1 SCC 49.

² Order 18 Rule 4(2), Civil Procedure Code, 1908.

³ *State of Maharashtra v. Dr. Praful B. Desai* (2003) 1 SCC 49, para 19.

⁴ *Twentieth Century Fox Film Corporation v. NRI Film Production Associates (P) Ltd.* AIR 2003 Kant 148.

⁵ *Twentieth Century Fox Film Corporation*, Kant 148, para 10.

Judges often use video conferencing for hearing bail applications, remand cases, and the examination of an accused person, especially when it is too dangerous or burdensome to take the accused from the jail to the court. However, this was not always the case.

Apart from civil suits, video conferencing is also being used extensively in criminal trials. Judges often use video conferencing for hearing bail applications, remand cases, and the examination of an accused person, especially when it is too dangerous or burdensome to take the accused from the jail to the court. However, this was not always the case. There was ambiguity about the use of audio-visual equipment during a criminal trial which was settled by the apex court in the case of *State of Maharashtra v. Dr. Praful B. Desai*.⁶ The court while delving into the issue of 'presence of accused' in the court as mandated under Section 273 of the Criminal Procedure Code, 1973, (Cr.P.C.) held that the term 'presence' does not mean only actual physical presence.⁷ The court thereby allowed the use of video conferencing for recording evidence in a criminal trial when the accused or the witness cannot conveniently be examined in court. In 2008, certain sections of the Cr.P.C. were amended to include the use of audio-video electronic means. Courts have also allowed video conferencing for a substantial part of the trial in sensitive matters in the interest of timeliness and justice. For instance, in one high-profile counterfeit case, the Madras High Court allowed the use of video conference for a substantial part of the case to reduce the monetary burden to the government, manpower, energy and for the safety of the prisoners.⁸

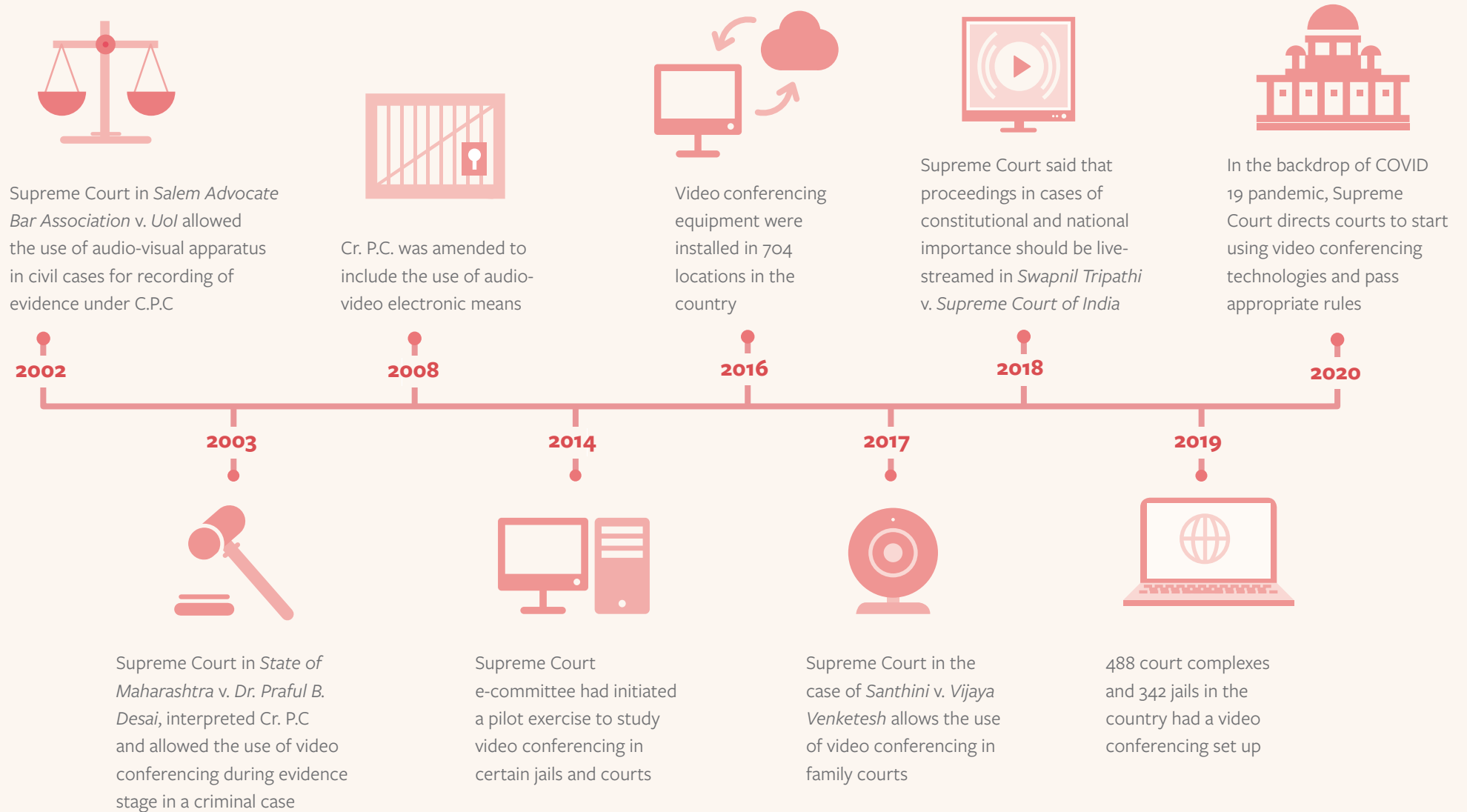


⁶ (2003) 4 SCC 601.

⁷ *Dr. Praful B. Desai*, para 12.

⁸ *Abdul Karim Telgi and Ors. v. State*, 2008 Cri.L.J. 532 (Madras High Court).

A Brief History of Video Conferencing in the Indian Judicial System



1.2 VIDEO CONFERENCING IN OTHER COURTS AND TRIBUNALS

Apart from regular civil and criminal courts, there are other courts and tribunals that have been using video conferencing. For instance, the National Company Law Tribunals Rules passed in 2016 allow for video conferencing for cross-examination on an application made by the parties.⁹ Even the Income Tax Appellate Tribunal has passed detailed guidelines for the use of video conferences and the manner in which such proceedings will be conducted.¹⁰ As per news reports, even the National Green Tribunal has started using video conferencing for benches located in different states.¹¹ Due to the high number of vacancies in different benches, the central bench is handling the cases being filed in different zonal benches.¹²

Further, the family courts also have been using video conferencing in different parts of the country. The Supreme Court in 2016, dealt with the use of video conferencing in disputes before the family court. The Supreme Court stated that in a scenario where the settlement has failed and both the parties consent, courts can allow the use of video conferencing.¹³ However, the Supreme Court barred the use of video conferencing in transfer petitions.¹⁴ As per news reports certain cities such as Hyderabad¹⁵ have carried out certain proceedings through video conferencing in family courts.

⁹ Rule 39, National Company Law Tribunal Rules, 2016, available online at https://nclt.gov.in/sites/default/files/All-PDF/Rules_NCLT_latest.pdf (accessed on 11 April 2020).

¹⁰ Income Tax Appellate Tribunal, Practice Note, 9 November 2012.

¹¹ Maitri Porecha. 2019. 'National Green Tribunal reeling under vacancies', *The Hindu Business Line*, 29 October, available online at <https://www.thehindubusinessline.com/news/national-green-tribunal-reeling-under-vacancies/article29821953.ece> (accessed on 11 April 2020).

¹² Porecha, 'National Green Tribunal reeling under vacancies.'

¹³ *Swapnil Tripathi v Supreme Court of India* (2018) 1 SCC 1.

¹⁴ *Santhini v. Vijaya Venketesh*, (2018) 1 SCC 1.

¹⁵ Vujjini Vamshidhara. 2019. 'Hyderabad: Video evidence valid in matrimonial row', *Deccan Chronicle*, 4 August, available online at <https://www.deccanchronicle.com/nation/current-affairs/040819/hyderabad-video-evidence-valid-in-matrimonial-row.html>

As per the recent data released by the government, there are 488 court complexes and 342 jails in the country where video conferencing is available.

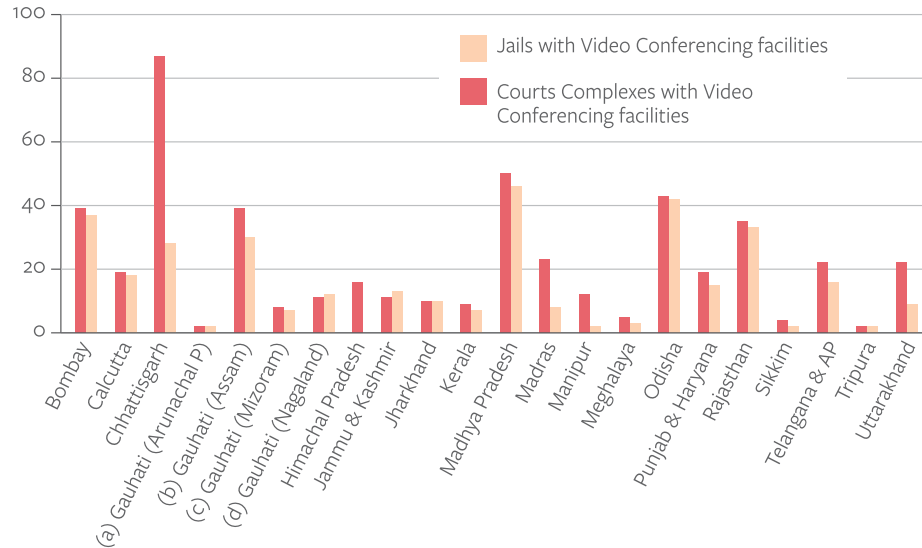
There are various courts, tribunals, and jails in the country that are slowly transitioning towards the use of video conferencing. The e-committee of the Supreme Court in 2014 had initiated a pilot exercise to test software for video conferences and accordingly expand the video conferencing solution to 500 courts and jails in the country in the first phase.¹⁶ In 2016, there were 704 locations in the country where the installation of video conferencing equipment was completed.¹⁷ As per the recent data released by the government, there are 488 court complexes and 342 jails in the country where video conferencing is available.¹⁸ The chart below provides the break-up.

¹⁶ eCommittee, Supreme Court of India. 2014. *Policy and Action Plan Document Phase II of The eCourts Project*, Annexure 2-1, available online at https://ecourts.gov.in/ecourts_home/static/manuals/PolicyActionPlanDocument-PhaseII-approved-08012014-indexed_Sign.pdf (accessed on 11 April 2020).

¹⁷ eCommittee Supreme Court of India. 2016. *eCommittee Newsletter*. p. 16, available online at <https://doj.gov.in/sites/default/files/eCommittee%20Newsletter%20-%20April%202016.pdf> (accessed on 12 April 2020).

¹⁸ *State/High Court-wise Court Complexes and Corresponding Jails where Video Conferencing facility is operational* (in reply to Unstarred Question on 11 July, 2019), from Ministry of Law and Justice, available online at <https://data.gov.in/resources/statehigh-court-wise-court-complexes-and-corresponding-jails-where-video-conferencing> (accessed on 9 April 2020).

Figure 1: High Court-wise court complexes and corresponding jails with video conferencing facilities



* Data has been taken from data.gov.in as an Unstarred Question in Rajya Sabha on 11 July 2019. No data was available for certain states and areas.

Amongst the various high court jurisdictions shown in the graph, Chhattisgarh has the highest number of court complexes with video conferencing facilities while Madhya Pradesh has the highest number of jails with a functioning video conferencing apparatus.

There are certainly more states, districts, and areas where video conferencing needs to reach. With changing times and advancements in technology come the need to set up better audio-visual facilities in jails, courts, forensic science laboratories, etc. to ensure that justice is dispensed in a timely and faster manner.

1.3 EXPANDING THE USE OF VIDEO CONFERENCING IN COURTS

In the wake of the unprecedented coronavirus pandemic, the Supreme Court issued a series of directives to cope with the situation. Given the need to maintain social distancing and avoid mass gatherings and the current lockdown across the country, the Supreme Court has expanded the use of video conferencing to hearing of arguments at the trial stage and appellate stage, in addition to the recording of evidence, until appropriate rules are framed by the High Court.¹⁹ As per these guidelines, courts are required to transition to the video conferencing technology based on the modalities determined by the respective high courts.²⁰ Courts are also required to maintain a helpline for addressing complaints regarding the quality of audibility of the feed.²¹

“With changing times and advancements in technology come the need to set up better audio-visual facilities in jails, courts, forensic science laboratories, etc. to ensure that justice is dispensed in a timely and faster manner.”

¹⁹ In Re: Guidelines for Court Functioning Through Video Conferencing During Covid-19 Pandemic, Suo Motu Writ (Civil) No.5/2020 in the Supreme Court of India.

²⁰ In Re: Guidelines for Court Functioning Through Video Conferencing During Covid-19 Pandemic.

²¹ In Re: Guidelines for Court Functioning Through Video Conferencing During Covid-19 Pandemic.



1.4 MODE OF VIDEO CONFERENCING USED BY COURTS

Some high courts have in the recent past issued rules and guidelines for the use of video conferencing. The High Courts of Tamil Nadu and Tripura issued rules for video conferencing prior to the lockdown.²² Several other states have issued guidelines and procedures that would regulate video conferencing in response to the lockdown (For more details on the content of these rules and guidelines please refer to Annexure 1). Broadly, these guidelines provide the scope for using video conferencing in courts for the examination of witnesses, remands and bail applications, hearing of arguments, etc. Overall, the guidelines lay down the preparatory arrangements required for the video conference, requisite technical support required to conduct proceedings during the video conference, etc. However, it needs to be seen whether courts that have passed guidelines for the use of video conferencing in the past, will issue any fresh regulations post the Supreme Court's direction. Since there is a lockdown throughout the country, it would be important that video conferencing facilities be extended to other stages with detailed guidelines as provided by the Supreme Court.

²² Video Conferencing Rule issued by the High Court of Judicature at Madras for the State of Tamil Nadu and Union Territory of Puducherry Available online at http://www.hcmadras.tn.nic.in/VC_rules_2018.pdf (accessed on 10 April 2020), Tripura Video Conferencing (Conduct of Proceedings including Recording of Evidence and Remand of Accused in the Trial/Remand Courts) Rules, 2018 Available online at <http://thc.nic.in/pdfs/video%20conferencing%20rules.pdf> (accessed on 10 April 2020)

Although various states are transitioning to the use of video conferencing techniques, it is important to examine the platforms that are being used for these purposes. For instance, Skype had been one of the options through which video conferencing was being carried out. Certain high courts have allowed parties to use Skype for video conferencing.²³ Help from external experts has also been taken in the past to establish special e-court rooms with video conferencing set-up. For instance, the Centre for Development of Advanced Computing has developed technology for special e-court rooms in the Karkardooma district in Delhi which have video conferencing and various other technical equipment.²⁴ Delhi High Court has been using the CISCO WEBEX platform for video conferencing.²⁵ In the recent past, the Supreme Court e-committee has been using the VIDYO platform for carrying out various video conferencing sessions. Currently, all the proceedings that are being conducted by the Supreme Court are being done on the VIDYO platform. As per the recent circular of the Delhi High Court, the VIDYO platform is being extended to various district officers in trial courts in Delhi, who would be given a separate login ID. The measures required to be taken from a data privacy and security perspective while using third-party video conferencing platforms require further deliberation.²⁶

²³ See *Smt. C. Surekha Naga Durga v. State of Andhra Pradesh and Ors.*, Criminal Revision Case No. 923 of 2017; *Boppana Surendra v. The State of Andhra Pradesh*, Criminal Petition No. 11823 of 2018; *V. Rama Naidu And Another v. Smt. V. Ramadevi*, Civil Revision Petition No. 6089 of 2016.

²⁴ Rishi Prakash, T. Mohanty, Ramji Gupta & Vinay Jain. 2011. 'ICT in Indian Court, Challenges & Solution', *International Journal of Internet Computing (IJIC)*, 1(2): p. 24, available online at <http://www.nja.nic.in/session%202.pdf> (accessed on 11 April 2020).

²⁵ Circular for Creation of Login ID-VIDYO Application for Video Conferencing, District and Sessions Judge, Tis Hazari Court, Delhi, available online at <https://delhidistrictcourts.nic.in/Circulars/March20/8aapril.pdf> (accessed on 10 April 2020).

