JUDICIAL COUNCIL OF CALIFORNIA

INFORMATION TECHNOLOGY ADVISORY COMMITTEE

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INFORMATION TECHNOLOGY ADVISORY COMMITTEE

NOTICE AND AGENDA OF OPEN MEETING WITH CLOSED SESSION

Open to the Public (Cal. Rules of Court, rule 10.75(c)(1) and (e)(1))
THIS MEETING IS BEIN G CONDUCTED BY ELECTRONIC MEANS
THIS MEETING IS BEING RECORDED

Date:	March 24, 2021
Time:	12:00 – 1:15 PM
Connection Info:	https://jcc.granicus.com/player/event/1121?&redirect=true

Meeting materials will be posted on the advisory body web page on the California Courts website at least three business days before the meeting.

Members of the public seeking to make an audio recording of the meeting must submit a written request at least two business days before the meeting. Requests can be e-mailed to itac@jud.ca.gov.

Agenda items are numbered for identification purposes only and will not necessarily be considered in the indicated order.

I. OPEN MEETING (CAL. RULES OF COURT, RULE 10.75(C)(1))

Call to Order and Roll Call

Approval of Minutes (Action Required)

Approve minutes of the following Information Technology Advisory Committee meetings:

- January 27, 2021
- February 24, 2021

II. PUBLIC COMMENT (CAL. RULES OF COURT, RULE 10.75(K)(1))

This meeting will be conducted by electronic means with a listen only conference line available for the public. As such, the public may submit comments for this meeting only in writing. In accordance with California Rules of Court, rule 10.75(k)(1), written comments pertaining to any agenda item of a regularly noticed open meeting can be submitted up to one complete business day before the meeting. For this specific meeting, comments should be e-mailed to itac@jud.ca.gov. Only written comments received by **12 p.m. on March 23** will be provided to advisory body members prior to the start of the meeting.

III. REPORTS AND POSSIBLE ACTION ITEMS (ITEMS 1–6)

Item 1

Chair's Report

Presenter: Hon. Sheila F. Hanson, Chair

Item 2

Judicial Council Technology Committee Update

Update on activities and news coming from this internal oversight committee.

Presenter: Hon. Kyle S. Brodie, Chair, Technology Committee

Item 3

Video Remote Interpreting Guidelines (Action Required)

Review and approve the revised *Guidelines*.

Presenters: Hon. Samantha Jessner, Working Group Lead
Douglas Denton, Principal Manager, Language Access Services

Item 4

Data Analytics Workstream – Final Report (Action Required)

Accept the final report and recommendations of the workstream and recommend to the Technology Committee for acceptance by the Judicial Council.

Presenters: Hon. Tara Desautels, Executive Co-Sponsor
Mr. David Yamasaki, Executive Co-Sponsor

Item 5

Disaster Recovery Workstream – Final Report (Action Required)

Accept the final report and recommendations of the workstream and recommend to the Technology Committee for approval.

Presenters: Paras Gupta, Executive Sponsor
Brian Damschen, Project Manager

Item 6

Online Dispute Resolution Workstream Preview

The workstream will present an overview of its activities and findings to date.

Presenters: Hon. Julie R. Culver, Executive Sponsor
Dennis Ma, Project Manager

Adjourn to Closed Session

IV. CLOSED SESSION (CAL. RULES OF COURT, RULE 10.75(D))

Item 1

Discussion of Legislative Proposal – Cal. Rules of Court, rule 10.75(d)(10)
Legislative Updates

Adjourn Closed Session

V.

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INFORMATION TECHNOLOGY ADVISORY COMMITTEE

MINUTES OF OPEN MEETING

January 27, 2021
12:00 PM to 1:00 PM
Videoconference

Advisory Body Members Present:	Hon. Sheila F. Hanson, Chair; Hon. Louis R. Mauro, Vice Chair; Mr. Adam Creiglow; Mr. Jake Chatters; Mr. Brian Cotta; Hon. Julie R. Culver; Hon. Tara Desautels; Hon. Michael S. Groch; Mr. Paras Gupta; Hon. Samantha P. Jessner; Hon. Kimberly Menninger; Mr. Snorri Ogata; Mr. Darrel Parker; Hon. Donald Segerstrom; Hon. Peter Siggins; Hon. Bruce Smith; Ms. Jeannette Vannoy; Mr. Don Willenburg; Mr. David H. Yamasaki; Hon. Theodore Zayner
Advisory Body Members Absent:	Assembly member Marc Berman; Ms. Alexandra Grimwade; Senator Robert Hertzberg; Hon. James Mize; Hon. Joseph Wiseman
Others Present:	Hon. Kyle Brodie; Mr. Zlatko Theodorovic; Ms. Heather Pettit; Mr. Kevin Lane; Mr. Mark Neuburger; Mr. Mark Dusman; Ms. Jamel Jones; Ms. Camilla Kieliger; Ms. Andrea Jaramillo; Ms. Jackie Woods and other JCC staff present

OPEN MEETING

Call to Order and Roll Call
The chair called the meeting to order at 12:00 PM and took roll call.

Approval of Minutes
The advisory body reviewed and approved the minutes of the December 7, 2021, Information Technology Advisory Committee meeting.

There were no public comments for this meeting.

DISCUSSION AND ACTION ITEMS (ITEMS 1–6)

Item 1

Chair's Report

Presenter: Hon. Sheila F. Hanson, Chair

Update: Judge Hanson welcomed members and provided an update since the last meeting in December.

On January 11, Judge Hanson presented the committee's Annual Agenda to the Judicial Council Technology Committee and it was approved.

On January 22, Judge Mize, Rick Walery, Heather Pettit and Judge Hanson presented the Voice-to-Text workstream's final report to the Judicial Council. The presentation was very well received, and the council was impressed with the product and enjoyed the video demonstration. This was the third and final submission to the council for the Futures Commission Directives assigned to ITAC. Judge Hanson thanked members and the volunteers who helped complete the work.

Judge Culver is the new chair of the Rules & Policy Subcommittee upon Justice Siggins' retirement, and Justice Smith has agreed to serve as a member of the subcommittee filling the vacancy of Judge Culver.

Item 2

Judicial Council Technology Committee Update

Update on activities and news coming from this internal oversight committee.

Presenter: Hon. Kyle S. Brodie, Chair, Technology Committee

Update: Judge Brodie provided an update on the work of the Technology Committee since December 7.

The Technology Committee held two open meetings on December 14 and January 11. Topics included recommendations for allocations of the $25M in Court Technology Modernization Funding. Also approved was the use of reserve funds to support immediate needs. The committee received an update on activities related to branchwide initiatives; an invitation will go out shortly for courts to participate in the branchwide initiatives.

The 2021 ITAC Annual Agenda was approved. The Technology Committee noted that ITAC does impressive work through workstreams and completion of those objectives are very important for continuing programs and projects.

The next Technology Committee meeting will be on February 8 and topics include review of the *Tactical Plan for Technology;* amendments of approved projects for the $25M Court Technology Modernization Funding; and proposed Budget Change Proposals for FY 2022-23.

Item 3

Tactical Plan for Technology 2021-2022 (Action Required)

Review and approve updated Tactical Plan and recommend to Technology Committee.

Presenter: Hon. Sheila F. Hanson, Chair

Action: Judge Hanson presented the updated *Tactical Plan for Technology 2021-2022.* For this update of the Plan, the workstream considered the capacity of the judicial branch including court volunteers and staff, who all contribute to this work.

The update of the Plan acknowledges that a majority of current initiatives are still in flight and therefore existing initiatives are continued in the Plan update, with new goals and objectives where appropriate. The only new initiative is the Digital Court Ecosystem, also known as CourtStack.

The updated *Tactical Plan for Technology* was circulated for public comment, of the two responses received neither required amendments to the Plan as drafted.

Motion to recommend the Tactical Plan for Technology 2021-2022 for acceptance by the Technology Committee.

Approved.

Item 4

Budget Change Concepts

Receive an overview of proposed concepts for potential technology-related Budget Change Proposals (BCPs) for funding beginning FY 22/23 and discuss if any other concepts should be considered.

Presenter: Heather Pettit, Chief Information Officer

Update: Ms. Pettit provided a review of the budget change concepts for FY 2022-2023. Budget Change Proposals are due to the Department of Finance by September 2021. Proposals for information technology include a branch security operations center; rural court internet connectivity; ongoing court technology modernization funding; Phoenix SAP/HR upgrade; and IT modernization for appellate courts.

Item 5

2021 Governor's Budget Overview

Receive an update on the Governor's budget for 2021.

Presenter: Zlatko Theodorovic, Deputy Director, Budget Services

Update: Mr. Theodorovic noted that the budget outlook has improved over the past seven months, revenue forecasts from July are better than expected and there are no additional Improvement Modernization Fund F reductions expected. From a technology perspective, the Ability to Pay budget proposal from last year is being brought back for consideration.

Item 6

Technical Guidelines Related to Video Remote Interpreting (Action Requested)

At the December 7, 2020, meeting, ITAC agreed to establish a working group to review and update the Recommended Guidelines for Video Remote Interpreting for Spoken Language-Interpreted Events. The working group will be reporting on its progress and request approval to circulate the proposal for comment.

Presenters: Hon. Samantha Jessner, Working Group Lead

Douglas Denton, Principal Manager, Language Access Services

Action: Judge Jessner provided a progress report on the Technical Guidelines update. The working group met twice, on December 28 and January 14. The update includes changes address a remote, physical, as well as a hybrid scenario for handling court proceedings. Key considerations were training and minimum requirements.

The working group is asking ITAC to circulate the proposal for public comment. After the comment period, the finalized guidelines will come back to ITAC for approval, and then be submitted to the Technology Committee for a recommendation of approval to the Judicial Council.

Motion to approve the recommended Guidelines for circulation for public comment.

Approved.

ADJOURNMENT

There being no further business, the meeting was adjourned at 1:00 PM.

Approved by the advisory body on enter date.

JUDICIAL COUNCIL OF CALIFORNIA
INFORMATION TECHNOLOGY ADVISORY COMMITTEE

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INFORMATION TECHNOLOGY ADVISORY COMMITTEE

MINUTES OF OPEN MEETING

February 24, 2021
12:00 PM to 1:30 PM
Videoconference

Advisory Body Members Present:	Hon. Sheila F. Hanson, Chair; Hon. Louis R. Mauro, Vice Chair; Mr. Jake Chatters; Mr. Brian Cotta; Mr. Adam Creiglow; Hon. Julie R. Culver; Hon. Tara Desautels; Ms. Alexandra Grimwade; Hon. Michael S. Groch; Mr. Paras Gupta; Senator Robert Hertzberg (Alex Barnett); Hon. Samantha P. Jessner; Hon. Kimberly Menninger; Hon. James Mize; Mr. Snorri Ogata; Mr. Darrel Parker; Hon. Bruce Smith; Mr. Don Willenburg; Mr. David H. Yamasaki; Hon. Theodore Zayner
Advisory Body Members Absent:	Assembly Member Marc Berman; Hon. Donald Segerstrom; Ms. Jeannette Vannoy
Others Present:	Ms. Heather Pettit; Mr. Kevin Lane; Mr. Mark Neuburger; Mr. Mark Dusman; Ms. Jamel Jones; Ms. Camilla Kieliger; Ms. Andrea Jaramillo; Ms. Jackie Woods and other JCC staff present

OPEN MEETING

Call to Order and Roll Call

The chair called the meeting to order at 12:00 PM and took roll call.

No public comments were received for this meeting.

DISCUSSION AND ACTION ITEMS (ITEMS 1–8)

Item 1

Chair's Report

Presenter: Hon. Sheila F. Hanson, Chair

Update: Judge Hanson welcomed members and provided an update since the last advisory committee meeting.

She presented the *Tactical Plan for Technology* to the Technology Committee, which recommended approval on the Judicial Council's March 12 agenda. Ms. Heather Pettit will join Judge Hanson in making the presentation. Judge Hanson invited members to listen to the public broadcast of the meeting.

Item 2

Judicial Council Technology Committee Update

Update on activities and news coming from this internal oversight committee.

Presenter: Hon. Kyle S. Brodie, Chair, Technology Committee

Update: Judge Brodie was unable to attend this meeting due to a conflict. This item was skipped.

Item 3

Court Technology Modernization Funding Update

Update on activities related to the $25M Court Technology Modernization Funding Program.

Presenter: Heather Pettit, Chief Information Office

Update: Ms. Pettit provided an update on the $25M Court Technology Modernization Funding Program. On January 22, the Judicial Council approved the direct allocations going to the trial courts; some of their many projects include remote video, digitizing paper, and next-generation hosting. Additionally, 34 courts submitted 129 applications for branchwide funded programs, including a security reimbursement program and self-help web services. Recommendations and allocations relative to these programs are forthcoming.

Item 4

E-Filing Workstream: Revise 2021 Annual Agenda (Action Required)

Review new workstream and recommend that the 2021 Annual Agenda be revised accordingly.

Presenter: Heather Pettit, Chief Information Officer

Action: The proposed new e-filing workstream will provide recommendations on expanding current e-filing solutions branchwide; evaluate statewide EFM solutions and identify development opportunities of potential funding sources; evaluate standardizing e-filing transaction fees across the state; and review e-filing rules and statutes to clarify language and improve consistency branchwide. Mr. Snorri Ogata will be the workstream sponsor.

Motion to add the new E-filing workstream to the 2021 Annual Agenda.

Approved.

Item 5

Data Exchange Working Group Operationalization

Receive an update on the assignment of new court liaisons and the transfer of ongoing support and staffing to Judicial Council Information Technology.

Presenters: David Yamasaki, Executive Sponsor
Heather Pettit, Chief Information Officer

Update: Mr. Yamasaki provided an update of activities since the Data Exchange Workstream ended. The branch has continued to work with justice partners on exchanging data. Mr. Yamasaki and Ms. Pettit suggested that the Information Technology office take over working with the courts and justice partners, along with two representatives from the CIO court community in support of data exchange. The committee agreed.

Item 6

Video Remote Interpreting Guidelines

Receive an update on the revised *Guidelines*.

Presenters: Hon. Samantha Jessner, Working Group Lead
Douglas Denton, Principal Manager, Language Access Services

Update: Judge Jessner provided an update on the efforts of the working group after the public comment period closed on February 16. They met twice to review the 16 comments received. She noted that the comments expressed a need for consistency; that in-person interpreting should be the preferred method; and that there are challenges with using the existing video remote interpreting equipment. Based on the comments received, changes will be made to the guidelines that include acknowledging the digital divide and more clarity on technical solutions. They will present the updated guidelines to the ITAC and to the Access and Fairness Advisory Committees in March and seek approval to move forward to the Technology Committee and Judicial Council.

Item 7

Rules & Policy Subcommittee: Proposed Amendments to the Electronic Filing and Service Rules to Reference Penal Code Section 690.5 (Action Required)

Review and approve proposal for circulation for public comment.

Presenters: Hon. Julie R. Culver, Chair
Andrea Jaramillo, Attorney

Action: The Rules & Policy Subcommittee requested approval to circulate the proposed amendments to the California Rules of Court, so they are consistent with Penal Code 690.5. That code section (1) authorizes permissive electronic filing and electronic service by consent in criminal cases and (2) requires the Judicial Council to make rules. The Criminal Law Advisory (CLAC) provided their comments and recommended modifications to the invitation for public comment. The Invitation to Comment will be amended to include a request for the private criminal defense bar to comment specifically on E-Filing Service Provider (EFSP) convenience fees. Judge Culver and staff will consider adding language to emphasize that service fees are only applicable to civil filings.

Motion to approve the proposed amendments to the California Rules of Court Electronic Filing and Service Rules to reference Penal Code 690.5 for circulation for comment, pending finalized language approved by the ITAC chairs.

Approved.

Item 8

Rules & Policy Subcommittee: Legislative and Rule Proposals Related to Exhibits and Evidence in Electronic Format (Action Required)

Review and approve proposals for circulation for public comment.

Presenters: Hon. Julie R. Culver, Chair
Andrea Jaramillo, Attorney

Action: The Rules & Policy Subcommittee requested approval to circulate an invitation to comment on a proposal for legislation authorizing courts to use vendors for maintenance and storage of exhibits and evidence in electronic format. This would amend Government Code section 69846, Code of Civil Procedure section 1952; and Penal Code section 1417; and would enact Government Code section 69846.1.

The Rules & Policy Committee proposed making an additional revision to 69846.1(b) to add language to include "or by a court with which the vendor contracts."

The subcommittee also requested approval to circulate an invitation to comment on a proposal for a rule to define and govern lodged electronic exhibits. This would add rule 2.901 to the California Rules of Court and help with clarity and facilitate the use of electronic exhibits in court proceedings.

Motion to approve the proposed amendments to the Government Code section 69846, Code of Civil Procedure section 1952; and Penal Code section 1417 for circulation for comment on Legislative and Rule Proposals Related to Exhibits and Evidence in Electronic Format.

Approved.

ADJOURNMENT

There being no further business, the meeting was adjourned at 1:30 PM.

Approved by the advisory body on enter date.

JUDICIAL COUNCIL OF CALIFORNIA

455 Golden Gate Avenue • San Francisco, California 94102-3688

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REPORT TO THE JUDICIAL COUNCIL

Item No.: 21-086
For business meeting on: May 20-21, 2021

Title
Language Access Plan: Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language-Interpreted Events

Rules, Forms, Standards, or Statutes Affected
None

Recommended by
Information Technology Advisory Committee
Hon. Sheila F. Hanson, Chair
Hon. Louis R. Mauro, Vice-Chair

Advisory Committee on Providing Access and Fairness
Hon. Kevin C. Brazile, Cochair
Hon. Luis A. Lavin, Cochair
Hon. Victor A. Rodriguez, Chair, Language Access Subcommittee

Agenda Item Type
Action Required

Effective Date
May 20-21, 2021

Date of Report
March 16, 2021

Contact
Douglas G. Denton, 415-865-7870
douglas.denton@jud.ca.gov
Lisa Chavez, 415-865-4227
Lisa.chavez@jud.ca.gov

Executive Summary

The *Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language-Interpreted Events* have been updated under the direction of a working group of the Information Technology Advisory Committee (ITAC). In response to the COVID-19 pandemic, courts have implemented remote video solutions to ensure access to justice and protect the health and safety of court staff, court users, and judicial officers. The VRI guidelines for spoken language have been updated to support VRI in both physical and virtual courtrooms, and to provide guidance to courts and the public to ensure remote interpreting allows limited

English proficient (LEP) court users to fully and meaningfully participate in court proceedings. The guidelines do not attempt to represent rules or standards, but provide general guidance including key considerations and recommended minimum technology specifications for VRI for spoken language events. The specifications are designed to allow flexibility for courts and to allow for future advances in technology. Following a revision process that included public comment, ITAC and the Advisory Committee on Providing Access and Fairness (PAF) recommend that the council approve the updated VRI guidelines for spoken language.

