



Judicial Council of California

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REPORT TO THE JUDICIAL COUNCIL

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For business meeting on November 17, 2023

Title

Judicial Branch Technology: Hybrid
Courtroom Findings and Recommendations

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Submitted by

Information Technology Advisory
Committee
Hon. Sheila F. Hanson, Chair

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Executive Summary

In 2021, the Information Technology Advisory Committee convened the Advancing the Hybrid Courtroom Workstream to study how courts have ensured successful remote proceedings since the onset of the COVID-19 pandemic in March 2020, make recommendations regarding best practices for technology and equipment for remote proceedings, and assist with development of a request for proposal consistent with those findings and recommendations. The workstream has now issued its final findings and recommendations in the *Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations*, which summarizes the workstream's work and sets forth a framework for courtrooms that are optimized for proceedings involving any number of physical or remote participants.

Relevant Previous Council Action

The Judicial Council has previously received several reports relating to remote courtroom proceedings and technology. At its December 2, 2022 meeting, the Judicial Council received a report by the Ad Hoc Workgroup on Post-Pandemic Initiatives entitled *Code of Civil Procedure Section 367.9: Report to the Legislature and Governor*.¹ The report satisfied the statutory

¹ Judicial Council of Cal., Advisory Com. Rep., *Report to the Legislature: Code of Civil Procedure Section 367.9: Report to the Legislature and Governor* (Nov. 10, 2022), <https://jcc.legistar.com/View.ashx?M=F&ID=11458013&GUID=75B619DA-F962-4CBD-83FD-F01CA128334E>.

mandate for a Judicial Council working group to make recommendations regarding (1) court reporter availability and future workforce, (2) statewide procedural and technical guidelines to ensure court users receive the best possible levels of service and access, (3) case types and proceeding types for which remote proceedings are appropriate, (4) protocols for ensuring court users fully understand their options for accessing the court remotely, and (5) whether changes are needed to existing laws protecting the accuracy of the official verbatim record and preserving parties' rights to appeal.

On September 25, 2020, the council accepted a report from the Remote Video Appearances Workstream of the Information Technology Advisory Committee (ITAC) entitled *Remote Video Appearances for Most Noncriminal Hearings 2018–2019*, which analyzed the state of video and digital appearances in California courts, made recommendations to broaden adoption of this emerging model for court appearances, and included guidance for early-adopter courts.²

Analysis/Rationale

Background

Remote appearances have been a judicial branch priority for many years and have long been recognized as a key tool in the branch's mission to provide equal and meaningful access to the court system for everyone. ITAC and other advisory bodies have studied various aspects of remote proceedings, often at the Judicial Council's direction.

In 2014, ITAC's Projects Subcommittee conducted a survey on courtroom use of video remote technology to ascertain the extent to which it was being used by California judicial officers.³ The report provided the council, judicial officers, and court executives with a compilation of information on judicial experience that can be leveraged across the judicial branch and used to gauge the level of interest in expanded use of video remote technology.

In 2017, following the acceptance of the report of the Commission on the Future of California's Court System,⁴ former Chief Justice Tani G. Cantil-Sakauye directed ITAC to "consider, for presentation to the Judicial Council, the feasibility of and resource requirements for developing and implementing a pilot project to allow remote appearances by parties, counsel, and witnesses

² Judicial Council of Cal., Advisory Com. Rep., *Trial Courts: Futures Commission Directive for Remote Video Appearances for Many Noncriminal Proceedings* (Apr. 28, 2020), <https://jcc.legistar.com/View.ashx?M=F&ID=8764337&GUID=B285BF68-9860-4C2E-9365-81CA48C2E758>, <https://www.courts.ca.gov/documents/RemoteVideoWorkstreamReport.pdf>.

³ Court Technology Advisory Com., *Video Remote Technology in California Courts: Survey and Findings* (Dec. 2014), https://www.courts.ca.gov/documents/02-_ctac-20141205-materials-VRTsurveyandreport.pdf.

⁴ Commission on the Future of California's Court System, *Report to the Chief Justice: Commission on the Future of California's Court System* (Apr. 2017), <https://www.courts.ca.gov/documents/futures-commission-final-report.pdf>.

for most noncriminal court proceedings.”⁵ ITAC formed the Remote Video Workstream, which focused on the people side of technology advancement and adoption within the judicial branch. The workstream’s study examined leveraging technical staff resources to implement and support remote technology, assessing what staff and judges need to know to use new technology, and evaluating how collaboration tools can be used to share experiences and promote innovation.

On September 25, 2020, the council accepted a report from the workstream entitled *Remote Video Appearances for Most Noncriminal Hearings 2018–2019*, which outlined the workstream’s recommendations, including pursuing new or amended legislation and rules of court enabling the expansion of remote proceedings, as well as adopting the *Key Considerations Guide for Early Adopters of Video Appearances in California Courts* to assist early adopter courts in simplifying the implementation process.⁶

On May 21, 2021, the Judicial Council approved the updated *Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language–Interpreted Events*,⁷ which were revised to support VRI in both physical and virtual courtrooms and to provide guidance to courts and the public to ensure that remote interpreting allows limited-English-proficient court users to fully and meaningfully participate in court proceedings.

Most recently, on December 2, 2022, the Judicial Council received a report by the Ad Hoc Workgroup on Post-Pandemic Initiatives entitled *Code of Civil Procedure Section 367.9: Report to the Legislature and Governor*.⁸ In the report, the workgroup made recommendations regarding case and proceeding types for which remote proceedings are appropriate, and protocols for ensuring court users fully understand their options for accessing the court remotely, as well as other areas.

The Advancing the Hybrid Courtroom Workstream

The sudden onset of the COVID-19 pandemic in March 2020 required courts to quickly implement technology and operations that could accommodate remote appearances in order to continue to provide access to the judicial branch. As a result, courts throughout California now

⁵ Former Chief Justice Tani G. Cantil-Sakauye to Judicial Council of Cal. Internal Com. Chairs and Admin. Director, “Addressing the recommendations of the Commission on the Future of California’s Court System,” (May 17, 2017); see also Judicial Council of Cal., mins. (May 18, 2017), pp. 2–3, <https://jcc.legistar.com/View.ashx?M=M&ID=512289&GUID=7109BE4D-C0F5-4029-8AB9-279D8F31708C>.

⁶ Judicial Council of Cal., Advisory Com. Rep., *Trial Courts: Futures Commission Directive for Remote Video Appearances for Many Noncriminal Proceedings* (Apr. 28, 2020), <https://jcc.legistar.com/View.ashx?M=F&ID=8764337&GUID=B285BF68-9860-4C2E-9365-81CA48C2E758>, <https://www.courts.ca.gov/documents/RemoteVideoWorkstreamReport.pdf>.

⁷ Judicial Council of Cal., *Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language–Interpreted Events* (May 21, 2021), <https://www.courts.ca.gov/documents/vri-guidelines.pdf>.

⁸ Judicial Council of Cal., Advisory Com. Rep., *Report to the Legislature: Code of Civil Procedure Section 367.9: Report to the Legislature and Governor* (Nov. 10, 2022), <https://jcc.legistar.com/View.ashx?M=F&ID=11458013&GUID=75B619DA-F962-4CBD-83FD-F01CA128334E>.

regularly and successfully conduct proceedings in person, remotely, or in a hybrid fashion, meaning that some participants are in person and some participants are connected via a remote device.

There is no question that those who participate in remote and hybrid court proceedings report that the quality of the experience depends in large part on the quality of the technology used by the participants, including the courts. For this reason, ITAC convened the Advancing the Hybrid Courtroom Workstream to study what courts have done to implement remote appearance options throughout the branch to (1) ensure that the quality of remote proceedings promotes a successful proceeding; (2) make recommendations regarding the technology and equipment needed to ensure quality remote proceedings⁹; and (3) assist with development of a request for proposal (RFP) consistent with the findings and recommendations.

The Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations summarizes the findings of the workstream and will facilitate the issuance of an RFP consistent with these findings. The work of the workstream embodies the commitment of California courts to increasing remote access and upgrading technology to improve the court experience and provide meaningful and equal access to justice.

The findings in the report reflect the experience and consensus from small, medium, and large courts that included feedback from judges, operational staff, and court technology experts. Members discussed what is necessary for participants in a hybrid or remote proceeding to see, hear, understand, participate, and control the proceedings adequately and effectively.

In addition to court judicial and operational participants, the analysis included other participants who had experience appearing and participating remotely in court proceedings in California during the pandemic. These contributors included court reporters, interpreters, court staff (e.g., judicial assistants), private attorneys, and attorneys employed by legal service providers. After the analysis of the various stakeholder perspectives, the workstream developed a list of needs and technology components that are required to ensure quality and accessible remote proceedings.

The report identifies five foundational principles, or “pillars,” for hybrid proceedings: (1) Audio and Video Communications; (2) Collaboration in Hybrid Court Proceedings; (3) Hybrid Court Participant and Public Access; (4) Hybrid Court Interoperability, Technology, and Process; and (5) Training and Guides. The five pillars encompass the operational and technological requirements to ensure successful hybrid and remote proceedings.

⁹ Separately, Judicial Council staff are working on developing minimum technology standards necessary to permit remote participation in court proceedings, as required by Code of Civil Procedure section 367.76(o) and Welfare and Institutions Code section 679.5(n). These standards will be informed by the Hybrid Courtroom Findings and Recommendations, and will be submitted to ITAC for approval and recommendation to the council for adoption.

The report uses the stakeholder perspectives and the five pillars to set forth a long-term framework for courtrooms that are optimized for proceedings involving any number of physical or remote participants by identifying functional roles, business needs, and suggested technical specifications and controls for each aspect of the hybrid courtroom, such as courtroom orchestration, courtroom technology, and user experience.

The findings and recommendations in the report are aimed at creating the following benefits throughout the branch:

1. Courts will provide high-quality audio, video, operational, and technology solutions that will enhance in-person and remote courtroom experiences, and create transparency and legitimacy for the judicial branch.
2. Remote appearance solutions will increase options for accessing the court, and increase court appearances and participation.
3. Remote appearance solutions will provide more convenient access for court participants with challenges related to competing life demands, physical location, or other circumstances (e.g., childcare, work, school, illnesses, disabilities, transportation, parking costs, custodial status, out-of-state-or-county locations, juvenile cases, state hospitals, etc.).
4. Remote access to courts will facilitate equal access to the courts by providing options for appearing in court.

Comments

The Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations was circulated for comment from September 28 to October 12, 2023, as part of a special cycle. The committee received nine comments, including three from superior courts. Two commenters agreed with the report as circulated, two commenters agreed and suggested modifications, and five commenters did not indicate a position and suggested modifications.

Overall, the comments were positive. In response to the comments, ITAC made several minor or technical revisions to the report. Additionally, several commenters raised issues that were outside the scope of the report; however, ITAC will consider them going forward as it develops a roadmap for implementation of the framework contained in the report.

Fiscal Impact and Policy Implications

The Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations recommends a framework for optimizing courts for proceedings involving any number of physical or remote participants. Key policy considerations underlying the report are increasing remote access and upgrading technology to improve the court experience and provide meaningful and equal access to justice.

The workstream report does not create any direct fiscal or operational impacts. In general, projected implementation requirements and costs to continue implementing and improving remote proceedings will vary depending on the court's unique needs and solutions selected.

Attachments and Links

1. Chart of comments, at pages 7–49
2. Attachment A: *Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations*

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Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations

All comments are verbatim unless indicated by an asterisk (*).

	Commenter	Position	Comment	Committee Response
1.	California Lawyers Association, Litigation Section, Committee on Appellate Courts, by Bryce Young, Chair	NI	<p>The California Lawyers Association, Litigation Section, Committee on Appellate Courts (CAC) submits the following comments on the Invitation to Comment – SP23-08. CAC’s membership consists of appellate practitioners from diverse backgrounds, geographic locations, and focuses of practice. It includes attorneys from the private and public sectors, including the California Supreme Court, California Courts of Appeal, State Public Defender's Office, California's Office of the Solicitor General, non-profit organizations, and numerous law firms of all sizes.</p> <p>CAC applauds SP23-08 for embracing technological recommendations to facilitate hybrid courtroom proceedings. CAC especially appreciates the proposal’s efforts to make it easier to create the written and oral records of hybrid court proceedings, which are essential parts of all appeals. These measures are important to ensure equal access to appellate court proceedings and make it easier, particularly for low-income litigants, to create their appellate record. For example, the proposal to embrace electronic trial exhibits should make it easier for superior court clerks to assemble Clerk's Transcripts, the written record in an appeal. In cases where litigants choose to create their own Appellant’s Appendix in lieu of a Clerk’s Transcript, electronic trial exhibits/records will reduce the time and expense needed to create those written records. In addition, the digitization of the trial exhibits/records should</p>	Thank you for your comments. The committee appreciates your perspective on the report.

Positions: A = Agree; AM = Agree if modified; N = Do not agree; NI = Not indicated.

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			<p>reduce the overall time of appeals—a main cause of delays in the current appellate system is creating the record. This would result in overall court efficiency and cost savings, as well as improved access to justice for litigants at the appellate level.</p> <p>Moreover, these technological advancements will increase accessibility for people with disabilities. Meaningful and interactive remote appearances will continue to help ease accessibility barriers that can hinder people with physical impairments in their practice.</p> <p>Such examples include minimizing the physical demands of travel, carrying/manipulating heavy exhibits, real-time captioning, exhibits/records that can be better read by a screen reader, individualized amplification of audio or video, etc. In addition to incorporation of accessibility standards, CAC encourages consultation with disability rights groups and accessibility experts to determine the most effective methods to implement the technology to increase accessibility for everyone.</p> <p>CAC thanks the Information Technology Advisory Committee for their time and thoughtfulness in submitting these recommendations.</p>	

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2.	California Partnership to End Domestic Violence, by Chris Negri, Associate Director of Public Policy Strategies	NI	<p>The California Partnership to End Domestic Violence (the Partnership) greatly appreciates the opportunity to comment on the above listed findings and recommendations.</p> <p>The Partnership is California’s recognized domestic violence coalition, representing over 1,000 advocates, organizations and allied groups. With offices in Sacramento, the Partnership’s diverse membership spans the entire state. Through our public policy, communications and capacity-building efforts, we align prevention and intervention strategies to advance social change. The Partnership believes that by sharing expertise, advocates and policy-makers can end domestic violence. Working at the state and national levels for nearly 40 years, the Partnership has a long track record of successfully passing over 200 pieces of legislation addressing domestic violence. The Partnership and its members contributed to the passage of SB 538. Similar to AB 177 and SB 241, that bill allowed for a continuation of the emergency rules put in place during the COVID-19 pandemic that allowed for remote court appearances. Our members have an interest in ensuring that remote court appearances and hybrid court rooms function smoothly, given these options allow those who face barriers including transportation, dependent care, poverty, and full time work to more easily participate in the court system. This is also particularly critical for domestic violence survivors, who often face the</p>	Thank you for your comment. Please see below for responses to specific items.