²⁶ Lalltaksh Joshi. 2020. 'Courts Adopting Video Conferencing: A Welcome Change', *Live Law*, 29 March, available online at <https://www.livelaw.in/columns/courts-adopting-video-conferencing-a-welcome-change-154488> (accessed on 9 April 2020).

1.5 GUIDELINES AND RULES REGARDING VIDEO CONFERENCING IN OTHER SECTORS

While the Supreme Court and various high courts in the country have issued guidelines for the use of video conferencing, it is important to examine the guidelines issued by other government agencies concerning video conferencing. Courts can adopt some of these measures wherever necessary and incorporate them in their detailed rules. Further, as provided below, different authorities have passed rules and regulations regarding the use of video conferencing under their respective legislations. At present, while some high courts have passed guidelines regarding video conferencing, it is important that definite rules under the necessary statute be passed to give a complete legal effect to the procedure.

a. Ministry of Corporate Affairs Regulations regarding extraordinary general meeting (EGM), 2020

In the wake of the COVID-19 pandemic, the Ministry of Corporate Affairs (MCA) has allowed companies to conduct EGMs through video conferencing and other audio-visual means (OAVM).²⁷ In furtherance of the requirement, the MCA laid down certain guidelines about the conduct of video conferencing and OAVM. As per these guidelines, companies are expected to maintain a recorded transcript of the EGM conducted via video conferencing or OAVM. The facility to join the meeting has to be kept open for 15 minutes before the start of the meeting and 15 mins after the completion of the meeting.²⁸ Proper arrangements have to be made to facilitate a smooth e-voting process.²⁹ Overall, care has to be taken to ensure that meetings through video conferencing or OAVM take place without any problems.

²⁷ Ministry of Corporate Affairs, General Circular No. 14/2020, 8 April 2020, available online at http://www.mca.gov.in/Ministry/pdf/Circular14_08042020.pdf (accessed on 10 April 2020).

²⁸ Ministry of Corporate Affairs, General Circular No. 14/2020.

²⁹ Ministry of Corporate Affairs, General Circular No. 14/2020.

b. Office of the Controller General of Patents, Design and Trade Marks guide to video conferencing

This set-up guide provides systemic requirements for carrying out video conferencing.³⁰ The guide provides minimum requirements such as the need for a Windows operating system, web camera, microphone, speakers, internet speed of 256 kbps, etc. during the video conference.³¹ The guide suggests the use of InstaVC Desktop Sharing Extension for conducting video conferencing.³² Further, the guide provides screen-by-screen details of how the platform can be used by the user.³³

c. Income Tax Appellate Tribunals (ITAT) Regulations regarding video conferencing, 2012

The ITAT has passed detailed regulations prescribing the manner in which video conferencing should be conducted. As per the Regulations, the hearing of appeals has to be notified by the President of the tribunal from time to time. These regulations state that the hearing would proceed in the same manner as in a regular tribunal. Bench clerks have to be present throughout the hearing and make entries in the order sheets. Apart from hearing of appeals, video conferencing can also be utilised for recording of evidence. Pronouncement of orders can be done via video conferencing and once the order is signed, it has to be uploaded on the website as is usually done in a regular hearing.³⁴

³⁰ Office of Controller General of Patents, Designs & Trade Marks, Video Conferencing System, available online at <http://www.ipindia.nic.in/IPO-Video-Conferencing-System.htm> (accessed on 10 April 2020).

³¹ Office of Controller General of Patents, Designs & Trade Marks, Video Conferencing System.

³² Office of Controller General of Patents, Designs & Trade Marks, Video Conferencing System.

³³ Office of Controller General of Patents, Designs & Trade Marks, Video Conferencing System.

³⁴ Income Tax Appellate Tribunal, Practice Note, 9 November 2012.

2

Related Processes

Video conferencing alone will not make courts virtual. Other related processes of digitisation and automation need to be implemented alongside. A virtual court is only a part of the process of the larger digitisation of the justice system. A citizen-centric justice platform that enables all stakeholders to seamless interact digitally needs to be built. Processes like e-filing, e-service of pleadings and documents and e-listing will increase transparency and accountability. These advantages can be formalized into the procedural rules of the courts with e-filing receipts, or the time stamp for service being considered sufficient proof at case management hearings. The transparency and accountability that will be introduced by digitizing the entire process of filing, service, listing, and even hearings would contribute to curbing corruption at the registry and clerical levels.

DAKSH White Papers on Next Generation Justice Platform provide a framework for such a platform.³⁵ The following processes are key for the success of video conferencing:

2.1 E-FILING

E-filing is the ability to submit pleadings and other documents required in a case online. These documents can be accessed by the registry or the concerned judge. According to the e-filing manual of the Supreme Court e-committee³⁶, procedures like the payment of court fees online and e-signatures can be done through the use of Aadhar card or a digital token. The registered user can view his profile with the options of seeing all the submitted documents and track whether the documents have been reviewed, accepted or denied.

³⁵ DAKSH. 2019. Whitepaper series on Next Generation Justice Platform, available online at <https://dakshindia.org/next-generation-justice-platform/> (accessed on 11 April 2020).

³⁶ E-Committee, Supreme Court of India. 2018. 'User manual, E-filing procedure for high courts and district courts in India'. *E-Courts*. available online at https://ecourts.gov.in/ecourts_home/static/manuals/efiling-User-manual.pdf (accessed on 12 April 2020).

Electronic evidence management is the digital storage of evidence related to a case in one place, which can be accessed by the parties and judges as per the rules of evidence...For a virtual court to reach its full potential it is important to have an electronic evidence management feature.

E-filing is essential for video conferencing of cases to take place in a virtual courtroom. In the current form, e-filing is available only in four high courts – Delhi, Bombay, Punjab and Haryana, and Madhya Pradesh³⁷, and is also used in National Green Tribunal,³⁸ National Company Law Tribunal³⁹ and Income Tax Appellate Tribunal.⁴⁰ Documents filed through e-filing are easier to store and retrieve than physical documents, apart from the saving of paper and the effort of physical filing. These documents are then accessible 24*7 to judges, court staff and concerned parties.⁴¹ There is tremendous scope for improving the current facility of e-filing by extending it to more courts and by having a more intuitive platform that enables other parties to view and share documents and automating the process of manual checks of the documents submitted etc.

³⁷ Times of India.2018. 'E-filing service only at four high courts in India', *Times of India*, 10 April. available online at <https://timesofindia.indiatimes.com/india/e-filing-service-only-at-four-high-courts-in-india/articleshow/58100660.cms> (accessed on 12 April 2020).

³⁸ National Company Law Tribunal. 'E-filing'. available online at <https://efiling.nclt.gov.in/mainPage.drt> (accessed on 12 April 2020).

³⁹ National Green Tribunal. 'E-Filing'. available online at <https://ngtonline.nic.in/efiling/mainPage.drt> (accessed on 12 April 2020).

⁴⁰ Appellate Tax Tribunal 'E-filing'. available online at <https://www.itat.gov.in/page/content/appeal-efiling> (accessed on 12 April 2020).

⁴¹ James E. McMillan, 2010. 'Electronic Documents: Benefits and Potential Pitfalls' *Future Trends in State Courts*.

2.2 ELECTRONIC EVIDENCE MANAGEMENT

Section 3 of the Indian Evidence Act, 1872 has been amended to allow the submission of electronic evidence in courts. Electronic evidence means the recording of evidence in an electronic form on hard disks, digital photographs, audio, and video recordings, etc.⁴²

Electronic evidence management is the digital storage of evidence related to a case in one place, which can be accessed by the parties and judges as per the rules of evidence.⁴³ This means that every item of evidence in a case is digitally stored on a platform for easy accessibility. Such a management tool eliminates the use of different devices like CDs, pen-drives, etc.⁴⁴ Oral evidence and statements would be transcribed and e-documents, submission of audio-video recordings, and digital photographs will all be available in a single digital folder. The eCourts Mission Mode Project Phase II envisages video conferencing facilities for all district courts and prisons but does not deal with the management of electronic evidence. For a virtual court to reach its full potential it is important to have an electronic evidence management feature.

⁴² Section 67A, Evidence Act, 1872.

⁴³ Sean E. Goodison, Robert C. Davis, and Brian A. Jackson.2015 'Digital Evidence and the U.S. Criminal Justice System' Priority Criminal Justice Needs Initiative. available online at <https://www.ncjrs.gov/pdffiles1/nij/grants/248770.pdf> (accessed on 12 April 2020).

⁴⁴ Joint Technology Committee. 2016. 'Managing Digital Evidence in Courts' National Center for State Courts. United States. available online at <https://www.ncsc.org/-/media/Files/PDF/About%20Us/Committees/JTC/JTC%20Resource%20Bulletins/Digital%20Evidence%203-14-2016%20FINAL.ashx> (accessed on 13 April 2020).

A system for convenient storage, retrieval, and documentation is essential to enable a virtual court to function effectively.

2.3 DOCUMENT AND CASE MANAGEMENT

A system for convenient storage, retrieval, and documentation is essential to enable a virtual court to function effectively. This would be especially convenient in the appellate process. Today, when an appeal is filed the entire set of papers of court/tribunal below have to be attached to the appeal. If all the pleadings and documents filed in the court/tribunal below are available on an online platform, which the appellate court could access through appropriate unique docket numbers, it would save a lot of time and resources.

The eCourts Mission Mode Project Phase II⁴⁵ stresses the need for digitising records and the ability to retrieve relevant documents without any hassle, but this has not yet been implemented.

Case management is crucial to understand the flow of cases and to have provisions for relevant case information and necessary documents for every process in the case to be available in a digital format. Under the current system, case management exists only in the form of providing basic case and hearing information. Case management hearings for setting the schedule for the management of the case through its stages up to the time of delivery of judgement can also be digitised to discourage the prolongation of such hearings.

⁴⁵ E-Committee, Supreme Court of India. 2014. 'Policy and Action Plan Document Phase II of the E-Courts Project'. E-Courts. available online at https://ecourts.gov.in/ecourts_home/static/manuals/PolicyActionPlanDocument-PhaseII-approved-o8012014-indexed_Sign.pdf (accessed on 12 April 2020).

2.4 LISTING PRACTICES

Improving listing practices can go a long way in helping judges manage their caseload and bring more certainty for lawyers and litigants. Cases should be listed based on the workload of the judge, case type, and the subject matter of the case. For the efficient functioning of a virtual court, it is important to have two causerlists for a court: one that lists the general hearing of cases in a physical courtroom, and the second for hearings that will take place in a virtual court where each party should be allotted a time slot. The courts should then conduct the hearings in the allocated time in the virtual court to prevent the disruption of the physical hearings or prioritisation of one over the other. Listing practices can be optimised with the use of algorithms that can assess the needs of the court and its workload to make the best use of court resources.⁴⁶ Effective scheduling of cases is an indispensable part of the success of a virtual court.

Judges should be particular about not giving pass-overs and adjournments in virtual hearings. The practice of circulating mutually agreed adjournment requests at least three days before the hearing, akin to the practice already adopted by the Supreme Court can be encouraged to save the court's time.

⁴⁶ DAKSH. 2019. *Whitepaper Series on Next Generation Justice Platform, Paper 2: Transition and Implementation*. Bengaluru: DAKSH.

3

Factors and Circumstances to be Considered for a Virtual Court

The use of video conferencing in courts can save time and effort for litigants and witnesses who are outstation and can enable courts to function in situations when physical presence is made difficult due to situations such as pandemics, civil unrest, etc.⁴⁷ A more widespread use of video conferencing across all courts and stages of a case is probably still some time away in the Indian context.

3.1 FACTORS TO BE CONSIDERED BEFORE IMPLEMENTING VIDEO CONFERENCING

The broad factors that need to be kept in mind before implementing video conferencing are as listed below:

⁴⁷ Daniel Devoe and Sarita Frattarol, 'Videoconferencing in the Courtroom: Benefits, Concerns, and How to Move Forward' Social law, Boston. available online at <http://socialaw.com/docs/default-source/judge-william-g-young/judging-in-the-american-legal-system/04devoe-sarita-paper.pdf> (accessed on 12 April 2020).

a. Scarce resources

At the current stage of technology, there isn't enough bandwidth or infrastructure to enable all courts to conduct hearings through a virtual court. The quality of video conferencing depends on the availability of high-speed internet and high-quality hardware and software. eCourts Mission Mode Project Phase II has prescribed video conferencing facilities in one courtroom in every district court complex.⁴⁸ Hence, it is important to start using video conferencing for selected case types or certain stages. The advantage of this approach is that it requires fewer resources and gives an opportunity to evaluate the initial rollout to make improvements when the implementation is more widespread.

The effective functioning of virtual courts requires stable and robust internet infrastructure suitable to handle high volumes of data and uninterrupted power supply. The reliability of the infrastructure is essential to create trust in the system. All lawyers may not have computers or smartphones. To facilitate digital access, it is necessary to set up of work areas in court premises (bar rooms and libraries for instance) with computers and internet access or set up designated hearing rooms. There should also be a facility for help-desks or helplines that lawyers and litigants can call for assistance.

⁴⁸ E-Committee, Supreme Court of India. 2019. eCourts Project Phase II Objectives Accomplishment Report. As per Policy Action Plan Document, Delhi: Supreme Court of India. available online at https://ecourts.gov.in/ecourts_home/static/manuals/Objectives%20Accomplishment%20Report-eCourts-final_copy.pdf (accessed on 12 April 2020).

Principles of due process and the right to access justice should not be violated to enable a virtual courtroom.

b. Digital illiteracy

In India, at least 30 per cent of the population lacks basic literacy, and when it comes to digital illiteracy, the rate is about three times the illiteracy rate.⁴⁹ Though the National Digital Literacy Mission⁵⁰ has the objective of providing digital literacy skills across rural areas, this objective is far from being realised. In the conversation on the accessibility of digital processes, this becomes extremely vital given the importance of access to justice for all. While implementing virtual courts, it is essential to ensure that digital illiteracy is not a hindrance to litigants accessing justice. The implementation of virtual courts must be accompanied by provisions for assisting digitally illiterate people.

c. Consent of parties

The consent of the parties is essential for a hearing to be conducted through a virtual court. Principles of due process and the right to access justice should not be violated to enable a virtual courtroom. More deliberation is required on how courts can take the lead to persuade litigants and lawyers to use technological facilities.

⁴⁹ *Financial Express*. 2018. 'A look at India's deep digital literacy divide and why it needs to be bridged'. *Financial Express*, 24 September. available online at <https://www.financialexpress.com/education-2/a-look-at-indias-deep-digital-literacy-divide-and-why-it-needs-to-be-bridged/1323822/> (accessed on 12 April 2020).

⁵⁰ National Digital Literacy Mission, NASSCOM Foundation. available online at <https://nasscomfoundation.org/national-digital-literacy-mission/> (accessed on 12 April 2020)

3.2 CIRCUMSTANCES WHERE VIDEO CONFERENCING CAN BE IMPLEMENTED

Keeping in mind the factors listed above, video conferencing can be implemented depending upon the following:

a. Nature of the case

Certain cases depending on their simplicity or sensitive nature may be more suitable for the implementation of video conferencing. E.g. for cases under Protection of Children from Sexual Offence, 2012, the legislation itself suggests the use of video conferencing to record the child's testimony to protect the interests of the child.⁵¹ In certain other cases like ex-parte cases where the case is relatively simple, the courts can consider using video conferencing. Section 10 of this paper regarding the way forward elaborates on this further.

PILs or other cases involving multiples parties should be heard virtually in a situation where social distancing needs to be maintained.

b. Specific circumstances or stages

The high courts can enforce the use of video conferencing facilities for certain stages or circumstances of a case, e.g. the evidence stage of cases that requires a witness to testify from a remote location. The option of video conferencing can also be used when the counsel is in a different location from the court. Section 10 of this paper regarding the way forward elaborates on this further.