Recommendation

The Information Technology Advisory Committee and Advisory Committee on Providing Access and Fairness make the following recommendations to the Judicial Council:

1. Approve the *Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language-Interpreted Events*, which provide guidance for courts and the public on use of VRI in both physical and virtual courtrooms and include practical steps to support successful VRI for spoken language.

2. Direct Language Access Services staff to regularly report on the progress of VRI usage, the need for refinement of the VRI guidelines, and to identify funding needs for VRI.

The revised guidelines are attached at pages x-xx.

Relevant Previous Council Action

In January 2015, the Judicial Council of California adopted the *Strategic Plan for Language Access in the California Courts*[1] (Language Access Plan, or LAP) to provide recommendations, guidance, and a consistent statewide approach to ensure language access throughout the courts. In order to increase LEP court user access to qualified interpreters, the LAP allows for the use of remote interpreting. The plan states, "The use of in-person, certified and registered court interpreters is preferred for court proceedings, but courts may consider the use of remote interpreting where it is appropriate for a particular event. Remote interpreting may only be used if it will allow LEP court users to fully and meaningfully participate in the proceedings." (LAP Recommendation 12).

On March 15, 2019, the council approved updated VRI guidelines following a spoken language pilot for VRI that took place in 2018.[2]

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[1] The *Strategic Plan for Language Access in the California Courts* (LAP) is available at https://www.courts.ca.gov/documents/CLASP_report_060514.pdf.

[2] Judicial Council of Cal., Advisory Com. Rep., *Language Access Plan: Video Remote Interpreting (VRI) Pilot Project and Recommended Guidelines for VRI* (Mar. 15, 2019), https://jcc.legistar.com/View.ashx?M=F&ID=7073170&GUID=9B54E3BD-1C5B-4DF4-A4A4-2B943ADFE512

On September 24, 2019, the Judicial Council adopted a process for Language Access Signage and Technology Grants and directed Language Access Services staff to solicit and review grant applications and develop recommendations for review and approval by PAF, ITAC, Technology Committee, and the Judicial Council. [3] Under the grant program, courts are able to apply for grants for VRI if they agree to comply with the council's VRI guidelines.

At the July 24, 2020, Judicial Council meeting, the Chief Justice directed the Technology Committee to recommend a proposal for allocating a $25 million budget appropriation in the Budget Act of 2020 designated for modernizing court operations through the use of technology.

At the September 25, 2020, Judicial Council meeting, the council approved the allocation of the $25 million toward 13 approved program categories—including remote appearance technology—as recommended by the Technology Committee. In addition to direct allocations to courts, this funding also supports a Branchwide Remote Appearance Technology Program, which provides grants for courts to implement remote technology solutions, including VRI.

Analysis/Rationale

VRI is a helpful service delivery mechanism that allows LEP court users to receive remote interpreting services. Due to the COVID-19 pandemic, courts have successfully used VRI to provide remote interpreter services for hearings. The revised VRI guidelines will help to build on and standardize these efforts including establishment of a statewide VRI program.

In December 2020, a working group of ITAC was formed to review and update the VRI guidelines. The working group was comprised of five ITAC members, the PAF Language Access Subcommittee Chair, court Information Technology representatives, and Judicial Council staff.

The VRI guidelines for spoken language have been updated to reflect virtual courtrooms, available technologies, current practices, and to provide guidance to the courts and public regarding practical steps to support successful video remote interpreting for spoken language. The guidelines provide key and other considerations for courts to support VRI, including proper training and recommended minimum technology specifications.

Benefits of VRI include:

- Increased access to qualified (certified and registered) interpreters, especially in languages of lesser diffusion.
- Allowing court users to see and talk to an interpreter in their language without extended delay, despite not being in the same room, or even the same city.

[3] Judicial Council of Cal., Advisory Com. Rep., *Language Access Plan: Signage and Technology Grants* (Sept. 9, 2019), *https://jcc.legistar.com/View.ashx?M=F&ID=7675626&GUID=F2CCA714-356A-41B7-82B5-05C058CE0D6E*.

- Allowing court users to resolve short, non-complex, and uncontested hearings, even when on-site interpreters are unavailable, lowering the need to reschedule court visits.
- Allowing private and confidential VRI conversations, similar to in-person interpreting.

The ITAC working group substantially revised Appendix A, Minimum Specifications for Remote Interpreting, to support VRI under different scenarios in both physical and virtual courtrooms (e.g., where one or more participants is remote, or all participants are remote). The guidelines were also revised throughout to recommend that proper training takes place for all VRI participants to help support successful VRI events, and that easy-to-understand instructional material is also separately developed for LEPs in multiple languages so they may fully and meaningfully participate in remote court proceedings. The guidelines were revised to provide flexibility in the use of software and equipment and to help the branch move toward standardization of VRI practices across the state and ensure quality remote interpretation.

Policy implications

VRI is a priority area for grants under both the Language Access Signage and Technology Grants and the Branchwide Remote Appearance Technology Program. The updated VRI guidelines will need to be followed by all courts that use VRI and will support all courts to better serve the public as they expand their current VRI efforts. There will also be an ongoing need for development of VRI training and resources, including development, updating, and sharing of best practices to promote successful VRI events.

Comments

On January 27, 2021, ITAC approved the revised VRI guidelines to circulate for public comment. The guidelines circulated for comment from January 28 through February 16, 2021.

In response to the proposal, sixteen comments were received (two agreed, three agreed as modified, six opposed, and five did not indicate). Comments came from the following:

- American Alliance of Professional Translators and Interpreters
- California Access to Justice Commission
- California Federation of Interpreters (CFI) and Interpreters Guild of America (IGA)
- Dependency Legal Services
- Individual Court Interpreters (five comments)
- InterpretAmerica
- Legal Services Organizations (eleven agencies signed onto one letter)
- National Association of Judiciary Interpreters and Translators (NAJIT)
- Superior Court of California, County of Orange
- Superior Court of California, County of Riverside
- Superior Court of California, County of San Francisco
- Superior Court of California, County of San Joaquin

The San Joaquin Superior Court and Dependency Legal Services agreed with the guidelines and stated that they do address the stated purpose. As suggested by Dependency Legal Services and

other commenters, language has been added to the guidelines to more clearly recommend that courts work with attorneys to ensure that VRI solutions allow for privileged communications before, during, and after hearings.

A few commenters agreed with the concept of the guidelines but requested other modifications, such as the need to recognize the digital divide (the gulf between those who have ready access to computers and the internet, and those who do not), which makes it difficult or impossible for many Californians to participate in court proceedings convened digitally. The committees agreed and included the recognition of the digital divide in the guidelines. The guidelines also recommend that the courts should make alternative solutions available (e.g., telephonic interpretation or workstations at the court) if the LEP court user does not have access to the minimum technology necessary for effective virtual participation as described in the guidelines. A commenter also recommended that once COVID-19 is over, to the degree it will be, it is important to continue to encourage in-person hearings when necessary (e.g., jury trials).

Several comments requested more specific rules, standards, and consistency in platforms and technology from the courts. However, the purpose of the guidelines is to provide courts with VRI guidance and minimum technology specifications to allow flexibility. The committees recognize there will be an ongoing need for training and best practices to support the recommended guidelines and to ensure the successful use of VRI. Several of the comments submitted provide helpful and useful suggestions that will be incorporated into best practice material for VRI.

There was also common assertion from commenters that in-person interpretation should always be the preferred method of interpretation. The committees recognize that in-person interpreting is preferred, but that remote interpreting also provides an important service and safety mechanism to provide LEP court users with access to a qualified interpreter.

In response to comments, the committees recognize that obtaining LEP court user consent to using VRI on the record is an important best practice. The “Suggested Language for the Judicial Officer When Considering Objections Related to Remote Interpreting” has been reinserted back into the revised guidelines.

Comments from interpreters and interpreter associations also described challenges with VRI equipment and the implementation of VRI in the courts. The committees recognize that during the COVID-19 pandemic, courts were forced to quickly adapt and develop remote technology options to ensure the safety of judicial officers, court staff and court users. Therefore, technical issues with sound and connectivity were foreseeable, but the committees anticipate that the use of VRI will improve over time if properly supported with training, best practices, and continual improvements to VRI communication and technology.

The San Joaquin Superior Court identified that courts may eventually attain cost savings with VRI by reducing travel time and mileage expenses incurred by interpreters traveling for in-person hearings. Also, VRI would also aid the court in increasing its pool of available certified

and registered interpreters which may lead to more competitive negotiations of contract interpreter rates.

The guidelines were revised after public comment and were approved by ITAC and PAF in March and the Technology Committee in April (TBD).

Alternatives considered

These are suggested guidelines for remote interpreting for spoken language based on current best practices and, as such, should be subject to updating and revision by the Judicial Council to accommodate advances in technology that will support the delivery of interpreter services to LEP court users and help ensure quality communication with LEP court users.

Fiscal and Operational Impacts

The Governor's 2020 Budget Act provided funding to support trial courts for court interpreter services and establishment by the Judicial Council of a VRI program. The Language Access Signage and Technology Grants and the Branchwide Remote Appearance Technology Program also provide funding and grants to courts to support increased use of VRI. The revised VRI guidelines will help courts to build on and standardize VRI efforts, including establishment of a statewide VRI program.

The Court Interpreter Data Collection System (CIDCS) allows courts to track VRI as the method of interpretation. The data collected in CIDCS is used to support Budget Change Proposals, including augmentation requests for the Court Interpreter Fund and other language access projects, including funding for VRI equipment.

Language Access Services is working with the National Center for State Courts to develop VRI training modules and materials for courts, interpreters and LEP court users to support VRI and these guidelines. Training and materials will be developed with experts including court interpreters. In conjunction with trainings, best practice material for VRI events will also be developed, shared, and periodically updated.

Language Access Services will also regularly report on the progress of VRI usage, will work with the advisory bodies on the need for any future refinement of the VRI guidelines, and will identify any additional funding needs for courts to support VRI equipment and implementation.

Attachments and Links

1. *Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events* (2021)
2. *Invitation to Comment Chart (S21-01)*

CALIFORNIA JUDICIAL BRANCH

Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language-Interpreted Events

May 21, 2021

Judicial Council of California
455 Golden Gate Avenue
San Francisco, California 94102-3688
www.courts.ca.gov

The *Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken-Language Interpreted Events* was adopted by the Judicial Council on May 21, 2021. This document was prepared under the direction of a working group of the Information Technology Advisory Committee, which reviewed and updated the guidelines in 2020-21. These guidelines were adapted from the *Strategic Plan for Language Access in the California Courts*, which was adopted by the Judicial Council on January 22, 2015. The guidelines were last revised in March 2019, following a VRI pilot conducted in 2018.

For electronic copies of these guidelines and for more information, visit *www.courts.ca.gov/VRI.htm.*

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Introduction

California is home to a very diverse population, with over 200 languages and dialects spoken within its borders. Approximately 7 million of its residents are limited English proficient (LEP), meaning they read, write, speak, or understand English "less than very well." Federal laws, such as Title VI of the Civil Rights Act of 1964 and Executive Order 13166, ensure that these individuals have meaningful access to any program or activity receiving federal financial assistance by prohibiting discrimination on the basis of race, color, or national origin. Accordingly, LEP individuals must be able to access the court system in a meaningful manner. In an effort to address this need, in January 2015, the Judicial Council of California adopted the *Strategic Plan for Language Access in the California Courts* (Language Access Plan, or LAP), which (1) provides the foundational components for ensuring that all LEP court users in the state have equal access to justice, and (2) sets forth guidance and recommendations to help courts expand their language services at the local court level. Two main components of the LAP are to increase qualified interpreter services in any court-ordered, court-operated proceeding as well as to increase the availability of language access services to all court users. The use of technological solutions to expand such services is a component of this plan and is specifically addressed by Goal 2 of the LAP, which highlights the need to incorporate technology to provide access in courtroom proceedings through the provision of remote interpreting and the establishment of recommended minimum technology specifications to facilitate its use.

About VRI

In order to achieve the goal of universal provision of interpreters in judicial proceedings, the LAP notes that appropriate use of technology must be considered. From the use of various forms of remote interpreting (telephonic or video) to developing multilingual audiovisual material, technology will, by necessity, be part of any comprehensive solution to the problem of lack of language access in judicial proceedings.

The use of remote interpreters in courtroom proceedings can be particularly effective in expanding language access. To increase LEP court user access to qualified interpreters, the LAP allows for the proper use of video remote interpreting (VRI) in the courts:

> 12. The use of in-person, certified and registered court interpreters is preferred for court proceedings, but courts may consider the use of remote interpreting where it is appropriate for a particular event. Remote interpreting may only be used if it will allow LEP court users to fully and meaningfully participate in the proceedings.

The LAP also notes that the quality of interpretation is of paramount importance and should never be compromised. In response to the COVID-19 pandemic in 2020, many California courts implemented remote video solutions to ensure access to justice and protect the health and safety of court staff, court users, and judicial officers[1]. Today, courts have access to a wide variety of technology solutions that enable remote access to court proceedings, including off-site location of the interpreter, the LEP party, jail staff, judge or attorney. In both physical and virtual courtrooms, the quality of the interpretation continues to be of paramount importance and should never be compromised. If the effectiveness of the communication is in no way compromised and certain controls are in place, remote interpreting provides an important and viable way in which to provide LEP court users with immediate access to a qualified interpreter. As described in this document, remote interpreting allows LEP court users to fully and meaningfully participate in court proceedings when the court meets appropriate minimum specifications and provides training and resources for court staff and court users.

Among the benefits of remote interpreting is the facilitation of prompt availability of language access for litigants by providing certified and registered interpreter services with less wait time and fewer postponements; this saves both the court user's and the court's valuable time. In

[1] In May 2020, the Judicial Council's Language Access Services developed a handout, You and Your Court Interpreter: Staying Safe During COVID-19, to offer suggestions to ensure the safety of interpreters and LEP court users during the pandemic. It is available in English and other languages at https://www.courts.ca.gov/42863.htm.

addition, having qualified interpreters more readily available through remote interpreting can decrease the use of less qualified interpreters, dismissals for failure to meet court deadlines, and the frequency of attorneys or parties waiving interpreter services or proceeding as if the LEP person is not present, in order to avoid delays. By decreasing interpreter travel among venues and increasing the number of events being interpreted by individual interpreters, remote interpreting allows more LEP litigants to be served, in more areas, utilizing the same personnel and financial resources, thereby greatly expanding language access.

Remote access is not limited to providing interpreter services. It is a means to provide a variety of services in locations that are not near a courthouse or not easily accessible. For example, where satellite courts have been closed or where jails are located some distance from courthouses, remote technology has allowed courts to provide access and service to those locations. It is imperative that courts, and the branch as a whole, include remote access technology solutions in language access planning efforts.

Any introduction of remote interpreting in the courtroom will have to include, in advance, appropriate training and education for all personnel who will be involved in the court proceedings. Language Access Services is working with the National Center for State Courts to develop VRI training modules and materials for courts, interpreters and LEP court users to support VRI and these guidelines. Training and materials will be developed with experts including court interpreters. In conjunction with trainings, best practice material for VRI events will also be developed, shared, and periodically updated.

Judicial officers, interpreter coordinators and other court staff will need to know how to use the available technology. This includes how to launch the programs and how to use the technology during remote court proceedings. Judicial officers in particular will have to understand the logistics of the remote interpretation process to ensure they are managing the courtroom and the proceedings appropriately. Suggested language for the judicial officer when considering objections related to remote interpreting is provided in these guidelines. Similarly, interpreters

will need training on the use of the technologies and platforms utilized by the court, as well as ensuring that audio is clear to adequately provide accurate and effective interpretation. As appropriate, attorneys, bailiffs, sheriffs and jail staff must also receive training and instructional material on the use of adopted platforms and technologies. Similarly, court staff must be trained and available to troubleshoot and address any technical problems with the equipment as the need arises.

LEP court users should also be informed of how to use the court's technologies and platforms. This may include translated instructions and recorded online orientations, etc. The LEP court user should be advised of the options for participation and the minimum technological specifications required to support those options (e.g. telephone, Wi-Fi, etc.). The court should make alternative solutions available (e.g., telephonic interpretation or workstations at the court) if the LEP court user does not have access to the minimum technology necessary for effective virtual participation as described in this document.

Any plan to create a statewide system of remote hearings that utilize VRI and other technologies must be conscious of the "digital divide." The digital divide refers to the entrenched socioeconomic, geographic, and language-based gap that will, until resolved, make it difficult or impossible for many Californians to participate in court proceedings convened digitally. While the digital divide should not dissuade courts from increasing the use of remote technologies, it is essential to note that access to technology is generally less available to people who face other obstacles. Courts must be willing to work with LEP Californians and other vulnerable litigants to allow them to participate.

About These Guidelines

These are suggested guidelines for remote interpreting for spoken language based on current best practices and, as such, should be subject to updating and revision by the Council to accommodate advances in technology that will support the delivery of interpreter services to

LEP court users and help ensure quality communication with LEP court users. The guidelines do not attempt to represent rules or standards, but provide general guidance including key considerations and recommended minimum technology specifications for VRI for spoken language events. The specifications are designed to allow flexibility for courts, support physical and virtual courtrooms, and to allow for future advances in technology.

Considerations and Guidelines for Video Remote Interpreting in Court Proceedings

When using VRI meeting minimum technology specifications and providing training are critical. Additionally, prior to selecting VRI for a particular courtroom event, the court should adhere to additional considerations and guidelines as described below.