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			<p>added barrier of a justified fear of harm at the hands of the people who have abused them, whom they may later have to face in court.</p> <p>Thank you for taking on the task of setting out technical specifications and considerations for the hybrid courtroom.</p> <p>We offer the following suggestions for the improvement of the document:</p> <p>1. We recommend additional consideration and accommodation be made to provide IT assistance to those who might not have stable access to internet and to allow people to participate in court hearings using alternative devices such as smartphones. Particularly for lower income Americans, stable internet access remains a significant issue. In a 2021 survey by Pew, 43% of respondents making less than \$30,000 indicated they had no home broadband access and 27% of respondents at the same income level reported they primarily accessed the internet via smartphones.¹ The Judicial Council’s 2021 Interim Report: Remote Access to the Courts echoed this concern, and particularly named low bandwidth in rural counties and the low rate of broadband access on tribal lands.² Ensuring equitable access to remote court proceedings will require the courts to make particular accommodations for those who do not have stable internet access.</p>	<p>1. The workstream recognized that access to stable internet, broadband, and WiFi varies for court participants. To that end, the workstream kept in mind that some participants may be limited to audio only remote access, and this is reflected in the report. Additional language was added to Pillar 1 indicating that remote access includes audio and video access to court proceedings and audio-only when permissible.</p>

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			<p>[1. Vogels, E. (2022, June 22). Digital divide persists even as Americans with lower incomes make gains in tech adoption. October 4, 2023, https://www.pewresearch.org/short-reads/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/]</p> <p>[2. Interim Report: Remote Access to Courts. Retrieved October 4, 2023, from https://newsroom.courts.ca.gov/sites/default/files/newsroom/2021-08/P3%20Workgroup%20Remote%20Access%20Interim%20Report%2008162021.pdf.]</p> <p>2. We recommend that additional consideration be made of concerns about confidentiality related to popular virtual meeting platforms such as Zoom and Teams. Especially for confidential communication between lawyers and clients and between judicial officers and lawyers, these platforms pose potentially troubling issues. There has been significant attention, recently, to the terms of service of these platforms, which allow companies to use user data (including video, audio, and text) in broad ways, including to train the AI models they are developing.³ Judicial Council should offer guidance to courts on how to ensure that their use of these platforms (and particularly, their use of recordings of</p>	<p>2. The report addresses the necessity and importance of confidential communications and the need for controls and procedures to protect the solemnity of the legal proceedings and protect sensitive and confidential information from public view.</p>

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			<p>proceedings) does not compromise the security and confidentiality of sensitive court proceedings.</p> <p>[3Sniffen, C. (2023, September 5). Leave the Meeting: A Recommendation for Advocates Concerned About AI Meeting Assistants. Safety Net. October 4, 2023, https://www.techsafety.org/blog/2023/9/1/leave-the-meeting-a-recommendation-for-advocates-concerned-about-ai-meeting-assistants]</p> <p>3. We also recommend that the document more strongly urge courts to adopt technologies that allow for the submission of evidence and documents during hearings. The document currently provides examples of where this is being successfully done, in the Superior Court of California, but does not, in our view, acknowledge the distinct disadvantage that not having this option places remote litigants in compared to in-person litigants. In our view, Judicial Council should work with courts to create ways for remote litigants to easily submit documents to the court and other parties directly during hearings, similar to what in person litigants are able to do.</p> <p>Thank you for your consideration of these recommendations.</p>	<p>3. ITAC has recognized that electronic evidence submission is an important and relevant issue and another ITAC workstream is engaged in investigating and making recommendations which will be published in the future.</p>

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3.	CourtCall, LLC, by Robert Alvarado, Jr., CEO	NI	<p>CourtCall offers the following comments in support of the Report of the Advancing the Hybrid Courtroom Workstream (the Report).</p> <p>Given the scope and detail of the Report and its own 25 years of experience in providing remote and hybrid access to courts, CourtCall could offer an experienced-based observation or suggestion on virtually every topic within the Report. As that would likely neither be useful nor welcome, we instead observe that the comments that CourtCall has shared have application across many portions of the Report and we respectfully reserve the right to comment further in the event certain elements of the Report require further analysis if and as they become specific portions of RFPs, MSAs or other proposals or action items.</p> <p>As noted in the Report, the courts of California have been mindful and supportive of remote and hybrid access for many years. CourtCall considers itself to have played an important role in the adoption and expansion of remote and hybrid access and is prepared to continue to do so for years to come. We welcome and appreciate the opportunity to comment on this important topic. To the extent practical, comments track the organizational structure of the Report.</p> <p>Introduction Reference is made to an RFP. Given the wide-ranging scope of the recommendations, it appears</p>	Thank you for your comments.

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			<p>that more than one RFP will be necessary. Reference is also made to the development of Branch Master Service Agreements and other procurement vehicles but there is little guidance on the scope of those items. Given the breadth of the Report, procurements appear to be contemplated for the various items of technology. Given the differing needs of the courts and the volumes at which they may need to procure, it is unclear that MSAs will be the appropriate vehicle, unless used only to identify qualified providers, leaving pricing and terms to local courts.</p> <p>Regardless of whether one or more RFPs or MSAs are to be created, details concerning the coordination of their issuance and timelines will be important for courts and those hoping to provide solutions. And, assuming legislative or rules changes may be required, it will be important for all involved to know whether those will precede, be addressed concurrently or follow the issuance of RFPs or MSAs. Current reference to any publicly available contemplated or draft legislative or rules changes would be useful for purposes of consistency.</p> <p>Foundational Concepts Metrics Necessary to Evaluate and Enhance Hybrid and Remote Appearances</p> <p>At pages 5 and 6 of this subsection, a variety of metrics are set forth. Some relate to “on the</p>	

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			<p>ground” current circumstances and all can be supported and further evaluated with current and historical data. CourtCall is prepared to share its data on use by case type, participant type, court/county, judicial officer, time of year, day of week and other information that may likely help to inform the decision-making process.</p> <p>For example, in 2019 in the approximately 56 California counties in which CourtCall provided service the following use patterns were seen: Case Management Conferences 133,067 Status Conferences (Not Final) 8,487 Motions (All – Including MSJs and/or Summary Adjudication) 38,398 Ex Parte Applications 8,671 Hearings on Orders To Show Cause 26,914</p> <p>These are only general examples and data can be reconstituted. The trends by case hearing type are similar in 2023 although the volumes are different given the increased number of court-operated programs.</p> <p>There are other metrics to be considered, as well, such as a court’s willingness to allow integration with its CMS and filing systems to speed registration processes.</p> <p>Potential Funding Requirements-Implementation and Ongoing</p>	

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			<p>At page 5 and in greater detail at page 6, a variety of funding and cost considerations are set forth. Of course, the needs of particular courts will vary widely. Guidance about funding will enhance the quality of future comments and suggestions and assist those making the use and procurement decisions.</p> <p>Without a doubt, any one of the cost elements set forth on page 6 can consume millions of dollars and considerable time. Tackling them all at once is likely to be an insurmountable challenge. Nonetheless and regardless of potential funding constraints, consistent efforts applied in accordance with the general principles set out in the Report and based on available resources can yield an enormous near-term expansion in alignment with the goals of the Report and those all of the stakeholders. In some settings, a simple upgrade in bandwidth will remove an important impediment. In others, much more may be required and in still others addressing an interpretation issue will be much more important than how collaboration is completed.</p> <p>Once a strategy is generally articulated, as here, and before expectations of various constituencies are set, it is critical to understand where the funds to begin and complete this initiative will come from and how those funds are to be allocated. Not every court will have equal needs. For example, some may need more hardware, per courtroom,</p>	

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			<p>than others. Other courts may need staffing support (in-house or outside) instead. Others may require IT support. While still others may require scheduling support. How will those requests be prioritized? Alternatively, will there be a formulaic approach with funds being allocated on court size, court backlogs, court filings or other metrics?</p> <p>How will the needs for interpretation/language access be prioritized? On a statewide basis, on a court by court basis and ahead of or behind which other initiatives. In other words, guidance on which, if any, of the various standards are going to be emphasized will be useful.</p> <p>As next steps are identified and taken, it will be important to identify funding, avenues for funding and potential funding limitations.</p> <p>Over the years, participant pay models supported by vendors have yielded the California court system in excess of \$80,000,000.00. Participant pay models with sliding-scale pricing based upon need or case type also have been suggested for years. Those with fee waivers were and continue to be provided the benefits of remote access at no cost.</p> <p>With the exigencies of the Pandemic, centralized, emergency funding of certain platforms and equipment occurred. That funding continues in</p>	

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			<p>many circumstances creating for some, the perception that remote or Hybrid access is “free.” As is noted throughout the Report, remote access is far from free and comes at significant costs. Most respectfully, those costs have not, to date, been fully accounted for when comparing “court-operated’ systems to “vendor-operated” systems (whether participant pay or whether a court reimburses a full service vendor). Once any court has an opportunity to carefully review the cost elements set forth in the Report, it will be able to determine that in many cases it may be more advantageous for the individual court to pay (or be reimbursed for) a full-service vendor instead of having situations where courts receive some funding for Zoom and then create their own scheduling, check-in, IT support, reporting, troubleshooting and court-staffed daily operation of a system at significant cost and potential delay in providing court services. A random stop into almost any courtroom highlights the continuing challenges for courtroom staff.</p> <p>In short, as RFPs and MSAs are generated it is imperative that courts are permitted to conduct true “apples to apples” comparisons and reviews of their needs, the available solutions and have a level funding analysis. Assuming equal service levels, a program that costs the same or less than the “free Zoom, court-operated” model is worthy of consideration as is a situation where system users pay a reasonable fee (or other hybrid</p>	

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			<p>payment funding models). While the access may end up as “free” to the end-user (should that be the policy decision) the fact remains that free access can be effectively and efficiently provided by private vendors in a world where private/public partnerships have become the norm and not the exception.</p> <p>Finally, while members of the bar and bar associations can or may set forth concerns of their own, notwithstanding the admirable efforts of courtroom staff, operating delays come at a cost to lawyers, their clients and members of the public.</p> <p>Considerations to Enhance the Useability of Remote Appearance Technology The second bullet makes reference to impact on staff.</p> <p>Our experience over the last 25 years and since the beginning of the Pandemic, in particular, indicates that this is a frequently overlooked or under-counted/underestimated aspect of the provision of Remote/Hybrid access. Courtroom staff (including IT professionals) across the state report daily efforts and changes to job responsibilities to meet the changing needs. Hours of work are shifted away from important court business to instead assure that:</p> <ul style="list-style-type: none">• How remote appearances are scheduled, registered, counted, identified by case type and other data.	

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			<ul style="list-style-type: none"> • Sessions begin on time, without technical issues. • Participants are checked-in. • General connectivity issues are addressed. • Audio and/or video issues are addressed. • Participants are grouped in a manner consistent with the preferences of the presiding judicial officer. <p>As intimated in the Report, a detailed analysis of the time burdens on court staff members is necessary and will vary based on case type and court size, among other things. The self-represented and their needs (and the burden they often unintentionally put on courtroom staff) also requires due consideration.</p> <p>Delays resulting from staff/court-operated systems are not the result of a lack of effort – they are most frequently the result of the insufficiency of the selected platform. Nonetheless, these delays ultimately result in less effective and efficient use of the time of judicial officers. Moreover, countless hours are lost by the attorneys and members of the public at significant expense to themselves and their clients. As noted elsewhere in these comments, appropriate software choices have moved well-beyond the limited functionality provided by several of the platforms.</p> <p>Pillar I: Audio and Video Communications</p>	

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			<p>While the effective participation of all involved in a session/hearing is vital, the needs of court reporters and interpreters stand out. Platforms that have built-in interpretation functionality exist to streamline and enhance the process. New technologies solve these issues and provide a backbone for the future.</p> <p>Pillar II: Collaboration in Hybrid Court Proceedings</p> <p>The electronic sharing, submission, display and admission of evidence and documents has existed for years and is often refined subject to the needs of the case, the sophistication of the parties presenting and the preferences of the presiding judicial officer. The idea of a central repository controlled by the court is in use in various forms and varieties. The concept of a central repository may well be one of those items that can be addressed as its own RFP. Alternatively, platforms should demonstrate the ability to easily integrate with multiple repository solutions.</p> <p>Pillar III: Hybrid Court Participant-Public Access</p> <p>During the Pandemic CourtCall provided free public access lines to a variety of courts in California and across the nation. The methods of providing “listen only” or view only access vary and can be adapted to the needs of a particular court or setting. With regard to “best practices”</p>	

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			<p>CourtCall has drafted and assisted in drafting legislation, rules and procedures for virtually every type of remote court or Hybrid appearance imaginable and can share such information with ITAC, a court or any other interested group or individual.</p> <p>Pillar V: Court Participant Training and Guides</p> <p>While judicial officers and court staff need to be appropriately familiar with the technologies in their courtrooms, many have become technicians and operators of technologies well-beyond what should be required. As noted above, far too much time of judicial officers and courtroom staff can be unintentionally lost by training on, operating and troubleshooting technologies that are not the right technologies for the jobs to be done; technologies that fail to meet the needs of judicial officers and those appearing before them. Indeed, all should be wary of training that requires manipulation/coordination of multiple sessions, multiple devices and multiple platforms where that is not absolutely essential. Efforts by judicial officers, IT staff and courtroom staff to use technology to operate Hybrid courts can and should be minimized and they should not be required to become experts in the various roles and tasks outlined in the Report.</p> <p>Courtroom Orchestration Operational</p>	

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			<p>At page 14 reference is made to:</p> <ol style="list-style-type: none">1. Remote conferencing software that may be configured to meet judicial and particular case needs. <p>The Report is appropriately detailed about hardware requirements and the identity and use case needs of many of the participants. As technology has evolved, the hardware components remain important but the vast, vast majority of the elements that allow for (or prevent) effective and efficient Hybrid hearings or Hybrid programs are the result of the conferencing platform selected. At page 18 of the Report, reference is made to Teams, Zoom and BlueJeans with regard to reactions and hand raising features. CourtCall also has hand raising and importantly has many other features that support the courtroom environment that are not provided by the named platforms.</p> <p>By way of current update, Verizon announced months ago that it is closing BlueJeans (and CourtCall is in consultation with several courts that BlueJeans has abandoned) and neither Zoom nor Teams replicate the workflow needs of the vast majority of courts while both require significant modifications in order attempt do to so. The need for modifications may be one of the reasons why so many courts are using workarounds with Zoom and Teams. In fact, after conducting RFP processes, Placer County and Butte County have turned to CourtCall to create</p>	