⁵¹ Section 36, POSCO Act, 2012.

c. By application

Parties to a case should have an option of requesting hearings through video conferencing. The concerned judge should decide on such a request after hearing the opposite parties. The rules governing virtual courts should specify guidelines on the basis of which judges can decide such requests.

d. Urgent cases

In an emergency when the courts' day-to-day activities have to be limited or stopped, only urgent matters should be heard through a virtual court. The meaning of 'urgent' should be construed as cases that require immediate attention. Many countries have detailed policies and guidelines for such emergencies or pandemics.⁵²

In civil cases, urgency can be construed as the possibility of unquantifiable loss or irreversible damage or if there is imminent threat of loss of property.⁵³ An application should be made to the relevant court by providing reasons as to why the case falls under the category of urgent cases. The cases that were originally scheduled to have hearings during the period of emergency should be given preference. In family court cases, urgency could include cases related to child care, custody, and restraining orders to protect vulnerable groups.⁵⁴ It is necessary to point out here that during the lockdown of countries due to the pandemic caused by COVID 19, there has been an increase in the number of domestic violence cases reported.⁵⁵

⁵² Bureau of Justice Assistance. 2007. 'Guidelines for Pandemic Emergency Preparedness Planning: A Road Map for Courts', available online at <https://biotech.law.lsu.edu/blaw/flu/bja-courts-roadmap-2007.pdf> (accessed on 13 April 2020).

⁵³ Australian Capital Territory Civil and Administrative Tribunal 'Urgent Hearings' available online at <https://www.acat.act.gov.au/hearings/urgent-hearings> (accessed on 12 April 2020).

⁵⁴ Ontario Courts, 'Urgent Matter'. available online at <https://www.ontariocourts.ca/ocj/covid-19/definitions-urgent-matters/> (accessed on 12 April 2020).

⁵⁵ Emma Graham-Harrison. 2020. 'Lockdowns around the world bring rise in domestic violence' *The Guardian*, 28 March available online at <https://www.theguardian.com/society/2020/mar/28/lockdowns-world-rise-domestic-violence> (accessed on 12 April 2020).

For criminal cases, during an emergency, bail applications should be given preference as these involve the loss of personal liberty. Cases that have reached the sentencing stage should be considered as cases that require immediate attention.⁵⁶ During emergencies courts should use video conferencing as the norm and physical appearances as the exception.⁵⁷

The courts should be mindful and balance the rule of law, protect fundamental rights⁵⁸ and address the concerns of the emergency. High courts should lay out detailed plans as to what constitutes 'urgent cases' in emergencies.⁵⁹

e. Cases before certain tribunals and quasi-judicial bodies

Cases heard by certain tribunals and quasi-judicial bodies on matters such as motor accidents and consumer cases may be relatively simple in terms of the application of law and the nature of evidence. Such tribunals can save time by moving to a virtual court set-up. Tribunals that have circuit benches that move from state to state can also benefit from such a setup. Litigants and lawyers do not have to wait till the bench actually reaches their state. Filing can be done online and preliminary hearings and hearings for interim relief can be conducted online.

⁵⁶ Hong Kong Guidelines on Urgent Hearings. available online at https://www.judiciary.hk/doc/en/court_services_facilities/gap_urgent_hearing_20200309_20200322.pdf (accessed on 12 April 2020).

⁵⁷ Interview with Arvind Datar, Senior Advocate (10 April 2020) *Bar and Bench*, available online at <https://www.barandbench.com/interviews/in-camera-senior-lawyers-should-insist-on-having-conferences-through-video-senior-advocate-arvind-datar-video> (accessed on 12 April 2020).

⁵⁸ Bureau of Justice Assistance. 2007. 'Guidelines for Pandemic Emergency Preparedness Planning: A Road Map for Courts'.

⁵⁹ Sandhya PR. 2020. 'Corona is a wake up call for Indian courts. They aren't equipped to function in a crisis', *The Print*, 27 March 2020. available online at <https://theprint.in/opinion/corona-is-a-wake-up-call-for-indian-courts-they-arent-equipped-to-function-in-a-crisis/389224/> (accessed on 12 April 2020).

Many tribunals like the National Green Tribunal and the Income Tax Appellate Tribunal are embracing video conferencing facilities to hear cases and this has helped them to continue functioning and hear cases during the lockdown.⁶⁰ Other tribunals like the Central Administrative Tribunal are facing the consequences of not having initiated digitisation reforms and are struggling to cope during the current situation.⁶¹

f. Court-mandated ADR

Arbitrators appointed by the courts may be directed to hold arbitration proceedings through video conferencing, wherever possible, especially if the arbitrators are in a different location from the litigants. This will save time and money because outstation arbitration proceedings not only delay matters but are expensive for litigants and lawyers.

⁶⁰ *Press Trust of India*. 2020. 'Guj: NGT video conference system tested, may go live in Apr', *Business Standard*, 7 March. available online at https://www.business-standard.com/article/pti-stories/guj-ngt-video-conference-system-tested-may-go-live-in-apr-120030700991_1.html (accessed on 12 April 2020).

Maulik Vyas. 2020. 'Mumbai ITAT initiates Skype, WhatsApp hearing for urgent matters amid the pandemic outbreak', *Economic Times*, 21 March. available online at <https://economictimes.indiatimes.com/news/economy/mumbai-itat-initiates-skype-whatsapp-hearing-for-urgent-matters-amid-the-pandemic-outbreak/articleshow/74750273.cms> (accessed on 12 April 2020).

M Padmakshan. 2012. 'ITAT: Four new e-courts to be launched, hearing through video-conferences', *The Economic Times*, 23 November. available online at <https://economictimes.indiatimes.com/news/politics-and-nation/it-four-new-e-courts-to-be-launched-hearing-through-video-conferences/articleshow/17329137.cms> (accessed on 12 April 2020).

⁶¹ PTI. 2020. 'COVID-19 Lockdown: No infrastructure to conduct hearings through video conference, says CAT', *Deccan Herald*, 11 April, available online at <https://www.deccanherald.com/national/covid-19-lockdown-no-infrastructure-to-conduct-hearings-through-video-conference-says-cat-824047.html> (accessed on 12 April 2020).



4

Architecture of an Ideal Virtual Court

A key determining factor for the successful implementation of a virtual court system is the architecture of such a virtual court. The features available in a virtual court structure must satisfy the needs and requirements of the judiciary while providing the facilities and atmosphere of a physical court. To this end, an ideal virtual court must be a single unified platform wherein facilities for calls, meetings, messaging, document sharing, and other necessities are provided.

To understand the features of an ideal virtual court, it is first important to identify the types of users in video conferencing hearings. There are four layers of access to be provided in a virtual court set-up, depending on the user of the facility as shown in Figure 2.

Figure 2: Levels of access in virtual courts



The levels of access shown in Figure 2 range from one to four. Level one access allows for unified management diagnostics, i.e. easy access to providing rights, managing, and administering services through a single unified virtual court. Level two access permits the use of a restricted number of features, level three access allows participants to watch and speak at proceedings, and level four access only allows participants to watch proceedings. The architectural design and access levels to various features in the virtual court are described below in the sequence in which hearings will take place through video conferencing.

4.1 LISTING OF CASES AND ACCESSING THE VIRTUAL COURT

Keeping in line with the practice of releasing the causelist for a court on the day before the date of hearing, the causelist for hearings through video conferencing in a virtual court will also be released along with causalists for physical hearings. Along with the regular details in a causelist such as the stage, case number, and names of parties and advocates, the causalists for hearings in a virtual court will also contain an additional column with the links to join the video conferencing facility in the virtual court.

Judges and court staff will be provided a universal link to log into the virtual court with level one access, and participants of specific cases will be provided case-specific links with level two or level three access. The causelist for hearings in a virtual court will also contain the time at which the case will be heard based on time slots to be determined by the judge hearing the case after taking into account the nature of the case and its stage. Accordingly, links to join the video conference of a specific case as a party, advocate, or witness, etc. will be unique to each case and can only be logged into 30 minutes before the hearing of a case.

The links to join case hearings through video conferencing can be of two types, open court hearings or private court hearings. Cases that would have been heard in the ordinary course in open courts will be provided a link to open court hearings that can be viewed by the public. However, cases of a sensitive nature that would have had in-camera proceedings and not heard in open court, will be provided a link to join a private court hearing where the public will not be permitted to view the hearings.

The causelist for a day will also provide a live link for streaming the court proceedings on a streaming platform. This link will be accessible to the public and media, and can be used to view court proceedings.

The links to join case hearings through video conferencing can be of two types, open court hearings or private court hearings. Cases that would have been heard in the ordinary course in open courts will be provided a link to open court hearings that can be viewed by the public.

4.2 AUTHENTICATION TO LOG INTO THE VIRTUAL COURT SYSTEM

Participants seeking level one access and logging into the virtual court as a judge, bench clerk, or typist will be required to enter their name, an official ID number to be provided by the court, upload a clear photo of their official ID, enter their mobile number, and a one-time password (OTP) sent to their mobile phone to log in.

Participants logging into the virtual court for a specific case will be asked if they seek to join the video conference as a party, advocate, or person called by the court. Participants seeking level two access and logging into the virtual court for a specific case as a plaintiff/ petitioner/ appellant, advocate for plaintiff/ petitioner/ appellant, defendant/ accused/ respondent, or advocate for any of them will have to enter their name and select whether they are a party or an advocate for a party. If they are a party, they must select the number of the plaintiff/ petitioner/ appellant or defendant/ accused/ respondent (whether they are plaintiff one, or two, or three, etc.), and if they are an advocate they must select the number of the plaintiff/ petitioner/ appellant or defendant/ accused/ respondent that they are representing. Advocates must upload a clear photo of their bar council ID, while parties must upload a clear photo of any government-issued photo ID card. They will also be required to enter their mobile number and the OTP sent to their mobile phone to log in.

Participants seeking level three access and logging into the virtual court for a specific case as a witness, police, or any other person called by the court will be required to enter their name, upload a clear photo of a government-issued photo ID card (the police will be required to upload a clear photo of their official ID card), enter their mobile number and the OTP sent to their mobile phone to log in.

Participants seeking level four access and logging into the live streaming platform of the virtual court as the public or media will be required to enter their name, upload a clear photo of a government-issued photo ID card (media personnel will be required to upload a clear photo of their official media photo ID card), enter their mobile number and the OTP sent to their mobile phone to log in.

4.3 LOGGING INTO THE VIRTUAL COURT SYSTEM - JOINING THE VIDEO CONFERENCE AND AUDIO-VIDEO CHECK

Participants seeking level two or level three access may log into the virtual court system no earlier than 30 minutes before the scheduled time of their hearing, but must mandatorily be logged in 15 minutes before such scheduled time. After entering their details as described in the previous step, participants will be required to permit their devices to access their camera and microphone and check their audio and video settings to ensure that they are functional, before joining the video conference. Participants must sit facing a light source to ensure their faces are visible. Participants must also ensure that there is a space of half a metre on either side of them to allow room for hand and arm gestures.

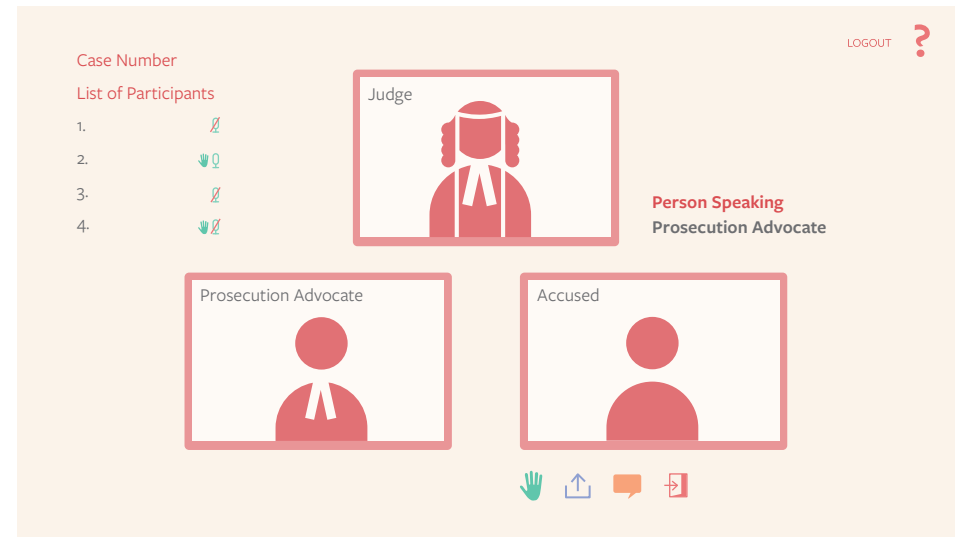
Participants seeking level two or level three access will be made to wait in a virtual waiting room until the judge or court staff marks the previous case as completed and is ready for their case. Participants will be automatically put on mute when they join the video conference and will be unmuted by the judge or court staff before the commencement of the hearing. Further, no participant will be given the option to mute their microphone at their end, only the judge and court staff will be given the option of muting a participant.

The number of participants seeking level four access will be restricted to a maximum of 50 people on account of limited bandwidth. Access to the 50 slots will be provided on a first come first served basis with slots being made available if any person leaves the virtual court hearing.⁶² If any person leaves the virtual court window for more than three minutes, they will be automatically logged out and that slot will be given to the next person in the queue.

⁶² Currently in the Supreme Court, as per the circular issued by it on 23 March 2020, the Deputy Registrar (Public Relations Officer) is empowered to permit three media persons to be inside the video conference room when a bench may take up extremely urgent matters. Supreme Court of India. 2020. Circular, 23 March, available online at https://main.sci.gov.in/pdf/cir/23032020_153213.pdf (accessed on 11 April 2020).



Figure 3: Screen for a defendant/ accused/ respondent or their advocate



4.4 SCREENS VISIBLE TO PARTICIPANTS

On joining the video conference, the screen visible to participants will vary depending on the type of user and the features they can use. Figures 3 to 8 display examples of the screens that different users can see. The broad framework envisaged for the screens is to replicate a physical courtroom setting with the judge in front of the two parties, as far as possible in a virtual setting. The plaintiff/ petitioner/ appellant or their advocate will be displayed on the bottom left corner depending on who is speaking or who last spoke. The defendant/ accused/ respondent or their advocate will be displayed on the bottom right corner depending on who is speaking or who last spoke. If a witness is speaking, the face of the witness will appear in the middle while the faces of other parties will move to the sides. Further, each party will see the options available to them depending on their access level. The features shown on the screens are explained in the subsequent paragraphs.

Figure 4: Screen for a plaintiff/ petitioner/ appellant or their advocate

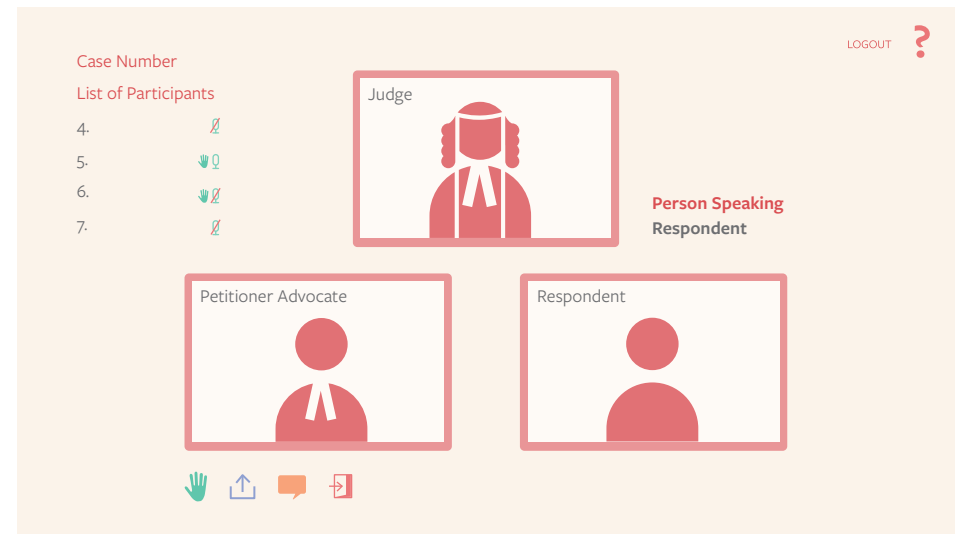


Figure 5: Screen for a witness, police, or other persons called by court (can only view proceedings and speak when called upon to speak)