Key Considerations

A. Minimum Technology Specifications for Remote Interpreting

When using VRI in any proceeding, the court should ensure that it has the equipment and technology to provide high-quality communications, regardless of the physical location of the participants. (See Appendix A for Minimum Technology Specifications).

B. Training

Prior to conducting VRI proceedings, the court should provide all persons participating in the VRI event adequate training and orientation in the use of the equipment, interactions and interpreting protocols.

Considerations for VRI for a court event

The initial analysis for determining whether a court proceeding is appropriate for VRI may be made by the interpreter coordinator, judicial officer, and/or court staff. The interpreter

coordinator, judicial officer, and/or court staff should consider all of the following when using VRI:

- The anticipated length and complexity of the event, including complexity of the communications involved.
- The relative convenience or inconvenience to the court user.
- Whether the matter is uncontested.
- Whether the proceeding is of an immediate nature, such as arraignments for in-custody defendants, bail reductions, and temporary restraining orders.
- Whether the LEP or other parties are present in the courtroom or appearing remotely.
- The number of court users planned to receive interpretation from the same interpreter during the event.
- The efficient deployment of court resources.
- Whether the LEP party requires a relay interpreter; e.g., where there is an interpreter for an indigenous language who relays the interpretation in Spanish to another interpreter who then provides the interpretation in English. (The need for a relay interpreter does not preclude the use of VRI but might necessitate the presence of at least one of the interpreters in the courtroom or a combination of remote technologies.)
- Whether the LEP parties require different interpreters.

Guidelines for using VRI in a court proceeding

1. **Need to Interrupt or Clarify**

   When using VRI, the court should consult with the interpreter to determine how best to facilitate interruptions or clarifications that may be needed. The court should suspend and reschedule a matter if VRI is not facilitating effective communication due to technology issues or other reasons.

2. **VRI Time Management**

   The court should be mindful that in remote interpreting, there may be additional lag time needed for interpreting and relay interpreting. In addition, remote interpreting

may include increased fatigue and stress. Events involving remote interpreting should have shorter sessions or more frequent breaks.

3. **Participants Who Must Have Access**

   The remote interpreter's voice must be heard clearly throughout the courtroom or in a remote courtroom session, and the interpreter must be able to hear all participants, whether they are in person or appearing remotely.

4. **Visual/Auditory Issues, Confidentiality, and Modes of Interpreting**

   VRI is generally preferred over telephonic interpreting that does not provide visual cues. Several remote platforms provide options for confidential conversations with the LEP litigant, attorney and interpreter. Remote technologies may provide sight translation, consecutive, and simultaneous interpretation options.

5. **Documents and Other Information**

   The court should ensure the availability of technology to communicate written information to the interpreter including a copy of exhibits being introduced, as well as information after a proceeding, such as an order, so the interpreter can provide sight translation to the LEP individual if needed.

6. **Professional Standards and Ethics**

   The same rules for using qualified interpreters apply to assignments using VRI. It is the intent of the language access plan to expand the availability of certified and registered interpreters through the use of VRI. All interpreters performing VRI should be familiar with—and are bound by—the same professional standards and ethics as onsite court interpreters.[2]

7. **Data Collection**

   a. Courts using VRI in the courtroom, or in a remote courtroom session, should monitor the effectiveness of their technology and equipment. This may include periodic surveys and/or a method for feedback and complaints by in person and remote participants.

[2] The requirements for provisionally qualifying an interpreter can be found in Government Code section 68651(c) and California Rules of Court, rule 2.893.

b. For purposes of supporting funding requests, courts should collect data regarding VRI on an ongoing basis (e.g., number of interpreter sessions provided, number of languages, and quality of VRI solutions).
c. The Court Interpreter Data Collection System (CIDCS) allows courts to track VRI as the method of interpretation. The data collected in CIDCS is used to support Budget Change Proposals, including augmentation requests for the Court Interpreter Fund and other language access projects, including funding for VRI equipment.

Suggested Language for the Judicial Officer When Considering Objections Related to Remote Interpreting

We will have a court certified/registered_____ (insert language) _____ interpreter help us with these proceedings.

The interpreter is at a remote location and will appear in court via video- (or audio-) conference. Please remember to speak slowly and clearly and not speak at the same time as each other.

Do parties and counsel have any objections to the interpreter participating by remote interpreting for today's proceedings?

[Judge rules on objections, if any, or assists in resolving concerns.]

If proceeding with VRI (or audio):

Parties and counsel had no objections to the use of remote interpreting, so the court will proceed with today's hearing.

[or]

Parties and counsel objected to the use of remote interpreting, but the court has overruled

those objections, so the court will proceed with today's hearing.

If not proceeding with VRI (or audio):

Parties and counsel objected to the use of remote interpreting. The court will not continue with today's hearing at this time and will reset this matter for a qualified (insert language) _____language interpreter to be available in person.

Suggested Language to Include in the Minutes:

Interpreter (name)_____is present by video remote conferencing (or audio) and sworn to interpret (insert language)_____language for (name)_____. (If appropriate) Sworn oath on file with the Superior Court of California, County of_____.

Visual/Auditory Issues, Confidentiality, and Modes of Interpreting When Working Remotely

1. A clear view of the LEP court user is more important than a view of every speaker. Although the default setting for various platforms displays the speaker, the courts may pin various courtroom participants to remain in view. Cameras on all stakeholders may be beneficial but may not be essential. A speakerphone is not recommended unless it accommodates the other requirements of these guidelines, including the ability to be part of a solution to allow for simultaneous interpreting when needed.
2. To ensure the opportunity for confidential attorney-client conferencing, the attorney should have the ability to speak confidentially with their LEP client with the assistance of an interpreter before, during, and after the hearing. This could be accomplished using a combination of personal communication devices such as smartphones, tablets, headphones, and/or individual handsets, depending on the physical location of each participant. Technology used to support virtual courtroom sessions must include some sort of breakout room or conference call functionality to provide for private

conversations.

3. Interpreting in the courtroom regularly involves both simultaneous and consecutive modes of interpreting. This can be achieved in a variety of ways using existing and emerging technologies. In longer matters, failure to have a technical solution that can accommodate simultaneous interpreting will result in delays of court time and may cause frustration with remote interpreting. Courts should use a technical solution that will allow for simultaneous interpreting. However, there may be proceedings or connectivity issues (for example, very short matters via a telephone) in which consecutive interpreting is adequate to ensure language access. When using consecutive interpreting, the court should advise participants to speak clearly and in short sentences to help facilitate accurate interpretation.
4. Recognizing that courts may implement very different technical solutions for VRI, it is critical that prior to the start of an interpreted event all parties, judicial officers, court staff, jail staff, and officers of the court (including attorneys and interpreters) know how to allow for confidential conferencing when needed. For example, how to launch a virtual breakout room, add participants, and rejoin the hearing.
5. All participants, including the LEP party and the interpreters, need to check microphone and/or camera clarity before beginning interpretation. In addition, all participants, including the LEP court users and interpreters should also check their phone or internet connectivity to ensure adequate signal.
6. Both VRI interpreters and courts should receive training and be knowledgeable of general steps to address technical issues. If available, the courts should also have technical support readily available as needed.
7. Clear, concise operating instructions should be available to interpreters, courtroom staff, jail staff, and LEP court users regarding any technical specifications or procedures related to remote interpretation.
8. When participating in remote events, if possible, all participants are encouraged to use a headset or earbuds with a built-in microphone. This equipment will improve audio clarity for both simultaneous and consecutive mode interpretation.

Note: There are different and other visual considerations, including visual confidentiality, if using VRI with American Sign Language (ASL). Please see *www.courts.ca.gov/documents/CIP-ASL-VRI-Guidelines.pdf* for a complete discussion of using VRI with ASL-interpreted events.

Appendix A—Minimum Specifications for Remote Interpreting

The following table provides guidelines for providing remote interpretation to LEP court users in court sessions that are initiated in a physical courtroom or a virtual courtroom. Solutions will need to support both consecutive interpretation (in open court when the speaker pauses after one or two sentences and allows the interpreter to interpret from the source language to the target language before the speaker continues on with their speech) and simultaneous interpretation (when the interpretation from the source language to the target language happens in real time). Solutions will also need the capability for breakout rooms that allow confidential conversations between the LEP, attorney and court interpreter before, during, and after the hearing.

Court users will receive instructions from the court on how to participate in remote hearings if they are appearing remotely. Court users may participate in remote hearings by using their smartphone or computer if the device has a microphone and internal or external video camera, and access to internet and Wi-Fi that supports reliable connectivity for sound and video image. When participating in remote events, if possible, all participants are encouraged to use a headset or earbuds with a built-in microphone. This equipment will improve audio clarity for both simultaneous and consecutive mode interpretation. Remote video connections can also be provided from a location within the courthouse for both the LEP and/or an interpreter (e.g., workstations at the courthouse that allow the LEP or interpreter to participate remotely via video). Courts will need to ensure that remote video equipment used at court (for listening, speaking or visual purposes) is routinely cleaned between usage to ensure safety among court staff and court users. If the LEP can only connect using audio only (i.e., a phone without smartphone functionality and no video), then a telephone number will be provided to the LEP by the court for participation.

Courts will need to ensure that platforms used for remote hearings ensure data security for the court. Also, VRI solutions used by courts must meet the system requirements for selected solutions as well as the California Trial Court Facilities Standards.

Court Information Technology (IT) personnel are highly encouraged to contact their assigned Judicial Council LAN/WAN design engineer for technical advice on network equipment and internet circuits. If court personnel are not sure who their design engineer is, they can e-mail LANWAN@jud.ca.gov and the appropriate team member will respond.

Minimum Specifications for Remote Interpreting

The following table provides guidelines for various scenarios to provide consecutive and simultaneous interpretation to LEP court users in court sessions that allow for remote appearances that are either:

1. Initiated in a physical courtroom with both in-person and remote participation, or
2. A virtual courtroom session, where all participants are remote.

All scenarios require a remote video solution that provides the following functionality:

- Breakout rooms for interpreters and LEP court participants to have confidential discussions with attorneys.

- Ability for the interpreter to toggle back and forth between a connection to speak with the LEP and to the court in English and the required language (consecutive interpreting) and to listen to proceedings and to speak with the LEP only in their required language (simultaneous interpreting).

1. <u>Physical Courtroom with In-person and Remote Participants</u>

Scenario	LEP Connection	Interpreter Connection	Audio
Interpreter and LEP Remote	*Remote video**	*Remote video**	*Internal (courtroom microphones) and external (remote session) audio connected to the courtroom public address (PA) system so all participants can be heard.***
Interpreter in Person, LEP Remote	*Remote video**	*Tablet device and headset to join the remote video session from within the courtroom*	
LEP in Person, Interpreter Remote	*Tablet device and headset to join the remote video session from within the courtroom*	*Remote video**	

2. <u>Virtual Courtroom with all Remote Participants</u>

Scenario	LEP Connection	Interpreter Connection	Audio
Interpreter and LEP Remote	*Remote video**	*Remote video**	*Provided via remote video solution***

** If the LEP can only connect via telephone (no video), then a telephone number will be provided to the LEP by the court for participation. A remote video connection could be provided from a location within the courthouse for both LEP and/or an Interpreter.*
*** When participating in remote events, if possible, all participants are encouraged to use a headset or earbuds with a built-in microphone. This equipment will improve audio clarity for both simultaneous and consecutive mode interpretation.*

S21-01
Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events

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

List of All Commenters, Overall Positions on the Proposal, and General Comments				
	Commenter	**Position**	**Comment**	**Committee Response**
1.	Naomi Adelson, Federal and State-certified Court Interpreter	N	I had the honor to serve on the Language Access Plan Implementation Task Force (LAPITF), which conducted a Video Remote Interpretation (VRI) Pilot Project, evaluation, and then issued guidelines. At the final LAPITF meeting, the Task Force voted to approve the guidelines. At that time- as one of only three spoken-language Interpreters on the Task Force- I voted against the guidelines. I believed then, and now more than ever, that VRI requires stronger and mandatory minimum standards in order to assure meaningful language access for LEP court users. Understandably during the pandemic, courts have had to provide access and use whatever temporary means are available. These ad-hoc measures should never be implemented as permanent solutions, however. They have not been studied or evaluated. Stakeholders are not informed and cannot fully participate in this decision as California is still under purple-tier Corona virus restrictions. This revision is a further weakening of the Guidelines for VRI and should not be approved. The Judicial Council's revised Guidelines for VRI for spoken languages argue that with remote interpretation, the "effectiveness of communication is in no way compromised… if certain controls are in place." They continue, stating that remote interpretation is an "important and viable" way to provide LEP court users with a qualified interpreter. They also note that remote interpreting provides "meaningful" and "full participation when it meets minimum specifications." If remote interpretation requires "minimum specifications" and "certain controls," to provide LEP court users with meaningful	The committee thanks the commenter for their comment. The guidelines for VRI do not attempt to represent rules or standards but are intended to provide general guidance courts should follow including key considerations and recommended minimum technology specifications for VRI for spoken language events. The specifications are designed to allow flexibility for courts and to allow for future advances in technology, including advances in sound/audio and video quality, and capability to provide private video conferencing. The committee recognizes there will be a need for training and best practices to support the recommended guidelines and to ensure the successful use of VRI.

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			language access, why is the Judicial Council merely issuing advisory guidelines? What accountability do the courts have to ensure that meaningful language access is provided through Video Remote Interpretation? How will the courts evaluate the actual provision of services through remote interpretation? Why did they remove ALL technical specifications for remote interpretation from the previous guidelines? The revised guidelines further state that for communication to be effective, training and resources must be provided to court staff for implementation. If the training and resources are also a mere suggestion to the courts, how will they be provided? If they are not provided, who will be accountable for that? How will the public know? The new guidelines make many positive statements about remote interpretation that have not be proven and the guidelines do not provide citations as they are not factual statements. For example, how and why does remote interpretation decrease the use of less-qualified interpreters? In my experience doing remote interpretation during the pandemic, judges are not asking Interpreters for their qualifications online. In fact, they do it even less than they did in person. The guidelines also say that remote interpreting "reduces dismissals for not meeting deadlines." This has not been proven and would require detailed research using statewide court statistics. They also state as fact that remote interpreting decreases the frequency of the waiver of appearances of LEP court users. There is nothing that can be further from the truth. In the over nine months that I have worked in remote interpretation for the courts, more waivers have occurred than I have seen in more than a decade. Finally,	

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			the guidelines argue that remote interpretation allows more litigants to be served by increasing and enhancing "language access." This is preposterous as LEP court users have been shown to have less access to Internet services, mobile devices, and computers and thus, many do not have the ability to access remote services or even understand how to access them. Additionally, many courts have been charging fees to access the courts remotely. Increasing remote interpretation will only hurt access to justice for LEP court users. The revised guidelines argue that due to the emergency implementation of remote interpretation during the pandemic, courts today have "wide access" to technologies for remote interpretation. While the guidelines argue for minimum specifications, they do not state what those are and eliminated the previous more specific standards and specifications. Many courts are using platforms created for meetings (e.g. Zoom, BlueJeans) that do not meet the original minimum specifications for connectivity, wiring, etc. As a result, in my experience, on a daily basis someone's Internet fails or sound is faulty. It can be the judge who has to log off and back in, the sheriff with the defendant remote from the jail, the court reporter trying to create a record or the Interpreter attempting to provide meaningful language access to a defendant or witness. Voices are often slowed and people seem to interrupt one another. Zoom has been proven to accentuate the loudest voice, which can be highly discriminatory in a courtroom setting. How will these guidelines change this in any way? The guidelines argue that several platforms have options for privacy, yet many do not. If there are not rules surrounding	

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			remote interpretation, how will privacy be guaranteed? While doing remote interpretation, I have heard outraged public defenders as they are not being allowed to go into breakout rooms with their clients. The guidelines' remedy is to suggest the use of personal communication devices for privacy. It is the courts' responsibility to guarantee equal access to justice for LEP court users, not the public, or the Interpreters. Additionally, the guidelines advise judges to tell people to speak clearly and in short sentences if using remote interpretation. Again, this is NOT what equal access to justice for LEP court users looks like. The revised guidelines also state unequivocally that the remote interpreter's voice must be heard. In my experience, LEP court users are instructed to hang up from the video connection and call a conference telephone line to hear the simultaneous interpretation. The voice of the remote Interpreter is NEVER heard during these simultaneous interpretations and is only heard when they unmute to consecutively interpret an LEP's answer. No one ever hears the interpretation besides the LEP. No one ever asks the interpreter to inquire if the LEP understood or heard. If the interpreter is to be heard, only consecutive interpretation can be used in remote interpreting. Additionally, the guidelines insist that the Interpreter be able to hear. Yet an Interpreter cannot know what they did not hear. I have found that with remote interpretation, Interpreters have become more invisible and no one remembers that the Interpreter is interpreting. At present, the courts are operating in full violation of these very weakened, proposed guidelines. How can the issuance of new, watered-down guidelines guarantee an improvement in remote	

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			interpretation practices? Why did the Judicial Council create these new recommendations without prior input from the public and interpreters? Relying on the good will of the courts through the issuance of recommendations will not guarantee due process and meaningful language access to LEP court users. Again, I respectfully request that you reject the revision of the guidelines.	
2.	American Alliance of Professional Translators and Interpreters (AAPTI) by Angie Birchfield, Vice President and Legislative Chair ABinterpreting California Court Certified Spanish Interpreter	NI	Due to the COVID pandemic, the legal profession has had to adapt to a new way of continuing business as usual and as such our profession has had to adapt to Video Remote Interpreting (VRI). As a result, we are able to continue to conduct legal proceedings both in and out of the courts. Having participated in the VRI Pilot Project in the Ventura Court and having participated in the Language Access Implementation Task Force, I know how seriously this option for interpretation is being taken by the Judicial Council. VRI has been challenging for some colleagues to become accustomed to. In the beginning the technology was new and colleagues were not exposed to it very much so they lacked the skills and knowledge on how to proceed virtually. After a year in this "new setting" the transition has become easier although it is not perfect. We acknowledge how much "safer" VRI is but the question remains, what will VRI look like in the long term? As was the plan from the beginning, VRI is looked at as a way to expedite certain cases where an "in person" interpreter is not easily accessible for the LEP's language pair; for use in the outer lying	The committee thanks the commenter for their comment. The committee also recognizes that Ventura Superior Court has been a leader with court technology including efforts to learn more about VRI and how to support successful VRI events.