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			<p>enhancements for Zoom and Teams. The point here is that “post and go” links and the provision of mass-market interfaces that require court staff and judicial officers to needlessly “sort through” screens overwhelmed with participants are not conducive to proper court decorum</p> <p>Additionally, requiring courts to download any platform and having courts, in turn, require users to download such platforms create a number of security and operational concerns. While CourtCall is the only company that has been addressing the hybrid and remote access needs of courts since 1995, there are other companies in addition to Zoom, Teams (and the now defunct BlueJeans) and courts, themselves, have created solutions for their own unique environments.</p> <p>Court Technology</p> <p>As observed in our comments above, there are many considerations that will vary with the use case, size of a court and budgetary constraints.</p> <p>Courtroom – Access from Anywhere.</p> <p>CourtCall has provided global access from every location imaginable across the globe, has assisted with all of the recommendations noted in the Report and is available to share the information.</p> <p>Courtroom Infrastructure</p>	

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			<p>Any long-term/permanent hardware or construction expenditures should be the subject of particular scrutiny as the permanence of virtually all public institutions and their hardware and structural infrastructure have given way to more flexible and agile solutions. “Court” is no longer “held” in a specific location and that has been the case, in many instances, for decades.</p> <p>Setting aside the issue of appropriate equipment, will the procurement processes allow for vendors to provide services in support remote/hybrid services. Courts where court-staff are helping with call moderation may find that third party solutions are better.</p> <p>In addition to equipment, in hearing support/moderation, platform selection there remains the element of scheduling to mimic or support a judges preferred method of working through a calendar. By no account have Zoom or Teams addressed such items, instead leaving it for customers (courts/court IT in the present situation) to sort things out and build workarounds. This may be one of the reasons why Butte and Placer went to market for assistance.</p> <p>Conclusion We appreciate the opportunity to share our comments and hope to remain a resource for the courts of California.</p>	

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4.	OneJustice, by Leigh Ferrin, Program Director	AM	<p>OneJustice writes to express our support for SP23-08 and offer our suggestions to provide equal and meaningful access to the court system for everyone.</p> <p>OneJustice is a legal nonprofit organization in California working to strengthen the legal services sector's expertise and capacity to advance equity and access to justice. We equip the sector with skills and tools to maximize impact, champion robust and reliable legal service resources, convene the sector to harness its wisdom and power, and share analyses and insights about systemic trends and challenges.</p> <p>We appreciate the time and energy that the Information Technology Advisory Committee (ITAC) undertook to identify recommendations that will advance a hybrid Courtroom. We believe the proposal will improve participation in hearings. We support the committee's findings and offer suggestions that can enhance the implementation of a hybrid model.</p> <p>The California Court Efficiency Act (SB 241) revolutionized the way courts conducted hearings. SB 241 made it possible for a party to appear remotely and a court's ability to conduct conferences, hearings, proceedings, and trials in civil cases, in whole or in part, through the use of remote technology. The innovation and efficiency made it possible for litigants to appear remotely.</p>	Thank you for your comment. Please see below for responses to specific items.

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			<p>Yet, remote court participation was in its infancy, and lessons were learned along the way. Drawing from our Court Watch Project (launched in November 2021 - November 2022 to observe COVID-19 rental debt hearings in small claims courts across the state), we identified recurring issues with remote hearings. For example, we regularly observed accidental disconnections from hearings, poor audio, and misunderstandings about when and how to notify the court when a person was present. While interpreters were generally available, interpretation during remote hearings was difficult. Our data, collected from over 500 court observations, revealed instances where courts were not adequately prepared to assist self-represented litigants with a remote experience. Self-help services proved to be a key partner in assisting self-represented litigants with remote hearings. However, the cuts in the judicial branch budget, as well as COVID-19 generally, clearly impacted the availability of self-help services. Self-help staff were reduced or were reassigned to other positions within the Court because of vacancies (like the clerk's office). The availability of in-person self-help services was substantially reduced, in large part due to COVID-19 protocols, as well as space constraints at courthouses. Some self-help centers were only open a few hours a day.</p> <p>While ITAC has identified functional requirements and roles that will ensure successful</p>	

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			<p>management of hybrid and remote proceedings in the courtroom, we have a few recommendations within each of the pillars that ITAC can consider in finalizing their report to ensure that self-represented litigants are able to navigate a remote environment.</p> <p>Pillar II: Collaboration in Hybrid Court Proceedings We suggest that ITAC survey all users of the electronic evidence portal in Orange County. It has proven to be challenging for some advocates in Orange County, particularly for self-represented litigants. ITAC should consider that some litigants may seek help at the physical courthouse for assistance with uploading documents. Kiosks, help desks, and self-help centers are potential aids to assist litigants in uploading documents. Self-help centers can be trained to use the portal to upload documents. Visual signs and paper guides should be made available at self-help centers - in multiple languages - to promote the use of the portal and to upload documents electronically.</p> <p>As indicated above, self-help centers play an important role in assisting self-represented litigants. In some cases, self-help centers are the main contact a self-represented litigant has with the court. Self-help centers must be adequately funded, staffed, and resourced. The Judicial Council should increase remote access to, and resources for, self-help centers and consider the SHARP (Self-Help Assistance and Referral</p>	<p>We will forward this to the Digital Evidence Workstream for consideration.</p> <p>ITAC understands that the work of the SHCs aligns with the Tactical Plan for Technology and is continuing to work to support the SHCs via the Self-Help Guide and virtual customer service. ITAC will also continue to evaluate opportunities to enhance services for self-represented litigants.</p>

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			<p>Program) Tech Connect model (as recommended by the Final Report From the Work Group on Homelessness to the Chief Justice, https://www.courts.ca.gov/documents/hwg_work-group-report.pdf). SHARP is a court-supported program that provides free assistance to self-represented litigants through, among other things, phone and email communication, workshops, computer labs, informational videos, and referrals. Legal services organizations should not be a public space to serve as a help desk. A community partner can be granted permission and access and use - at no cost- remote court technology and pieces of training.</p> <p>Pillar III: Hybrid Court Participant–Public Access We appreciate the focus on public access to hearings. It is important for advocates and litigants to be able to observe courtrooms before appearing, to ensure compliance with hearing requirements and to ease the anxiety of those less familiar with the court. At the same time, we do understand the concern with participants recording remote proceedings. One suggestion is to ensure that the court reiterates the prohibition on recording court hearings. The court can provide plain language reminders and warnings (possibly multiple times throughout the hearings), in multiple languages of the Rules of Court, and use technology that at least prevents participants from recording a remote hearing. For example, the court can ensure additional safety by ensuring the remote</p>	<p>Thank you for your suggestions regarding recording remote proceedings. The workstream recognized this concern, and the report recommends that in the future further guidelines regarding video operations and recording of video be researched.</p>

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			<p>technology settings are set up to prevent participants from recording hearings, such as a feature available in Zoom’s host settings.</p> <p>Pillar V: Court Participant Training and Guides Self-help centers and community partners, like libraries and others, should participate in trainings on how to use the court’s remote hearing platform. These partners may be a self-represented litigant’s first contact, and if the partner is able to resolve the issue, it will reduce the burden on court staff. Survey community partners and self-help centers to understand any challenges faced and possible improvements needed. Legal services organizations offer hundreds of self-help clinics, often in partnership with the courts, where information can be distributed to clinic participants and feedback can be gathered. Offer recordings of all pertinent remote hearing platform trainings and make them available for the public to access on the court’s website. Self-represented litigants should be able to access a live person during their remote hearing in case of any technical difficulties. That live person should either be in the courtroom or be able to access the courtroom to let them know of any technical difficulty experienced by a litigant.</p> <p>As part of the data collection and metrics, “customer” satisfaction surveys should be made available to all litigants appearing remotely. For example, survey questions can ask, “Share with us</p>	<p>The workstream understood the value of training for community partners. The report identifies the roles necessary to provide access to the hybrid courtroom.</p>

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			<p>how the court can support people with their remote court appearance. Select any, or all, of the following options that best describe your recommendations. How can courts best assist people with remote hearings? 1) Provide assistance with how to use the remote technology, 2) Provide assistance with how to upload my documents/evidence on the website/portal, etc.”</p> <p>Pivoting to a remote environment is not an easy task, especially for a large system such as the court. The Committee's recommendations will improve remote hearings and participation, especially by providing some consistency across the state. While OneJustice supports SP23-08 we believe our observations and suggestions will improve the ITAC recommendations with respect to self-represented litigants.</p>	

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5.	Patrick McDonnell, Housing Attorney for Legal Aid of Sonoma County	AM	<p>After review, I agree with the proposed changes. However, I noted that the proposal does not seem to adequately address how technology and the hybrid courtroom could be used to ensure that verbatim recordings are available for litigants to access the court record in the absence of a court reporter.</p> <p>On page 7, the proposal says, "Finally, courtroom technology must provide an opportunity for a verbatim record of the proceedings to be captured whether by a court reporter or an electronic recording."</p> <p>But that thread is never addressed again. Concerns are raised for how court reporters would transcribe testimony while the witnesses or reporters themselves are remote. But the proposal does not address access to the court record via electronic recording.</p> <p>Because we have an acute court reporter shortage, many counties have very little record from trial-level proceedings at all. Litigants must pay for private court reporters. Litigants who are eligible for fee waivers have those requests denied as a matter of unofficial court policy in several jurisdictions.</p> <p>The proposal needs to address this issue, especially since the report identifies the need without offering any solution or detail.</p>	Thank you for your comment. The expansion of electronic recordings is beyond the scope of the report.

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6.	Snorri Ogata, Chief Technology Officer, Tech Unicorn	NI	<p>#1 – Electronic Recording and Audio Isolation</p> <p>Under the Court Technology section of the Advancing the Hybrid Courtroom Workstream draft findings and recommendations report, an '8-Channel Audio Mixer' is listed as a component of the Courtroom Minimum Technical Requirements.</p> <p>This narrow hardware requirement is rooted in an all in-person hearing assumption.</p> <p>The intent behind a multi-channel audio mixer is to preserve audio isolation in the recording made from the physical microphones in the courtroom. By preserving individual audio tracks a transcript of the hearing will be more accurate because the recording preserved and isolated microphone 1 (the judge) from 2 (the witness) from 3 (plaintiff) from (defendant). The "transcriber" will benefit from identifying speakers based on which microphone captured the audio dialog.</p> <p>Current CRC Rule 2.954(b)(1) requires the ability to support "four" channels so expanding to 8 channels certainly makes sense from a future proofing perspective. However, this report's "minimum requirements" grid (page 13) identifies 10 roles that should be "on microphone" while the technical specification recommends 8.</p> <p>I believe there two broad shortcomings with this hardware-based approach.</p>	<p>Thank you for your comment. Please see responses to specific items below.</p> <p>A digital audio recorder with a minimum of eight channels will accommodate the in-courtroom microphones and the hybrid audio. Some of the recorded channels will need to serve multiple sources. Further research will be needed to recommend solutions for this situation.</p> <p>The 8-Channel Audio Mixer can facilitate a courtroom configuration that allows for 10 roles to use an audio channel. The report contemplates that up to 10 roles will be remote; however, in a hybrid courtroom not all roles will be remote, and roles will vary based on the court and proceeding.</p>

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			<p>1. What about multiple people talking on a shared microphone in the courtroom?</p> <p>2. What about the remote participants?</p> <p>Today it is not uncommon for multiple people to speak from a shared microphone (e.g., 3 people at the defendant table). The benefit of channel isolation is immediately diminished when this occurs. The transcriber does know the speaker was a defendant (e.g., microphone 4) but does not know who specifically spoke without carefully listening.</p> <p>This problem is exacerbated for the remote participants. The in-courtroom recording isolates 8 in-person microphones but all people joining remotely show up as a single 'mixed audio' recording if the recording is done from the courtroom. The transcriber will know a remote participant made the statement but will not readily know who it was.</p> <p>In addition, the report does not provide direction for the "remote videoconferencing software (platform)" to preserve audio-track isolation of remote participants. The original electronic recording intent was to isolate ALL participants (because everything was in the courtroom 30 years ago) so I believe a recommendation should be considered for the "platform" provider(s) to isolate</p>	<p>1. The workstream understood that courtrooms are diverse and may be configured in a manner so that multiple people inside the courtroom share one microphone. Further research will be needed to recommend solutions for this situation.</p> <p>2. The workstream recognized that remote participants may appear as a single "mixed audio" in terms of the recording. The workstream was aware of the current limitation, and further research will be needed.</p>

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			<p>remote voices if that is still a requirement. Mechanically the isolated courtroom and isolated remote recordings could be joined to create a single comprehensive recording. With that said, the future is software and not hardware. Artificial Intelligence (AI) technology can accurately identify/attribute speakers. Individual speakers are identified by their voice signature. This technology (eventually) obviates the need for a hardware-based approach to audio isolation and has the added benefit of being done in real-time ("rough notes") if that is a desired outcome. Imagine a fully attributed transcript being produced during/immediately after the hearing. This can be done today if the recording is moved to the cloud and audio isolation is a software driven action.</p> <p>And finally, what of video. The current rules (authored in 1990 and last revised in 2007) did not anticipate video recordings. Would the "read-back" of a hearing be improved with an optional "video" component as well? The platform vendors will be able to provide audio AND video recording - mixed AND isolated. Why not comment on video preservation as well?</p> <p>I believe CRC 2.952 et. seq. are in need of modernization in light of technology advancements over the last 30 years.</p>	<p>The report makes recommendations for the hybrid courtroom that include hardware and software. Further research will be needed to find solutions that include both software and hardware in a hybrid environment.</p> <p>Thank you for your question regarding the use of video for hybrid proceedings. The workstream recognized this concern, and the report recommends that in the future further guidelines regarding video operations and recording of video be researched.</p> <p>Changes to the California Rules of Court are beyond the scope of the report.</p>

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			<p>Perhaps better CRC language would say something to the effect of "the technology must be capable of simultaneously recording and isolating in-courtroom and remote participant audio (and optionally video!) to aid in the production of a fully attributed transcript.</p> <p>Whether it's 4 (current CRC), 8 (workstream recommendation) or 10 (implied workstream recommendation) is not the point. The point is attribution of ALL speaking voices, and an "8-channel audio mixer" implicitly limits the output due to a hardware limitation. If there is anxiety about software-driven isolation then make the "8-channel audio mixer" a foot note but not the main requirement.</p> <p>#2 – Closed captioning and transcripts</p> <p>In both the Courtroom Audio as well as the Courtroom Cameras section the following recommendation is made: ...the general recommendation would suggest that any person or persons speaking or presenting evidence on “record” could be presented and unmistakably identified by any person or persons physically inside a courtroom or appearing remotely.</p> <p>This statement would seem to presuppose that the remote videoconferencing software (platform) can clearly differentiate and identify different speakers</p>	<p>Closed captioning and electronic transcripts are outside of the scope of the report. However, as technology evolves, ITAC will continue to research the use of these technologies in the courtroom.</p>