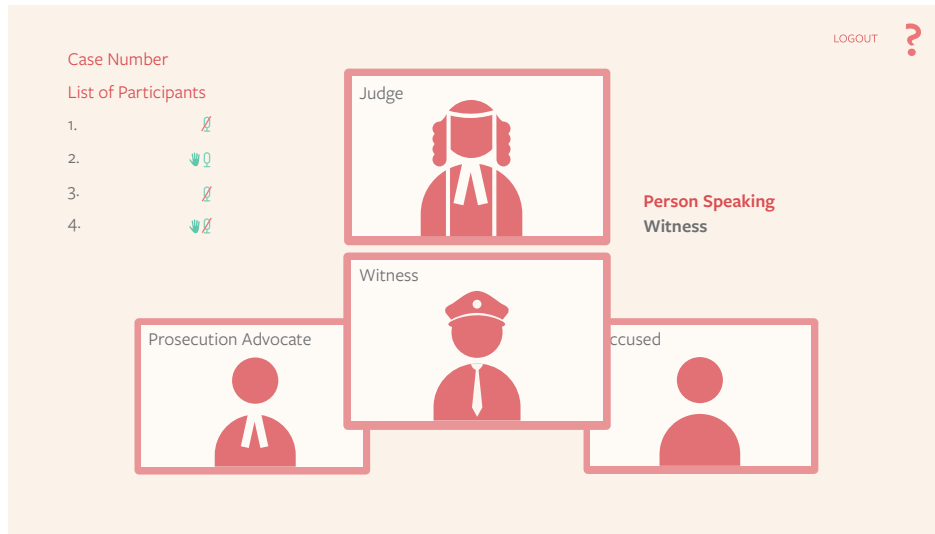


Figure 7: Screen for a judge or court staff while passing orders

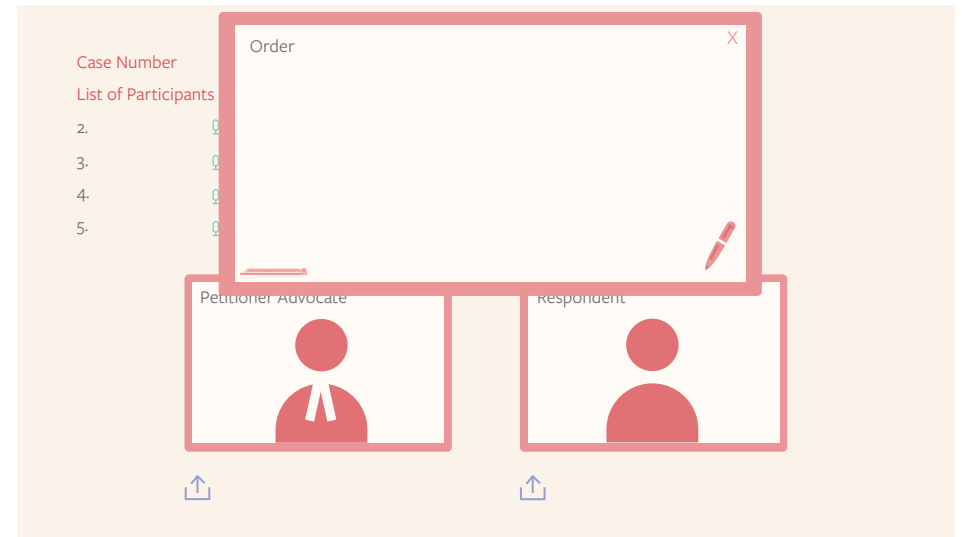


Figure 6: Screen for a judge or court staff

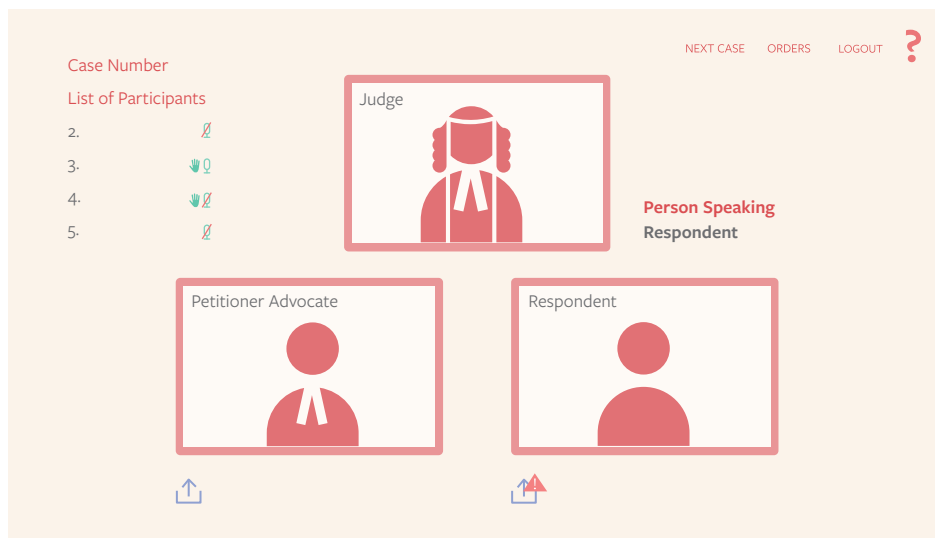
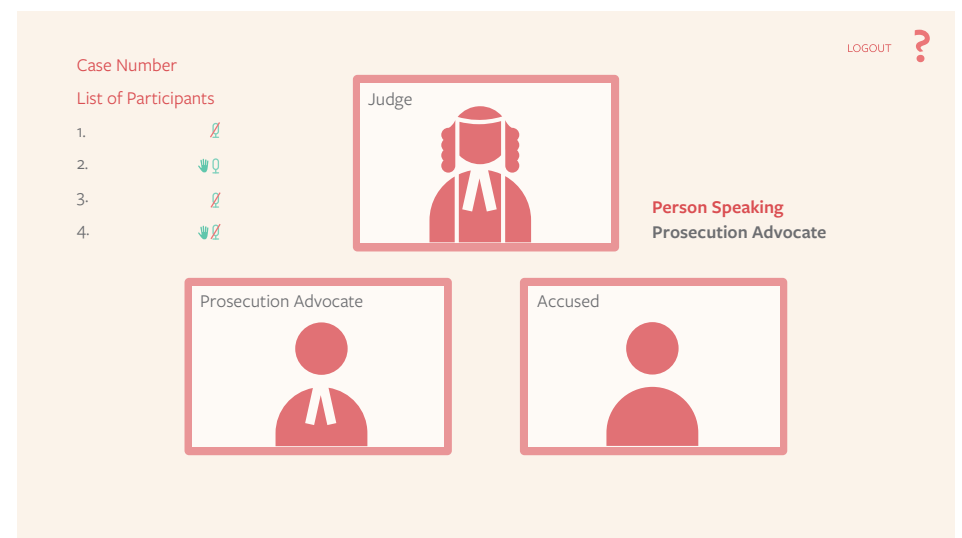


Figure 8: Screen for the public and media



4.5 SPEAKING DURING THE HEARINGS

Participants in a case will be permitted by the judge or court staff to join the video conference when it is time for their particular case to be heard as per the timing provided in the causelist, and after the previous hearing has concluded. When a person enters or leaves the video conference, all the other participants will be alerted.

All participants will be on mute on joining the video conference and the judge or court staff will unmute all participants. The judge must instruct all participants to use the green hand-raising feature if they wish to speak and the judge may then call on the participants to speak one after the other. To avoid participants talking over each other or any disturbances, the judge(s) or their staff may mute other participants while one is speaking. The use of such a muting feature may however only be used as an exceptional means to optimise the use of video conferencing and must in no way impinge upon a party's/ advocate's right to speak and express themselves as per the law. The judge must allow the opportunity for all parties whose hands are raised to speak before concluding the hearing of a case.

In the event that a litigant wishes to privately speak to their advocate or vice versa during a hearing, they may use the orange chat button on their screen and select who they wish to chat with and a private pop-up chat box will appear for their use. If a litigant wishes to speak over video to their advocate privately or vice versa, they may use the purple door button to enter a break room wherein a private pop-up video conference window will appear. To maintain attorney-client privilege, the video and audio recording of this break room will be private and not available to any other participant of the video conference. The proceedings in the virtual courtroom will be muted until they exit the break room and re-join the virtual courtroom. The judge may pause the proceedings while the break room conversation is going on. However, caution must be to not delay the proceedings in the hearing.

4.6 SHARING DOCUMENTS

During a hearing, if either party wishes to submit a document to the court, they may use the blue upload button available on their screen to upload a document for the judge and court staff to view. A document uploaded by any party will at first only be viewable by the judge and court staff. They may authorise the document to be shared with other parties. Once a party has uploaded a document, the judge and court staff will then see a red exclamation mark next to that party's document upload button - this indicates that a document has been uploaded, and an action is required. The judge or court staff may then click on that party's document upload button to see two options, the first to share the document with other participants that the judge or court staff select, and second to download the document.

4.7 PASSING OF ORDERS

On the conclusion of a hearing, the judge may use the 'orders' button located on the top right corner of the screen to type out an order. The judge's typist will also have the same screen as the judge and will see the orders dialog box open up when the judge clicks on the 'orders' button. The typist can then type out the order pronounced by the judge and the judge will view the typing in real-time. The judge may click on the keyboard button at the lower left end of the orders dialog box to type and make any changes to the order. Once the order has been prepared, the judge may then click on the signature button on the lower right corner of the order dialog box to insert a digital signature to the order, this will make it an original copy of the order. The order will then be made available in the normal course on the website of the high court or on e-Courts for the trial courts.

4.8 TRANSCRIPT AND RECORDING OF HEARINGS

The video recording for all hearings conducted in a virtual court shall be stored by the courts for a period to be decided by the courts. Further, there will be an automatic system for voice to text transcription. The automated voice to text and subtitling capabilities will ensure that there is a text record of all proceedings that can be stored by the courts. Such text records will be stored and segregated as per the case number, these records can be used by the courts as a summary of proceedings in cases much like the hand notes currently used on physical paper files.

The automated voice to text transcription feature will also ensure that the text of the evidence provided by a witness is transcribed. On completion of a hearing, the judge or court staff may email a copy of such testimony to the witness, require them to sign the copy and send a scanned version of the document back to the court for its records.

4.9 HELP DURING THE HEARINGS

All participants in a virtual court will be able to see a black question mark help button on the upper right-hand corner of the screen. Any participant who clicks on that help button will then see a pop-up help window which will contain a user guide with features available to a participant at their access level. If the user guide does not help solve the problem faced by a participant, the participant may click on a 'support' button at the end of the pop-up window to see a helpline number.

To ensure that the virtual court hearings proceed smoothly without any disturbances, it is vital that ample and regular training be provided to lawyers, judges and court staff regarding the functionalities in a virtual court. Further, robust training must be provided to court staff who are listed as support contacts to attend to the needs of participants in a timely fashion without delay and provide them the support they require. There should be well-equipped helpdesks in each court/tribunal along with facilities for helplines that lawyers can call in case they face any problems in navigating a virtual court.

These trainings can also be used to elicit user feedback about the functioning of the virtual court and make changes to the architecture accordingly.

4.10 REQUESTS OR MENTIONING IN THE VIRTUAL COURT

As hearings in a virtual court are conducted online through video conferencing with no physical meetings, requests for hearings to be adjourned, mentioning of cases to be heard on that day, or requests to be heard in private must be received at least two hours before the commencement of court hearings for the day. All such requests shall be made through an online form to be provided on the website of the high courts or on e-Courts for the trial courts. The online form must capture case number, the name of the advocate, their contact details, a photo of their bar council ID card, a summary of the request, along with an upload of their request application/memo.

Judges must review all such requests before the commencement of hearings for the day. The judge may either accept or deny the requests and the parties and their lawyers will be informed accordingly. If the judge accepts a request to hear a case on an urgent basis on that day, the party will be provided a link to join the video conference and will have to be on standby to be heard at the start of hearings on that day.

4.11 FEATURES OF A VIRTUAL COURT AND GUIDANCE FOR IMPLEMENTATION

Table 1 provides a list of the features in an ideal virtual court and provides a gradation for the priority of such features in the implementation of a virtual court.

Table 1: List of features with guidance for implementation

S No.	Feature	Sub-feature	Implementation time period
1	Listing of cases and accessing the virtual court	Open hearings with public access	Short-term
		Private hearings	Short-term
		Links for hearings and their timeslots in the causelist	Medium-term
2	Authentication to log into the virtual court system	Photo of official or government-issued photo ID card	Short-term
		Mobile number and OTP	Short-term

S No.	Feature	Sub-feature	Implementation time period
3	Logging into the virtual court system - joining the video conference and audio-video check.	Check camera, lighting, and space	Short-term
		Check audio and video	Short-term
		Waiting room	Medium-term
		Limit number of public viewers	Medium-term
4	Screens visible to participants	Plan the screens and features visible to various participants	Medium-term
5	Speaking during the hearings	Entry and exit ping noises	Short-term
		Raising hand feature	Medium-term
		Muting feature	Medium-term
		Private conversation - chat, and/ or breakroom	Short-term
6	Sharing documents	Uploading documents to be shared with the judge and parties	Short-term
7	Passing of orders	Screen sharing between judge and court staff	Short-term
		Digital signature of the judge	Short-term

S No.	Feature	Sub-feature	Implementation time period
8	Transcript and recording of hearings	Voice to text transcription of hearings	Short-term
		Recording of hearings	Short-term
		Sending and receiving witness testimony transcripts	Medium-term
9	Help during the hearings	User manuals	Short-term
		Support contact	Short-term
10	Requests or mentioning in the virtual court	Requests or mentioning before hearings begin for the day	Short-term



5

Due Process Concerns

5.1 VULNERABLE WITNESSES

The use of video conferencing for testimonies of vulnerable witnesses needs to be thought through and implemented with necessary safeguards. Special accommodations may need to be provided when using video conferencing to record testimonies of vulnerable witnesses such as minors, those with language difficulties and who require an interpreter, those suffering from mental disorders or learning disabilities, those in need of immediate medical treatment, and those whose physical security is under threat.⁶³ When the physical security of a witness at a particular court or jurisdiction cannot be adequately addressed, video conferencing from a safe location can shield such a witness from intimidation and provide them a secure environment

⁶³ Jenni Ward. 2015. 'Transforming 'Summary Justice' Through Police-led Prosecution and 'Virtual Courts' Is 'Procedural Due Process' Being Undermined?'. *British Journal of Criminology* 55(2): 341-358, p. 350.

to testify. This can be ensured by the use of anonymous testimony, a screen, curtain, or two-way mirror to shield the witness while giving testimony.⁶⁴ These would be an extension of the witness protection measures already provided for in the Witness Protection Scheme, 2018 such as holding of in-camera trials, concealment of identity by referring to the witness by a pseudonym, or anonymising the visuals and audio of such witnesses.

For younger witnesses who have grown up in the internet era and for whom the conduct of a meeting and interaction via video is commonplace and comforting, testifying via video conferencing may not involve the same issues of establishing trust and comfortable communication that people of a previous generation would face.⁶⁵ For other vulnerable defendants e.g. those suffering from attention deficit hyperactivity disorder (ADHD) or on the autism spectrum, the multiple stimuli within a crowded court could be distracting and unnerving. Alternatively, they might have an anxiety disorder which is intensified by the requirement to testify in a courtroom filled with strangers.⁶⁷ Video conferencing may provide a more secure environment for such witnesses, provided the right accommodations are made for them.⁶⁸

⁶⁴ Karen Kramer. 2014. 'Witness protection as a key tool in addressing serious and organized crime'. available online at https://www.unafei.or.jp/publications/pdf/GG4/Fourth_GGSeminar_P3-19.pdf (accessed on 12 April 2020).

⁶⁵ Witness Protection Scheme, 2018 available online at <https://crlreview.in/bills-acts-ordinances/witness-protection-scheme-2018-pdf-available/> (accessed on 12 April 2020).

⁶⁶ Penelope Gibbs. 2017. 'Defendants on video-conveyor belt justice or a revolution in access?' *Transform Justice*, p. 25

⁶⁷ Penelope Gibbs, 'Defendants on video-conveyor belt justice or a revolution in access?', p. 24

⁶⁸ David Tait, et al. 2017 'Towards a Distributed Courtroom' Western Sydney University, available online at https://courtofthefuture.org/wp-content/uploads/2017/07/170710_TowardsADistributedCourtroom_Compressed.pdf (accessed on 12 April 2020), p. 7.