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			remote court locations and for short non evidentiary matters. We as interpreters also envision VRI as a safety net for an interpreter's court appearance when called upon as an expert involving a very high-profile case or as an interpreter in a high-profile case. Having experienced VRI first hand on a daily basis for a year, these are our observations: Scenarios when interpreting via VRI The interpreter is on zoom while the LEP is "in person" in the courtroom. The courtroom needs to either have: • A tablet or laptop with an activated camera on the podium or tables with headphones so that the LEP can communicate with the interpreter or: • The courtroom needs a panoramic camera that faces the audience so the interpreter can see the LEP. The LEP is using the phone bridge feature to communicate with the interpreter and so that the interpreter can use the simultaneous mode. The court has been requesting that the LEP use their personal phone to call the court so that the court can connect the LEP to the interpreter. This is problematic because one, the LEP's connection may be bad and two the LEP doesn't have a phone. The solution is for the court to have a phone connected in the courtroom so that the interpreter will call in and the proceeding can proceed from there. • A "VRI" cart can be utilized where the equipment can	The suggested equipment for the interpreter or courtroom will be incorporated into education and best practice materials.

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			be transported from one courtroom to the next for those LEP's that appear in person. The interpreter and the LEP are on zoom: • The LEP needs to be taught ahead of time on the usage of the VRI program (Zoom, etc…). The need for educating the public is first and foremost. • The Judge does not want to use the simultaneous feature because it is too cumbersome to explain to the users about "muting the language" in order to listen in English. • When using the consecutive mode, the attorneys and judge forget that the interpreter is there. • The delay can sometimes be substantial enough to make it impossible to hear the first few words from the speaker. • The loss of the visual cues as well as subtleties used by the speakers causes an increase for a margin for error in the interpretation. • Interpreters have had to provide their own equipment (laptop, tablets, headphones, internet, etc.) • Interpreters have complained of headaches from staring at the computer screen for long periods of time and some hearing loss or tinnitus from the headphones and	

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			back and neck pain from sitting in front of the computer for long periods of time. • The interpreter has to multi task (using the toggle on the screen, notetaking, etc.) while interpreting. • Team interpreting continues to be a very important aspect to this temporary issue and needs to be incorporated. • Encryption confidentiality is a concern as well. Positive Aspects of VRI • After having participated in the VRI Pilot Project, I can wholeheartedly say that Zoom did a MUCH better job than the equipment provided by the vendors. • VRI has allowed us to continue to provide language access throughout the pandemic in a safe zone. • VRI has provided easier faster access for Language pairs that are not readily available. • VRI would provide a safe environment for an interpreter that has to testify as an expert in a high-profile case. • VRI would provide a safe environment for an interpreter interpreting in a high-profile case. Regarding the specific questions:	

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			Does the proposal appropriately address the stated purpose? Yes, with the above mentioned taken into consideration. Would the proposal provide cost savings? No because there are many court buildings that are old that don't have the capability to have a good bandwidth for a clear connection so many courthouses would need to be updated. Regarding the independent contractor interpreter, the standard fee of $156.56/282.23 in the courts has been in place since 2004 and needs to be equivalent to the fees that their counterparts charge in the Private Sector which is significantly higher (please refer to the federal interpreter fee schedule (https://www.uscourts.gov/services-forms/federal-court-interpreters) as an example for the following reasons: -The interpreters must have a home studio; -Provide their own equipment which includes; • Headphones • Laptop's (for more than one courtroom) • More sophisticated internet • Landline for the phone bridge matters -The amount of time that the interpreter is in front of the computer screen, sitting down, etc. and other issues that arise including the margin for error and the stress involved in making sure that the event is a smooth one.	The committee appreciates the feedback, but interpreter pay rate is outside the scope of the guidelines.

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			What would the implementation requirements be for the courts As it pertains to interpreters, it is an ongoing learning curve but an 8- hour training split into 4 two-hour training sessions to assure the interpreter understands its use and trouble shooting options so that they feel comfortable. A lead technological interpreter dedicated to trouble shooting and assisting colleagues would also be helpful to have. A self-study workshop option for the interpreters to trouble shoot as well as "court etiquette" training. There should be a private breakout room available for the interpreter to sight translate waiver forms, etc. with the LEP as well as an electronic signature feature. Once the pandemic is under control, the courts should establish VRI centers where the interpreter travels to and conducts interpretation from. How well would this proposal work in courts of different sizes? The technology is the same no matter the size of the court. Conclusion While VRI is part of the staff interpreter's employment duties in counties not including Ventura and Sonoma, Independent Contractors would like to emphasize their interest in serving as the "secondary" option for available interpreters that are	

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			California based. The Technological Committee should have an employee interpreter and an independent contractor interpreter as part of it given that we are the stakeholders and we can share "hands on" experience. We would like to emphasize that "in person" interpretation should remain the number one priority. It is the most efficient way to communicate with the LEP and the courts.	The committee also recognizes that in-person interpreting is preferred, but that remote interpreting also provides an important service and safety mechanism to provide LEP court users with access to a qualified interpreter.
3.	Mary Lou Aranguren, Certified Interpreter & Camille Taiara, Certified Interpreter	N	Interpreters statewide have made their best efforts to adapt our work to Internet platforms designed for video meetings, as the courts navigate these incredibly challenging times. Remote appearances generally, as well as remote interpreting, have been absolutely necessary to maintain essential services while protecting the health and safety of all participants and the public during this emergency public health crisis, and under emergency orders by the Governor and Judicial Council. The following comments are based on our direct experience interpreting remotely during the COVID-19 pandemic, as well as input from more than two-dozen staff interpreters in the San Francisco Bay Area and Los Angeles, and review of relevant research and current discussions of remote interpreting platforms. We respectfully refute the flawed premise offered to justify the proposed VRI guidelines which states: "Due to the COVID-19 pandemic, courts have successfully used VRI to provide remote	The committee thanks the commenter for their comment. The guidelines for VRI do not attempt to represent rules or standards but are intended to provide general guidance courts should follow including key considerations and recommended minimum technology specifications for VRI for spoken language events. The specifications are designed to allow flexibility for courts and to allow for future advances in technology, including advances in sound/audio and video quality, and capability to provide private video conferencing. The committee recognizes there will be a need for training and best practices to support the recommended guidelines and to ensure the successful use of VRI.

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			interpreter services for hearings. The revised VRI guidelines will help to build on and standardize these efforts including establishment of a statewide VRI program." Interpreters have been using a variety of platforms (Zoom, BlueJeans, WebEx) to interpret from courtrooms or remotely from a laptop in a wide range of proceeding types and scenarios where some or all parties appear remotely. Our experience interpreting over these platforms has been extremely difficult, and the experimental efforts we have all participated in would best be described as marginally effective and a far cry from successful. Our experience is that the improvised technology "solutions" present serious challenges and impede the ability of limited-English proficient (LEP) parties to participate in their own cases. The proposed "anything goes" approach will not "build on and standardize," or enhance, efforts to provide language access remotely. Suggesting that the ad-hoc technical configurations being used during this health crisis provide a model for VRI use is misguided and irresponsible. The proposed guidelines would perpetuate the ongoing use of poor quality systems, without minimum technical standards, and without well-defined restrictions. The systems being used out of utter necessity during this health crisis have no place in a postpandemic courtroom, and can only be considered stop-gap emergency solutions. Moreover, information is emerging that working over Internet meeting platforms without necessary standards for audio quality is	

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			damaging to interpreters' hearing. Consistent technical standards and protocols must be developed and adopted as mandatory standards, rather than guidelines, to ensure accurate interpretation and protect access to justice. Impacts on due process, civil liberties and access to justice We have observed many problems with LEP participation and due process during the pandemic as a result of communication dynamics in remote appearances combined with the complexities of interpretation. These impacts are glossed over and often go unrecognized by participants, including judges, attorneys, parties and interpreters as we all struggle to get through this crisis. A significant body of research in Europe supports the validity of our experience and observations. The AVIDICUS Project [FN1] conducted studies over more than a decade investigating the challenges and risks involved in video-mediated interpretation in legal settings. Researchers point out that "potential challenges of combining the technological mediation through VC [video conferencing] and the lingua-cultural mediation through an interpreter are widely underestimated." [FN2] AVIDICUS 2 compared face-to-face interpreting and remote interpreting and identified impacts on the communication dynamic. "We argue that videoconferencing can create an additional barrier to the persons in the remote site who are already isolated by the language barrier, resulting in an increased isolation in their own sphere." The study found that video conferencing exacerbates interaction problems, and "the rapport between the participants is weakened by the	

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			videoconference setting and the problems of hearing (and understanding) are aggravated." [FN3] There are many other reasons for legal aid and defense attorneys and prosecutors to be concerned about the effects of remote appearances on their clients' rights, and for judges to be cautious about the impacts of remote appearances and remote interpreting on constitutional rights. These include: • Remote interpreting restricts the scope of language access available to LEP parties before, during, and after a proceeding. This access is broader when interpreters and parties appear in person, and critical to support LEP court users (and their representatives) as LEP parties navigate the complexities of legal proceedings and orders. *1 The AVIDICUS project undertook studies over more than a decade to gain a better understanding of the difficulties arising in video-mediated interpreting in a legal context, including a review of current practice, surveys of judicial institutions/legal practitioners and legal interpreters, and empirical studies comparing traditional legal interpreting with the different forms of video-mediated interpreting.* *2 AVIDICUS 3: Handbook of Bilingual Videoconferencing; http://www.videoconference-interpreting.net/wpcontent/uploads/2016/08/AVIDICUS3_Handbook_Bilingual_Videoconferencing.pdf.* *3 Avidicus 2 (2011-2013), Sabine Braun, University of Surrey, Page 45.* • Confidential attorney-client consultations are much more limited and cumbersome, and more often than not simply do not occur due to these limitations. • Testimony through video has been found to be less credible (Harvard Law Review, 2009) • Worse outcomes have been documented for detained	

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			immigrants when judges and defendants appear over video. Researchers studying these impacts point out that understanding the effects of remoteness on the dynamics of proceedings will require substantial further research and warn, "Until this is possible, the introduction of video-mediated interpreting should be slow and incremental, allowing for adjustment as more research outcomes become available." [FN4] Impacts on accuracy and quality of interpretation Accuracy and quality of interpretation suffer in remote, video-mediated hearings. According to studies conducted using higher quality sound and video than is available over platforms and devices currently being used in California courts: All forms of video-mediated interpreting were found to magnify known problems of (legal) interpreting […] the number of serious interpreting problems was generally higher […] compared to face-to-face interpreting. Previous studies have highlighted that videomediated interpreting often magnifies known communication and interpreting problems. Remote participants, and in particular defendants, have reported difficulties in making themselves 'heard' by the court and in understanding the content of their own trials." [FN5] Distortions of meaning, for example, were twice as high when the interpreter was separated from all parties versus face-to-face interpretation. "By far the largest group of distortions are conceptual distortions of what was said, involving confusion of facts and distortions of the speaker's intention." The interpreters themselves tended not to notice such distortions, suggesting	

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			"that the interpreters worked very close to the limit of their mental capacities." [FN6] It bears mentioning that these results were obtained using far better technology, and far simpler communication exchanges than what we've been attempting under ad-hoc COVID-19 conditions. To interpret completely and accurately, interpreters have to hear much better than other participants in a court proceeding and need visual clues and information that adds important context and aids in hearing and understanding. We have to be able hear over our own voices and we are more impacted by disruptions in audibility. The harder it is to hear, the more cognitive effort goes to trying to understand what we are hearing. Studies of simulated remote interpretation have shown that putting so much effort into hearing impacts accuracy. Our struggle to hear interferes with the other cognitive functions required for simultaneous interpretation: translation of the message into the target language, monitoring output in the target language to ensure accuracy, and listening to the next part of the message in the source language. *4 Recommendations for the use of video-mediated interpreting in criminal proceedings, Page 271 Videoconference and Remote Interpreting in Criminal Proceedings, Sabine Braun, University of Surrey, July 2012.* *5 AVIDICUS3:* *http://epubs.surrey.ac.uk/303017/2/14_Braun_recommendations.pdf.* *6 Braun, Sabine. (2013) Keep your distance? Remote interpreting in legal proceedings: A critical assessment of a growing practice. Interpreting 15 (2), 200-228, Page 214.* All of the issues described in sections that follow interfere with our ability to provide complete and accurate interpretation as well as our ability to monitor and assess our own performance	

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			and report impediments to our performance to the presiding judicial officer. Technology: Sound and Connection Issues Quality of sound and video is directly connected to quality and accuracy of interpretation. Standards for high-definition audio and video, dedicated wired systems, high quality microphones and cameras, and placement of interpreters and other speakers, are completely missing from the proposed guidelines, which should be described as guidelines for nonstandardized and unregulated use of VRI. Interpreters have experienced ongoing problems with audibility throughout the pandemic because sound quality over the platforms being used is poor and unreliable. Problems with sound include interference, echo, distortion, bad microphones, choppy audio and video, sound lags and variable volume of different participants, among others. Background noise, including noise from children and pets in homes and noise from detention facilities only adds to these challenges. These sound issues are due only in part to poor Internet connections and the fact that so many participants are connecting without standards or requirements as to the quality of the connection or equipment (devices, headsets, microphones). However, experts say that even with the best remote set-up, the sound is lost in the link transmitting the speaker's voice through the platform. Speaking in a hearing of the Canadian House of Commons	

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			Standing Committee of Official Languages, [FN7] on the challenges of interpreting over Zoom, Dr. Christoph Stoll, explained the fundamental problem is that sound quality is degraded by platforms- all platforms. "Original sound across spectrum is lost over Zoom. Speech intelligibility (.49) was among the lowest of all measured systems. Some are better than Zoom- all of them do not match the frequency range required to listen and speak at the same time (9-18 kHz)." The limitations of these platforms for simultaneous interpretation are based on inherent limitations in sound quality. Good microphones and headsets, a dedicated Ethernet connection, and fixed bandwidth can help. However, neither the basic nor the "advanced" versions of Zoom are ISO compliant. [FN8] They do not provide the quality of sound needed to listen and speak at the same time. Regular interpretation audio equipment (not remote) provides quality far superior to ISO standards, which are actually a minimum. Adequate set-ups to replace platforms and work remote can be achieved. They are expensive. They require the presence of a sound engineer, a "fixed bandwidth" on a "dedicated system" and the manual adjustment of settings. *7 Dr, Stoll is conference interpreter (AIIC), trainer and researcher at Heidelberg University MA KD program.* *Committee hearing at 15:30 EST February 4, 2021.* *8 ISO (International Organization for Standardization). ISO 20108:2017 Simultaneous interpreting- Quality and transmission of sound and image input –Requirements. Standards for the quality and transmission of sound and image input to interpreters and specifies the characteristics of the audio and video signals.*	

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			Poor quality video, lack of visual information and inability to see speakers Interpreting is known to rely heavily on non-verbal clues including mimic, gesture, posture, and the interpreter's general visual perception. [FN9] Ad hoc use of meeting platforms does not provide the visual information interpreters rely on for hearing, understanding and processing meaning in fast-paced communications. Interpreters working remotely during the pandemic report that a lack of visual information creates major challenges including not being able to see a clear image of who is speaking, not having a view of the overall environment and locations of speakers, and the fact that only some speakers in a communication are visible (some participants are on the phone or disable their cameras). Many interpreters report the need for significant support for hearing and comprehension by watching lip movements, seeing the person who is speaking, and visually following the flow of communication in the communication space, whether that is a courtroom or a virtual courtroom on screen. Risks of Injury to Interpreters Interpreting in legal proceedings during the pandemic has been highly stressful for interpreters whether working in-person at serious risk of COVID exposure, or working remotely with inadequate equipment, poor sound, and a complete lack of training or protocols for remote interpretation.	

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			As one interpreter put it, "I have been feeling the effects of remote interpreting for some time, and this year I am taking more single vacation days than ever because it is difficult and physically overwhelming (auditory and cognitive-wise) to be on BlueJeans and the Bridge Line." When sound quality is deficient, interpreters have to turn up the volume in order to perform their work. "You cannot currently get from any platform the quality [of sound] you need to listen and speak at the same time without damaging your hearing," according to Heidelberg University researcher Dr. Christoph Stoll, who has designed interpretation sound systems for conference settings. Perhaps the biggest health risk remote interpreters are being subjected to is hearing loss and damage including tinnitus and acoustic shock syndrome [FN10] which are side effects of working remotely under current conditions. Hearing is a foundational requirement to work for spoken-language interpreters, and essential to our livelihood. Any cost-benefit analysis regarding the use of VRI as currently proposed must take into account the cost to interpreters' health and hearing. Remote interpreting also increases fatigue and stress even using well-designed technical configurations with high definition video and audio. Poor sound quality adds another level of fatigue (which impacts accuracy) as does working in simultaneous mode on platforms that do not support listening and speaking at the same time.	