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			<p>with no consideration to how this will happen but with the presumption that it will happen in real-time.</p> <p>This can be handled through a combination of closed caption/transcription and Artificial Intelligence (AI) using “voice signatures” to differentiate different speakers in a hybrid hearing. This is very exciting from an Access to Justice perspective where “rough notes” of a hearing could be provided in near real-time and made available to any/all participants as a service simply be retaining the closed captions/transcript.</p> <p>This would not replace the Court’s “official transcript” of a hearing but does show how technology has advanced beyond the current CRC rule assumptions. Imagine if every hearing participant was provided fully attributed transcript while the hearing was occurring and could save their “rough notes” for their own personal purposes.</p> <p>The Findings and Recommendations is largely silent on this possibility.</p> <p>Perhaps the Judicial Branch should consider CRC rule language changes to:</p> <p>- Allow for technology aided identification of “any person or persons speaking or presenting evidence on record” to be “unmistakably identified by any</p>	<p>Changes to the California Rules of Court are beyond the scope of the report.</p>

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			<p>person or persons physically inside a courtroom or appearing remotely.”</p> <ul style="list-style-type: none"> - Allow for speaker attribution to be captured in real time via closed captioning and/or “rough note” transcription - Allow for “rough notes” to be downloadable and shared with any hearing participant pursuant to Court policies around confidentiality. <p>#3 – Self Represented Litigants</p> <p>The Hybrid Courtroom Workstream (HCW) report was, in large part, a survey of best practices of Courts offering remote/hybrid hearings during the pandemic with the goal to establish minimum technology standards for the Branch and to facilitate an RFP consistent with their findings “to increas[e] remote access and upgrad[e] technology to improve the court experience and provide meaningful and equal access to justice.”</p> <p>One of the stated (and noble) goals of the HCW is to “maintain and expand easy-to-use solutions for self-represented litigants (SRL)”. Not surprisingly, however, the Findings and Recommendations did not dig deeply or specifically into how best to serve this population. It did offer many practices/guides that will improve the experience for all parties but came short of specific advice for</p>	<p>3. ITAC understands that the work of the Self-Help Centers (SHCs) aligns with the Tactical Plan for Technology, and is continuing to work to support the SHCs via the Self-Help Guide and virtual customer service. ITAC will also continue to evaluate opportunities to enhance services for self-represented litigants.</p>

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			<p>SRLs and service SRLs in this new service delivery model.</p> <p>Perhaps a new workstream could be commissioned to carry forward the work of the HCW to examine and build off of the findings of a recently released study: Accessing Justice with Zoom: Experiences and Outcomes in Online Civil Courts https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdrive.google.com%2Ffile%2Fd%2F1xfb052SVZRTIwv8-03xQyX9UzFjcvcul%2Fview&data=05%7C01%7CLisa.Chavez%40jud.ca.gov%7Cf53774b161814463c67308dbcab16d79%7C10cfa08a5b174e8fa245139062e839dc%7C0%7C0%7C638326635613668732%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEhaWwiLCJXVCi6Mn0%3D%7C3000%7C%7C%7C&sdata=z4fPUUEfgW1Ijox%2BQXNjrmDiYOCszFtuIdGp93sqU%2FI%3D&reserved=0</p> <p>This study found very encouraging data on positive SRL experiences with remote/hybrid hearings, including:</p> <ul style="list-style-type: none"> - Most unrepresented persons who attended court remotely wished to access court remotely in the future. - In-person hearings revealed gaps in procedural justice between unrepresented plaintiffs and 	

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			<p>defendants, which narrowed or closed in remote proceedings.</p> <ul style="list-style-type: none">- Unrepresented defendants who accessed court remotely reported higher satisfaction with case outcomes than those attending court in person.- Litigants more frequently encountered structural barriers, including employment, childcare, and transportation barriers when attending court in person.- The digital divide between lawyers and unrepresented defendants was evident.- Importantly, stress was greater for unrepresented defendants than unrepresented plaintiffs within in-person proceedings, a gap that narrowed in remote hearings. <p>Amongst their conclusions:</p> <ul style="list-style-type: none">- ... these findings also emphasize the need to continue addressing technological and structural barriers, ensuring equitable access to online civil courts, and providing litigants with ways of participating in remote court processes that meet the needs of the most vulnerable and least advantaged. <p>As the Courtroom moves hybrid perhaps we should also explore:</p>	

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			<p>- How best should SRL services also move to a hybrid service delivery model?</p> <p>- How can the hybrid-hearing experience (pre-hearing, day of hearing, post-hearing) be expanded to include access to resources and services to drive for better outcomes?</p> <p>- How can Courts best partner with Legal-Aid entities and others who provide services digitally to this community?</p> <p>Exciting times!</p>	As stated above.
7.	Superior Court of California, County of Orange, by Sean E. Lillywhite, Operations Analyst, Training & Analyst Group (TAG)	A	<p>A few comments from the Training and Analyst Group from Orange County Superior Court.</p> <ol style="list-style-type: none"> 1. On page 5, under One-time costs, consider the items below as ongoing costs. <ol style="list-style-type: none"> a. Bandwidth and Network upgrades b. Assistance for those without access to technology who wish to appear remotely. 2. Page 10, fourth paragraph, last sentence, suggest changing the word “delegating” to “delegated”. This appears to be a typo. 3. Page 27, item 2 under recommendations, suggest using “adaptation” instead of “adaption” as it appears to flow better. 	Thank you for your comments. Your suggested edits have been made.

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	Commenter	Position	Comment	Committee Response
8.	Superior Court of California, County of Placer, By Greg Harding, Information Technology Director	NI	<p>On behalf of the Superior Court of Placer County, thank you for the opportunity to comment on the Information Technology Advisory Committee’s (ITAC) draft of Technology: Final Findings & Recommendations of Advancing the Hybrid Courtroom. The court appreciates the work of ITAC to set forth technology standards and ensure quality remote appearances in courts across California.</p> <p>The court wanted to provide input on ITAC’s proposed requirements, pillars, and recommendations. These comments are made by Court Administration and focus on the administrative and technological elements of the proposed recommendations.</p> <p>1. Potential Funding Requirements- Implementation and Ongoing The workgroup has created a sufficient list of one-time and ongoing costs on page 6 for hybrid courtroom implementation. The court would encourage reconsidering the fourth item on the “one-time costs” list as it does not appear to be a one-time cost. Technology is extremely fluid on the consumer side and constantly needs updating. If apps/browsers/services are involved, it will require updates to ensure both the court and consumer can maintain connectivity.</p>	<p>Thank you for your comment. Please see below for responses to specific items.</p> <p>1. This recommendation has been accepted, and the fourth item on the “one-time costs” list on page 6 of the report has been updated accordingly.</p>

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	Commenter	Position	Comment	Committee Response
			<p>2. Five Pillars of Hybrid Courtroom Work stream- Pillar I: Audio and Video Communications</p> <p>Pillar I helps identify necessary elements for effective communication in all court proceedings. However, some of the elements appear to set requirements that may not be feasible with current technology. The workgroup may want to consider rewording the sentence “it is also imperative that technology support or provide for confidential or restricted conversations (e.g., between a lawyer and a client and, if interpretation is needed, the client’s interpreter, and between the judge and litigants outside the presence of a jury).” Currently, there is no simple solution for in-person facilitators to connect and move remote participants to another digital location and then back to the remote courtroom. This could potentially lead to delays during court proceedings.</p> <p>3. Five Pillars of Hybrid Courtroom Work stream- Pillar V: Court Participant Training and Guides</p> <p>The court appreciates the workgroup calling attention to the challenges faced by participants utilizing remote appearances who are limited in their English proficiency. The workgroup may want to reconsider the statement that “court staff should be trained to assist limited-English-proficient participants or have interpreters available to translate as court staff troubleshoot</p>	<p>2. The report addresses the necessity and importance of confidential communications and the need for controls and procedures to protect the solemnity of the legal proceedings and protect sensitive and confidential information from public view.</p> <p>3. The workstream recognized that “training” may vary among courts, and may include providing translated troubleshooting materials or videos to the court users.</p>

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			<p>with participants.” This appears to call for additional staff that can act as IT support for participants more extensively than the current remote group (as they will need to assist with sound levels and potential evidence sharing) and additional interpreters to be on hand to help.</p> <p>4. Functional Requirements The workgroup’s presentation of the key roles for a report proceeding are helpful in defining the universe of potential participants in a courtroom. As presented, however, they appear to set minimum requirements that may not be applicable in all types of hearings. The workgroup may want to consider breaking the chart on page 13 into subsets for “required for all hearings” versus “required for jury trials” versus “optional depending on court operations.” For example, viewing the jury is not needed in a law and motion hearing or in a family law trial. Similarly, in most instances, the bailiff does not need to be on camera, but may in some courts depending on their in-courtroom procedures. Alternatively, the work group may want to consider what is required for “all hearings” and list other items, like the jury, as considerations for a judge when determining whether to hold a more complex hearing by video. Finally, the roles outlined on page 12 and 13 could be clarified to indicate whether they are functions that need to be addressed or whether they are distinct roles. For example, in smaller courts it is</p>	<p>4. The workstream understood that courts are diverse in staffing and configuration, and wanted to allow for flexibility. The report contemplates that up to 10 roles will be remote; however, in a hybrid courtroom not all roles will be remote, and roles will vary based on the court and proceeding. The report has been updated to clarify this point.</p>

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			<p>unlikely there is a separate “Judicial Assistant” and “Courtroom Clerk.” More likely, these functions are performed by one individual. If not clarified, this could result in confusion around whether a court is compliant if the functions are performed by one individual.</p> <p>5. Recommendations: Courtroom Orchestration Recommendations 1, 2, and 3, are helpful but clarification around the expectation of frequency would also be helpful. For example, Recommendation 1 recommends a “pre-flight” review. Is the intent to imply this occurs on a daily basis? Or, is it intended to occur upon implementation of new technology? A daily check may be difficult to perform in all courtrooms each day prior to the start of proceedings.</p> <p>6. Recommendations: Court-Creating a Virtual Experience The guidelines identified by the workgroup on page 19 are beneficial in identifying the recommendations needed to create a virtual court experience. Clarification would be helpful as to what the expectations of the first guideline listed under “Business Needs” encompass. Is this guideline applicable to evidence in a contested hearing as opposed to any document that is submitted during a case?</p>	<p>5. The workstream understood that a court’s implementation of hybrid proceedings will vary. Therefore, the frequency of training and testing may vary in each court.</p> <p>6. Thank you for your question. The report provides general recommendations and does not address specific hearing types such as evidentiary vs. non-evidentiary proceedings. ITAC will consider this for future research.</p>

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			<p>7. Current Camera Placement Diagram (Not Hybrid)</p> <p>The diagram is useful for new construction and to include in facility design standards. However, the workgroup may want to consider making clear that existing facilities should meet the minimum standards and may accomplish those standards through any camera placement feasible given the facility. This is important to avoid the need for courts to document exceptions to the layout for existing facilities that may have extensive audio/visual systems in place or where the courtroom design varies from the diagrams on page 25.</p> <p>Thank you for the opportunity to comment and your continuous efforts to promote access to justice through the advancement of technology.</p>	<p>7. Because of the diversity of the branch, ITAC recognizes that more work will be needed to develop a roadmap for the long-term implementation of the framework contained in the report. The concerns raised in your comment are among those that will be considered in developing the roadmap.</p>
9.	Superior Court of California, County of San Bernardino, by Morgan Baxter, DCEO Operations	A	<p>1. Consider the public user experience.</p> <p>As we continue to embrace technology in the judicial system, it is essential that we consider the public user experience. Our vast county is geographically challenging and access to reliable transportation create real barriers to access to justice for the public. It does not follow, however, that those same constituents can access the necessary technology to attend hybrid proceedings.</p> <p>In a county like San Bernardino, spanning more than 20,000 square miles, including remote desert, mountains and everything in between, consistent</p>	<p>1. Thank you for this comment. The workstream recognized the “digital divide” experienced by some court participants. To that end, the workstream kept in mind that some participants may be limited to audio-only remote access, and this is reflected in the report. Page 11 of the report states that “Community organizations, local legislators’ staff, libraries, schools, religious institutions, and other government offices are available to partner with local courts to ensure that their constituents have the information and resources they need to meaningfully access the courts via remote means.” The</p>

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			<p>access to reliable internet, a computer, or even a cellular phone signal should not be assumed. Establishing access points in courthouses and in partnership with local government and community organizations would help bridge the digital divide—which creates access inequity.</p> <p>We must also see to make access as simple as possible, which requires a holistic approach. User friendly court websites and access portals are a key component of this experience. The draft recommendation highlights language access—which should be considered from the beginning, to the end of the user experience—including multi language accessibility of court website and access portals—user instructions and waivers, and all other interaction points. Additionally, the technology recommended to optimize hybrid courtrooms should also take into consideration the difference in facilities and could require investment in updated technology infrastructure.</p> <p>2. Consider Courtroom support services—interpreters and court reporters.</p> <p>A final consideration is the effective use of interpreters and court reporters. It is essential that each courtroom can consistently and effectively use these services, but that can be challenging when there are parties in the courtroom and appearing virtually. Appropriate technology as well as business processes may be challenging,</p>	<p>report acknowledges the importance of accessibility to the hybrid courtroom.</p> <p>2. The workstream met with interpreters and court reporters and received insightful information that is reflected in this report, and we recognize the importance for both to see and hear during the proceeding. The workstream incorporated those concerns and priorities into the report.</p>

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			<p>depending on the courtroom or building. Getting meaningful feedback from these essential supporting players to evaluate hardware needs, facilities adjustments and any other adaptations would be vital.</p> <p>3. Method and timing of rollout should be given strong consideration.</p> <p>The method and timing of introducing hybrid hearings to the courtroom is almost as important as the right technology. Many judicial officers and their administrative staff were resistant to this new platform. Our initial roll out was met with strong resistance and court learned the value of a very intentional implementation plan that involved individualized technology set up and testing to ensure each courtroom was set up in a manner that felt as simple convenient as possible. The next step was individualized training with courtroom staff, ensuring full understanding of the necessary processes involved.</p> <p>These steps gave staff the opportunity to express concerns, seek understanding and ultimately embrace the technology once we were able to establish ease of use. This buy-in was essential to our judicial officers, who were naturally concerned about impact to their team. By ensuring staff comfort, we were able to demonstrate the effective implementation to judicial officers.</p>	<p>3. Thank you for sharing your experience and the importance of obtaining “buy-in” by all stakeholders. The workstream members included judges and court staff and their experience and insight are reflected in this report. There were robust conversations about the need for a judge and staff to be able to control hybrid proceedings in the same way we endeavor to control in-person proceedings and protect the solemnity of the proceedings and the work of the judicial branch. The report takes into account the need for training for judicial officers and staff to ensure a successful hybrid courtroom experience. Because of the diversity of the branch, ITAC recognizes that more work will be needed to develop a roadmap for the long-term implementation of the framework contained in the report.</p>

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			It was also essential that we give judicial officers ownership of the environment. Just as they are empowered to control their courtroom, we found it was essential to give judicial officers tools and techniques to control perceived and real disruptions to court proceedings and to determine the parameters of their hybrid courtroom. For some, this meant use of the request form in advance of a hearing and a requirement to get judicial consent for each subsequent hearing as they came. For others, no advanced request was needed. This also meant they determined rules for logging in and virtual participation.	