For certain witnesses, the use of video conferencing for the examination and cross-examination of such witnesses may be unfamiliar, isolating, and may cause anxiety in an already vulnerable person and restrict effective communication.⁶⁹ In the Indian context, this may be so if the person is unfamiliar with computers and video conferencing. They must be assisted to help them understand the process of examination and cross-examination so that they can answer questions to the best of their capacity and face what can often be quite an aggressive cross-examination. This should be carried out in advance of the testimony in a safe space. This briefing should be done by a professional trained to work with vulnerable people such as a social worker or counsellor. The briefing may include videos of witnesses making simple statements, then being examined and cross-examined. The roles of the various lawyers, judges, and court staff should be explained to the witness.⁷⁰ It is particularly important to ensure that vulnerable witnesses understand the role of the defence lawyer who can come across as aggressive. This is so that they do not perceive aggressive questioning as a personal attack or feel that they have done something wrong. They also need to be told that it is part of the job of the defence lawyer to express doubts about the veracity of their evidence and it is not an indictment of their character.⁷¹

The judge should have the discretion to allow physical hearings instead of appearances on video conferencing in the interests of fairness. There should be an option for the witness or accused person to ask for themselves to be produced in court at a future hearing if they feel that their disability will make a video conference appearance difficult e.g. if the person is hard of hearing or requires special assistance.⁷²

⁶⁹ Penelope Gibbs 'Defendants on video-conveyor belt justice or a revolution in access?', p. 24.

⁷⁰ P. Cooke, et al. 2002. 'The virtual courtroom: a view of justice. Project to prepare witnesses or victims with learning disabilities to give evidence' *Disability and Rehabilitation* 24(11-12): 634-642, 634.

⁷¹ The virtual courtroom: a view of justice. Project to prepare witnesses or victims with learning disabilities to give evidence, 638.

⁷² Penelope Gibbs 'Defendants on video-conveyor belt justice or a revolution in access?', p. 20.

Courts will have to frame rules for accommodations for a vulnerable witness to testify. The information and functionality of the platform used for video conferencing should be accessible to all users including people with disabilities. The platform should comply with Guidelines for Indian Government Websites (GIGW) formulated by NIC so that people with disabilities can use it effectively.⁷³ Judicial and non-judicial staff also need to be trained to implement these rules. At present, the Witness Protection Scheme, 2018 that the Supreme Court made applicable across India only provides for witnesses under physical threat.⁷⁴ These guidelines should be extended to witnesses with vulnerabilities such as medical conditions, physical, or mental disabilities.

5.2 FAIRNESS OF THE JUSTICE SYSTEM

The maxim 'Justice must not only be done but must be seen to be done' may sound clichéd, but it is of great relevance in the context of video conferencing. Since the spatial organisation of video conferencing is so different from the setting of a physical court, efforts must be made to reassure litigants and lawyers that these virtual courts will approximate the experience of a physical court, as far as possible. Fairness implies transparency in procedures, conspicuous impartiality and consistency, explanation of rules and decisions, and the promotion of procedures that give parties a voice in the proceedings.⁷⁵ To illustrate this point in the context of criminal trials, a defendant may feel

⁷³ 'Guidelines for Indian Government Websites' available online at <https://web.guidelines.gov.in/tools-and-resources#accessibility> (accessed on 12 April 2020).

⁷⁴ *Mahender Chawla v. Union of India* WP (Criminal) No. 156 of 2016.

⁷⁵ Dame Hazel Genn, 'Online Courts and the Future of Justice' at Birkenhead Lecture, 2017, p. 13.

comfortable telling a judge before whom they are physically present about custodial violence, but cannot do so on video conference from prison because the prison staff are present in the same room. Therefore, the architecture of a video conference must allow the defendant to speak to their lawyer in confidence and speak to a judge without prison staff overhearing.

Citizens should feel confident that even in a virtual court their case will be heard on merits, while giving a fair hearing to all parties, leading to enforceable remedies.

Citizens should feel confident that even in a virtual court their case will be heard on merits, while giving a fair hearing to all parties, leading to enforceable remedies, utilising procedures that are conspicuously fair and perceived to be so. Access to justice should extend beyond a citizen being able to complete an online form and should mean that they are comfortable with the process. The judicial system, whether online or offline, should give all citizens the ability to engage and participate. It must inspire confidence that they will be dealt with by fair procedures and will receive a substantively just outcome. This is especially important in a common law system where decisions of the high courts and Supreme Court become the law, communicate and reinforce norms of social and economic behaviour, and provide a framework for the settlement of future similar disputes.⁷⁶

⁷⁶ Dame Hazel Genn, 'Online Courts and the Future of Justice', p. 6.

5.3 FAIR TRIAL GUARANTEES FOR CRIMINAL TRIALS

Criminal trials require a different set of safeguards because they involve an individual in confrontation with the state. How the state treats a person accused of a crime provides a concrete demonstration of how much it respects individual rights and liberties. In the context of video conferencing, it is important to bear in mind the following fair trial guarantees:

a. Right to counsel

Article 22(1) of the Indian Constitution provides that a person who is arrested shall not be denied the right to consult and to be defended by a legal practitioner of their choice. The Supreme Court has held that the right to access legal aid, to consult and to be defended by a legal practitioner, arises when a person arrested in connection with a cognizable offence is first produced before a magistrate. It is the duty and obligation of the magistrate before whom a person accused of committing a cognizable offence is first produced to make him fully aware that it is his right to consult and be defended by a legal practitioner, and in case he has no means to engage a lawyer of his choice, that one would be provided to him at the expense of the state.⁷⁷ The Supreme Court has extended this right to the police interrogation stage as well by stating that "But all that we mean is that if an accused person expresses the wish to have his lawyer by his side when his examination goes on, this facility shall not be denied, without being exposed to the serious reproof that involuntary self-incrimination secured in secrecy and by coercing the will, was the project."⁷⁸

⁷⁷ *Md. Ajmal Kasab v. State of Maharashtra* Criminal Appeal Nos.1899-1900 of 2011.

⁷⁸ *Nandini Satpathy v. Dani (P.L.)* 1978 AIR 1025.



Even when remand hearings are conducted through video conferencing, judges must ensure that the defendant is represented by a lawyer and they should have a copy of the remand application.⁷⁹ If the lawyer is not present, the judge must enquire why, arrange for a notice to be sent to the lawyer, and if necessary arrange for a change of lawyer. In a virtual court, the location of the defence lawyer in a different location from the defendant may prevent crucial consultation which otherwise takes place in a physical court. It is necessary to provide the defendant with a means to communicate privately with his attorney. The defendant should be able to signal their lawyer that they need to have a private conversation. The judge should permit such a conversation through a private communication channel to preserve confidentiality and attorney-client privilege.⁸⁰ The mechanism for this is explained in detail in the section on architecture of an ideal virtual court.

⁷⁹ Orders dated 21 June 2005 and 23 November 2005 in *Rajendra S. Bidkar v The State of Maharashtra* Criminal Writ Petition (PIL) NO. 386 OF 2004

⁸⁰ Shari Seidman Diamond, et al. 2010. 'Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions', *The Journal of Criminal Law and Criminology*, 100(3): 869-902, p. 899-900.

b. Cross-examination and challenging of evidence

Section 138 of the Indian Evidence Act, 1872 provides for cross-examination of witnesses. The right to cross-examination enables the defendant to discover the source of the prosecution's evidence and to challenge its veracity and value.⁸¹ It is a testing mechanism to delve into the meaning of the witness's statements, and the truthfulness, memory, and perception of the witness. The reason why hearsay evidence is not considered admissible except in certain exceptional circumstances is hearsay cannot be put through a cross-examination.⁸² Cross-examination is a craft perfected by effective trial lawyers. An effective cross-examination consists of "questions" that are not really questions at all but are assertions of fact, based on information already known to the lawyer which they will prove through independent evidence if the witness waffles, evades, or lies.⁸³ Cross-examination is not merely about what the witness is saying. There is a physical aspect to it involving the witness's demeanour, confidence, and whether they are hesitating while speaking. These are factors that will be difficult for the judge to observe over video conferencing. It is difficult for a virtual cross-examination to convey shifty eyes, stumbling speech, or the surprised blush of the unskilled liar caught in the act.⁸⁴

To ensure the reliability of testimony over video conference, it is thus important that cross-examination be as close to a physical cross-examination as possible. If a party is not confident of this, they should have the right to request a physical cross-examination with reasons. If a party requests for physical cross-examination instead of video conferencing, the judge must make a reasoned decision on such a request. Such a request should not be denied merely for the reason of convenience and prosecutorial expedience.

⁸¹ David Harris. 1967. 'The Right to a Fair Trial in Criminal Proceedings as a Human Right', *The International and Comparative Law Quarterly*, 16(2): 352-37, p. 367.

⁸² Christopher B. Mueller. 2007. 'Cross-Examination Earlier or Later: When Is It Enough to Satisfy Crawford?', *Regent U. L. Rev.* 19: 319-363, p. 321-22

⁸³ John G. Douglass. 2003 'Virtual Cross-Examination: The Art of Impeaching Hearsay', *J. Mar. L. & Com.* 34: 149-157, p. 151.

⁸⁴ John G. Douglass, 'Virtual Cross-Examination: The Art of Impeaching Hearsay', p. 154-5

Within the setting of a virtual court, the defendant must be accorded dignity so that he is not prejudicially perceived thus affecting his presumption of innocence.

c. Presumption of innocence

The principle of presumption of innocence embodies freedom from arbitrary detention and serves as a bulwark against punishment before conviction. More importantly, it prevents the state from successfully employing its vast resources to cause greater damage to an un-convicted accused than he/she can inflict on society.⁸⁵ The design of courtrooms and the nature of open courts exude a level of neutrality and transparency in their openness and accessibility to the public, and relative dignity in their layout. As opposed to this, the environment of a prison from where an undertrial prisoner appears through video conferencing is an enclosed and restrictive space. Care must be taken to ensure that the presumption of innocence is not affected when the defendant appears on a screen in court, locked firmly within the enclosed space of state control.⁸⁶ Within the setting of a virtual court, the defendant must be accorded dignity so that he is not prejudicially perceived thus affecting his presumption of innocence.

⁸⁵ Vrinda Bhandari. 2013 'Inconsistent and Unclear: The Supreme Court of India on Bail', *NUJS L. Rev.*, 6(3): 549-558, p. 549.

⁸⁶ Carolyn McKay. 2018 'Video links from prison: court "appearance" within carceral space', *Law, Culture and the Humanities*, 14(2): 242-262, p. 259.



6

Transparency and Privacy

There is a long track record globally of openness being recognised as an inherent part of the judicial process. Indian courts have also followed the practice of open courts for the most part. Section 327 of the Cr.P.C. and Section 153B of the C.P.C. both contain express provisions that declare that courtrooms shall be open to the public. The Supreme Court has also recognised the principle of open courts in *Naresh Shridhar Mirajkar v. State of Maharashtra*, though it was caveated with the rule that openness should not come at the expense of justice being administered.⁸⁷

Most recently, the Supreme Court furthered the principle of open justice by approving live streaming of court proceedings. The Court emphasised that all cases brought before the courts, whether civil, criminal or others must be heard in open court. For a healthy, objective and fair administration of justice, what

⁸⁷ *Naresh Shridhar Mirajkar v. State of Maharashtra*, 1966 SCR (3) 744.

is needed is a public trial in open court. Trials held subject to public scrutiny and gaze naturally act as a check against judicial caprice or vagaries and serve as a powerful instrument for creating confidence of the public in the fairness, objectivity, and impartiality of the administration of justice.⁸⁸

The current state of technology allows trials to be live-streamed quite easily. It also allows for easy recording and dissemination of court proceedings. This implies that we need to be mindful of the circumstances in which certain trials cannot be live-streamed. E.g. if a witness is under threat, their testimony being live-streamed could lead to recordings of their testimony being made and circulated within minutes, thus endangering their lives. The Supreme Court in *Swapnil Tripathi v. Supreme Court of India* said that certain sensitive cases like matrimonial, sexual assault, and matters where children and juveniles are involved like POCSO cases should be excluded from the process of live streaming. The Court also said that the presiding judge of each court will be the final authority to regulate suspension or prohibition of live streaming in a particular case where the administration of justice so requires.⁸⁹ Witnesses and lawyers representing the parties to a case should be able to request the judge to not live stream or make public certain testimonies or the production of certain kinds of evidence. Apart from the abovementioned circumstances, all

⁸⁸ *Swapnil Tripathi v. Supreme Court of India*, Writ Petition (Civil) No. 1232 OF 2017.

⁸⁹ Writ Petition (Civil) No. 1232 of 2017.

other proceedings in virtual courts should be live-streamed, keeping in mind the constraints of bandwidth and technology. Transcripts of the proceedings should also be made public. Voice-to-text transcription should be a part of the virtual court platform. Physical courtrooms have spatial constraints that allow only a limited number of people access to watch the proceedings. Virtual courts have the potential to overcome this limitation and open up access to court proceedings in an unprecedented manner. This can herald a level of transparency that is unimaginable in the context of physical courtrooms.

In India, the usage of personal data or information of citizens is regulated by the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 (IT Rules) that were passed under Section 43A of the IT Act, 2000 (IT Act). These IT Rules define personal information of an individual as any information that may be used to identify them. In case of any negligence in maintaining security standards while dealing with the data, the IT Rules hold the body corporate (who is using the data) liable for compensating the individual. However, given the limitation under Section 43A of the IT Act, the IT Rules do not apply to data generated by the government.⁹⁰

With respect to data stored and made public, the principles laid down in the Supreme Court's unanimous decision upholding privacy as a fundamental right under Article 21 of the Constitution in *Justice K S. Puttaswamy (Retd) v. Union of India* will play a pivotal role. The judgment, which emerged from a challenge to the Aadhaar identification system, deals with the usage of data by the state bodies and laid down a test to determine when the state can invade the privacy of its citizens. This test requires the following three conditions to be met:

First, legality – the invasion must be expressly sanctioned by law;

Second, necessity – the invasion must be in furtherance of achieving a legitimate state aim under the Constitution; and

Third, proportionality – the extent to which the state invades the individual's privacy should be proportionate to the needs for achieving the legitimate aim. This condition is broken up into the following aspects:

1. Legitimacy of the goal – the specific measure invading the individual's privacy must have a legitimate goal;
2. Suitability or rationale nexus – the invasion must have a rational nexus with the achievement of the goal;
3. Necessity – the possibility of another alternative which is less restrictive but equally effective should be ruled out before proceeding with the invasion of individual privacy; and
4. A positive balance – the cost that the invasion has on the rights of individuals needs to be compared with any of its potential benefits. While a data protection law is necessary to protect individuals against breaches and attacks, it needs to be balanced with the dissemination of data on the activities of public institutions which is necessary to ensure democratic accountability.

Although the overall policy governing judicial data should be open data, it is important to keep in mind that sensitive information is frequently an important part of legal proceedings, even though cases are heard in an open court. The ability to possess, transform, and use information, particularly when done in bulk, could have harmful consequences. There is thus a need to protect the privacy of citizens while observing an open data principle.

⁹⁰ DAKSH. 2019. *Whitepaper Series On Next Generation Justice Platform Paper 3*. Bengaluru, p. 8

⁹¹ DAKSH, *Whitepaper Series On Next Generation Justice Platform Paper 3*, p. 14.

7

Technology

While implementing a video conferencing facility, the judiciary should ensure that the platform has features such as high-quality video, multi-stream high-definition technology, live screen sharing, automatic bandwidth adjustment, and cloud-based access.

It is recommended that a specialised software compatible with the eCourts infrastructure be used for video conferencing purposes, to ensure the highest security standards. Apart from these factors, the video conferencing platform should also be interoperable. It should secure data with true end-to-end encryption, protect against malware and provide for data-loss protection. It should be accessible on various kinds of devices such as laptops, tablets, and phones, and it must facilitate a flexible transition to the cloud.

7.1 HARDWARE

The core component of a video conferencing system consists of hardware elements that enable the capturing and transfer of video images and audio sounds. The hardware encompasses camera facilities, microphones, and electronic screens associated with various devices. In addition to this, having echo cancellation software will help manage the lag in communication while participants are on a video conference. Further, hardware and software for data compression is required given the volume of data that will be generated. Furthermore, all the data collected from various video conferences will have to be stored, and cloud storage must be the preferred mode of storage. In order to ensure smooth services, having reliable internet connectivity is also essential to this whole process.

7.2 DATA COMPRESSION

To optimise storage of data, it is necessary to compress the data. Advanced free and open-source loss-less compressions are now available in the market. MPEG-1 and MPEG-2 are the suggested compressed formats. Other formats can be used based on the device distribution. MP4 is the desired format for mobile phones and tablets.

7.3 DATA TRANSFER

Once digitally compressed, the video and audio data can be transmitted over a network. In most cases, a broadband internet connection is the preferred network. It is recommended that a dedicated lease line be reserved only for the courts' usage. To facilitate the transfer of large amounts of data amongst the participants in a video conference, the SSH File Transfer Protocol (SFTP) can be used. SFTP protects against password sniffing, cyber-attacks, and protects the integrity of the data using encryption and cryptographic hash functions, and authenticates both the server and the user.