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			9 Recommendations for the use of video-mediated interpreting in criminal proceedings, Page 271 Videoconference and Remote Interpreting in Criminal Proceedings, Sabine Braun, University of Surrey, July 2012. *10 Among the symptoms reported by those diagnosed with acoustic shock syndrome are headaches, tinnitus, ear pain, nausea, jaw and neck pain, fluttering noises in the ear, poor balance, hypersensitivity, and fatigue. Interpreters and call center representatives are among those listed as vulnerable to acoustic shock exposure.* The phenomenon that has been coined "Zoom fatigue" [FN11] is familiar to interpreters because they experience it in face-to-face interpreting, however it is exacerbated when working remotely due to poor sound quality of the Internet meeting platforms and other factors discussed in these comments. Use of complicated setups that are not designed for interpretation, juggling multiple devices and logins, muting and unmuting to avoid interference between the platforms and devices, all under time pressure, is physically taxing and anything but ergonomic. Impediments to access and performance reported by Interpreters In addition to the significant technological challenges created by substandard video and audio quality discussed in detail above, interpreters report experiencing and observing many other impediments to access for LEP court users and the interpreters' performance: • Many LEP parties lack access to good connections or appropriate equipment • Lack of context due to time limitations in advance of and following a proceeding	

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			• Lack of information and instruction in advance of hearings to orient interpreters and LEP parties and provide context that is necessary to provide high quality interpretation • Use of inadequate equipment (microphones, cameras, devices) by remote participants • Lack of protocols to ensure parties and interpreters are connected • Disorientation of LEP parties and interpreters because we cannot tell who is speaking • Lack of protocols to control pace and turn taking during proceedings • Lack of protocols to identify speakers. LEP parties unable to know who is saying what, rendering the interpretation a stream of words in one voice without context that is necessary to comprehension: who is saying what? • Inability to interrupt as needed to request repetitions or to interpret LEP questions or comments; lack of protocols for interruptions • Interpreter and LEP party become "invisible" because platforms are not designed for interpreting. • Inattention by judges and lawyers to the need for pauses, and failure to look at LEP parties or notice when they are trying to speak. Racing ahead with proceedings without awareness of technical issues and interpretation challenges affecting LEP presence and interpreter performance Based on our decades of experience as working interpreters in the court system, we are doubtful that courts will develop the	

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			serious training and protocols that would be necessary to address the issues and problems inherent in remote interpretation. These issues reflect bad habits and ingrained practices that are rooted in a total lack of recognition of the challenges of interpretation generally, and a lack of understanding of the limitations of remote appearances and remote interpretation specifically. *11 Zoom fatigue has another name that audiologists and researchers use – "concentration fatigue." Mario Svirsky, professor of hearing science at NYU Langone Health medical center explained, "It's not necessarily persistent fatigue but surely a measurable increase in listening effort… A little noise in the background can bring you over a tipping point where communication becomes much more difficult and you have to do a lot of work. You may participate in a meeting focusing on everything for the full two hours and, at the end, you are wiped out."* Modes of Interpretation Platforms being used for remote appearances in virtual courtrooms, like Zoom, WebEx and BlueJeans, are not designed for interpretation. Most are one-channel systems- only one person can speak at a time- and only support consecutive interpretation. Even platforms with two channels do not provide the quality of sound required for remote simultaneous interpretation (RSI) as discussed above. Consecutive mode is better for maintaining accuracy in remote hearings. The slower and more controlled pace allows interpreters to make sure they hear and to interrupt and request repetitions, as necessary. Many short and sometimes long proceedings are conducted this way, but proceedings are slow and cumbersome. This mode does not work well for longer communications or hearings with many participants. It creates	

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			fragmentation that can make it difficult for interpreters to track meaning and for speakers to deliver their message. Additionally, the slow pace taxes the patience of participants, particularly judges, and this can impact the ability of participants to be heard or fully argue an issue. VRI in this mode is not efficient when you consider the cost of court time for all participants. Simultaneous interpretation is being improvised using one-channel systems by using a separate device, usually a telephone, to interpret simultaneously to the LEP court user. The efficacy of this setup has not been evaluated, however, and it presents a number of problems for interpreters and LEP parties: • Poor sound quality on the platform makes it difficult for the interpreter to hear the proceeding while speaking into the phone. • Sound quality for the LEP party through the phone is bad for hearing the interpreter. • It is difficult for the interpreter to be loud enough for the LEP party and still hear the proceeding on the platform. • The LEP party is hard to hear due to poor sound quality over the phone • Parties must mute themselves to avoid interference if they are viewing video. • LEP parties are isolated; they are not seen or heard by other participants in the hearing. • If parties speak during simultaneous interpretation, only the interpreter hears the party speak; the interpreter then misses some of what is said. The process to unmute the platform to inform the court that a party is speaking is cumbersome and disruptive. Managing different devices and muting and unmuting interferes with the focus needed to maintain accuracy and ensure complete	

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			interpretation. • Often parties do not have two devices and forgo video of the hearing in order to hear interpretation. • Comprehension by interpreter and LEP parties without a visual connection is much more difficult because they cannot see who is speaking and follow the proceeding. Some versions of Zoom and other platforms have a separate channel for simultaneous interpretation. By some reports this function has been unreliable and cumbersome to use, and some judges have refused to use it. Moreover, although the function theoretically allows for simultaneous interpretation, videoconference platforms do not provide the stability and audio and video quality required for accurate simultaneous interpretation, as previously discussed. Despite these problems, simultaneous interpretation is strongly preferred by judges because it is more expedient, and interpreters are pressured to use simultaneous mode. The isolation of LEP parties and impediments to participation are largely unrecognized by other participants in the proceeding. Current discussions by conference interpreters on the subject of remote simultaneous interpretation (RSI) using Internet platforms leave no doubt that the ad-hoc, improvised and poor quality systems being used as emergency measures in state courts at this time have no place in the regular delivery of language access in courtrooms and legal settings post pandemic. Proposed guidelines render what were weak minimums into non-standards	

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			The original guidelines adopted by the Language Access Task force, though still only guidelines, were more complete and provided at least some minimum standards, and more directly addressed some of the above issues. The proposed guidelines removed the few basic minimum technical standards from the original guidelines in favor of an "anything goes" approach. Based on the experiences and information being reported by working interpreters using ad-hoc systems under emergency orders during the pandemic, it is clear that these systems have proven totally inadequate. Courts will need clear, strict and mandatory standards to establish best practices and protect language access for LEP parties. Vast improvements in technical set-ups, high-definition sound and video, cameras and screens for interpreters, and many other changes are needed if VRI is to be expanded responsibly and in a way that enhances language access. There are standards for sound quality in simultaneous interpretation. ISO standards are minimum requirements that have been established to interpret reliably and safely and have been agreed upon by equipment manufacturers, sound engineers, audiologists and worldwide organizations. Adequate setups to replace platforms and work remote can be achieved. They are expensive. They require "fixed bandwidth" on a "dedicated system" and the manual adjustment of settings by sound engineers. When considering a cost-benefit analysis. The statewide judicial	

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			system and legislators should consider the real costs of providing professional, accurate and meaningful interpretation remotely, including the very expensive technology and systems required for remote interpretation to be effective. Policy makers must also consider the value of these expenditures given the limited proceedings that can be conducted remotely, and the lesser quality of access, even assuming best case scenario: high quality sound and video, and well-thought-out training and protocols. Conclusion We hope this account of problems encountered by interpreters and LEP parties during the COVID-19 public health emergency will serve to debunk the notion that improvised remote interpreting "solutions" are successful, or would provide an acceptable level of access when this is over. We're confident that many other stakeholders have had similar experiences. It is tempting to think that the ubiquitous presence of technology and wireless connections in everyday life means that obstacles to remote interpretation should be cheap and easy to overcome. But they are not. Researchers summarizing their work studying the very issues we encountered using today's technology, said it best: "The chain of communication is only as strong as its weakest link. The chain includes the legal service interlocutors, the interpreters or translators and the technology. Failure by any one of them risks the integrity of the whole. If, for example, the interpreting is inaccurate, the IT equipment is inadequate or the legal services do not perform correctly, justice is jeopardised. There are times when we choose to buy or use a process which	

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			is simple because there is "less to go wrong". This is not an option in this context. Communication alone is complex. Communication through an interpreter is more complex and communication through technology and interpreting more complex than that. Simple it isn't. In addition there are a range of variables, which may or may not be possible to foresee or control. Therefore, every element that can be foreseen has to be carefully considered, prepared, organised and quality controlled for video-mediated interpreting to be effective and adequate." [FN12] *12 Videoconference and Remote Interpreting in Criminal Proceedings, Sabine Braun and Judith L. Taylor Editors, July 2012 (AVIDICUS- Conclusions and Implications, Ann Corsellis, OBE).*	
4.	California Access to Justice Commission by Hon. Mark Juhas	AM	For the past 24 years, the California Access to Justice Commission has worked toward achieving equal access to justice for all Californians. The Access Commission endorsed measures to reduce language barriers to California's courts in published reports in 2002, 2005, and 2015. (The reports are available at https://www.calatj.org/.) We appreciate the efforts of the Judicial Council of California's Information Technology Advisory Committee's (ITAC) to revise and adopt the Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events. Increasing the availability of remote technologies can, when done right, increase access to justice, as we noted in our Remote Hearings and Access to Justice During COVID-19 and Beyond guide. There are, nonetheless, a number of critical access to justice and accessibility issues with relying on remote	The committee thanks the commenter for their comment. Suggested changes to the guidelines have been made as noted below.

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			technologies. The critical civil legal issues that low-income Californians, self-represented litigants, and other court-users face continue and, in many ways, are exacerbated in the midst of the pandemic. People facing unjust evictions, domestic violence, public benefits and unemployment insurance denials, and myriad other issues have needed the courts to assist them in reaching resolutions that can help them stay housed, reach safety from an abuser, and receive the benefits they need to get by. Consequently, we have seen how critical the remote hearing infrastructure is in this time of crisis, particularly for the population of Limited English Proficient (LEP) court users intending to use the courts to assert their rights. As the Judicial Council recognizes, these individuals need help to overcome the language barriers standing in the way of their meaningful participation in the court system. Accordingly, we support the goal of providing a guide that contains updated, standardized best practices and minimum specifications for courts to use in utilizing VRI as a tool to increase access for LEP court users. There are two main points we would like to emphasize as part of this process, namely, the "digital divide" and court safety. 1. Take the "Digital Divide" into account for Limited English Proficiency (LEP) court users It almost goes without saying that technology has the potential to expand access to justice by helping people "get to" the court without actually having to show up by using technologies like videoconferencing. This has been especially important when in-person appearances are unsafe due to a pandemic. Still, while technology has the potential to increase access to justice, we	The committee appreciates the suggestion and will revise the guidelines and include recognition of the digital divide in VRI statewide efforts.

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			must avoid perpetuating barriers that hold back low-income Californians and other disadvantaged groups when designing and implementing new tech-based systems. Any plan to create a statewide system of remote hearings that utilize VRI and other technologies must be conscious of the "digital divide." The digital divide refers to the entrenched socioeconomic, geographic, and language-based gap that will, until resolved, make it difficult or impossible for many Californians to participate in court proceedings convened digitally. While the digital divide should not dissuade courts from increasing the use of remote technologies, it is essential to note that access to technology is generally less available to people who face other obstacles. Courts must be willing to work with LEP Californians and other vulnerable litigants to allow them to participate. Specifically, courts should ensure that resources, information, and other digitally oriented systems address the fact that LEP court users may not have the tools or technologies to access and comprehend them. The term "digital divide" does not appear in the Guidelines as proposed. Recognizing the intersection of language access and the digital divide is essential to ensuring the program is effective and successful in ensuring meaningful access, which is the goal of the Council. 2. Support Increased Use of Remote for Safety Reasons During COVID-19 Developing sustainable, high-quality remote systems will help prevent unnecessary in-person activities at courthouses that can	The committee agrees that VRI provides an important role to ensure safety of participants during the COVID-19 pandemic, and in other situations to ensure the physical safety of participants. A link to a safety handout for

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			spread the COVID-19 virus. This includes the in-court presence of interpreters and others who provide invaluable translating services to LEP court users. VRI offers a significant advancement by getting LEP court users what they need to participate while avoid unnecessary in-person hearings. Of course, after COVID-19 is over, to the degree it will be, it is important to continue to encourage in-person hearings when necessary (e.g., jury trials). Nonetheless, building an inclusive, quality VRI and remote hearing infrastructure is critical now and post-COVID 19. We thank you for your leadership on the issue of language access and ensuring equitable court participation for LEP court users.	interpreters and LEPs in physical proximity has been included in the revised guidelines.
5.	California Federation of Interpreters, Local 39000 TNG-CWA (CFI) and the Interpreter Guild of America (IGA) by Michael Ferreira, President	N	The California Federation of Interpreters Local 39000 TNG-CWA (CFI) and the Interpreter Guild of America (IGA) submits these written comments outlining our concern and opposition to the proposed Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events. CFI and IGA represent approximately 1000 staff and freelance court interpreters who provide linguistic access to justice for Limited English Proficient (LEP) court users. The work our members perform daily across the state plays an instrumental role in ensuring due process for LEP court users and further allows all participants to communicate efficiently. The court interpreter's skillset is essential not only to the LEP individuals, but to English-speaking judges, lawyers, social workers, probation officers, security personnel, and the many other justice	The committee thanks the commenter for their comment. Suggested changes to the guidelines have been made as noted below.

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			partners who form the backbone of the court system. While we recognize the need to make adjustments to court protocols and practices during the COVID-19 public health emergency, we should not take the disjointed usage and the haphazard forms of remote interpreting presently used during the pandemic as the permanent VRI form into the future. Should this present VRI manifestation during the pandemic become the model when courts return to normal operations, it will certainly give rise to countless negative impacts on meaningful language access. Understanding the impediments to language access when using VRI is essential to overcome the challenges and put into practice its successful use. There is a real disconnect between the current proposed changes to the Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events and the real-time frontline information conveyed by interpreters, bench officers, and justice partners. 1. In-person interpreting services should continue to be preferred for court proceedings and VRI should only be used under strictly controlled uniformed conditions for limited and appropriate interpretation events in court proceedings; where there would otherwise be no language access available, and where no in-person interpreter can be provided. We recognize that VRI has the benefit of expanding access to justice for LEP court users in areas where otherwise qualified in-person interpreters are not immediately available. However, the proposed recommendations to broaden adoption of VRI places	The committee also recognizes that in-person interpreting is preferred, but that remote interpreting also provides an important service and safety mechanism to provide LEP court users with access to a qualified interpreter.

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			LEP court users at a disadvantage. Absent from the proposed VRI recommendations is the ITAC committee's recognition that VRI is not appropriate for every and all proceedings, hearings, and other interpretation events. The Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events should serve as a true guide with detailed information indicating when, where, and how VRI is appropriate. As proposed, the recommendations give scant guidance in this regard. 2. VRI is not appropriate for all court proceedings, hearings, or trials. VRI is only to be used for low stakes hearings under unique and unusual circumstances, such as health concerns or travel distance, such that it causes a court user unfair hardship. Stating as a consideration for using VRI, "the relative convenience or inconvenience to the court user" hardly fits the previous notion "unfair hardship." Normally, it takes some fairly sophisticated equipment, platform software, and collaboration with all users speaking clearly at a measured paced for the interpretation event to be successful, maintaining the minimum level of precision and integrity to support the minimum requisites of due process. Therefore, regarding in-courtroom proceedings, hearings that are best supported by VRI are: arraignments, bail motions, continuances, trial settings, trial confirmations, status conferences, and other time-sensitive hearings that are neither complex, nor of an evidentiary nature. VRI should definitively be used to expand language access outside of courtroom proceedings. Indeed, there	

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			is a growing unmet need for VRI concerning attorney-client consults, as well as provide effective other one-on-one, low stakes communications, all of which are so very necessary for the processing and preparation of criminal and civil cases. 3. VRI should only be used if court users, justice partners, and other litigants have access to the recommended equipment, platform software, and internet access that complies with technological requisites needed to render meaningful language access over VRI. The proposed recommendations have further diluted the already sparse technological requirements adopted and fails to recognize and recommend sorely needed technology improvements. The current VRI arrangements implemented in the different courts during the pandemic is nothing less than a miscellany of video-telephony software cobbled together with improvised VRI-like setups with which interpreters have continuously reported technical difficulties, poor audio quality, unstable connectivity, delayed connections, echoes and feedback, background noises, static, and low to freeze frame video quality. Indeed, in some jurisdictions with signed agreements for VRI stipends for staff interpreters, in an effort to sidestep the agreement, the courts have done everything in their power to use a remote system that does not fit the working definition of VRI, while all the time expecting to receive the same level of functionality and high communication quality levels required of bona fide VRI systems. The situation is basically a disjointed jumble of VRI platforms and protocols individually adopted by each court during the pandemic.	

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			The propose changes places indigent court users in a disadvantage. Self-represented LEP litigants with little to no English literacy are left to fend for themselves in a foreign court culture with no guidance, direction, nor instruction. Adding technology to the mix further alienates and exclude LEP court users who are indigent and technologically illiterate. The proposed changes fails to address the digital divide. Absent from the proposal is mention of remote satellite sites where indigent and the technologically inexperienced can connect remotely on court managed systems supported by onsite tech support. 4. There should only be one standard VRI platform approved and implemented throughout all state courts. The lack of a uniformed platform and protocol recommendation lessens meaningful access to justice for LEP court users by placing the LEP in an unnecessary disadvantage, which in turn violates due process. As VRI is presently implemented throughout California's courts, the LEP court users struggle to navigate remote platforms and protocols for various reasons, including the following: too many different VRI platforms are used from court to court, at times several within an individual court; there are no instructions in the LEP's language to guide them on how to connect or use the platforms; and there is a technology gap because of income, education, and technology disparities that lead the LEP to opt for affordability commensurate with their income formal education level, leading to the acquiring equipment with low audio-visual quality and spotty connectivity. VRI has not proven to be the most effective language access	The committee will revise the guidelines and include recognition of the digital divide in VRI and other remote statewide efforts. The guidelines provide recommended minimum technology specifications and are designed to allow flexibility for courts and to allow for future advances in technology.