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Report of the Advancing the Hybrid Courtroom Workstream: Findings and Recommendations



Judicial Council of California

Advancing the Hybrid Courtroom

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ITAC's Annual Agenda

Project Summary: Assess the current implementation of hybrid courtrooms, recommend metrics and data collection to facilitate court compliance with Assembly Bill 177 and Senate Bill 241, develop standards for hybrid courtrooms, and assist in developing a request for proposal (RFP).

Key Objectives:

- a) Define consistent standards for branchwide solutions, platforms, and programs in support of hybrid courtrooms.
- b) Review and evaluate the *2020 California Trial Court Facilities Standards* to align with hybrid court proceedings.
- c) Develop and define quantitative and qualitative metrics associated with hybrid court proceedings and remote court services to measure efficacy and areas for improvement, and make recommendations on the collection of associated data by which courts would comply with AB 177 and SB 241.
- d) Review the California Rules of Court to identify and recommend any potential rule changes needed.
- e) Assist with development of an RFP to establish branch Master Service Agreements (MSAs) and other procurement vehicles, where needed.
- f) Finalize recommendations and seek approval from the Information Technology Advisory Committee (ITAC), the Technology Committee, and the Judicial Council, if appropriate. Formally sunset the workstream.

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Introduction

As a result of the sudden onset of the COVID-19 pandemic in March 2020, to continue to provide access to the third branch of government, the judicial branch, courts were forced to quickly implement technology and operations that could accommodate remote appearances. It should be noted that remote appearances had been a priority of the judicial branch for many years prior to the COVID-19 pandemic and have long been recognized as a key tool in the judicial branch's mission to provide equal and meaningful access to the court system for everyone. Below are links to reports commissioned to study the practicality and efficacy of remote courtroom proceedings:

[Remote Proceedings in Non-Criminal Proceedings](#)

[Commission on the Future of California's Court System](#)

[Video Remote Interpreting \(VRI\): Project Report](#)

As a result of the pandemic, courts throughout California now regularly and successfully conduct proceedings in person, remotely, or in a hybrid fashion, meaning some participants are in person and some participants are connected via a remote device. There is no question that those who participate in remote and hybrid court proceedings report that the quality of the experience depends in large part on the quality of the technology used by the participants, including the courts. To that end, ITAC convened the Advancing the Hybrid Courtroom Workstream, to (1) study what courts have done to implement remote appearance options throughout the branch, (2) ensure that the quality of the remote proceedings promotes a successful proceeding, (3) make recommendations regarding best practices for technology and equipment for remote proceedings,¹ and (4) issue an RFP consistent with the findings and recommendations. This report is intended to summarize the findings of the workstream, set forth a framework for courtrooms that are optimized for proceedings involving any number of physical or remote participants, and facilitate the issuance of an RFP consistent with these findings. The work of the workstream embodies the commitment of California courts to increasing remote access and upgrading technology to improve the court experience and provide meaningful and equal access to justice.

The Workstream

The workstream comprised members from small, medium, and large courts. In addition, the workstream membership included judges, operational staff, and court technology experts. Over the course of about a year, the workstream met weekly. For several months, the members of the workstream discussed internally what is necessary for participants in a hybrid or remote proceeding to see, hear, understand, participate, and control the proceedings adequately and effectively. In addition, the workstream invited others to participate in the workstream meetings who represented other court participants and had experience appearing and participating remotely in court proceedings in California during the pandemic. These invited guests included court reporters, interpreters, court staff (e.g., judicial assistants), private attorneys, and attorneys employed by legal service providers. Once the workstream collected extensive anecdotal perspectives regarding what is needed to have a successful hybrid or remote proceeding, the

¹ Separately, Judicial Council staff are working on developing minimum technology standards necessary to permit remote participation in court proceedings, as required by Code of Civil Procedure section 367.76(o) and Welfare and Institutions Code section 679.5(n). These standards will be informed by the Hybrid Courtroom Findings and Recommendations, and will be submitted to ITAC for approval and recommendation to the council for adoption.

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technology experts on the workstream developed a list of needs and technology components that are consistent with the council's Facilities Technology Standards as well as capable of ensuring quality and accessible remote proceedings.

Finally, the workstream agreed to adopt an approach based on five pillars for presentation of the information it culled throughout the period of its study, analysis, and process. The five pillars encompass the operational and technological needs to ensure successful hybrid and remote proceedings; they are discussed in detail below.

Foundational Concepts

Any discussion of hybrid or remote proceedings must begin with the identification of foundational concepts. The workstream identified the foundational principles as follows: (1) discussion and identification of the benefits of remote access to courts, (2) identification of the goals and objectives of the workstream's undertaking informed by the project summary and objectives included in ITAC's Annual Agenda, (3) the need for objective and identifiable metrics going forward, (4) other considerations, and (5) funding sources and requirements. Those topic areas are summarized below and reflect the workstream's collective analysis and conclusions regarding these important subject areas.

Benefits of Hybrid and Remote Access to the Judicial Branch

- If courts provide high-quality audio, video, operational, and technology solutions, they will enhance in-person and remote courtroom experiences and create transparency and legitimacy for the third branch of government.
- Effective remote appearance solutions will increase options for accessing the court and increase court appearances and participation.
- Effective remote appearance solutions will provide more convenient access for those with challenges related to competing life demands, physical location, or other circumstances (e.g., childcare, work, school, illnesses, disabilities, transportation, parking costs, custodial status, out-of-state-or-county locations, juvenile cases, state hospitals, etc.).
- Overall, remote access to courts will facilitate equal access to the courts by providing options for appearing in court.

Goals and Objectives of the Advancing the Hybrid Courtroom Workstream

- Identify and expand court appearance options, including remote or hybrid appearances.
- Share technical solutions and operational best practices locally and statewide.
- Identify necessary legislative changes or revisions to rules of court to eliminate barriers to increased access to remote appearances.
- Maintain and expand easy-to-use solutions for self-represented litigants (e.g., mobile devices, public computers, and court kiosks).
- Streamline remote appearances and gain efficiencies through electronic workflows and solutions (e.g., electronic signatures, and uploading and storing electronic evidence).

Metrics Necessary to Evaluate and Enhance Hybrid and Remote Appearances

- Number of courtrooms with remote access capabilities by county.

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- Number of courtrooms not equipped to provide remote access by county.
- Number of courtrooms needing upgrades by county.
- Number of courtrooms upgraded by county.
- Number of hearings held with remote participants per case type by county.
- Number of litigants participating remotely per case type by county.
- Number of counties with online instructions for the use of remote appearances.

Considerations to Enhance the Useability of Remote Appearance Technology

- Court user's access to, and ability to use, remote technologies.
- Consideration of the impact of remote appearances on court staff duties.
- Demand for, or interest in, participating in remote appearances by the court, parties, and other participants.
- The importance of collaboration and cooperation with stakeholders (e.g., facilities personnel, interpreters, court reporters, bar associations, justice partners, and advisory bodies).
- The necessity for changes to legislation or court rules.
- Court's ability to maintain and preserve courtroom decorum and the sanctity of a court proceeding.

Potential Funding Requirements—Implementation and Ongoing

One-time costs

- Courtroom audio and video systems.
- Facilities upgrades.

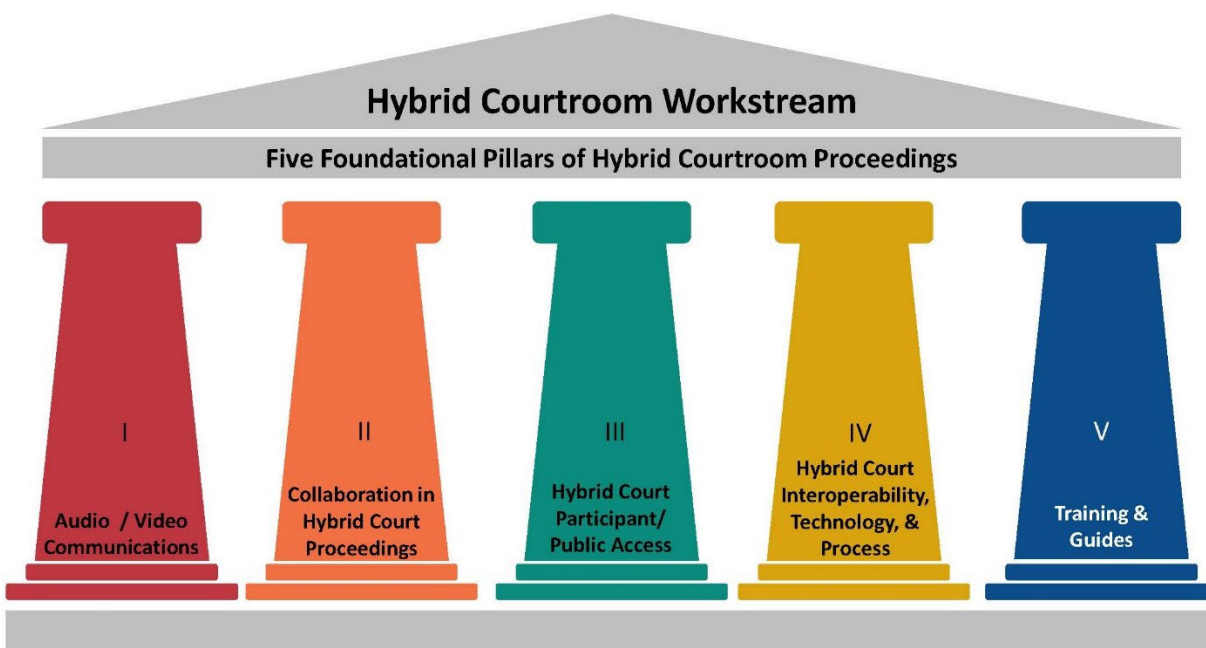
Ongoing costs

- Annual maintenance and licensing for hardware and software.
- Staffing needs.
- Training and support both internally and externally.
- Assistance for those without access to technology who wish to appear remotely.
- Bandwidth and network upgrades.

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Operational & Technological Requirements



Five Pillars of Hybrid Courtroom Workstream

Early in its study, the workstream decided that an effective way to assess and present the operational and technological needs and issues to be addressed by a hybrid courtroom program and ensure continued authority to conduct remote proceedings was to organize the discussion and analysis around five pillars. The five pillars are (1) Audio and Video Communications; (2) Collaboration in Hybrid Court Proceedings; (3) Hybrid Court Participant and Public Access; (4) Hybrid Court Interoperability, Technology, and Process; and (5) Training and Guides. They are discussed in detail below.

Pillar I: Audio and Video Communications

In all court proceedings, effective communication is critical to the fair litigation of every matter. The quality of audio and video impacts all participants in the proceeding. In a physical courtroom, audio is supported through microphones and speakers placed throughout the room. Historically, remote audio participation in court proceedings was primarily supported through teleconferencing systems. Beginning with the COVID-19 pandemic, videoconferencing capabilities (with or without video) were introduced and widely used to enable court staff and other participants in the proceeding to participate safely and effectively from a remote location. For the purposes of this report, remote access includes audio and video access to court proceedings and audio-only when permissible.

The workstream identified key concepts and requirements necessary to ensure an effective forum in which all participants, regardless of physical location, could communicate and interact with the court, the other parties, and court staff.

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It is fundamental that in a successful remote proceeding, all court participants can be identified and seen and/or heard. It follows that all participants must be seen and/or heard within the hybrid environment as well. It is also imperative that technology support or provide for confidential or restricted conversations (e.g., between a lawyer and a client and, if interpretation is needed, the client's interpreter, and between the judge and litigants outside the presence of a jury). Technology must also provide an ability for an interpreter to assist participants who are limited in their English proficiency or are deaf or hard of hearing. Finally, courtroom technology must provide an opportunity for a verbatim record of the proceedings to be captured whether by a court reporter or an electronic recording.

Control over courtroom proceedings is an important consideration. A judicial authority or selected courtroom staff (e.g., judge, judicial assistant, or someone with similar authority) must be able to mute or remove a courtroom actor at their discretion whether in person or participating remotely.

It is equally important that participants have the capability to alert the court to onsite or remote disruptive behavior that may not be visible to all.

Pillar II: Collaboration in Hybrid Court Proceedings

In all court proceedings, there is a need for collaboration and sharing of documents, forms, evidence, and other types of materials. These materials may be presented in physical form or electronically on several types of media. In-court, participants may bring with them a mix of computing devices and other supportive technology that need to integrate with the courtroom. At the same time, the court needs to provide access to remote participants with unknown devices, internet service providers (ISPs), and potentially limited/poor connectivity and bandwidth. The experience of remote staff, participants, and the public varies based on connectivity capability and technology available and known to them. The branch should be cognizant of these user experiences, and identify opportunities to increase participant satisfaction and participation.

Courts must consider how participants can share, submit, and display evidence and documents in a hybrid environment when participants may connect via audio and video or audio only. To facilitate collaboration in a hybrid environment, participants must have access to documents and evidence regardless of how they are participating in the proceedings (in-person, via audio and video, or audio only). The optimal technology should allow participants to upload all evidence and other documents in electronic form—e.g., scanned documents, video, proposed settlement agreements—to a central repository controlled by the court.

The Superior Court of Orange County is currently conducting an electronic evidence pilot project that enables participants to submit evidence and documents in electronic form to the Orange court in advance of, or during, a hearing. Once the evidence is uploaded, the court controls the distribution of the evidence as well as other features, e.g., numbering of the exhibits. This program enables all parties to have access to the documents either before or during the proceeding so long as remote participants have access to the electronic evidence solution and can view the documents.

In the event that a court does not have a solution to afford participants the opportunity to submit evidence and documents to a central repository controlled by the court prior to a proceeding, courts need to implement procedures and rules that require parties to submit evidence and other documents

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to the court and other parties prior to the proceeding so that all participants have access to the evidence and documents in hard copy or original form facilitating all participants' access to the evidence and documents regardless of how they choose to participate in the hearing (in person, remotely with audio and video, or audio only).

Public access is critical to the transparency of the judicial branch. To that end, any court conducting hybrid proceedings should consider the various ways that participants will access the proceeding and implement rules and procedures so that all participants can view evidence and documents (either via a remote appearance solution or in hard copy or original form) and collaborate during the proceedings. Consideration should be given to remote technology solutions that (1) allow participants to join with or without video, (2) can accommodate a panoply of internet-connected devices (e.g., desktops, tablets, or smart phones), and (3) anticipate that some users may not have easy access to high-speed internet or electronic devices, which may necessitate court-provided resources such as a kiosk or partnering with public libraries.

As stated above, any remote technology solution should include the ability for participants to have confidential communications between and among the judge, attorneys, clients, interpreters, and court staff. In addition, it is important that remote participants can be identified either visually or audibly during the proceeding (e.g., the participant's name at the bottom of the video image or stating one's name before addressing the court).