The Wireless Area Network that the courts should use will have to ensure that the video bandwidth adheres to the Quality of Service (QoS) implemented in both the WAN and LAN. Having a QoS will allow for managing the video traffic in the bandwidth. When upgrading, ethernet instead of bonded T1 / E1 access lines should be used. This will enable future upgrades without local loop replacement.

7.4 AVOIDING FIREWALL BLOCKS

Firewalls are designed to protect systems from viruses and to provide security, but these can block the transmission of video conferencing data. To support video conferencing, the firewall needs to recognise video signals, handle the communication traffic efficiently, and ensure no disruption to the firewall protection and/or the video call services. It is recommended to use Session Border Controllers (SBCs), a combination of hardware and software equipment to manage the firewall.

7.5 STANDARDS

a. Media Standards

Video conferencing is only possible when the audio and video information is translated and transmitted using the same technology language or standards. For video, the codec system (coder-decoder technology to compress and decompress data) uses the H.264 standard at conferencing locations. The standard for video compression, H.264, is widely used in various applications/ devices such as video conferencing, mobile, and web platforms.

b. Formats

All video formats are not compatible with digital platforms when it comes to production and repurpose. This can create tremendous problems while attempting to input, output, upload, and download necessary files.⁹² The preferred video formats are:

1. AVI [Audio Video Interleave]
2. MP4 Format [Moving Pictures Expert Group 4]
3. WMV [Windows Media Video]
4. MOV [Apple Quicktime Format]
5. MPG Format

c. Signalling

The International Telecommunications Union (ITU) developed the H.323 video conferencing standards and protocols to ensure compliance and to facilitate support across networks. H.323 is most common for video conferencing equipment but Session Initiation Protocol (SIP) is also rapidly being adopted

⁹² The following types of codecs are available:
FFmpeg – This family of free codecs includes formats that are made for compressing DVDs that have been downloaded from any media storage.
XviD – An open source version of the codec is popular for bit size compression.
x264 – Popular for use in conjunction with high definition resolution, this codec is particularly adept at compressing H.264 videos.

as the standard for video because it can work between many different forms of communication such as voice, data, instant messaging, and Web 2.0-based applications.

7.6 DATA-SHARING

The video conferencing platform of the judiciary should allow for uploading videos, sharing documents in real-time and scaling shared video clips to an ideal size.

7.7 CONTENT DISTRIBUTION NETWORK (CDN)

CDN nodes are usually deployed in multiple locations, often over multiple internet backbones. These reduce bandwidth costs, improve page load times, and increase the availability of content. A decision regarding what kind of CDN needs to be used must be decided on the infrastructure availability of NIC.

a. Types of CDN

In peer-to-peer (P2P) CDN, clients provide resources as well as use them. This means that unlike client-server systems, the content-centric networks can perform better as more users begin to access the content. This is one of the major advantages of using P2P networks because it reduces the setup and running costs.

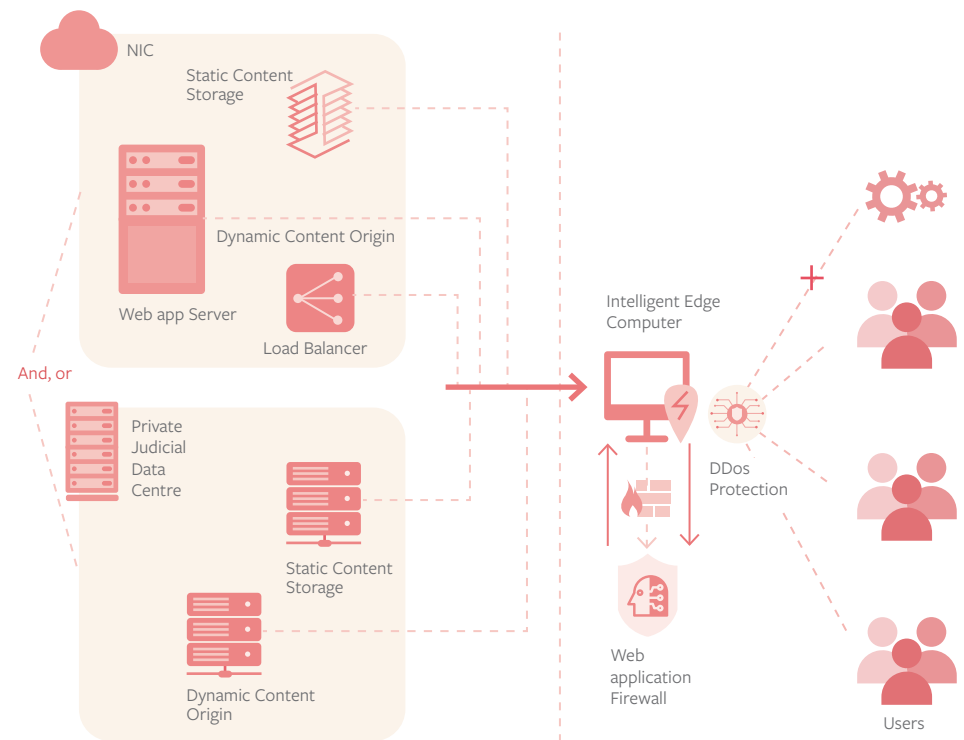
The judiciary can create their private CDN. A private CDN consists of POPs (points of presence) that are only serving content among themselves. These POPs can be caching servers, reverse proxies, or application delivery controllers. It can be as simple as two caching servers or large enough to serve

petabytes of content. Since the same content has to be distributed across many locations, a variety of multicasting techniques may be used to reduce bandwidth consumption. Over private networks, it has also been proposed to select multicast trees according to network load conditions to more efficiently utilise available network capacity.

b. Open CDN Architecture

Figure 9 shows what an open CDN architecture for the judiciary would look like.

Figure 9: Open CDN architecture for the judiciary



7.8 ARCHIVAL AND STORAGE

Archiving begins from the moment of creation when when raw video footage is recorded on a camera.. At this key stage, there is important information about the video that must be captured to enable identification, authentication, and use of the video later on. Such contextual information about the video has to be captured at the time it is created. This metadata (i.e. data that allows for unique identification of video content in this context) is critical to the video's authenticity, and to the ability to find, use, and understand the video.

The key pieces of information to capture at the point of creation of the video include date and time of recording or creation, the geographical location associated with it, basic description details and information of video's creator. This capturing of information will allow for security considerations and will also allow us to treat different video recordings associated with the hearings differently. For instance, some may be private hearings and some public. This process will allow for the bifurcation of such categories.



The key pieces of information to capture at the point of creation of the video include date and time of recording or creation, the geographical location associated with it, basic description details and information of video's creator.

7.9 CAPTURE METADATA AND DOCUMENTATION

There are many ways to capture metadata about the video at the point of creation. Information can be captured manually or automatically and can be embedded in the video file or recorded in a separate document. Different methods have different safety and security risks and logistical requirements. The metadata captured should include:

- a. Container:**
Format, profile, commercial name of the format, duration, overall bit rate, writing application and library, title, author, creator, recorder info, track number, date, duration.
- b. Video:**
Format, codec id, aspect, frame rate, bit rate, colour space, chroma subsampling, bit depth, scan type, scan order.
- c. Audio:**
Format, codec id, sample rate, channels, bit depth, language, bit rate, etc.
- d. Text:**
Format, codec id, language of subtitle, etc.

7.10 USING VIDEO ANALYTICS

The main goal of video analytics is to automatically recognise temporal and spatial events in videos. Usually, these systems perform real-time monitoring in which objects, object attributes, movement patterns, or behaviour related to the monitored environment are detected. Machine learning and deep learning approaches have revolutionised video analytics. The use of Deep Neural Networks (DNNs) has made it possible to train video analysis systems to mimic human behaviour. Systems that analyse facial expressions, body posture, and gaze can be developed to assist the judiciary in the evaluation of litigants. Such a system can detect emotions from body language and micro-expressions, offering judiciary objective information that can confirm their hypotheses or give them new clues. It is important to have a legal framework that would allow for such analytics keeping in mind data privacy and security aspects discussed in section 6 of this paper. To facilitate analytics, the videos can be stored according to the following standards:

- a. **Container:** MPEG-4, QuickTime, Matroska, AVI, MPEG-PS (including unprotected DVD), MPEG-TS (including unprotected Blu-ray), MXF, GXF, LXF, WMV, FLV, Real.
- b. **Tags:** Id3v1, Id3v2, Vorbis comments, APE tags.
- c. **Video:** MPEG-1/2 Video, H.263, MPEG-4 Visual (including DivX, XviD), H.264/AVC, H.265/HEVC, FFV1.
- d. **Audio:** MPEG Audio (including MP3), AC3, DTS, AAC, Dolby E, AES3, FLAC.
- e. **Subtitles:** CEA-608, CEA-708, DTVCC, SCTE-20, SCTE-128, ATSC/53, CDP, DVB Subtitle, Teletext, SRT, SSA, ASS, SAMI.



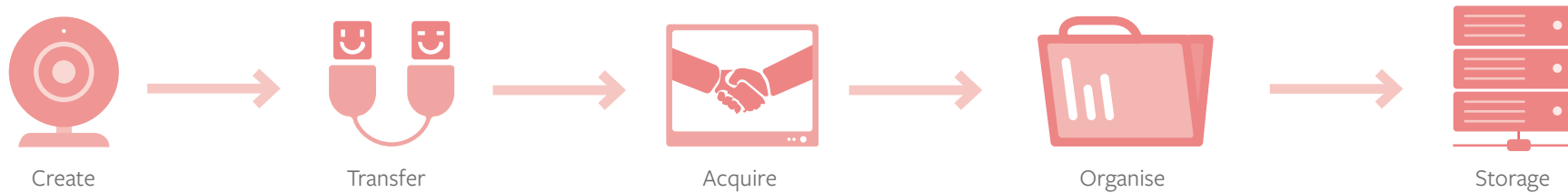
Further, the features of such analytics software must include facilities to:

- a. View information in different formats (text, sheet, tree, HTML);
- b. Customise these viewing formats;
- c. Export information as text, CSV, HTML, etc.;
- d. Have graphical user interface, command line interface, or library (.dll/.so/.dylib) versions available;
- e. Integrate with the shell (drag 'n' drop, and Context menu);
- f. Display any language on any operating system; and
- g. Have localisation capability.

7.11 WORKFLOW

Figure 10 provides a bird's eye view of the workflow of the process of video conferencing in a court.

Figure 10: Workflow of the video conferencing process in court



a. Create

Archiving begins from the moment of creation when raw video footage is recorded on a camera. At this key stage, there is important information about the video that must be captured to enable identification, authentication, and use of the video later on. The process of metadata starts here.

b. Transfer

Transfer refers to the electronic or physical movement of video, metadata, and related documentation from one device or location to another. Transferring can occur at any point in a workflow and often happens at multiple points. The result of a transfer is a file that is complete, unaltered, and in its original format.

c. Acquire

Acquisition refers to the process of receiving video and metadata from a source and adding it to the collection. The aim at this stage is to acquire materials in a complete and intact form. Actions taken at this stage are critical to later usability and preservation of the video.

d. Organise

Organising the collection involves arranging the files into a coherent directory structure, and naming those directories. It is needed to retain the original order of the video files and ensures that videos do not get lost or accidentally overwritten.

e. Storage

Storage is not just related to the device or service that is used to hold the videos, it also requires a set of actions or practices to ensure the media stays intact, secure, and accessible. Making copies, checking files, controlling access, and refreshing the devices are simple strategies for keeping videos safe while in storage. Videos along with the transcripts and metadata pertaining to each case can be stored along with the hearing data for public view and access.

8

International Overview of Virtual Courts

8.1 UNITED KINGDOM

The United Kingdom is on an ambitious path towards digitising its court system.⁹³ The Civil Courts Structure Review initiated a new legal framework that encompasses an Online Solutions Court for England.⁹⁴ The Online Solutions Court envisions the first stage of the dispute process to be automated, allowing litigants to identify their legal issues and upload relevant documents.⁹⁵ In the next stage, there will be a case officer who will help the litigants, and

⁹³ Joshua Rozenberg. 2019. 'Justice Online: Are We There Yet?', 21 February, available online at <https://www.gresham.ac.uk/lectures-and-events/justice-online-there-yet> (accessed 12 April 2020).

⁹⁴ Lord Justice Briggs. 2016. 'Civil Courts Structure Review: Final Report', Judiciary of England and Wales, available online at <https://www.judiciary.uk/wp-content/uploads/2016/07/civil-courts-structure-review-final-report-jul-16-final-1.pdf> (accessed 12 April 2020).

⁹⁵ John Sorabji. 2017. 'The online solutions court – a multi-door courthouse for the 21st century', *Civil Justice Quarterly*, 36 (1): 86 -104.

the last stage will involve adjudication by a judge but may not involve physical hearings or a trial.⁹⁶ It is assumed that the Online Solutions Court will ensure that more litigants can access the courts, given the digitally friendly platform that will help the litigants resolve their dispute.⁹⁷

Video hearings are especially prevalent in criminal cases and most criminal courts are equipped with video links within the court infrastructure.⁹⁸ Video hearings are ordered only upon the judge's discretion.⁹⁹ It is understood that the court allows for the hearings to be open unless the court deems that the hearings should be private in the interest of justice.¹⁰⁰ At present, there is not enough data on the number of video hearings that take place or why the same is ordered in the first place.¹⁰¹

⁹⁶ John Sorabji, 'The online solutions court – a multi-door courthouse for the 21st century'.

⁹⁷ John Sorabji, 'The online solutions court – a multi-door courthouse for the 21st century'.

⁹⁸ Penelope Gibbs 'Defendants on video–conveyor belt justice or a revolution in access?', p. 5.

⁹⁹ HMCTS. 2020. 'HMCTS video hearings: guidance for legal professionals', HMCTS, 10 January, available online at <https://www.gov.uk/guidance/hmcts-video-hearings-guidance-for-legal-professionals> (accessed 12 April 2020).

¹⁰⁰ Judiciary of England and Wales. 2020. 'Civil Justice in England and Wales Protocol regarding Remote Hearings', Judiciary of England and Wales, 26 March, available online at https://www.judiciary.uk/wp-content/uploads/2020/03/Remote-hearings.Protocol.Civil_GenerallyApplicableVersion.f-amend-26_03_20-1-1.pdf (accessed 12 April 2020).

¹⁰¹ Penelope Gibbs 'Defendants on video–conveyor belt justice or a revolution in access?', p. 2.

8.2 UNITED STATES OF AMERICA

The United States of America has made pioneering efforts towards digitisation of court proceedings. An Illinois court first used videophone bails hearings in 1972 and a court in Philadelphia installed a closed-circuit television system in 1974 for arraignment-related hearings.¹⁰² Despite the early developments, many states within the US still allow for judicial discretion in deciding whether a video conference is required.¹⁰³ The debate in the US has evolved to include discussions on the best practices in terms of electronic usage of documents while looking into video conferences. For instance, automation is suggested to allow for judicial authorisation of documents.¹⁰⁴ To address privacy concerns, certain courts like Florida, Pennsylvania, and Michigan are using automated redaction software facilities.¹⁰⁵ These software options work in tandem with e-filing, case management, and document management software.¹⁰⁶ Certain courts in the state of Michigan are advanced in their handling of the video conferences and allow for live streaming of the same.¹⁰⁷ As regards the platforms used, courts are amenable to using networks like Zoom.¹⁰⁸ Certain other

¹⁰² National Centre for State Courts. 1995. 'Briefing Papers: Videoconferencing', National Centre for State Courts, available online at <https://cdm16501.contentdm.oclc.org/digital/collection/tech/id/532> (accessed 12 April 2020).

¹⁰³ Wisconsin Supreme Court. 2017. 'Bridging the Distance: Implementing Videoconferencing in Wisconsin', available online at <https://www.wicourts.gov/courts/committees/docs/ppacvidconf.pdf> (accessed 12 April 2020).

¹⁰⁴ James E McMillan. 2005. 'Digital Rights Management, Technology Will Change the Way Courts Work', National Centre for State Courts, available online at <https://cdm16501.contentdm.oclc.org/digital/collection/tech/id/585> (accessed 12 April 2020).