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			delivery system, and there have been numerous documented problems with its use, before and during the pandemic. The state courts should agree and implement the use of only one standard platform statewide. Having one platform: enables uniformed education and training on the correct use of VRI and its platform; ensures due process and meaningful access protections for the court user in general; provides one set of protocols for all state courts to follow; creates uniformity in the instructions and their translations; and, more easily expands the employee pool available to courts that do not have staff interpreters to cover brief routine non-complex and non-evidentiary matters. To continue down the road of multiple platforms – with the learning curves inherent mastering them – could cause unnecessary delay, and could place an in-custody defendant at risk of staying in jail longer than necessary, or place a court user seeking a restraining order or emergency custody order in harm's way. Regarding using VRI in custody settings, all incarcerated defendants lack the most basic elements for meaningful language access. Incarcerated defendants depend on the custody facilities' resources such as staff knowledge to navigate the various VRI platforms and environment control to ensure privacy and a quiet location. Bench officers, lawyers, court reporters, interpreters, and clerks often complain about jail/penitentiary staff cooperation and training regarding VRI equipment. Particularly salient issues are connecting and navigating a platform, poor audio/video quality, background noise, no privacy, static, feedback, and negligible effort from the jail/penitentiary staff to improve the connection. On most occasions, jailed inmates are placed in front of a laptop or tablet without even verifying if they are connected to the correct	

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			courthouse or courtroom. LEP inmates are logged onto the wrong site because jail staff are not equipped or unfamiliar with the correct platform used in that court. Defendants are commonly left alone with shackled hands unable to mute, unmute, or join a breakout room. Interpreters often complain about the loud background noises that make their already challenging jobs much more difficult; they express frustration about not being able to verify if the connection has been established because jail/penitentiary staff leave the LEP defendant who has practically no knowledge about how to use the technology or platforms to fend for themselves with shackled hands. Many technical difficulties are primarily due to low quality and lack of standardization for the equipment and software, as well inconsistent to inadequate internet infrastructure at the court site or the court user's end. Having one platform will assure the necessary standardized technological requisites for all courts, justice partners, and court users. Requisites and standards for VRI must consider the technology's inherent limitations and must have clear technological minimums. Such standards should be established through the process of detailed studies with input from frontline staff interpreters and stakeholders. 5. VRI should only be used with the knowing and voluntary consent of the court user. CFI and IGA recognize the Judicial Council's and Courts' desire to control and reduce costs. However, the VRI use should not be done at the expense of LEP court users' rights. We are extremely troubled that the ITAC committee failed to mention	The committee recognizes that obtaining LEP court user consent to using VRI on the record is an important best practice. The "Suggested Language for the Judicial Officer When Considering Objections Related to Remote Interpreting" has been reinserted back into the revised guidelines. The committee also

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			that LEP litigants/defendants have the right to have all parties physically present in a court proceeding and that any VRI event must be done with the knowing and voluntary waiver of an in-person interpreter by the LEP court user. It is disturbing, to say the least, that in the ITAC proposed changes the entire section Suggested Language for the Judicial Officer When Considering Objections Related to Remote Interpreting was removed. In many ways, this places both the court and LEP court user at risk of failed due process and degrades the integrity of our justice system. Courts, bench officers, justice partners, and LEP court users look to the Judicial Council for guidance. The failure to mention the right to have all parties present and removing a bench officers' responsibility to take personal appearance waivers can be construed as discriminatory. VRI is neither a black and white nor a one size fits all solution to a court's language access needs. We vigorously caution against expanding VRI at the expense of due process, meaningful access, and lacking adequate protections of constitutional rights. Article I, section 14 of the California Constitution requires that a non-English speaking defendant be provided the assistance of an interpreter throughout the proceedings and the standard set in People v. Menchaca is "nothing short of a sworn interpreter at the defendant's elbow" will satisfy this constitutional guarantee. [FN1] *1 People v. Menchaca, (1983) 146 Cal. App.3rd 1019, 1026.* 6. The Consideration and Guidelines for Video Remote Interpreting in Court Proceedings section should include a robust well-rounded education and training manual	recognizes that in-person interpreting is preferred, but that remote interpreting also provides an important service and safety mechanism to provide LEP court users with access to a qualified interpreter. The Judicial Council is working with the National Center for State Courts to develop VRI training modules for courts and interpreters across standard platforms to support these

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			regarding the appropriate use of VRI. Lessons learned from the various unorthodox uses of VRI during the pandemic indicate a need for a more profound understanding of language access in the implementation of VRI. Among the greatest challenge interpreters faced while providing VRI services during the pandemic is that most bench officers, IT staff, interpreter coordinators, and jail staff scarcely understand, have awareness of, or sensitivity to the linguistic challenges and barriers that interpreters face under normal non-VRI conditions. Education and training should be among the highest priorities in this proposed recommendation. Bench officers, IT, interpreter coordinators, and jail staff should learn, become aware of, and understand the interpreters' role and what is needed to ensure that VRI is being conducted in a way that will guarantee necessary protections for LEP users. Reports from interpreters about the material to be covered follow. • Interpreters shared that many bench officers were unwilling to stop when interpreters voiced technical impediments, speaker's voices not coming through clearly due to feedback or unstable connections, speaker pace to rapid for the technology's processing, and not pausing the proceedings after interpreters reported connections were lost. • Interpreters reported that most IT staff had no understanding of what interpreters do and their lack of knowledge resulted in setups and platform architecture that did not coincide with interpreter or user requisites. Furthermore, this has resulted in VRI station locations that are prone to background conversations, noises, and	guidelines. This training will be developed with and presented by experts including court interpreters. Best practice material for VRI events will also be periodically updated.

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			interruptions. Interpreters also reported that IT often ordered wrong equipment such as microphones and headsets that were not suitable for VRI. Other interpreters reported that IT placed interpreter VRI stations in a high traffic area where on video you can see and hear other staff walking and talking and janitorial cleaning and vacuuming directly behind the interpreter while on the record. • Non-interpreter coordinators also failed to understand what language access duties are demanded of the interpreter when using VRI. The result is often being unable to provide IT with end point information or explain why a separate private channel is needed for attorney client conversations. Often coordinators are unable to instruct to interpreters on how to render plea forms using VRI, to provide guidance to IT for appropriate uses of VRI, or what constitutes a viable connection. • Jail staff are often perceived as dismissive when LEPs report technical problems. Interpreters reported that LEP are often seen and heard saying that they are unable to hear the interpreter. Instead of rectifying the problem and reporting it the court, jail staff are heard telling the LEP what to answer, instead of reporting and asking the court to repeat the question after the technical issues are fixed. Also reported was that jail staff often remove the LEP headset before proceedings were concluded. • There is no recognition of the difficulty and fatigue VRI causes to interpreters and how that fatigue impacts the accuracy of the interpretation. Generally, in-person team interpreters switch every 30 minutes to avoid fatigue	

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			and ensure the accuracy of the interpretation; with VRI it becomes imperative for interpreters to rest between each VRI event and switch every 15 to 20 minutes of interpretation during the event. CFI and IGA recommend that adequate training be given to all stakeholders involved in VRI. Training curriculum should include: correct use of equipment, fundamental role to provide meaningful language access and due process, protocols for reporting impediments, the need to interrupt court proceedings for repetitions and clarifications, the importance of and protocols for maintaining confidentiality, modes of interpreting, the importance of providing documents and information beforehand, and professional standards and ethics for court interpreters. 7. A clear view of ALL speakers is essential for the success for VRI. Interpreters are the conduits of communication. No other individual in the court will have the knowledge and understanding of what tools and practices are needed to make VRI events successful. Interpreters are required to collaborate daily with stakeholders who are soft-spoken, mumble, or are otherwise ineloquent. Interpreters naturally rely on extralinguistic cues, such as general body language and even lip reading to confirm auditory uncertainties and shades of meaning. The use of VRI during the pandemic has given new meaning to the level of difficulty an interpreter's auditory capabilities encounters. The pandemic has proven the importance of visual cues from all speakers to ensure the	

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			precision of the interpretation and minimize the need for clarification. Therefore, having a clear view of all speakers is an essential tool for VRI to work correctly. The likelihood of a VRI event being successful increases with a platform that has the capability to visually tile all speakers, equipment with an integrated camera, and having the camera on during the proceedings. 8. Clear best practices need to be stated. Access to justice is not merely a slogan; it is a promise that can only be delivered through deliberate and thoughtful consideration of the needs and interests of the individuals directly impacted. Clear best practices need to be incorporated in the proposed changes. The proposed changes to The Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events does not include clear best practices. It would be unwise to assume that anyone would automatically know what the VRI best practices are. VRI best practices should be clear and outlined in The Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events. Best practices to be included: • VRI is used only when the LEP individual provides informed and voluntary consent to waive right to an in-person interpreter. If an LEP individual does not consent, good cause would exist to waive time limits to continue the case to a date when an in-person interpreter is available. • VRI is not used for minors, nor persons with cognitive	Best practices and additional resources to support interpreters and courts will be updated and developed.

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			impairments or mental illness. • VRI is not used for a language of which the county has interpreter employees or access to in-person interpretation services through the cross-assignment system pursuant to Government Code section 71810. • VRI is used only in the case of the unavailability of a certified/registered in-person interpreter. • VRI is not utilized within the same courthouse or county jurisdiction in which the VRI provider installation is based. Instead, VRI is used only inter-county, on an intermittent basis to fill gaps in language access. • VRI is only used for brief, routine, non-complex matters, non-evidentiary hearings. Additionally, there must be a showing s made that the court did not have sufficient notice and time, as well as prove it had done its due diligence to secure a live interpreter in the language pair needed. • VRI should not be utilized for complex matters of long duration, evidentiary proceedings, or those involving witness testimony and cross-examination. • Appropriate steps should be taken to protect attorney-client privileges, including having a dedicated channel allowing for non-public conversations between an attorney and his/her client. • VRI should only be used of court users and justice partners that have access to the recommended equipment, platform software, and internet access that complies with the technological requisites needed to render VRI services and thereby meaningful language access. • Interpreting under normal circumstances is challenging,	

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			it is imperative to strictly conduct all proceedings in accordance with the guidelines and protocols. • VRI should be used with a reliable platform and standardized equipment for all courts. • VRI should be used to expand access outside of the courtroom to provide language access, particularly in the case of the interview and mediation process. 9. Data collection should be an ongoing capture and monitoring of the effectiveness and deficiencies of the technology, the number and name of languages used, whether the use of certified/registered interpreters within and across regions has increased, and whether there is an increased use of employee interpreters across regions. Data collection is essential for future improvements in The Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events. Data gathered should include a well-rounded view of VRI's effectiveness and deficiencies. Fundamental information that should be included: did VRI deliver the highest level of due process and meaningful language access; did VRI use increase access to certified and registered interpreters as opposed to provisionally qualified interpreters; interconnectivity information regarding the reliability and stability of the connection; reliability of equipment; and comparison of reliability across all platforms used. Conclusion It was disappointing to see that the proposed changes to The	The committee agrees that data collection is an important tool to measure the effectiveness of VRI and to achieve continuous improvements.

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			Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events were not circulated to other committees for recommendations. Committees such as Providing Access and Fairness, and its language access subcommittee, as well as the Court Interpreters Advisory Panel would have provided ITAC a wealth of information and valuable input. It is profoundly disconcerting that the current proposed changes removed much of the important and fundamental language incorporated in the previously approved version. If changes proposed to The Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events were to be approved, it would leave all courts, justice partners, interpreters, and LEP court users with a mere skeleton guide with little direction, larger digital divide and even fewer safeguards. We recognize the need to update technological specification and requisites; however, in this newer version very little technological specifications and requisites were included. The instructions as to relay interpreting are ambiguous at best. Instead of better direction and detail, many fundamental and imperative due process rights were removed; the perception being that meaningful language access in the courts is inconsequential. For example, some key elements were removed in the version presented: • Implementation guidepost that VRI be used in brief proceedings such as arraignments. • Language access planning integrated with information and web technology to accommodate and anticipate all	

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			the differing capabilities expected, including total bandwidth, equipment, and training. • Instructions to become familiar with factors that make an event VRI appropriate and the potential drawbacks of using VRI technology and in doing so anticipate and avoid problems. • Example language to bench officers for in-person interpreter waivers and objections to the use of a VRI. In the end, we urge the committee that instead thinning down the present recommendations, add detail and clarity to it. VRI is not a black and white or a one size fit all solution, nor something to be mused over and experimented as each court may. Any recommendation on the use if VRI should be detailed and robust. The current proposed recommendations are not in line with the courts' needs, nor the state's constitutional requirements. Lives depend on this; more importantly, equal justice before the law depends on the committee getting this right.	
6.	Maria del Carmen Munoz Certified Court Interpreter Region 2	NI	I'm writing in response to the AOC's request for comments regarding Video Remote Interpreting (VRI). I am sure you will receive plenty of comments from interpreters, professional organizations, judges and court administrators. I want to focus on two points. 1. While VRI can enhance language access for LEP individuals and economize time and resources, it is not without its technical and noise problems. TECHNICAL	The committee thanks the commenter for their comment.

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			• Lack of technological dexterity by most LEP members of our community. • Bad connections and other technological problems. • Lack of video capacity on some telephones owned by members of our community modest means. DIVERSE EDUCATION LEVELS OF LEP USERS • Lack of literacy (ability to read and write) by some LEP members of our community. NOISE • The noise surrounding the LEP person (children crying in the background). • The noise in and around jails and detention centers. • Inmates are close in proximity to each other and sometimes the audio feed of one courtroom is heard in other courtrooms. 2. The middle of a pandemic is not an appropriate time to implement changes or new policy. Changes to current practices should be put in writing after we have more experience with remote interpreting and after carefully reviewing data that ACCURATELY and COMPLETELY reflects reality. Interpreters are STAKEHOLDERS as well as the LEP public we serve. Any changes to policy in a non-pandemic setting must include genuine participation from those actually doing the interpreting work-INTERPRETERS! We need to hear from professional organizations, unions and individual interpreters.	

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			As public servants, we should not impose something on the public in a non-pandemic setting without participation from the people and communities we serve. LEP users are the reason for our being. We need to hear from them as well as civil rights organizations such as local, state and national organizations that serve LEP populations as well as LEP users in our individual regions.	
7.	Dependency Legal Services by David M. Meyers, Managing Attorney	A	We support this proposal and thank the JCC for taking the time to enumerate these guidelines. As lawyers who represent children and parents in California's juvenile dependency courts, we would ask that you add language to the paragraph on page 10, #2, in reference to confidential, attorney-client communications. Specifically, arrangements must be made to have privileged communications before and after the hearings. While this may be inferred from the paragraph, we feel it is important that it be directly stated. Dependency hearings are often conducted quickly and its participants often speak in code, citing federal and state requirements at each hearing. Parties rarely completely understand what happens during the proceedings, thus necessitating conversation before and after the actual proceedings. Since the onset of the pandemic, access to court interpreters has become more difficult, costly and time consuming.	The committee thanks the commenter for their comment. Language has been added to the guidelines to more clearly recommend that courts work with attorneys to ensure that VRI solutions allow for privileged communications before, during, and after hearings.
8.	Carole Glasser, Federal and State certified court interpreter	N	I have worked as an interpreter in court for several decades, and most recently, due the pandemic, have had the opportunity to experience video remote interpreting in court daily for many months.	The committee thanks the commenter for their comment.

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			There are severe limitations put on access and meaningful participation for LEP parties who rely on interpreters when the interpreter appears remotely. In my experience the use of VRI has been extremely frustrating for interpreters, for the LEP participants, and for the courts. There are many causes: inadequate technology both in the courts and in remote locations; the inability to perform simultaneous interpreting via Zoom and similar platforms; and the inability to see and hear participants are just a few examples. Interpreted proceedings done remotely often take longer than in person proceedings due to the frequent need for repetition due to problems with the sound, the connection, people's devices, and the necessity for all interpreting to be done consecutively unless another connection is established. The increased interpreter fatigue when VRI is used is real, and often results in the need for interpreters to take more frequent breaks and/or to work in teams. Instead of guaranteeing some minimum standards for quality interpreting to provide access to just for all, the proposed guidelines weaken the existing guidelines. I object to the most recent revisions to the existing guidelines.	The guidelines for VRI do not attempt to represent rules or standards but are intended to provide general guidance for courts including key considerations and recommended minimum technology specifications for VRI for spoken language events. The specifications are designed to allow flexibility for courts and to allow for future advances in technology, including advances in sound/audio and video quality, and capability to provide private video conferencing. The committee recognizes there will be a need for training and best practices to support the recommended guidelines and to ensure the successful use of VRI.
9.	InterpretAmerica by Katharine Allen,	AM	Overall the guidelines are very good. Here are my recommendations to clarify a couple of key aspects:	The committee thanks the commenter for their comment.

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	Co-President		1) When interpreting in the simultaneous mode, please make specific the recommendation that ALL speakers have a headset, external mic or at least are using their earbuds. The PA system in a courtroom will NOT provide adequate sound for the interpreter in this mode - as they have to hear what is being said above their own voice. And in general, anyone appearing remotely should always be encouraged to use a headset, even for consecutive mode. Interpreters cannot interpret what they can't hear and the use of the computer mic on it's own allows for many sound problems that are easily overcome by the simple use of headsets or ear buds. 2) Make specific recommendations for when interpreters should have a partner. How many hours can an interpreter work alone consecutively before needing a partner (I would say maximum 3). And especially for simultaneous solutions, interpreters should not work for more than an hour alone (ideal would be 30 minutes). Multiple studies show that interpreting remotely increases fatigue. Interpreters are like fighter pilots in terms of the level of concentration required for simultaneous interpreting. Their performance WILL DEGRADE if forced to work overlong alone. 3) Interpreters should get paid for the time they spend on technical rehearsals and checks prior to a remote session.	The Committee appreciates this comment. The guidelines have been revised to recommend that, if possible, all participants in remote interpreting events use headsets or earbuds with built-in microphones to improve sound clarity.
10.	Legal Services Organizations: Legal Aid Foundation of Los Angeles	NI	We are grateful for this opportunity to provide comments on the Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events (VRI Guidelines). The undersigned organizations are committed to language justice and have a long	The committee thanks the commenter for their comment.