Pillar III: Hybrid Court Participant–Public Access

During a hybrid proceeding, remote participants need to have access to a court proceeding that approximates the access one would have in person. One size does not fit all with participants' access to technology that would provide them with the ability to access courtrooms from outside the courthouse using solutions that anticipate a breadth of sophistication and access to devices and high-speed internet. It is imperative that the branch develop technology recommendations for courts to maximize equal public access and transparency, and ensure that all courts throughout California enable participants who choose to appear remotely. This may require upgrades to infrastructure, cabling, and wiring in many courtrooms. Furthermore, in order to comply with California Code of Civil Procedure section 124, which requires courts to provide a public audio stream or telephonic means by which to listen to the proceedings when a courthouse is physically closed (unless the proceedings are required by law to be closed), it is recommended that all courtrooms be equipped with technology components that would facilitate this access (e.g., a telephone line, VOIP system, or audio web stream that connects to a Digital Signal Processor (DSP), managed by a control system that enables "listen only" access).

Controls and procedures are key to protecting the sanctity of the legal proceedings and protecting sensitive and confidential information from public view when allowed and required by law.

Finally, if courts provide public access remotely to court proceedings, it is important to recognize that this may increase distractions given that participants will likely be participating from home, work, or other locations. To minimize those distractions, "best practices" guides should be developed and distributed setting forth the expectations of the court for remote participants, and/or promulgated in local rules and orders. The legal community, especially bar associations, are available to partner with

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local courts to develop and distribute guidelines to ensure successful hybrid proceedings that minimize distractions and maximize decorum, convenience, and increased access to courts.

Pillar IV: Hybrid Court Interoperability, Technology, and Process

As with all public facilities, courthouses and courtrooms must be accessible. As a result of the sudden onset of the COVID-19 pandemic, courts were forced to hastily install—and bring online—remote access capability under very challenging circumstances. The result is a patchwork of equipment, hardware, cabling, and wiring infrastructure that has been installed and routed rather than a planned design and approach.

Each courtroom has technology infrastructure such as network cabling, audio/video cabling, switches, control boxes, outlets, additional electrical power sources, telecommunications wiring, shelving, storage, etc. The technology and sophistication needed to support audio and video for remote, hybrid, and onsite proceedings develop rapidly and add complexity to courtroom infrastructure.

One real-time security and process challenge is the placement of cameras in compliance with court rules, law, and court orders governing what and who can be seen in a particular proceeding. For hybrid proceedings to be successful, all participants must have access to technology solutions that enable them to meaningfully connect with and access court proceedings. Given that the level of access to internet services and electronic devices and the sophistication of remote participants vary widely, courts must anticipate that access to remote proceedings will vary. As a result, technology used in the courtroom to provide access to remote participants must be compatible with a wide variety of devices, applications, and systems that are capable of interfacing with the hybrid courtroom. The selected equipment should enable a participant to connect to the appropriate devices or be ready to be connected to devices used by remote participants.

During the pandemic, it became readily apparent that increased technology in a courtroom designed to facilitate remote access requires court personnel to have some training in how to operate the technology solution and equipment. This can be as simple as knowing how to turn the equipment on and readying the system prior to the time the proceedings begin, and troubleshooting when a participant is having difficulty connecting, participating, or being seen or heard. A courtroom participant delegated with authority to control the equipment must have access to, and be capable of, managing the controls of the remote conferencing solution and audio/video controls to enable all participants in a hybrid proceeding to meaningfully participate.

In addition, the audio equipment in the courtroom requires configuration and controls to ensure that it does not conflict or interfere with foundational communications processes. Furthermore, equipment and furniture must be installed to meet the requirements set forth in the Americans with Disabilities Act (ADA) and computing accommodation and accessibility standards. This will require some thought and planning on the part of facilities personnel when installing equipment and placing furnishings to support hybrid court proceedings.

Furthermore, courtroom personnel must be able to access case management systems and calendars during any hybrid proceeding. It is also preferable if the remote conferencing software can be configured to meet the needs of the judicial officer and the particular case type they are handling.

Advancing the Hybrid Courtroom

Findings and Recommendations

With added technology comes added courtroom telecommunications, computing infrastructure, audio/video control systems, standalone devices, cabling, and electrical power cords. All these items should be safely and securely installed to minimize tripping and other hazards. In addition, the telecommunications equipment and infrastructure should be moveable and adjustable to support courtroom operations.

Even technology solutions that will facilitate hybrid proceedings for all users regardless of broadband access, Wi-Fi strength, and sophistication of the device used to connect to the proceeding, mean that there must be additional cameras and microphones in courtrooms that will hold hybrid proceedings. As a result, courtroom staff must be aware of the vantage point of courtroom cameras. In many case types, there are prohibitions about what and who may be seen and heard. Speakers with quality sound capability will easily pick up all audio. As a result, participants must pay close attention to the location and capability of speakers so that confidential conversations and communications are not broadcast. It is important that the technology recommendations include the ability for participants to manage a microphone's power, volume, and directional capabilities.

Having a broadcast delay (of a couple of seconds or more) would allow the opportunity to stop objectionable content from being broadcast (by being "bleeped" or silenced before it is transmitted in a live court proceeding).

Pillar V: Court Participant Training and Guides

Courtrooms are outfitted with many types of audio and video, telecommunications, computing devices, cabling, and other necessary devices to support onsite, remote, and hybrid operations, which can lead to differences in technology within, and among, courtrooms. At a minimum, judicial officers and court staff require training on operating courtroom technology and any updates or upgrades completed. The training should be ongoing and continuous such that those who operate court-provided technology can also troubleshoot, triage failed devices, and control devices if needed.

Some hybrid court participants, including those who are limited in their English proficiency or who are deaf or hard of hearing, may have difficulty with first-time remote experiences and adapting to changing technology. Court staff should be trained to assist limited-English-proficient participants or have interpreters available to translate as court staff troubleshoot with participants.

Ideally, courts should have resources to distribute to communities that courts serve about how to access courtrooms remotely. The options for external communications are many. Court websites should provide directions about remote participation and connection, and those items should be easy to find. Court websites should also include troubleshooting and FAQs to address common connection issues. If resources are available, there should be help desk personnel available to all participants. Bar associations and other legal organizations can be leveraged to help courts communicate and provide training regarding remote access to proceedings. Community organizations, local legislators' staff, libraries, schools, religious institutions, and other government offices are available to partner with local courts to ensure that their constituents have the information and resources they need to meaningfully access the courts via remote means. All court users recognize the benefits of being able to access courts other than by physically appearing in a courtroom, whether they avail themselves of that option or not.

Advancing the Hybrid Courtroom

Findings and Recommendations

Accordingly, local communities can work together with courts to facilitate remote access to courts by providing information, training, and education.

Finally, courts can create and distribute materials to court users so that remote participants have access to information about remote access. Those materials should be readily available on the court website, in courthouse locations, and at locations in the community. These materials should be printed in various languages.

Functional Requirements

The hybrid courtroom model ideally should include 10 functional roles. Each of the roles may have responsibilities that correspond with activities that require hardware and software components to support the outcome of a hybrid courtroom experience. In a hybrid courtroom, not all roles will be remote, and roles will vary based on the court and proceeding. The roles are:

1. Judicial Officer;
2. Judicial Assistant;
3. Court Reporter;
4. Courtroom Clerk;
5. Bailiff;
6. Attorney;
7. Witness;
8. Digital Evidence Presentation;
9. Juror; and
10. Public Access (Code Civ. Proc., § 124).

Advancing the Hybrid Courtroom

Findings and Recommendations

Recommendations

Recommendations based on functional requirements.

	Control Commands	On Camera	On Microphone	On Display Courtroom	On Display Remotely	On Record	Sidebar	Listen-Only Access
Judicial Officer	✓	✓	✓	✓	✓	✓	✓	
Judicial Assistant	✓	✓	✓	✓	✓	✓		
Courtroom Clerk		✓	✓			✓		
Bailiff		✓	✓		✓	✓		
Court Reporter		✓	✓	✓	✓	✓	✓	
Court Interpreter (VRI)		✓	✓	✓	✓	✓	✓	
Attorneys		✓	✓	✓	✓	✓	✓	
Witness		✓	✓	✓	✓	✓		
Digital Evidence Presentation (DEPS)		✓	✓	✓	✓	✓		
Jurors		✓	✓	✓	✓	✓		
Public								✓

Courtroom Orchestration

Technical

Context: The equipment that is staged in each courtroom and placed where judicial proceedings occur needs to be configured and set up to operate when needed.

Business need:

1. Preparing the courtroom for all participants is critical to the operation of the proceeding.
2. Each device should be set to a predetermined baseline to operate during the proceeding (video settings, audio settings, location, power distribution, peripheral connections).
3. Each device requires testing for proper operation and integration into the system.
4. Supplementary and support peripherals (e.g., mouse, keyboard, external microphone) require physical connectivity checks, maybe testing.
5. Verify wireless connectivity for connected devices and peripherals (Wi-Fi & Bluetooth).
6. Verify sufficient bandwidth for internal and external users.
7. Verify operation of noncomputing devices such as projectors, microphones, standalone cameras, control panels, lighting, screens, and monitors/TVs.
8. Inspect courtroom for trip hazards (cabling, equipment locations, etc.).

Advancing the Hybrid Courtroom

Findings and Recommendations

Recommendations:

1. Identify options for a court resource to "pre-flight" the courtroom for operational readiness for specific case types.
2. Develop a model checklist for testing of all courtroom devices required for remote proceedings.
3. Develop guidelines for testing of network and telecommunications connectivity and bandwidth capacity.
4. Develop courtroom operations training videos and guides for all participants.
5. Develop a courtroom communications guide.
6. Develop a model judicial officer operational checklist.

Operational

Context: To support onsite, remote, or hybrid session(s), both the physical courtroom, the remote technology/solutions, court staff, and participants require significant preparation efforts. The local court team prepares the courtroom technology and sets up the software solutions to meet the day's needs.

Business need:

1. Remote conferencing software that may be configured to meet judicial officer and particular case needs.
2. Audio equipment is turned on and does not interfere with other devices; volume is set correctly.
3. Video and projection equipment is set up, connected to the appropriate devices, and/or ready to be connected to litigant-provided devices.
4. Judicial officer, or delegate, has access and can manage the controls of the remote conferencing solution and audio/video controls.

Recommendations:

1. Develop model configurations and settings for the courtroom that provide options for both the case type and the preferences of a specific judicial officer and their staff.
2. Develop a "Start-up Checklist" for the judicial officer, or their delegate, to complete just prior to a session starting to assure the audio, video, and computing devices are operating correctly.

Advancing the Hybrid Courtroom

Findings and Recommendations

Court Technology

Context: Once a court proceeding and/or series of hearings are started, technology requires human intervention for operations such as reconfiguration, restarts, volume control, camera angles, etc. If the technology supporting the hearing fails, the judicial officer may call a recess to address the technology failure and enable all participants to resume the hearing.

Judicial Officer / Courtroom Clerk / Judicial Assistant	
	Playbook
Audio/Visual System Controls	<ol style="list-style-type: none">1. Control AV system2. Control electronic recording3. Control remote participants4. Exhibit control5. Preserve digital evidence6. Volume controls
Remote Platform System Controls	<ol style="list-style-type: none">1. Connect/disconnect (end meeting)2. Control electronic recording3. Control remote participants4. Control sidebar5. Control exhibit6. Mute all
Infrastructure	<ol style="list-style-type: none">1. Needs power/electricity2. ADA-compliant workspace3. Connect to network (3 data drops)4. Clear conduit paths to telco closet (IDF)5. Millwork location for cable management

Business need:

1. An audio and video master control panel available to the judicial officer/their delegate to operate all courtroom technology available.
2. Enable the judicial officer to delegate control of all or specific components of the courtroom technology to specific users.
3. Standardized signals to communicate that some immediate action is required.
4. Automated alerts to any court participant that a system component of the courtroom technology has failed or there is critical error.

Recommendations:

1. Research and develop model courtroom technology configurations and solutions.

Advancing the Hybrid Courtroom

Findings and Recommendations

Courtroom Recommended Technical Requirements

Hardware Requirements	QTY	Specified Location
1. Control Panel (Audio/Video Controls)	1	TBD
2. Video Switcher	1	AV closet (rack)
3. Sound Reinforcement (System) <i>a. to include Assistive Listening System (ALS)</i>	2	Throughout courtroom (Facilities standards). Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.
4. Digital Evidence Presentation System (DEPS)	1	DEPS cart
5. 8-Channel Audio Mixer	1	Underneath clerk desk
6. Hardware (Infrastructure)	4	Judge, witness, DEP cart, attorney table (Facilities standards). Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.
7. Videoconferencing System (CODEC)	1	TBD to include AB 716 minimum requirement
8. Video Camera	2	Back (judge & witness), front (attorney tables)
9. Microphone	6	Judge, witness, 2 attorneys, clerk, wireless
10. Display Monitor	1	Projector & screen (opposite jury box)
Software Requirements	QTY	Recommended Location
System Controls (Hybrid/Remote functionality)	2	Judicial officer, judicial assistant, or courtroom clerk

Advancing the Hybrid Courtroom

Findings and Recommendations

Additional Considerations

In a hybrid courtroom model, the hardware required to support this environment could increase the amount of audio outputs, microphones, cameras, monitors, and displays needed to support a hybrid experience. The additional need for hardware infrastructure modifications may also be required based on court size and layout and hearing types.

Hardware Requirements	QTY	Additional Location
1. Control Panel (Audio/Video Controls)	2	None
2. Video Switcher	1	None
3. Sound Reinforcement (System) <i>a. to include Assistive Listening System (ALS)</i>	1	None
4. Digital Evidence Presentation System (DEPS)	1	None
5. 8-Channel Audio Mixer	1-3	TBD
6. Hardware (Infrastructure)	4+	Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.
7. Videoconferencing System (CODEC)	1	TBD to include AB 716 minimum requirement
8. Video Camera	4+	TBD
9. Microphone	6+	TBD
10. Display Monitor	1+	TBD
Software Requirements	QTY	Recommended Location
System Controls (Hybrid/Remote functionality)	2+	Judicial officer, judicial assistant, or courtroom clerk

1. Explore available solutions that would generate an error notification for performance and system failure.
2. Develop standard signals for which courtroom technology needs to be adjusted and how.

Courtroom Post-Operations

Context: The equipment that is staged in each courtroom and placed where judicial proceedings occur needs to be properly shut down/put to sleep to be easily set up for the next use.

Business need:

1. Properly configure and/or power down the technology that supported the court proceedings.
2. Identify and document any discrepancies that occurred during the court proceedings.
3. Disconnect any noncourt-provided equipment from the court technology and network.

Advancing the Hybrid Courtroom

Findings and Recommendations

Recommendations:

1. Develop a template/checklist to power down, hibernate, and/or secure the courtroom technology from wear and tear or potential misuse.
2. Develop a model operations and maintenance procedure to document any issues, equipment failures, cybersecurity threats, or software glitches to be repaired or mitigated before the next operational session.
3. Develop a postsession model checklist to identify any noncourt technology or computing machines still connected or left by noncourt participants so they can be removed, the system secured, and the noncourt-provided equipment secured.