¹⁰⁵ Thomas M Clarke. 2017. 'Best Practices for Court Privacy Policy Formulation,' National Centre for State Courts, available online at <https://cdm16501.contentdm.oclc.org/digital/collection/tech/id/876> (accessed 12 April 2020).

¹⁰⁶ Thomas M Clarke. 2017. 'Best Practices for Court Privacy Policy Formulation,' National Centre for State Courts, available online at <https://cdm16501.contentdm.oclc.org/digital/collection/tech/id/876> (accessed 12 April 2020).

¹⁰⁷ State Court Administrative Office. 2020. 'Michigan Trial Courts Virtual Courtroom Standards and Guidelines', State Court Administrative Office, 7 April, available online at https://courts.michigan.gov/Administration/SCAO/Resources/Documents/standards/VCR_stds.pdf (accessed 12 April 2020).

courts specify other applications. For instance, in certain courts in the state of Montana, applications are specified to be downloaded by the participants of the video conferences.¹⁰⁹

8.3 CANADA

Videotaped statements and closed-circuit television enabled hearings were mooted in Canada as early as 1988.¹¹⁰ However, Canada has followed a cautious approach to allowing video conferencing.¹¹¹ Judicial discretion is an intrinsic part of the video conferencing system. For instance, the Ontario rules of civil procedure lay down the various criteria that will have to be considered while allowing for video conferences.¹¹² On evaluating existing case law and the rules, it is suggested that there is no rule where a judge can impose video conferencing on an unwilling party, in the evidence stage.¹¹³ Access to court

¹⁰⁸ State Court Administrative Office. 2020. 'Michigan Trial Courts Virtual Courtroom Standards and Guidelines', State Court Administrative Office, 7 April, available online at https://courts.michigan.gov/Administration/SCAO/Resources/Documents/standards/VCR_stds.pdf (accessed 12 April 2020).

¹⁰⁹ Montana Seventh Judicial District Court. 2020. 'Order for court procedure- coronavirus', Montana Seventh Judicial District Court, 13 March, available online at <https://courts.mt.gov/Portals/189/virus/local/7.pdf> (accessed 12 April 2020).

¹¹⁰ Richard Francis. 2015. 'Universal Design and Videoconferencing at Tribunals: Improving access from day one', Presented at Council of Canadian Administrative Tribunals Annual Conference, 24 February, available online at https://cart-crac.gc.ca/about/intern_projects/project1-en.html (accessed 12 April 2020).

¹¹¹ Amy Salyzyn. 2012. 'A New Lens: Reframing the conversation about the use of Video Conferencing in Civil Trials in Ontario', *Osgoode Hall LJ* 50: 429 -463.

¹¹² Rule 1.08, Rules of Civil Procedure, available online at <https://www.ontario.ca/laws/regulation/900194> (accessed 12 April 2020).

¹¹³ Amelia Phillips. 2018. 'Cross-Examination By Video Conferencing: Still The Exception To The Rule', *Mondaq*, 6 December, available online at <https://www.mondaq.com/canada/Litigation-Mediation-Arbitration/761580/Cross-Examination-By-Video-Conferencing-Still-The-Exception-To-The-Rule> (accessed 12 April 2020).

records is available, subject to conditions and court discretion.¹¹⁴ In analysing the use of video conferencing in Canada, it is suggested that there needs to be research that transcends the efficiency of technology and focuses on how video conferencing may impact the judicial process.¹¹⁵

8.4 AUSTRALIA

Virtual courtrooms in Australia are advanced in certain areas. For instance, the e-courtroom facility allows for an entirely virtual proceeding without any physical hearings.¹¹⁶ As in other jurisdictions noted above, Australia also emphasises the importance of judicial discretion while allowing video conference facilities. It has a streamlined process where participants intending to use the video conference facilities will have to file a booking form to get the video link.¹¹⁷ Charges are also levied on participants for using the video conference facilities unless the court decides to use video conferencing for its convenience.¹¹⁸ Technical considerations that ought to be followed for the video conference are also specified.¹¹⁹ In certain courts, a specific court link is

¹¹⁴ Provincial Court of British Columbia. 2019. 'Policy of the Provincial Court of British Columbia', Provincial Court of British Columbia, 10 December, available online at <https://www.provincialcourt.bc.ca/downloads/public%20and%20media%20access%20policies/ACC-2%20-%20Access%20to%20Court%20Records.pdf> (accessed 12 April 2020).

¹¹⁵ Amy Salyzyn, 'A New Lens: Reframing the conversation about the use of Video Conferencing in Civil Trials in Ontario'.

¹¹⁶ Federal Court of Australia. 2016. 'Technology and the Court Practice Note', Federal Court of Australia, 25 October, available online at <https://www.fedcourt.gov.au/law-and-practice/practice-documents/practice-notes/gpn-tech> (accessed 12 April 2020).

¹¹⁷ Federal Court of Australia. 'Guidelines for videoconferencing', Federal Court of Australia, available online at <https://www.fedcourt.gov.au/going-to-court/videoconferencing-guide> (accessed 12 April 2020).

¹¹⁸ Federal Court of Australia. 'Guidelines for videoconferencing'.

¹¹⁹ Federal Court of Australia. 'Guidelines for videoconferencing'.

provided while Microsoft Team is also used as an alternative.¹²⁰ Courts are also amenable to using Zoom and Skype for business.¹²¹

Table 2¹²² summarises international practices from the following countries: USA, Canada, Australia, and the UK.



¹²⁰ Federal Court of Australia. 2020. 'National Practitioners/Litigants Guide to Virtual Hearings and Microsoft Teams', Federal Court of Australia, available online at https://www.fedcourt.gov.au/__data/assets/pdf_file/0019/62416/National-Practitioners-and-Litigants-Guide.pdf (accessed 12 April 2020).

¹²¹ Supreme Court of Victoria. 2020. 'Virtual Hearings Practitioner's Factsheet', Supreme Court of Victoria, April, available online at https://www.supremecourt.vic.gov.au/sites/default/files/assets/inline-files/Virtual%20Hearings%20-%20Practitioner%27s%20fact%20sheet_o.pdf (accessed 12 April 2020).

¹²² While understanding this table, it is to be noted that there are practice differences that exist among the courts situated within the same jurisdiction.

Table 2: Consolidation of the international practices

Features of Virtual Courts	USA	Canada	Australia	UK
Video Hearings	Available Judicial discretion to be exercised.	Available Judicial discretion to be exercised.	Available Judicial discretion to be exercised.	Available Judicial discretion to be exercised.
Special communication link to facilitate discussions between lawyers and clients	Available	Not available online.	Recommended to use the in-built features in the network used for the video conferencing or using a phone call/ SMS etc.	Still under development. Phone call options to clients are in place for now.
Public access to hearings	Live streaming for the public is available.	Access to court records available, subject to conditions and court discretion.	Courts discretion for allowing public participants.	Hearings to be open including allowing for live -streaming, unless the court decides otherwise.
Network Used	Some courts are using Skype. Zoom is also used.	Not available online.	Microsoft Team is also used as an alternative. Zoom, Webex, Skype for business are also used.	Court sends the video link to the participants. Instructions are provided regarding the usage of the link. BT MeetMe, Skype for Business, Zoom are all utilised.
Recording of hearing	Recorded by the court, subject to certain exceptions.	Recording done in some matters. Authorisation required, subject to rules framed thereunder.	The court records the proceeding. Public not allowed to record.	Court records the hearing, not open to the public and participants to record the hearing without the express permission of the court.

Features of Virtual Courts	USA	Canada	Australia	UK
User Manuals for participants	Available.	Not available online.	Available.	Available.
Interpretation Facilities	Available.	Not available online.	Available.	Not available online.
Transcription of hearings	Available.	Available. Access to court records available, subject to conditions and court discretion	Available.	Available.

Table Sources:

USA: Wisconsin Supreme Court. 2017. 'Bridging the Distance: Implementing Videoconferencing in Wisconsin', available online at <https://www.wicourts.gov/courts/committees/docs/ppacvidconf.pdf> (accessed 12 April 2020); Rule 1.6, Rules of Criminal Procedure, available online at <https://www.azcourts.gov/portals/20/2008RulesA/2009Rules/Aug2009orders/R060016.pdf> (accessed 12 April 2020); State Court Administrative Office. 2020. 'Michigan Trial Courts Virtual Courtroom Standards and Guidelines', State Court Administrative Office, 7 April, available online at https://courts.michigan.gov/Administration/SCAO/Resources/Documents/standards/VCR_stdts.pdf (accessed 12 April 2020); Michael Marciano. 2020. 'Virtual Court' Is In Session', Law.com, 6 April, available online at <https://www.law.com/newyorklawjournal/2020/04/06/virtual-court-is-in-session/> (accessed 12 April 2020).

Canada: Rule 1.08, Rules of Civil Procedure, available online at <https://www.ontario.ca/laws/regulation/900194> (accessed 12 April 2020); Provincial Court of British Columbia. 2019. 'Policy of the Provincial Court of British Columbia', Provincial Court of British Columbia, available online at <https://www.provincialcourt.bc.ca/downloads/public%20and%20media%20access%20policies/ACC-2%20-%20Access%20to%20Court%20Records.pdf> (accessed 12 April 2020); Provincial Court of British Columbia. 2016. 'Recording of Proceedings before Judicial Case Managers', Provincial Court of British Columbia, available online at <https://www.provincialcourt.bc.ca/downloads/Practice%20Directions/NP%2010%20Recording%20of%20Proceedings%20Before%20Judicial%20Case%20Managers.pdf> (accessed 12 April 2020); Supreme Court of British Columbia. 2015. 'Practice Direction Video Recording or Broadcasting of Court Proceedings', Supreme Court of British Columbia, available online at https://www.bccourts.ca/supreme_court/practice_and_procedure/practice_directions/civil/PD-48-Video_Recording_or_Broadcasting_of_Court_Proceedings.pdf (accessed 12 April 2020).

Australia: Federal Court of Australia. 'Guidelines for videoconferencing', Federal Court of Australia, available online at <https://www.fedcourt.gov.au/going-to-court/videoconferencing-guide> (accessed 12 April 2020); Federal Court of Australia. 2020. 'National Practitioners/Litigants Guide to Virtual Hearings and Microsoft Teams', Federal Court of Australia, available online at https://www.fedcourt.gov.au/__data/assets/pdf_file/0019/62416/National-Practitioners-and-Litigants-Guide.pdf (accessed 12 April 2020); New South Wales Government. 'Interpreters and Translators', available online at <http://www.courts.justice.nsw.gov.au/Pages/cats/support/interpreters.aspx> (accessed 12 April 2020); Supreme Court of Victoria. 2020. 'Virtual Hearings Practitioner's Factsheet', Supreme Court of Victoria, April, available online at https://www.supremecourt.vic.gov.au/sites/default/files/assets/inline-files/Virtual%20Hearings%20-%20Practitioner%27s%20fact%20sheet_o.pdf (accessed 12 April 2020).

UK: HMCTS. 2020. 'HMCTS video hearings: guidance for legal professionals', HMCTS, available online at <https://www.gov.uk/guidance/hmcts-video-hearings-guidance-for-legal-professionals> (accessed 12 April 2020); HMCTS. 2020. 'HMCTS telephone and video hearings during coronavirus outbreak', HMCTS, available online at <https://www.gov.uk/guidance/hmcts-telephone-and-video-hearings-during-coronavirus-outbreak> (accessed 12 April 2020); Judiciary of England and Wales. 2020. 'Civil Justice in England and Wales Protocol regarding Remote Hearings', Judiciary of England and Wales, available online at https://www.judiciary.uk/wp-content/uploads/2020/03/Remote-hearings.Protocol.Civil_GenerallyApplicableVersion.f-amend-26_03_20-1-1.pdf (accessed 12 April 2020).

9

Implementation

A road map for the successful adoption of video conferencing in the Indian judiciary should balance the immediate needs of the pandemic with that of the situation when normalcy will return in the near future. We recommend the approach and indicative timelines detailed in Table 3 for the adoption of video conferencing.



Table 3: Implementation approach

S No.	Feature	Priority
1	Ensure that current physical infrastructure in place is used optimally before committing to additional infrastructure. As noted in section 2 of this paper, courts already have video conferencing facilities. Some questions that leadership in the judiciary should engage with in this context are: What is the level of their usage? If they are not being used as much as was anticipated, what are the factors that limit their usage? Are they physical and technological factors? Are they behavioural factors? Are they the outcome of existing rules and/or regulations? Answering these questions will require putting in place a robust statistical system and conducting rigorous evaluation studies. Such studies are required before committing additional investment in the infrastructure that is required to build a safe and robust video conferencing system.	6 to 9 months from the current date
2	Make rules that provide for increasing usage of video conferencing based on learnings from the above study, and also protecting the privacy of data. Draft rules should be placed in the public domain, feedback sought, and amendments incorporated.	3 to 4 months from completion of the study to notification of final rules.
3	Scope for video conferencing must be expanded on a pilot basis, for example in 3 court complexes (1 metro, 1 tier 2 location, and 1 rural location). The pilot project must run for 6 months, after which functioning should be evaluated and results put in the public domain.	6 to 9 months for the pilot project and 3 to 5 months for evaluation
4	Enhancing technological functionalities, integration with e-filing, document management, justice platform, and enabling data protection and privacy features.	In parallel after completion of the study detailed in (1)
5	Next steps to be deliberated upon based on learnings from the pilot project.	After evaluating the functioning of pilot courts



10 The Way Forward

It is clear that the Indian judiciary has over time appreciated the utility of video conferencing in making justice more accessible and to protect vulnerable citizens. While the COVID 19 related lockdown forced several courts to switch to online hearings, it is necessary that the judiciary continue to maintain the momentum on digitization that has started during this period. The following considerations should be kept in mind while charting the course to virtual courts:

10.1 VIDEO CONFERENCING AS THE DEFAULT MODE FOR HEARINGS IN SELECT SITUATIONS

a. Outstation witnesses

Getting witnesses to depose poses a significant challenge in the Indian justice system. Where witnesses reside at a city/town other than that of the court that they are required to depose at, video conferencing should be the norm.

b. POCSO Cases

The sensitivity of POCSO cases and the need to protect the victim from the alleged perpetrator, make a compelling case for using video conferencing. Provisions for conducting in-camera proceedings already exist and this would be a natural extension.

c. Heinous crimes against women

Given the reluctance in reporting crimes against women and the social stigma attached to women when filing a case against their alleged perpetrators, women must be allowed to depose remotely using video conferencing facilities. However, whether this can be extended to all crimes against women or only heinous ones needs further discussion.

d. Consumer courts

Video conferencing facilities will go a long way in ensuring that market forces are balanced in situations where consumers pursue disputes against providers of goods and services.

e. Commercial courts

Video conferencing would not present a challenge to the parties and lawyers appearing in commercial courts. Further, commercial courts are required to hold pre-trial conferences and follow case management practices that enable focused hearings over a limited period by scheduling hearings in advance. All these factors make commercial courts ideal for expanding the use of video conferencing facilities.

f. Tribunals

Many tribunal benches suffer from inadequacy of members - both technical and judicial.¹²³ Some tribunals have circuit benches that move across different locations. Video conferencing can help optimise these scarce resources across benches - e.g. a technical member stationed at Chennai can regularly be part of proceedings in Delhi.

10.2 PARTIES TO BE ALLOWED TO REQUEST HEARINGS THROUGH VIDEO CONFERENCING

Apart from making video conferencing the default mode for hearings in certain cases, parties and witnesses may be allowed to request the presiding officer to participate through video conferencing. The judge or presiding officer should be empowered to accept or reject such applications based on guidelines laid down and in the interests of timely justice.

¹²³ *Rojer Mathew v. South Indian Bank*, Civil Appeal No. 8588 of 2019.

Virtual courts can enable legal services authorities to reach people in far-flung areas to enable them to access justice.

10.3 USAGE BY LEGAL AID AUTHORITIES

During the lockdown, State Legal Services Authorities began to provide helplines to help and advice women and children who are victims of domestic violence.¹²⁴ Virtual courts can enable legal services authorities to reach people in far-flung areas to enable them to access justice. In the aftermath of the lockdown, these authorities should reach out to potentially affected groups like stranded workers, people who have lost jobs etc to see whether they need any legal assistance.

10.4 ENSURING CITIZEN CENTRICITY

At the heart of the any project for judicial reform is need to improve access to justice for individual citizens. Virtual courts should be designed not just for the convenience and efficiency of the judiciary, lawyers, police and other institutions but should also be designed keeping in mind convenience and ease of use for citizens across the country.