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	by Joann Lee, Special Counsel Los Angeles Center for Law and Justice by Carmen McDonald, Director of Legal Services Legal Services of Northern California by Stephen Goldberg, Regional Counsel California Rural Legal Assistance, Inc. by Alena Uliasz, Language Justice Manager Family Violence Appellate Project by Jennafer Dorfman Wagner, Director of Programs Community Legal Aid SoCal by Kate Marr, Executive Director Kids in Need of Defense		history of fighting alongside communities in California with limited English proficiency (LEP) to meaningfully access the courts and other government services. We provide these comments within the context of our ongoing experiences serving litigants with LEP in family, probate, unlawful detainer, and other civil matters across courts statewide. I. Summary We write you this comment letter to highlight the dire state of language barriers related to accessing court services. In a state where 44% of people speak a non-dominant language, 18% have LEP [FN1], one in five people have low literacy [FN2], and 21% of adults have a hearing-related disability [FN3], many linguistically marginalized California litigants have been effectively shut out of the state's court system during this public health crisis. Access to the courts is a fundamental, sacred right in our justice system. It is also too often denied to those most in need of the guarantee. As legal aid advocates, we seek to ensure and strengthen access to justice for historically marginalized and disenfranchised communities – Black, Indigenous, and people of color (BIPOC), the indigent, those who do not use English as their dominant language, and self-represented litigants – who have had a harder path pressing for their rights. In this letter we present the following priorities to strengthen the VRI guidelines: • The Judicial Council must issue clear, effective, and enforceable VRI policies and protocols, with a plan to be created by each county;	The guidelines for VRI for spoken language do not attempt to represent rules or standards, but provide general guidance including key considerations and recommended minimum technology specifications for VRI for spoken language events. The specifications are

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	(KIND) by Cindy Liou, Esq., State Policy Director LevittQuinn Family Law Center by Ana M. Storey, Executive Director Advancing Justice - Asian Law Caucus by Winifred Kao, Senior Counsel ACLU of California by Kevin G. Baker, Governmental Affairs Director Neighborhood Legal Services of LA County by Yvonne Mariajimenez, President and CEO		*1 U.S. Census Bureau, American Community Survey Language Spoken at Home by Ability to Speak English, Estimates. 2015 – 2019 American Community Survey: https://data.census.gov/cedsci/table?g=0400000US06&tid=ACSDT5Y2019.B16001.* *2 For information about literacy in California, see the National Center for Education Statistics: https://nces.ed.gov/naal/estimates/StateEstimates.aspx.* *3 Center for Disease Control. (2017). National Health Interview Survey: https://www.cdc.gov/nchs/data/health_policy/hearing_loss_table_SEs.pdf.* • Absent extraordinary circumstances, in-person interpreting must remain preferred in accordance with other considerations and best practices; • Courts must prioritize access for people with LEP who also have limited tech access and/or literacy, by: ○ Providing clear communication to the public about options to participate in remote proceedings using multilingual plain language materials; ○ Providing tech support to litigants before, during, and after remote proceedings with VRI, including multilingual plain language instructions and access to trained staff who provide in-language training and live support; ○ Working in partnership with local agencies and organizations to provide workstations and remote studios where litigants can participate in remote events with live in-language tech support; • There must be no fees to utilize remote platforms; • The use of VRI in court events must consistently reflect the following best practices: ○ Ensure that the use of VRI does not cause undue delay; ○ Use platforms with integrated remote simultaneous interpreting (RSI) capabilities; ○ Protect interpreter health, safety, and quality of interpreting via the use of team interpreting;	designed to allow flexibility for courts, support physical and virtual courtrooms, and to allow for future advances in technology. The committee recognizes that in-person interpreting is preferred, but that remote interpreting also provides an important service and safety mechanism to provide LEP court users with access to a qualified interpreter. Best practice and education materials will also be developed for interpreters, branch stakeholders and the public including LEPs.

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			○ Promote accuracy by providing interpreters with materials to prepare in advance; ○ Ensure that all parties can be clearly seen and heard, with meaningful participation by all; ○ Begin with an oral explanation of how the interpreting will work; ○ Allow for private breakout rooms with access to interpreting when needed; ○ Ensure that litigants with LEP are permitted to present evidence and are provided with a clear understanding of what occurred in the hearing, including sight translation of all court orders; ○ Create mechanisms to monitor the quality of remote interpreting; • Courts must strengthen protocols for hybrid remote-onsite events with VRI; • VRI proceedings should be expanded to other court events. We describe each of the priorities listed above in more detail below. II. The Judicial Council must issue clear, effective, and enforceable VRI policies and protocols, with a plan to be created by each county While we appreciate the California Judicial Council proposing these VRI Guidelines, they are issued as we near the one-year anniversary of the worst public health crisis in a century. Since March 2020, what has emerged is a complex county-by-county patchwork of different platforms, rules, and protocols, creating almost insurmountable barriers that bar litigants with LEP from	

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			accessing the courts. During these unprecedented times, the divergence in court access between resourced and less-resourced litigants has yawned into a chasm. As a result, members of the populations that we serve are left behind to bear risks and losses to their health, safety, and fundamental rights. The need for improved language access in virtual hearings and other remote court events is abundantly obvious and incontrovertible. In this letter, there are numerous examples of courts that have proceeded in developing technologies and other solutions without any meaningful engagement with litigants and communities that are most in need, resulting in language services being a mere afterthought or falling through the cracks completely. The methods of meeting these needs have some flexibility, but it is critical that the Judicial Council and court leadership understand the evolving standards of best practices for remote interpreting in order to effectively meet existing language access mandates without merely being performative. To this end, these VRI Guidelines must be more than suggestions. These VRI Guidelines overall are too generic and vague, providing little direction to court staff and judges in understanding practical and proactive steps that can be taken to provide meaningful language services. Examples and scenarios with specific details should be incorporated into each section to provide actual guidance on issues that may arise and how to address them. Each county must be required to create a plan for implementing the VRI Guidelines, describing how they will ensure meaningful language access in accordance with the policies, protocols, and best practices described below. Each plan must also include required training for all judicial officers	

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			and court staff. III. Absent extraordinary circumstances, in-person interpreting must remain preferred in accordance with other considerations and best practices Despite the rise in the use of remote interpreting during the pandemic, language justice advocates still recognize in-person interpreting as the best practice to promote the meaningful participation of people with LEP. Research shows that remote interpreting has multiple drawbacks when compared with on-site interpreting, including a faster onset of interpreter fatigue that leads to decreased accuracy and more interaction problems that cause confusion and lost information. [FN4] Therefore, in the bulleted list of considerations for VRI in a court event, there should be an additional listing for "whether extraordinary circumstances exist, such as a disaster, public health crisis, or special considerations upon request of court users." This bullet point should indicate that if these extraordinary circumstances do not exist, the preference must be for in-person interpreters if the parties requiring interpreters are appearing in-person, in accordance with the other considerations. In the absence of such safeguards, court staff and judicial officers may default to VRI for convenience and costs, at the expense of providing high-quality interpreting. IV. Courts must prioritize access for people with LEP who also have limited tech access and/or literacy The VRI guidelines state in the "About VRI" section that court users with LEP should "be informed of how to use the court's	

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			technologies and platforms. This may include translated instructions and recorded online orientations, etc." This should be more than a suggestion but a requirement for all courts and should be integrated with the recommendations described below in order to fully support all litigants in accessing the courts remotely, regardless of their preferred language, level of formal education, or the technology to which they have access at home. *4 See Braun, S. (2013). Keep your distance? Remote interpreting in legal proceedings: A critical assessment of a growing practice. Interpreting 15 (2), 200-228; Braun, S. (2015). Remote interpreting. In H. Mikkelson and R. Jourdenais (Eds.), The Routledge handbook of interpreting (pp. 217-235). New York, NY: Routledge; and Moser-Mercer, B. (2003) Remote interpreting: assessment of human factors and performance parameters. Communicate! Summer 2003.* A. Courts must provide clear communication to the public about options to participate in remote proceedings using multilingual plain language materials For too many communities in California, the absence of clear and comprehensible communications has been the defining characteristic of their court system's pandemic-era operations. Litigants depend on the court for information about the status of court operations, hearings, and other significant updates relating to scheduling, cases, and the expansion of remote options. But unlike attorneys and well-resourced litigants, they are not connected to bar organizations or lawyer colleagues. Nor do they have the time and training to make sense of the court's general orders and notices to attorneys. For the nearly seven million residents of California who do not use English as their dominant language, [FN5] the absence and incomprehensibility of court communications was even more stark. These failures	

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			came despite the obligations to follow the Strategic Plan for Language Access in the California Courts (LAP), [FN6] Los Angeles Superior Court Limited English Proficiency Plan, [FN7] and numerous other civil rights mandates. [FN8] For litigants from linguistically marginalized communities, the courts' responses to the pandemic exacerbated preexisting shortfalls in court access. Issues of language access, systemic bias, scarce resources, power imbalances, and the constant stress of interminable struggles to assert their rights were already pervasive. Now since the pandemic, the absence of an appropriate and necessary court response has introduced additional uncertainty, risk, and misinformation. Due to the absence of other accessible alternatives, many litigants defaulted to traveling to the courthouse desperate for information. In the early months of the pandemic, many of the clients we saw believed that the courts, along with most other government offices were closed. This included domestic violence victims who waited to file for critical protections because the court had not informed them that domestic violence restraining order filings were among the "essential functions" for which it remained open. The already overburdened legal services community was often left to fill these communication and information gaps, where it could. The information currently available to the public on the many courts' websites are limited, and they are maladapted to the considerable digital divide that separates represented and more-resourced litigants from self-represented and low-income litigants. These websites are, for the most part, only in English, and for many courts, the main source of translation is a Google	

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			Translate bar, which is known to be an inaccurate and unreliable form of translation of legal and complex information without appropriate human review. *5 U.S. Census Bureau, 2019 American Community Survey 1-Year Estimate, Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over, California.* *6Strategic Plan for Language Access in the California Courts, Judicial Council of California, 2015 (https://www.courts.ca.gov/documents/CLASP_report_060514.pdf).* *7 Superior Court of California, Los Angeles County, Limited English Proficiency Plan, 2019 LEP Plan Revisions (http://www.lacourt.org/generalinfo/publicnotice/pdf/lep.pdf).* *8 See Title VI of the Civil Rights Act of 1964 and its implementing regulations (42 U.S.C. § 2000d et seq.; 28 C.F.R. Part 42, Subpart C); California Constitution; California Evidence Code 756; California Government Code 68092.1; California Government Code 7290 et seq; California Government Code 11135.* Google Translate has also been rejected by the Department of Justice as an acceptable method of meeting legally required translation mandates. As a result, those on the wrong side of these linguistic and digital divides have little way to learn of updated remote filing options, of the specific and often strictly enforced instructions for those filings, of what court services remain or have recently again become available, and of the detailed requirements for making use of those services. Individuals who do not use English as their dominant language are not receiving notice of essential case information in a language that they can understand. Litigants are not receiving translated notices of their hearings being postponed or rescheduled. They are not provided with translated explanations of whether they can appear in-person or remotely, or instructions on how they can appear remotely. Some are skeptical of an	

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			unfamiliar system that has not been explained to them in a language or manner they can comprehend. This distrust, combined with other factors such as inadequate technology, leads many to still bear the risk of appearing in-person. As Adam Murray, executive director of Inner City Law Center, recently stated in a Los Angeles Times piece, "If you walk into eviction or traffic courtrooms, you are not seeing wealthy or middle-income people. It's poor people who have to go in and adjudicate their cases in person." [FN9] Court must take a multi-pronged approach to provide litigants with notice and a clear understanding of their options to participate in court events remotely. Any written documents describing options to use remote technology must be in plain language and translated by a qualified human translator into the top 10 languages in each county. In consideration of individuals with low-literacy, these explanations should be available as visual and/or video guides. Counties that use the same platforms should share resources to develop some of these materials together. These multilingual materials should be easily accessible on the website's home page, placed on social media, and distributed through legal services groups, community organizations, libraries, schools, food distribution centers, and other public places. Notices of hearings should also include URLs for local court information regarding options for remote access and the availability of language services. Self-help centers and each court's Language Access Representative should work together to ensure the message is disseminated throughout our communities. B. Courts must provide tech support to litigants before, during, and after remote proceedings with VRI,	

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			including multilingual plain language instructions and access to trained staff who provide in-language training and live support There is no doubt that technological advancements have, by necessity, developed at an accelerated rate during the public health crisis. Launching and expanding such options has eased the burden and stress for some litigants and promoted public health. These developments are often the product of commendable effort, dedication, and investment. But they are also often created to the exclusion of self-represented and linguistically marginalized litigants. When designers of technology fail to account for how the substantial population of litigants with LEP will be able to make meaningful use of the technology, their innovations exacerbate, rather than ameliorate, the digital divide. *9 Los Angeles Times, February 5, 2021, Workers in L.A.'s courts are dying of COVID-19 as in-person hearings, trials continue, Matt Hamilton, at https://www.latimes.com/california/story/2021-02-05/covid-complicates-in-person-trials-la-courthouses.* Unfortunately, many local courts' technological advances and remote systems have reinforced a two-tiered access to justice. Having different platforms in different counties within a single state also creates inconsistency and confusion. The first step is, as stated above, to let litigants know that remote platforms exist. Then, these platforms must be made accessible to all court users. In Los Angeles County, for example, the baseline problem is that the court's remote platform website has lots of information, but it is not friendly to self-represented litigants or those who do not use English as their dominant language. The almost 100	

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			page remote platform guide, while helpful for attorneys, is not in a format that lends itself to easy navigation and understanding for those in the communities we serve – especially those whose only computer is a smart phone. But without reading through the lengthy guide, one would not know that common remote platform options such as screen sharing and breakout rooms are generally not an option on the remote platform. Our community members are also unlikely to realize that they must take many actions up to a week or more in advance of the hearing – even if they did find the guide by that time. Obstacles such as these drive litigants to the only option that remains - appearing in court in-person. To address this problem, we urge the courts to create Tech Access Help Centers with in-language support in coordination with each county's Language Access Coordinator and self-help centers. Such centers would support access to remote court events by: ● Collecting data on the types of devices and WiFi to which litigants have access; ● Designing and disseminating multilingual plain language instructions to support court users in accessing remote platforms; ● Offering pre-hearing virtual workshops for litigants to teach them how to use remote platforms with VRI, which would include the opportunity to access a test site to identify and troubleshoot potential audio, bandwidth and other tech issues; ● Providing live in-language tech support for court users during events to address challenges as they arise; and ● Providing follow-up support after the remote court event to ensure litigants have the information they need for next steps.	

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			While these measures require initial investment in training staff and developing resources, in the long-term they will promote efficiency by preventing problems that arise when litigants lack the tools they need to engage in remote court events. C. Courts must work in partnership with local agencies and organizations to provide workstations and remote studios where litigants can participate in remote events with live in-language tech support Even litigants who learn how the courts' remote platform works may not have the equipment, internet access, or private space they need to participate effectively. When it comes to remote hearings and the digital divide, resourced litigants can use remote options and make appearances comfortably from the safety of their own homes. For less resourced litigants, it can be a Kafka-esque waste of time that ultimately results in their risking their health and going to court. To access most court events remotely, court users must have a smartphone or computer with a camera and microphone and reliable internet access. For low-income domestic violence survivors, they must have a safe and private location to make a remote appearance that does not reveal their location. Concerns about bias regarding their housing situation or lack of childcare assistance means they must find a neutral background in their homes for their video appearance and arrange for their children to be quiet and out-of-sight. Too often, the result is that many litigants are left with no option other than to accept the health risks of going to the court for information. Doing so is all the more difficult for the many members of our client communities who are the sole caregivers to their children.	

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			As a solution to this problem, we recommend that courts work with community partners to develop workstations and remote studios for court users, whether within the courthouse, community centers, or other venues. The VRI Guidelines should direct local courts to not only provide workstations in the courthouse but also partner with local nonprofits and other government agencies and entities, such as libraries and schools to provide these spaces, with staff trained to provide in-language technical support. One example is a pilot launched for domestic violence survivors to appear via a remote studio for their restraining order hearings from a family justice center. A remote hearing studio made the court's remote options more accessible and provided an opportunity to provide survivors a more trauma-informed experience. A computer with a camera, microphone, and WiFi is set up for the survivor by an advocate. The survivor has a private space where they can have their children, especially if they do not have alternative childcare options, but have a separate space for them during the hearing. The survivor does not have to face the abusive party in-person. There is an advocate available to provide basic technical support and to serve as a support person if needed. There are printers, transportation vouchers, and resources for other domestic violence supportive services available. This has just been established, and we are hopeful that these safe remote studios will be expanded and maintained even after the pandemic. This is very helpful for the survivors assisted, but it is just a drop in the bucket. It is a good proof of concept but a more sweeping effort from the court is necessary to make a real dent. And we know that such court-initiated efforts are happening. The Superior Court of the District of Columbia, along with a few	

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			other jurisdictions, have created public kiosks where litigants who do not have WiFi or computers can appear for online hearings. Some of these should be highlighted in the VRI Guidelines as models for local courts. Remote hearings could become an effective option for people with LEP if courts provide better communication, tech support, and access to technology. Without such resources, the court's strong discouragement of in-person interactions puts litigants to a no-win choice. In order to achieve this, the VRI Guidelines should require increased multilingual outreach, tech support, plain language materials, and workstations under "Key Considerations." Further, any mention of instructional materials, such as in "Visual/Auditory Issues, Confidentiality, and Modes of Interpreting When Working Remotely" at #7, and "Appendix A – Minimum Specifications for Remote Interpreting" should incorporate these strategies as well. V. Courts must not require fees to utilize remote technology The VRI Guidelines should include in "Key Considerations" that courts should not charge fees to participate in virtual hearings. In some courts, to waive the remote appearance fees, litigants must file their request many days in advance of the hearing to have an approved fee waiver in time to schedule a remote hearing. For hearings scheduled in a short turn around (i.e., request for DVROs) and with delays in courts processing filings, low-income litigants are forced to rush to file a fee waiver request or end up paying for the appearance while waiting for the clerk to process the fee waiver request. In one	

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			case, it took four court days for the fee waiver order to be processed. Afraid that the fee waiver was still pending after four court days, on the fourth day (which was one day before the hearing), the litigant dropped off the fee waiver request in hopes that filing once more would get the fee waiver request granted that day. Later that day the original request that was filed four court days prior was granted. Ultimately, the litigant was able to schedule a remote appearance, but as a low-income litigant with LEP, it was challenging and overwhelming to navigate the process to utilize remote technology. Further, any other expenses incurred related to virtual events, such as setting up witnesses for hearings and trials through local court reporter offices, should be recoverable as costs, and subject to payment under the Transcript Reimbursement Fund, as applicable. VI. The use of VRI in court events must consistently reflect the best practices described below A. Ensure that the use of VRI must not cause undue delays The section entitled "Guidelines for using VRI in a court proceeding" must include an assurance that VRI hearings shall not result in undue delays or differential treatment due to the need for an interpreter. Many cases requiring interpreters are being delayed through multiple continuances, requiring low-income litigants to get themselves to court or to appear through a virtual platform (and maybe pay for it), only to have to return again. In one example, a judicial officer would not allow a litigant to appear remotely despite being at high risk for	