Courtroom Standard Communications

Context: The hybrid courtroom experience must allow participants to be in multiple remote locations on multiple types of devices with a mixed use of video with audio, and audio only.

Business need:

1. Various participants use many types of nonverbal communication in the courtroom and on remote conferencing to get the attention of the appropriate participant.
2. Videoconferencing applications have different reactions or “raise hand” features.






Recommendations:

1. Develop a branchwide model document with a standard definition/meaning to the Teams/Zoom reactions and “hand raise” features. This would support court participants and reduce real-time socialization to a specific court. Below are some suggested recommendations being developed for nonverbal communication between a judicial officer and a court interpreter.

Nonverbal Communication / Cues / Commands

Suggested Hand Signals for the Judicial Officer and Court Interpreter to Communicate

The following are recommended hand signals for the judicial officer and interpreter to use during a VRI-interpreted proceeding. These are universal signals that can be used to quickly and effectively convey to the court the need to slow down, wait, or stop. Note that all communications, including hand signals, must be recorded on the record.

	Everything is good.
	Slow down.
	The interpreter needs a break.
	The interpreter can't hear or see what is happening.
	The interpreter has a question.

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Advancing the Hybrid Courtroom

Findings and Recommendations

Court—Creating a Virtual Experience

Context: All participants, whether remote or onsite, should see and experience the same trial/hearing content (not available if participating by phone).

Business need:

1. All items that must be displayed, whether digital or physical, should be viewable by all participants.
2. Availability to use, in court or from a remote location, digitized evidence that may be categorized, numbered, reviewed, accessed, projected/displayed, etc.

Recommendations:

1. Review and align with the Electronic Evidence Workstream’s recommendations to support a solution and a process for litigants to transfer files, images, documents, emails, etc., into a secure Cloud or on-premises location.
2. Research and identify devices that have the capability to render 2D and 3D images for use during proceedings.
3. Research and develop the capability to zoom in or reduce image size as needed during a court session so that the digitized evidence can be seen clearly on any connected device.
4. Develop model procedures for the use of digitized/electronic evidence.

Evidence

Context: The transformation of physical evidence and documents into a digitized format to be used in both a remote session and an on-premises court. Digitization is required for preparation and near–real time during the court proceeding.

Business need:

1. An operator to support the digitization process.
2. Court staff to retrieve digitized evidence, then support the display/presentation in the courtroom and in the online conferencing solutions/tools.
3. The capability to mark and categorize the digital evidence.

Recommendations: Electronic Evidence Workstream recommendations.

Courtroom User Experience

Context: The remote/hybrid courtroom experience should be able to simulate the onsite experience as realistically as possible. The video/visual experience should be similar in nature such that relevant participants are able to gauge both verbal and nonverbal expressions and communications.

Business need:

1. The capability of the virtual courtroom experience to be like the physical experience.
2. Behavior, appropriate and inappropriate, and the maintenance of decorum is of concern to the court.

Advancing the Hybrid Courtroom

Findings and Recommendations

Recommendations:

1. Develop best practices and standards, including conduct and use of technology, to be used by onsite and remote court participants.
2. Develop an approach for camera and audio locations that is accessible to the public and that protects human and physical resources from misuse, identification, or any security breaches.
3. Develop a design standard to install and configure cameras and/or microphones that only enables the camera views and/or audio content allowed by law or rules of court.

Courtroom Audio

Context: Courtroom audio technology varies from court to court and courtroom to courtroom. Multiple configurations and locations of microphones and speakers that are not part of the technology solution may already exist in the courtroom. The technology solution is comprised of a multitude of devices with internal speaker and microphones, both court-provided and litigant-provided. Outside the courtroom, remote participants use devices and technology not part of the courtroom technology.

Business need:

1. Allow private conversations that should not be heard throughout the courtroom.
2. Speakers that allow clear sound so that all participants may hear relevant discussions.
3. Capability to manage a microphone's power, volume, and directional capabilities.
4. Capability to mute any participant.

Recommendations:

1. Investigate and identify appropriate microphone technology for each courtroom based on use, security, and privacy needs of all participants. In a hybrid courtroom model, the general recommendation would suggest that any person or persons speaking or presenting evidence on "record" could be presented and unmistakably identified by any person or persons physically inside a courtroom or appearing remotely. (See chart below.)

Current Standards (Not Hybrid)

Hardware Requirements	QTY	Specified Location
Microphone	6	Judicial officer, courtroom clerk, witness, (2) counsel tables, wireless

Advancing the Hybrid Courtroom

Findings and Recommendations

Hybrid Courtroom Recommended Requirements: Considerations are based on audio functional requirements.

	Control Commands	On Camera	On Microphone	On Display Courtroom	On Display Remotely	On Record	Sidebar	Listen- Only Access
Judicial Officer			✓					
Judicial Assistant			✓					
Courtroom Clerk			✓					
Bailiff			✓					
Court Reporter			✓					
Court Interpreter (VRI)			✓					
Attorneys			✓					
Witness			✓					
Digital Evidence Presentation (DEPS)			✓					
Jurors			✓					
Public								

Advancing the Hybrid Courtroom

Findings and Recommendations

2. Research systems that would provide the judicial officer, or their delegate, with capabilities to control courtroom audio.

Suggested Controls

Hardware Requirements	QTY	Specified Location
1. Control Panel (Audio/Video Controls)	2	TBD
3. Sound Reinforcement (System) <i>a. to include Assistive Listening System (ALS)</i>	1	Throughout courtroom (Facilities standards). Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.
5. 8-Channel Audio Mixer	1-3	Underneath clerk desk
6. Hardware (Infrastructure)	4	Judge, witness, DEP cart, attorney table (Facilities standards). Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.
7. Videoconferencing System (CODEC)	1	TBD to include AB 716 minimum requirement.

3. Develop a model “Terms of Use Agreement” that specifies the set of rules to be used by onsite and remote court participants.

Courtroom—Access from Anywhere

Context: Hybrid courtrooms should be developed with consideration not only of capabilities and needs currently available but also those that may be relevant 5–10 years from now.

Business need: Considerations for remote (hybrid) participation in court proceedings should account for participants being physically located, at a minimum, anywhere in the United States.

Recommendations:

1. Amend and/or adopt rules/legislation that address court participant location.
2. Amend and/or adopt rules/legislation that address the required regalia to be seen in a hybrid courtroom proceeding.
3. Develop a standard design for a virtualized courtroom that recognizes court tradition and decorum.
4. Develop rules and/or guidelines for court participant dress and expected behaviors.

Advancing the Hybrid Courtroom

Findings and Recommendations

Courtroom Cameras

Context: Placement of cameras and what/who can be seen are governed by court rules, legislation, and court participants' individual physical security requirements.

Business need:

1. Courtroom staff must be aware of what courtroom cameras are focused on and allowing to be viewed.
2. There are restrictions on what/who may be seen and identified in an image, depending on the participant and the proceeding.

Recommendations:

1. Develop guidelines on video camera operations. The guidance would focus on boundaries for video operations, recording of video, and who can and cannot be on camera based on their specific role(s). In a hybrid courtroom model, the general recommendation would suggest that any person or persons speaking or presenting evidence on "record" could be presented and unmistakably identified by any person or persons physically inside a courtroom or appearing remotely. (See chart below.)
2. Investigate and identify cameras and camera automation that could provide additional value-added capabilities and security to the courtroom.
3. Research and develop a set of model instructions for camera placement, limits on what is viewable, and how the cameras are physically and virtually controlled.

Advancing the Hybrid Courtroom

Findings and Recommendations

Current Camera Placement Standard (Not Hybrid)

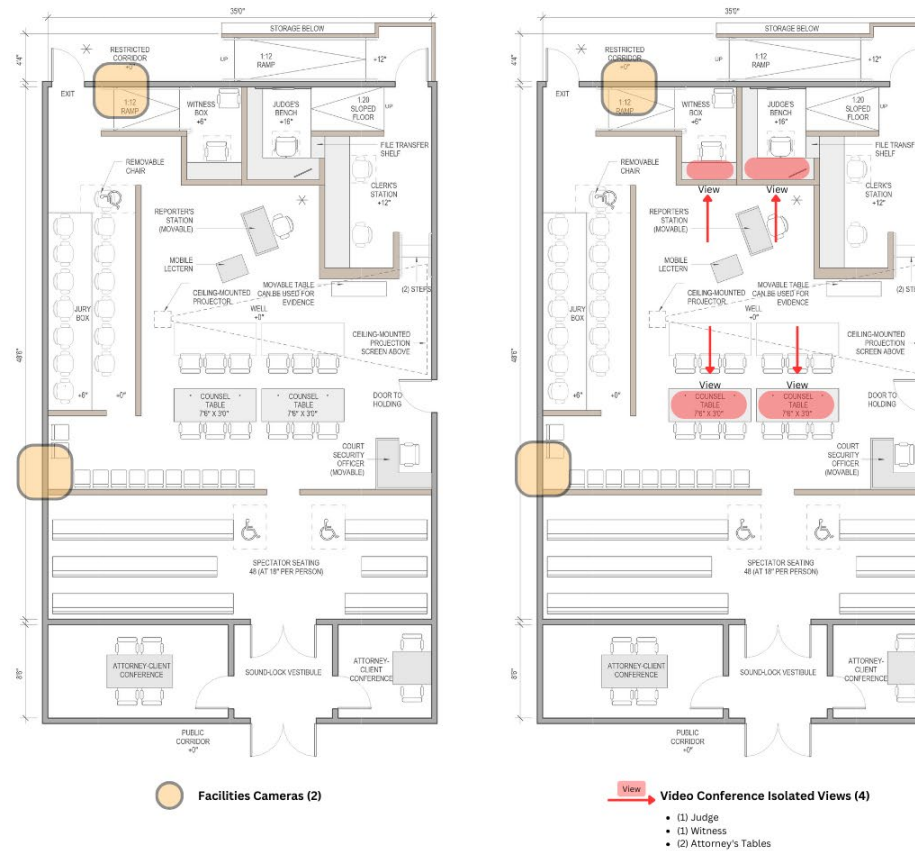
Hardware Requirements	QTY	Specified Location
4. Digital Evidence Presentation System (DEPS)	1	None
8. Video Camera	2	Back (judicial officer & witness), front (attorney tables)

Hybrid Courtroom Recommended Requirement Considerations Based on Functional Requirements (Video)

	Control Commands	On Camera	On Microphone	On Display Courtroom	On Display Remotely	On Record	Sidebar	Listen-Only Access
Judicial Officer		✓						
Judicial Assistant		✓						
Courtroom Clerk		✓						
Bailiff		✓						
Court Reporter		✓						
Court Interpreter (VRI)		✓						
Attorneys		✓						
Witness		✓						
Digital Evidence Presentation (DEPS)		✓						
Jurors		✓						
Public								

Advancing the Hybrid Courtroom

Findings and Recommendations



Current Camera Placement Diagram (Not Hybrid)

Advancing the Hybrid Courtroom

Findings and Recommendations

Courtroom Infrastructure

Context: Each courtroom has technology infrastructure such as network cabling, audio/video cabling, switches, control boxes, outlets, additional electrical power sources, telecommunications wiring, shelving, storage, etc. The technology and sophistication needed to support audio and video for remote, hybrid, and onsite proceedings develops rapidly, and adds complexity to courtroom infrastructure.

Business need:

1. Infrastructure requires that manual arrangement and movement not hinder courtroom operations.
2. The infrastructure needs to be configured to support safe access and be ADA compliant.

Recommendations:

1. Conduct research to discover best practices in setting up temporary and permanent audio/video ecosystems.
2. Develop model instructions to guide facilities and technology staff in how audio, video, computing machines, and related cabling should be physically installed, routed, and placed in the courtroom.
3. Develop facility guidelines for the permanent routing and storage of infrastructure through raised floors, walls, equipment closets, and specialized cabinetry needed to support specific pieces of hardware and/or control panels.
4. Develop guidelines for periodic observations and inspections to identify obstacles or safety barriers that inhibit access and safety during court proceedings. This would include suggestions for remedies or mitigation.
5. Advance an initiative to develop a multidisciplinary team to address courtroom technology needs for all case types, physical court facility sizes, and locations.
6. Conduct market research and acquire network (Wi-Fi) access points in each courtroom with sufficient bandwidth, connections, and multifrequency to support reliable, fast, and stable Wi-Fi access in each endpoint (device).
7. Conduct market research and acquire LAN/WAN bridging technology for litigant access when appropriate and secure.
8. Conduct market research to identify alternate and/or backup internet service providers using a spectrum of infrastructure (e.g., StarLink, cable, fiber, Hi-Speed DSL, traditional satellite, cellular data, etc.).

Courtroom Facilities

Context: As with all public facilities, there is federal, state, and local governance to make the courtrooms accessible. Additionally, facilities had to be quickly retrofitted with audio/video equipment, streaming and broadcasting equipment, telecommunications equipment, computing networking, and other hardware and personal protection equipment. The result was a patchwork of equipment, hardware, cabling, and wiring infrastructure installed and routed as needed versus a planned design and approach.

Advancing the Hybrid Courtroom

Findings and Recommendations

Business need:

1. Courtroom telecommunications, computing infrastructure, audio/video control systems, standalone devices, cabling, and electrical power cords should be safe, secure, and safe to traverse.
2. The configuration of the courtroom should be compliant with the ADA and any state or local statutes.
3. Telecommunications equipment/infrastructure may be moved and adjusted to support courtroom operations. However, the cabling, equipment, and devices should not present trip hazards, be obstacles, or result in limitations in nonnatural movement in the courtroom.

Recommendations:

1. Research, review, and update the current facilities guidelines for courtrooms to account for modern remote and hybrid technology and telecommunications equipment that may impede physical access.
2. Review the current federal and state statutes on ADA, Section 508 Information and Technology Communications, and Section 501 Reasonable Access to identify key areas of the hybrid courtroom that may require access mitigation, adaptation/rearrangement of equipment and infrastructure, compliance, and barrier mitigation.
3. Develop a template of minimal standard courtroom hybrid configuration.
4. Create a recommendation for audio/video/computing machines to support remote and hybrid proceedings that takes into consideration a level of reasonable access that enables a right of entry to the justice system.

Remote Public Access

Context: For onsite court hearings, public access is made available through the physical galleries in the courtrooms. Some courts offer access through videoconferencing (watch/listen only), some offer phone access (listen), and some only offer onsite participation with no cameras/video equipment.

Business need:

1. As the manner in which public access to proceedings varies from court to court, legislation may be put in place to provide consistency.
2. There are no branchwide technology standards for providing public access.
3. Public access is critical to the transparency of the judicial branch.
4. The public in all but limited circumstances, managed by the judicial officer, has a right to access court proceedings.
5. During the COVID-19 pandemic, some courts gave full remote access (viewing and listening, not two-way conversations) to the public. Others offered very limited options including physical attendance in the courtroom.
6. Aging cabling and wiring are compromised such that audio quality is poor at best, making streaming and telecommunications unsuitable for remote access.
7. Difficult, if not impossible, to limit recording of streaming services in the public ecosystem.
8. Camera view should only show what is appropriate/allowed.