¹²⁴ The Delhi state Legal Services Authority has initiated one such helpline. The relevant office order is available here: <http://dlsa.org/wp-content/uploads/2020/04/OFFICE-ORDER-of-PURNIMA-MALIK.pdf> (accessed on 24 April 2020).

11

A Framework For Rules

With courts across the country being called upon to formulate directives governing the conduct of case hearings through video conferencing, this section of the paper seeks to provide a framework or rules to actualise virtual courts.

11.1 DEFINITIONS

The rules passed by courts must ensure that certain specifications are provided to clarify the extent of application of the rules and video conferencing facilities. In specific, courts must specify:

- a. The software to be used for video conferencing;
- b. Persons who can use the video conferencing facility;
- c. The nature of access provided to various users; and
- d. Which persons (other than judges, court staff, litigants, their advocates and witnesses) can be called by the court to join the video conference.

11.2 APPLICABILITY

The rules must explicitly mention which courts the rules apply to - whether the high court, trial courts, or both. If the court envisages trying video conferencing facilities on a trial basis, the rules must also mention if they only apply to specific benches in the high court or specific trial courts, etc.

Further, the rules must also mention which authority is empowered to expand the applicability of the rules, the mode of such notification, and the timeline for such applicability to more courts.

11.3 INFRASTRUCTURE

The courts must specify the minimum mandatory infrastructure to be in place at the courts before commencing the use of video conferencing facilities. Such basic infrastructure must include rooms for video conferencing with ample lighting, desktops/laptops for judges and court staff, high-speed internet, good quality speakers and microphones, good quality video camera, printers, the facility for digital signatures, codec, echo cancellation software, cloud storage, etc.

11.4 HUMAN RESOURCES

As the success of any virtual court system would depend on the knowledge of persons behind the system, courts must provide for and assign dedicated experienced personnel to plan, manage, and implement the architecture required to conduct case hearings through video conferencing.

11.5 USAGE

a. Cases where hearings can be conducted through video conferencing

Due to constraints of cost, manpower, and more importantly bandwidth, courts must stipulate the cases or circumstances under which cases can be heard through video conferencing. Further, in situations where judges may be given the discretion to allow or not allow for hearings through video conferencing, the rules must provide guidance on the nature of exceptions to be permitted.

b. Listing of cases

The rules to be framed by courts must specify the manner of notifying the cases listed to be heard through video conferencing, and when such causelists would be made available. As far as practically possible, courts must strive to provide time slots for the hearing of cases based on their nature and stage so as to optimise judicial time in hearings conducted through video conferencing. Further, courts must expressly clarify the timings during which hearings through video conferencing will be conducted.

c. Types of video conferences

As most case hearings in India are conducted in open court, the default option for hearings through video conferences must be public hearings that can be viewed online by members of the public. However, as the law also provides for private hearings in the case of sensitive cases, the rules must also allow for private video conferences to be held for such cases in accordance with the law.

d. Types of access for users

The rules must specify the types of access that can be provided to users in a hearing conducted through video conferencing. Further, if the access to public viewing is limited to a certain number of people, the rules must specify the maximum number of persons from the general public who can view the hearing.

e. Authentication

With parties, their advocates, and witnesses not appearing physically before the courts, it is vital to ensure confirmation of their identity before proceeding with the hearing of a case. Therefore, the rules must specify the method of authenticating their identity remotely. For example, courts could mandate that persons upload a clear photo of their photo identity card (official identity cards for police or court officials, bar council cards for advocates, government-issued photo identity cards for others, etc.), enter their mobile number and an OTP to log in.

f. Accessing the video conference

The rules must specify how the links to join the video conference will be shared, when they will be shared, what time the participants must join the video conference, what features they would be required to have (camera, speaker, microphone), and any other requirements that the participants must ensure they carry out (for example, sit facing a light source, ensure that there is space of 1.5 metres around the person speaking, etc.)

g. Waiting room

If the software used by the courts provides the feature of a waiting room until the beginning of a case hearing, the rules must explain the use of a waiting room, when parties will be made to join the room and when their case will be heard.

h. Manner of hearing cases

The rules must stipulate the etiquette to be followed in the hearing of cases through video conferencing so as to minimise the disruption in proceedings. For instance, the rules could provide that all parties must remain silent until they are called upon by the judge to speak, or if the software used by the courts has features to replicate the raising of one's hand or a feature to mute a participant, the rules must specify how and when such features can be used.

i. Private conversations between advocates and litigants

If the courts make use of a video conferencing software that allows advocates and litigants to have private conversations during a hearing, the rules must specify when and how such features to engage in private conversations can be used.

j. Sharing of documents during hearings

The rules must specify the method of sharing documents with the court during hearings. If the software used by courts for video conferencing allows for uploading of documents, the rules may specify the circumstances under which such feature can be used, or in the alternative what documents may be uploaded. If the court requires hard copies of any documents to be provided in addition to the soft copy, the rules must stipulate that. Further, in case of witness evidence provided through video conferencing, the rules must specify how the transcripts of such evidence are to be signed by the witness and sent to the court for the record.

k. Passing of orders by the court and digital signatures

The rules framed by courts must stipulate how orders will be passed by courts and copies will be made available. If judges will be using digital signatures for the orders, the rules must also specify the same.

l. Requests filed before the virtual court

As parties to a case often file applications or memos before the court during the hearing of a case, the rules must specify where and when such applications or memos can be filed. The rules must also specify how parties will receive an acknowledgment of the receipt of their application or memo and the action taken on it.

Further, in order to account for cases where any party wants to mention a case for hearing or listing, seek an adjournment, or seek a private hearing through video conferencing, the rules must stipulate the manner in which such requests can be filed, and when and how they will hear back on the action taken on their request.

m. No use of cell phones during proceedings

Keeping in line with rules prohibiting the usage of cell phones inside court halls, the rules must prohibit the use of cell phones by all participants during the hearing of a case.

11.6 IMPLEMENTATION SUPPORT

a. Calling of aids for participants

The rules must allow for the following persons to be present for hearings over video conferencing where required: translators, experts in sign language, persons to read documents aloud for visually challenged participants, and interpreters for persons with mental or physical disabilities. The rules must specify when such persons must be informed of the case hearing and how they will be provided a link and guidelines to join the video conference.

b. E-filing and e-payments

If the courts so implement a mechanism, the rules may provide for the mode and method of e-filing and making of e-payments. The rules must in such a case also prescribe the procedure to check which payments have been made, which documents have been uploaded, and also track whether the documents have been reviewed and accepted or returned for rectification of defects.

c. Training of judges and court staff, support staff

Training of judges and court staff will be crucial in ensuring the success of conducting case hearings through video conferencing. Therefore, the rules must specify the nature of training to be provided, who will be provided training, who will conduct the training, and when such trainings will be conducted. The rules must also account for the training of support staff who will be deployed for answering any questions or helping participants of a video conference with any technical difficulties they may face.

11.7 COLLECTION OF DATA

For the courts to assess and evaluate the efficiency of video conferencing and effectively utilising judicial time, the rules may provide for the collection of data regarding hearings through video conferencing and stipulate which authority is to analyse and suggest improvements based on the data collected.

11.8 TRANSPARENCY

The rules must stipulate that the court will ensure transparency in hearings held through video conferencing, with any relaxations or exemptions provided to participants being made known to the public in the interests of transparency and adhering to the principle of open courts.

11.9 PRIVACY AND DATA SECURITY

The rules must specify the standards of privacy and data security to be followed by the courts with regard to conducting case hearings through video conferencing. In specific, the rules must also address how and where recordings of hearings, documents shared online, and transcripts of the video conferences will be stored and secured, and the duration for which they will be stored and secured.

11.10 PROHIBITION ON RECORDING THE PROCEEDINGS OF A VIDEO CONFERENCE

The rules must also expressly prohibit any form of audio or video recording of court proceedings held through video conferencing when done without the express prior written permission of the court. In this regard, the rules may also provide for a strict fine or punishment against any person who records the proceedings of a video conference through an audio or visual means.

11.11 PROVISIONS OF EXISTING LAWS TO APPLY

The rules may stipulate that provisions of the C.P.C, Cr.P.C, Information Technology Act, 2000 and Indian Evidence Act, 1872 shall continue to apply to hearings held through video conferencing, barring any exceptions to be prescribed by the rules.

11.12 NON-OBSTANTE CLAUSE

In order to ensure that the rules have adequate legal backing to be implemented, the rules may provide for a non-obstante clause to override all other existing rules/ regulations/ guidelines/ circulars that govern the conduct of hearings by courts through video conferencing.

The rules must also expressly prohibit any form of audio or video recording of court proceedings held through video conferencing when done without the express prior written permission of the court.

11.13 AMENDMENTS AND CLARIFICATIONS REGARDING THE RULES

The rules must stipulate the method and manner in which the rules may be amended or clarifications issued regarding the rules.

11.14 SUNSET CLAUSE

In order to ensure that the rules stay relevant to the context of changing times, the rules may provide for a sunset clause to evaluate the rules after a fixed period to check if any amendments need to be made.

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Annexure - I

High Court	Date of Notification	VC app	Types of cases for VC	How are cases filed (Briefly)	How is scrutiny done	Who can see proceedings	How to access judgment/order
High Court of Allahabad	11 April 2020	Jitsi Meet	Urgent matters. Parties need to send the request/application for urgent listing of the fresh matter/ pending matters with details/nature of urgency to the concerned email id.	Through e-filing. Comprehensive e-filing guidelines have been provided separately.	-	Advocate or litigant in person. Recording, processing and/or publishing of the VC proceedings is not permitted.	-
High Court of Andhra Pradesh	15 April 2020	BlueJean Meeting	Urgent matters	Through e-filing	-	Advocate/party in person	-
High Court of Chhattisgarh	-	Zoom	Very urgent applications, for civil, criminal as well as writ. The Chief Justice will decide upon the urgency of the matter.	A complete petition with a note, explaining the urgency has to be sent to the concerned email id of the Registrar Judicial.	-	Concerned party. Recording of the VC hearing and proceedings is not permitted.	-
High Court of Delhi	26 April 2020	Vidyo/Cisco Webex	Urgent matters	Urgent matters to be filed through e-filing	-	Advocates/litigants	-

High Court	Date of Notification	VC app	Types of cases for VC	How are cases filed (Briefly)	How is scrutiny done	Who can see proceedings	How to access judgment/order
High Court of Gauhati	07 April 2020	Vidyo, Skype, Zoom and Lifesize. Some of these are used for administrative purposes as well. WhatsApp video call is used for remand matters.	Cases that are urgent and cases related to personal liberty. Fresh arrest and remand cases.	The concerned party should contact the officer in charge. Phone numbers are provided on the respective court websites	-	-	-
High Court of Himachal Pradesh	16 April 2020	Cisco Webex/ Jitsi Meet	Urgent matters	Urgent matters to filed to the concerned email id.	-	Concerned advocates	-
High Court of Jharkhand	24 April 2020	Vidyo	Urgent matters. Whether a matter is extremely urgent or not shall be decided by the Chief Justice. Additionally, a list of ready cases will also be listed, these include: Bail /Anticipatory Bail Application, Suspension of sentence both in Criminal Appeal & Criminal Revision, Matters relating to payment of maintenance, Eviction matters, Demolition matters, Matters relating to removal from service & Pension Matter, P.I.L., Stay matters, extremely urgent Writ matters, any other matter which is decided by the Chief Justice to be extremely urgent matter.	Urgent matters will have to sent to an email id.	-	Concerned party. Recording/copying/ storing and/or broadcasting, by any means, of the hearing and proceedings is not permitted.	All the Orders/ Judgments will be uploaded.

High Court	Date of Notification	VC app	Types of cases for VC	How are cases filed (Briefly)	How is scrutiny done	Who can see proceedings	How to access judgment/order
High Court of Kerala	29 March 2020	Zoom/ Whatsapp	Urgent cases	Urgent request stating reasons in brief not exceeding one page needs to be sent to a concerned email id.	-	-	-
High Court of Madhya Pradesh	15 April 2020	Vidyo	Only urgent matters. The Registrar (Judicial) after examining the matter will place it before the Chief Justice who if satisfied with the urgency of the matter will direct to register and list the case.	Through the e-filing procedure available on e-courts. If that is not possible then by sending the petition to an official email id.	Staff/officials entrusted with the task will review the soft copies for defects. A list of defects, if any will be provided to the parties.	Advocate to the case or party in person that are essential for the case. Recording/sharing or publishing of VC proceedings is prohibited.	Orders passed will be emailed to the advocate and uploaded on the website.
High Court of Madras	17 April 2020	-	Urgent matters. Parties need to send a memo with reasons for urgency.	Sending requisite documents to the concerned email id.	-	Advocates/parties	-
High Court of Manipur	08 April 2020	Vidyo	Only urgent matters.	A brief-note (one page) should be sent via email to the concerned registry.	-	A URL link is shared with the concerned party via email or SMS.	The orders passed will be uploaded on the high court website and e-courts for district courts. The order will also be communicated to the concerned party via email and WhatsApp.

High Court	Date of Notification	VC app	Types of cases for VC	How are cases filed (Briefly)	How is scrutiny done	Who can see proceedings	How to access judgment/order
High Court of Meghalaya	14 April 2020	Vidyo	Urgent cases only. Will be decided on the merits of a case.	Cases can be filed via WhatsApp or by emailing the officer in charge and the note filed should not exceed two pages.	-	A third party cannot be present during the proceedings and recording of the proceedings is not permitted.	-
Orissa High Court	09 April 2020	Vidyo or Zoom Cloud meetings. If they fail to work, WhatsApp video call can be used.	Only extremely urgent matters.	An application is sent to the registry via email. The application should state the nature of such urgency in the case.	The registry will scrutinise the application and ensure there are no defects.	Only the parties to the case. Recording, publishing or sharing of court proceedings is strictly prohibited.	The parties will receive the order through an email or can access it on the court website.
High Court of Patna	-	Vidyo. Other VC applications can be used like Zoom and Skype etc.	Urgent cases only, which will be decided by the presiding officer.	Cases to be filed via email.	-	-	-
High Court of Rajasthan	-	Jitsi, if this not functional, Whatsapp can be used	Urgent matters in the High Court. Subordinate courts to hear only urgent matter and matter related to bail applications, appeals under special Acts regarding bails, remand matters, injunction/ stay applications, supurdagi applications and statements under section 164 of Cr.P.C. including dying declarations.	Cases to be filed via email.	-	The parties are not allowed to share the link with any third party.	-

High Court	Date of Notification	VC app	Types of cases for VC	How are cases filed (Briefly)	How is scrutiny done	Who can see proceedings	How to access judgment/order
High Court of Sikkim	24 April 2020	Vidyo	Urgent matters	Cases to be filed via email.	-	-	-
High Court of Telangana	27 April 2020	Cisco Webex meetings	Urgent matters, which will be decided by the Chief Justice.	Cases to be filed via email.	The registrar after scrutinising, will place the matters before the Chief Justice for his consideration. Once he is satisfied with the nature and urgency of the matter, the case will be listed before the concerned bench.	Video-conference cannot be recorded/ stored nor broadcast, in any manner whatsoever, as recordings/copying/ storing and/or broadcasting, by any means, of the hearings and proceedings before the courts are expressly prohibited.	-
High Court of Tripura	15 April 2020	Zoom Cloud meetings or Vidyo app can be used. Other video conferencing applications like Cisco Web, Google Hangouts can be used.	Urgent matters	-	-	Recording or sharing of proceedings is not permitted.	-

High Court	Date of Notification	VC app	Types of cases for VC	How are cases filed (Briefly)	How is scrutiny done	Who can see proceedings	How to access judgment/order
High Court of Uttarakhand	11 April 2020	Jitsi Meet, Zoom call or Vidyo. In the same order of preference.	Only urgent matters. Whether a matter is urgent or not will be decided by the Chief Justice based on the report submitted by the registrar.	A brief summary of case and the reasons for such extreme urgent hearings should be mentioned in the proposal that is sent to the registry via email.	The nodal office will review the proposal of the case and flag the defects of the case to the concerned party and he/she can also request for the proposal to be forwarded to the court with defects. The filing branch will register the case on CIS and the case will be forwarded to the concerned court.	The concerned party will receive the VC id link, date and time of hearing through SMS/email/Whatsapp service. The party to the case cannot share the link with anyone. The recording of the proceedings is prohibited.	The orders are uploaded on CIS/ NJDG.





DAKSH

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