Advancing the Hybrid Courtroom

Findings and Recommendations

Recommendations:

1. Develop standards for public access to remote and hybrid proceedings. All courtrooms must provide the public access to listen to proceedings remotely via audio stream or telephonically. To satisfy the minimum requirements for AB 716 (Stats. 2021, ch. 716), it is recommended that all courtrooms be equipped with at least one telephone line, VOIP system, or audio web stream that connects to a DSP managed by a control system for the function of telecommunication with listen-only functionality for public access.
2. Research solutions to monitor live audio to manage the quality of the audio streams.
3. Develop camera placement and operations guidelines to only show what is allowed by law and rules of court.
4. Research and identify solutions to enable remote access for court participants that do not have access to technology and/or technology sufficient to support remote/hybrid access to the courts.

Courtroom Communications

Static

Context: For any proceeding, there are many one-to-one, one-to-many, and many-to-many communication endpoints. These take place over many communication venues and electronic solutions. For instance, participants could be speaking, texting, emailing, chatting, hand signaling, and talking through back channels all at the same time.

Business need:

1. Standard operations instructions and appropriate-use conditions for communications, device use, and computing machine solutions/applications during court operations/sessions.

Recommendations:

1. Create standards guide (court playbook) on appropriate communication methods.

Advancing the Hybrid Courtroom

Findings and Recommendations

Courtroom Communications

Dynamic

Context: The audio and visual communication qualitative experience impacts all participants in a court proceeding. Within a traditional setting, audio is supported through microphones and speakers placed throughout the room. During a remote hearing, audio is supported through teleconferencing systems. Beginning with the COVID-19 pandemic, videoconferencing capabilities were introduced to enable court staff, court resources, and hearing participants to participate safely from a remote location unbounded by a physical location such as a courtroom or court building.

Business need:

1. All participants need to see human activity within the physical and virtual environment.
2. All participants need to clearly hear and understand verbal communications based on their individual role and purpose in the proceeding.
3. All participants need to see nonverbal communications to understand intent, purpose, and meaning of communications.
4. Communications sometimes must be paused to clarify a statement, audio/video glitch, intentional/unintentional interruptions, or other distractions that would result in a miscommunication.
5. All participants need to be able to alert participants to onsite or remote disruptive behavior that may not be visible to all.
6. All participants need to see and verbally identify other participants and their specific role in the proceeding.

Recommendations:

1. Develop a courtroom communications guide (courtroom playbook).
2. Develop standards for video monitor(s) that would enable at least the judicial officer to view all participants.
3. Produce model designs for the best placement of audio/video equipment and how to make it compliant with the relevant legislation.
4. Develop an initial, continuous, and long-range training program on the use of court audio/video equipment and control mechanisms.

Advancing the Hybrid Courtroom

Findings and Recommendations

Time Management

Context: Electronic access to the court calendar should be available to the judicial officer and delegated staff to schedule future events.

Business need:

1. Judicial officers and court clerks/judicial assistants have a near–real time need to have access to calendars to schedule future events.

Recommendations:

1. Make available to the judicial officers, court clerks, and any other designated participant online access to calendars as appropriate.

Courtroom Equipment Operations and Management

Context: The successful operation of a hybrid courtroom is dependent on modern technology. The software/application selected by the courts has an implicit expectation that it will be operational with the general levels of technology used by all participants, independent of case type.

Business need:

1. Courtroom equipment must be compatible across operating systems and brands.
2. The audio/video equipment provided by the court must also be compatible with devices brought into the courtroom by noncourt participants.
3. The audio equipment in the courtroom requires configuration and controls so it does not conflict or interfere with inherent communications processes.
4. Equipment/furniture must be set up to meet ADA and computing accessibility standards.

Recommendations:

1. Develop a facility template for the use of technology and integration of decentralized systems for each court size and case type.
2. Draft a model user’s guide to provide noncourt participants with the device and software specifications needed to connect to the courts’ remote services.
3. Develop a checklist to assess ADA compliance.
4. Develop a model checklist to verify that technology/software provided is compliant with Section 508 of the Rehabilitation Act Information and Communications Technology (ICT) final standards and guidelines as well as Web Content Accessibility Guidelines (WCAG) 2.X at the appropriate level (A, AA, AAA). (Gov. Code, § 11135, Ref. § D.)

Courtroom System/Solution Training

Context: Courtrooms are outfitted with many types of audio/video, computing devices, telecommunications, cabling, and other necessary devices to support onsite, remote, and hybrid operations, leading to great diversity between courtrooms. Judicial officers and court staff require operational training on courtroom technology and any updates or upgrades completed.

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Findings and Recommendations

Business need:

1. Courtroom staff in general need to be provided training to operate courtroom technology.
2. The training should be ongoing and continuous such that those who operate court-provided technology can also troubleshoot, triage failed devices, and control devices if needed.

Recommendations:

1. Develop courtroom operations training videos and guides for all participants, including visiting judicial officers.
2. Develop a production script with a troubleshooting guide for potential issues.

Courtroom Wi-Fi and Bandwidth

Context: Proceedings are dependent on adequate Wi-Fi signal and bandwidth to support not only remote audio and video connections, but also in-courtroom display of evidence and other activities requiring connections to systems and services outside the courtroom.

Business need:

1. The courtroom has sufficient Wi-Fi signal to support many devices.
2. The courtroom has sufficient bandwidth to support audio/video conferencing services.
3. The courtroom has the infrastructure to enable litigants to connect to their organization's computing and online services.
4. The courtroom has the capability to deploy alternative (litigant-provided) audio/video equipment and internet/network access.

Recommendations:

1. Develop recommendations for Wi-Fi access points to support the increasing demand for signal strength and bandwidth.

Court Reporters

Context: Court reporters may serve as court staff or as a contracted service. They bring the tools and software they need to capture the official record of court proceedings. During the proceeding, court reporters may ask speakers to repeat and/or clarify their speech to ensure that transcripts truly represent what was said. Remote proceedings complicate the court reporter's task by introducing multiple sources of speech and activities using electronic devices, audio/video equipment, mobile devices, and landline-based telecommunication equipment.

Business need:

1. Court reporters need to clearly hear and record the spoken word during the hearing.
2. Court reporters need to see and identify speakers.
3. Court reporters need to communicate (verbally or through nonverbal gestures) with the judicial officer to avoid conversational gaps in the official hearing record.

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Recommendations:

1. Create a set-up and operational script to configure, integrate, and test the court reporters' tools with the technology supporting the proceedings.

Court Reporter Roles and Responsibilities

Court Reporter	Playbook
Audio Required	<ol style="list-style-type: none">1. Be on microphone2. Ability to hear all participants3. Microphone and speaker with headphone jack and volume control4. Listen to sidebars5. Have local speaker to hear clearly
Courtroom Visual Requirements	<ol style="list-style-type: none">1. Ability to see in-person speaking individuals (sufficient screen size required in ASL)2. Present real-time (court reporter transcript transmission)3. Ability to see and hear participants in sidebars (when needed)
Remote Appearance Visual Requirements	<ol style="list-style-type: none">1. Ability to see the remote speaking individuals2. Ability to see and hear participants in sidebars (when needed)

2. Collaborate with court reporters to develop a model for communicating verbally and nonverbally with the judicial officer.

Court Interpreters

Context: Court interpreters, much like court reporters, may be internal court staff or a contracted resource. They can operate remotely or in court based on the tools they use. Their client or customer expects to be served in a way that provides them access to justice notwithstanding any language barrier.

Business need:

1. Interpreters may be required to collaborate with court staff and their client prior to, during, and after the proceeding to interpret and guide them through the processes and court technology solutions.
2. Interpreters have access to and use a diverse set of technology, tools, audio/visual software, and accessories to serve their clients through the court system.
3. Interpreters may interact with onsite and remote participants and other interpreters, as well as secondary and tertiary communications and personal devices.
4. ASL interpreters may experience challenges interpreting via conferencing software due to line-of-sight obstacles in viewing their client, as well as the 2D representation of signed communications.
5. Interpreters are often asked by clients to assist with the navigation of technology, which is not one of their core competencies.

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6. Interpreters need clean and clear audio, whether onsite or remote, to provide satisfactory interpreting to their clients. With multiple sources of audio (sound), it may be difficult to correctly hear what is being spoken based on the device’s location, internet quality, and background noise, as well as other signal quality factors.

Recommendations:

1. Collaborate with an integrated team of diverse interpreters to further identify challenges and potential solutions in support of onsite, remote, and hybrid proceedings.
2. Develop a courtroom communications guide.

Courtroom Interpreter Roles and Responsibilities

Courtroom Interpreter (VRI)	Playbook
Audio Required	<ol style="list-style-type: none"> 1. Ability to hear all participants 2. Microphone and speaker with headphone jack and volume control 3. Simultaneous interpretation (connect with the LEP via a separate line) 4. Ability to interpret confidential attorney and client conversation
Courtroom Visual Requirements	<ol style="list-style-type: none"> 1. Ability to see the remote and in-person speaking individuals (sufficient screen size required in ASL) 2. Ability for deaf and hard of hearing individuals and interpreter to see one another (For ASL. Sufficient screen size required) 3. Ability to see and hear participants in sidebars (when needed) 4. Ability to view evidence/documents presented for sight translation
Remote Appearance Visual Requirements	<ol style="list-style-type: none"> 1. Ability to see the remote and in-person speaking individuals 2. Ability for deaf and hard-of-hearing individuals and interpreter to see one another 3. Ability to see and hear participants in sidebars (when needed) 4. Ability to view evidence/documents presented for sight translation

3. Develop a checklist to verify that the court network and bandwidth are sufficient to support the interpreter’s role.
4. The only provisions suggested in the Facilities AV Standards are to provide the infrastructure to support video remote interpreting in courtrooms from a portable cart. The purpose of this infrastructure is to allow a remote language interpreter to hear the courtroom proceedings—and to be heard—and to view any evidence presented. The optional cart will house one or more monitors, a camera, and videoconference hardware. Audio connections shall consist of a line-level output from the courtroom (i.e., microphones) and a line-level input to the courtroom audio system. A video output will duplicate the feed to the courtroom evidence display. This video output will connect to the videoconference hardware on the cart. See the following chart.

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AOV Standards Chapter 18.D Audiovisual Systems Description, 11. Provisions for Video Remote Interpreting (Recommended Requirement)

Remote Audio Recommended Requirement	Roles & Responsibilities	QTY	Hardware Requirement
Remote Interpreter (VRI)	1. Hear courtroom	1	Line-out (output/microphone) to sound reinforcement system and line-in (input) to audio mixer
	2. Be heard	1	Remote (PC or laptop)

Remote Video Recommended Requirement	Roles & Responsibilities	QTY	Hardware Requirement
Remote Interpreter (VRI)	1. View any evidence presented	1	Video feed (out) from Digital Evidence Presentation System (DEPS)
		1	Video feed (in) to the video telephone conference (PC) hardware
		1-2	Display monitors

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Appendix

Hardware Components and Descriptions

Control Panel (Audio/Video Controls)

A control panel is a flat, often vertical, area where control or monitoring instruments are displayed or it is an enclosed unit that is the part of a system that users can access. The control panel gives the user control of software and hardware features. The control panel consists of multiple settings including display settings, network settings, user account settings, and hardware settings. Some control panels require the user to have administrative rights or root access.

AB 716 Compliance (New Requirement)

[Assembly Bill 716](#) (Stats. 2021, ch. 716) adds to the Code of Civil Procedure section 124 to require courts to provide, at a minimum, a public audio stream or telephonic means for the public to listen to proceedings when the courthouse is physically closed, except when the law authorizes or requires the proceedings to be closed. At a minimum, all courtrooms must provide the public with the ability to listen to proceedings remotely via audio stream or telephonically. To satisfy the minimum requirements for Assembly Bill 716 (Stats. 2021, ch. 716), it is recommended that all courtrooms be equipped with at least one telephone line, voice-over IP (VOIP) system, or audio web stream that connects to a digital/audio sound processor (DSP) managed by a control system for the function of telecommunication with listen-only functionality for public access.

Switcher

The most basic part of a vision mixer is a bus, which is a signal path consisting of multiple video inputs that feed a single output.

Sound Reinforcement (System)

A sound reinforcement system is the combination of microphones, signal processors, amplifiers, and loudspeakers in enclosures all controlled by a mixing console that makes live or prerecorded sounds louder and may also distribute those sounds to a larger or more distant audience. Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.

Assistive Listening

An assistive listening system shall provide secure transmission of both speech and program audio to participants or members of the public. When evaluating the types of assistive listening systems in the design as well as the quantities of headsets, refer to sections 11B-219 and 11B-706 of title 24 of the California Code of Regulations to ensure adequate provisioning.

Digital Evidence Presentation Systems (DEPS)

The DEPS is an additional input to the courtroom video display. It is located between or in front of the attorney's tables, or in front or to the side of the courtroom clerk's desk. It is a neutral location for the display of evidence, which can be used by either attorney. Source content may include audio and video

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playback devices, laptops, and document cameras. The system may be portable or dedicated, depending on courthouse needs.

8-Channel Audio Mixer

Audio mixers may control analog or digital signals. The modified signals are summed to produce the combined output signals, which can then be broadcast, amplified through a sound reinforcement system, or recorded.

The channel input strips are usually a bank of identical monaural or stereo input channels arranged in columns. Typically, each channel's column contains several rotary potentiometer knobs, buttons, and faders for controlling the gain of the input preamplifier, adjusting the equalization of the signal on each channel, controlling routing of the input signal to other functional sections, and adjusting the channel's contribution to the overall mix being produced.

Hardware

Judge, witness, DEPS cart, attorney table (Facilities standards). Note: The specific locations and quantities for the hardware components will need to be determined by the Facilities and Permits team.

Videoconferencing System

Videoconferencing and video teleconferencing is the two-way or multipoint reception and transmission of audio and video signals by people in different locations for real-time communication.

Video Camera

A video camera designed to record or stream to a computer or computer network. Webcams can be built-in computer hardware or peripheral devices and are commonly connected to a device using USB or wireless protocols.

Unidirectional Microphone

A unidirectional microphone is primarily sensitive to sounds from only one direction.

Display Monitor

A video reference monitor also called a broadcast reference monitor or just reference monitor, is a specialized display device like a television set, used to monitor the output of a video-generating device, such as playout from a video server, IRD, video camera, VCR, or DVD player. It may or may not have professional audio monitoring capability. Unlike a television set, a video monitor has no tuner and, as such, is unable independently to tune into an over-the-air broadcast like a television receiver.

Remote Videoconferencing Software (Platforms)

Videoconferencing software is software that allows two or more people to emulate a person-to-person meeting over the internet using real-time, multidirectional video and audio streaming.

Language Access

The language access system shall work in conjunction with alternate channels of the assistive listening system to provide for live translation to participants and audience members in courtrooms. Language access may be provided in other spaces as required on a per-project basis.