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			COVID-19 because the litigant required an interpreter. The litigant's attorney was forced to brief the issue. Imagine similarly situated litigants who appear without attorneys, who must struggle through whatever the court provides or instructs, putting their lives at risk, and not knowing they can demand more to enforce their language rights. [FN10] B. Platforms must have integrated remote simultaneous interpreting (RSI) capabilities Simultaneous interpreting is a best practice for most court proceedings, and all courts must invest in platforms that allow for RSI, such as Zoom with the Language Interpretation feature. RSI is an important feature for litigants who require interpreters because it allows the interpreter to speak through a specific channel heard by the litigant, and the litigant can also hear in the background what is going on in the proceeding while watching it on video. It is currently considered to be the most efficient form of interpreting for remote court hearings. We are pleased to see the VRI Guidelines' preference for simultaneous interpreting in numerous instances. On page 10, the VRI Guidelines state, "A speakerphone is not recommended unless it accommodates the other requirements of these guidelines, including the ability to be part of a solution to allow for simultaneous interpreting when needed." *10 Studies show that 86% of low-income individuals' civil legal aid issues are not adequately addressed due to a lack of legal aid resources. See Legal Services Corporation, The Justice Gap: Measuring the Unmet Civil Legal Needs of Low-income Americans, 2017 (https://www.lsc.gov/media-center/publications/2017-justice-gap-report#bfrtoc-justice-gap-report).*	

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			Page 11 of the VRI Guidelines state, "In longer matters, failure to have a technical solution that can accommodate simultaneous interpreting will result in delays of court time and may cause frustration with remote interpreting. Courts should use a technical solution that will allow for simultaneous interpreting." Pages 12 and 13 also reference simultaneous interpreting as part of solutions for effective VRI. We urge the courts to enforce these guidelines, as many courts still use platforms that lack RSI capabilities, resulting in cumbersome, time consuming, and ultimately ineffective interpreting at remote court events. If platforms cannot accommodate RSI, courts must be required to create a user-friendly and meaningful alternative for hearings outside of matters that can proceed with consecutive interpreting, such as shorter procedural or uncontested matters. Currently, Zoom is the only known platform with integrated RSI capacity. In Los Angeles, the platform used, LA Court Connect (LACC), does not have capacity for RSI, but we already know that those in the private bar are separately stipulating to use other platforms, such as Zoom. Judges have indicated that they will allow and use Zoom, if agreed upon and set up by the parties. For those not resourced or sophisticated enough to set up private Zoom sessions, they are left with no option but to use LACC, and the courts have indicated that all interpreters in court proceedings will appear in-person and interpret consecutively for parties appearing remotely. But even this has not always been the case in our experience. In some cases, interpreters have appeared at trial solely by phone, which is unacceptable. In one of our cases, we assisted a Nepali speaking client file for a domestic violence restraining order just prior to the pandemic's restrictions on court operations taking hold. The case was continued several times due to the court's inability to secure an	

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			interpreter. When an interpreter was available nearly eight months later, access was only through the clerk's speakerphone. Due to social distancing, masks, courtroom acoustics, and the audio limitations of a speakerphone, everyone present in court had to scream in the direction of the phone for the interpreter to hear and interpret. This and the extended time required for consecutive, rather than simultaneous, interpreting was taxing for all involved and eventually resulted in another continuance to complete the hearing. After this, we had no choice but to specifically request that the court provide an in-person interpreter, which was fortunately provided at the next hearing. As noted above, remote appearances currently require consecutive interpreting when RSI platforms are not used. This requirement has engendered delay and confusion. As most courts are accustomed to simultaneous interpreting, the parties must know to stop and request consecutive interpreting. Even when self-represented litigants know to ask, some fear angering judicial officers when it is clear that this will cost more of the court's time, or that they will have less time for their hearings due to the expanded time spent on interpreting. Therefore, VRI Guidelines must require all courts to use technology and find solutions that can accommodate simultaneous interpreting, such as by adding Zoom as a platform provider for events requiring interpreting. Courts must be held to this as consecutive interpreting, especially if only telephonic, is not appropriate for longer or contested hearings. This should only be permitted after careful consideration and permission by all parties in extraordinary circumstances with no alternative solutions. To avoid consecutive interpreting, some courts are creating	

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			hybrid systems where there is a separate phone line for the interpreting to simulate RSI, but this is not acceptable in most cases. The hybrid set-up usually means that both the interpreter and litigant may have to use two different devices with sound coming from both to participate fully in the proceeding. This is extremely cumbersome and difficult to navigate both for the litigants and interpreters. In a recent remote hearing, both parties required interpreters, one appeared in-person and one appeared remotely. Two interpreters, one for each party, appeared in-person, and they were instructed to sit apart. One interpreter sat in the audience with the in-person party and used a headset and transponder to interpret. The other interpreter sat near the clerk and called the party who appeared remotely on a separate phone line, even though the litigant had patched into the virtual hearing platform through a tablet. During the hearing, the remote party reported that she could only focus on the phone line and could not follow what the judge, her attorney, or the other party were doing or saying in the hearing. And even though she and the opposing party spoke the same language, she could not hear what he was saying, nor was it relayed to her. She was effectively cut off from participating in her hearing. In general, knitting together a combination of web platforms with separate telephone lines to connect the interpreter audio is vastly inferior to integrated interpreting functions and should be discouraged. There are rare cases in which a hybrid approach with both a video conference and phone line may be the only option to enable relay interpreting between three or more languages. In such cases, extensive training is needed for all	

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			participants, including interpreters and litigants. Outside of those limited circumstances, the hybrid approach should be avoided. C. VRI protocols must protect interpreter health, safety, and quality of interpreting via the use of team interpreting VRI protocols must take into account the higher cognitive load imposed by remote interpreting. [FN11] Under #2, "VRI Time Management", there should be more specific directives on the length of sessions in specific circumstances, when breaks are required, and the use of team interpreting. When interpreters interpret continuously for more than 30 minutes without a break, the accuracy of the interpreting suffers, which negatively impacts litigants with LEP and can compromise the accuracy of the record. As a solution, we recommend adding a specific requirement to use team interpreting for interpreted events that are more than 30 minutes long, with court interpreters who work in teams of two who switch off frequently. D. Promote accuracy by providing interpreters with materials to prepare in advance To promote the full understanding of all parties as well as the accuracy of the record, courts and the parties should provide interpreters with case materials in advance. [FN12] Materials should be provided with sufficient time for interpreters to review the information and research specialized terminology and legal concepts that apply to the case. These materials may include: ● Case information and documents pertaining to the hearing;	

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			11 See International Association of Conference Interpreters. (2020). Reference Guide to Remote Simultaneous Interpreting. Available at: https://aiic.ch/wp-content/uploads/2020/05/aiic-ch-reference-guide-to-rsi.pdf *12 See, e.g., Washington State GR 11, at: https://www.courts.wa.gov/court_rules/pdf/GR/GA_GR_11_03_00.pdf* ● Names and spellings of all participants in the hearing to include but not limited to: litigants, judge, attorneys, and witnesses; ● Evidence related to the hearing, to include but not limited to: documents, photographs and images, audio and video recordings and any transcription or translations of such materials. E. VRI protocols should ensure that all participants can be clearly seen and heard, with meaningful participation by all On page 10, "Visual/Auditory Issues, Confidentiality, and Modes of Interpreting When Working Remotely," #1 states that a "clear view of the LEP court user is more important than a view of every speaker." Although this may be true from the perspective of the judicial officer, it undermines the roles and experiences of court users and interpreters in being able to understand who is speaking, what they are saying, and the dynamics of the hearing itself. Court users and interpreters should have a view of all speakers in order for meaningful participation to occur. More details and examples regarding various options and scenarios would be instructive to include in this section. Audio quality is another critical aspect of protecting interpreter health and promoting high quality interpreting. During the pandemic, interpreters are reporting increased hearing-related	

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			injuries due to remote interpreting in settings with poor audio quality. [FN13] To ensure everyone can hear clearly and to protect the hearing of interpreters, all parties should be strongly encouraged to wear headsets with external microphones. The courts should consider exploring resources for litigants who cannot afford to purchase their own headsets without support. F. Begin with an oral explanation of how the interpreting will work In order to promote successful court events with VRI, #3, "Participants Who Must Have Access" must be strengthened to ensure that all parties understand the nature of the proceedings. In one example during a remote hearing, a litigant utilizing an interpreter by phone could not hear the interpreter but was unable to speak up because she did not know what was going on. Courts must always check for sound and video quality and encourage parties and attorneys to speak up if they cannot hear or see, especially considering that parties or attorneys might be hesitant in flagging any problems with the interpreting for fear of jeopardizing their case by annoying the judge. Judicial officers should be required to go through a series of statements before each hearing using VRI. The following is an example of a best practice in Washington State. [FN14] *13 See Parliamentary Hearings Over Zoom an Ongoing Headache for Interpreters: https://www.cbc.ca/news/politics/parliamentary-translators-survey-1.5879907?mc_cid=34a2af6807&mc_eid=7227a6f9c7* *14 See Remote Interpreting Best Practices during the COVID-19 Emergency, https://www.courts.wa.gov/programs_orgs/pos_interpret/content/pdf/Remote%20Interpreting%20Best%20Practices.pdf.*	The Committee appreciates this comment. The guidelines have been revised to recommend that, if possible, all participants in remote interpreting events use headsets or earbuds with built-in microphones to improve sound clarity.

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			Below is a list of statements and questions that if read at the beginning of the session, will make things go more smoothly. Begin by allowing the interpreter and the LEP person to greet each other in their language to establish that the language or dialect is a correct match. Next, read each statement, making sure to pause after each one so that the interpreter may interpret. 1. We are going to communicate through an interpreter who will be interpreting by telephone/video. 2. The interpreter will interpret everything you say into English and everything I [we] say into _____ (client's language). 3. The interpreter cannot participate in the conversation. The interpreter's only job is to interpret what each of us says. 4. If you do not understand something, ask me, not the interpreter. Please talk directly to me, not to the interpreter. 5. If you have a long question or a long answer, please pause frequently so that the interpreter can interpret everything accurately. 6. Please speak loudly and pronounce your words clearly so that we can hear you easily. 7. It may take longer to say everything you need to say through an interpreter. Please say everything you need to say. 8. If you have any difficulty hearing the interpreter or understanding something during this conversation, please tell me. 9. [To the] interpreter, are you ready to proceed? Are you hearing and understanding everyone adequately? G. Allow for private breakout rooms with access to interpreting when needed	

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			On page 10 at #2, the VRI Guidelines state, "Technology used to support virtual courtroom sessions must include some sort of breakout room or conference call functionality to provide for private conversations." Each county should be required to provide their workarounds, if they lack breakout room capacity. Private conversations may be required for attorneys to confer with their clients and also where the court may instruct parties to meet and confer. For litigants with LEP, interpreters must also be permitted to be present in those private rooms. The role of an interpreter for such meetings has been an important function of many hearings, especially in the eviction context. Historically, prior to the public health crisis, in eviction hearings, the judicial officer provided a general announcement at the beginning explaining the process and what to expect, and ordered parties to go to the hallway to share evidence and attempt settlement. LACC's user guide currently states that interpreters cannot be provided for private rooms. If parties are placed in private rooms for this purpose or other settlement related proceedings, a court-assigned interpreter must be provided for self-represented litigants. H. Ensure that litigants with LEP are permitted to present evidence and are provided with a clear understanding of what occurred in the hearing, including sight translation of all court orders The VRI Guidelines should provide clear, user-friendly methods and directives in providing sight translation of orders and other documents, as mentioned on page 9, #4, "Visual/Auditory Issues, Confidentiality, and Modes of Interpreting", as well as presenting evidence (#5). Sight translation of documents and	

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			orders, which is part of the CA Courts Language Access Plan, is another function of an interpreter that presents challenges in a remote setting. Pre-pandemic, interpreters often read the court's orders and documents resulting from a hearing to litigants to ensure the litigants understood their contents and instructions. Courts should remind interpreters to do this at the outset of a hearing as interpreters may hang up or move on to the next matter without staying on for this important step. In some counties, courts are asking litigants to submit copies of hard evidence in advance of remote proceedings, particularly where screen-sharing is not an option. But in the absence of instructions or guidance on this, even in English, both of these approaches amount to insurmountable barriers for linguistically marginalized litigants. Advocates, organizers, and self-help staff can help bridge some of the information, technology, and language gaps for litigants appearing remotely, but in practice and for the vast majority of self-represented litigants, this will almost always leave in-person appearances as the sole option. I. Create mechanisms to monitor the quality of remote interpreting We are also concerned with the ability to monitor the quality of interpreting that occurs during VRI. In open court, we are able to observe the interpreting that takes place and can raise issues as they occur. In hearings with VRI, there are scenarios where only the litigant can hear the interpreter, and issues involving miscommunication may never be discovered. The VRI Guidelines should be a method of allowing others to patch into the interpreter's channel and also recording it for examination,	

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			in the event a transcript is needed. [FN15] VII. Courts must strengthen protocols for hybrid remote-onsite events with VRI This section in the VRI Guidelines labeled, "Appendix A - Minimum Specifications for Remote Interpreting," is too generic and vague, failing to provide staff and judges a clear understanding of what hardware and software is needed. This section should identify specific platforms available in the state with details about functionality and performance. There are many other aspects of details and specifications to consider. *15 See, e.g., Washington Court GR 11.3, at https://www.courts.wa.gov/court_rules/pdf/GR/GA_GR_11_03_00.pdf (audio recordings of interpreting conducted in hearings).* For example, the remote interpreter's audio voice quality can significantly improve if the interpreter uses a quality stand alone microphone that is not the computer microphone or an earbud microphone. [FN16] Further, it should be recommended that all participants, if possible, should use a quality headset with an external microphone, not just interpreters. Also, an interpreter appearing remotely should have their computer connected to the internet through an ethernet cable, rather than WiFi, to ensure a consistent connection. More of these specific detailed examples should be provided in this section and throughout VRI Guidelines. Additionally, this section must take into account scenarios where there are multiple court users with LEP, one in-person, one remote, as well as other scenarios where multiple and/or	

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			relay interpreters may be needed. We have had numerous instances where the same interpreter was interpreting for both parties, where one was remote and one was in-person. Additionally, the VRI Guidelines should reference safety protocols and equipment for certain in-person scenarios. Tragically, interpreters have already passed away after contracting COVID-19 as part of their court duties. [FN17] We have been told that safety protocols are in place and that each interpreter has been provided the proper equipment, including transponders with multi-party headset capacity for social distancing. Despite this, we have still observed interpreters standing or sitting very close to litigants without equipment, sometimes interpreting for two individuals at one time, which is not the best practice. In one case, a provisionally licensed interpreter appeared in-person, but did not have a headset. Therefore, he had to interpret for the litigant without being able to abide by social distancing rules. It is unclear if extra microphones/headsets are available for provisionally licensed interpreters. For languages that are not as common and provisionally licensed interpreters need to be utilized, the court should have headsets available for their use, especially during the pandemic, and should follow CDC standards for disinfecting the equipment in between users. For example, in Riverside County, an extra pair of microphones/headsets were made available to a provisionally licensed interpreter. As stated above, the VRI Guidelines should provide details of issues that have arisen in various courts with possible solutions to reduce negative impact and best practices to address them. VIII. VRI Proceedings Should Be Expanded to Other	

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			Court Events With many other court events adapting to remote service delivery, courts should take proactive steps to make VRI available to other court programs, such as mediation, evaluations, self-help, family law facilitator, and pro per workshops. We understand that the technology issues will continue to present barriers, but with proper notice, outreach, and partnerships with nonprofit organizations and other public entities, providing interpreting for these services and events through a video format will prove to be much more effective and meaningful. *16 See, e.g., Equipment recommendations for Video Remote Interpreting/Remote Simultaneous Interpreting (VRI/RSI), Tamber Hilton, Federally Certified Court Interpreter, at: https://static1.squarespace.com/static/5cd20252b10f253ba21f5eee/t/5ee23f1aa97a040cf70cf7e8/1591885594634/VRI_RSI+equipment+two-pager+May+2020.pdf.* *17 Los Angeles Times, February 5, 2021, Workers in L.A.'s courts are dying of COVID-19 as in-person hearings, trials continue, by Matt Hamilton (https://www.latimes.com/california/story/2021-02-05/covid-complicates-in-person-trials-la-courthouses).* IX. Conclusion These extraordinary times have required courts, attorneys, and litigants to adopt and adapt to new technologies and rapid changes across brief windows. While the global pandemic has forced society into virtual spaces, the commitment to make those spaces equitable and accessible to low-income, linguistically marginalized, and self-represented litigants has been lacking. Now more than ever, people look to systems like the court to	

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			deliver justice with dignity, respect and fairness, and to provide equity and due process in the eye of the receiver. These VRI Guidelines, if strengthened, can play a tremendous role in delivering access to many communities that have been left behind. Attendant to new technologies and remote options is the resultant bias that flows against the interests of self-represented and marginalized litigants. Understandably, frustrations and stress run high on all sides, particularly because we are adapting to new technologies against a background of a deadly pandemic. However, our client communities, who already start from a position of vulnerability, have the most daunting challenge. They face the bias that results from court frustrations over poor technology and glitchy connections, from children in the courtroom, delays associated with requesting interpreters, prolonged hearings due to consecutive interpreting, video backgrounds that are revealing of the litigant's poverty, and from the predictable confusion and chaos that result when self-represented litigants try to adjust their court filings and participation with policies and rules that did not include them or help inform their involvement in the court process. These concerns exacerbate the incredible stress that impoverished and linguistically marginalized litigants already face in their daily lives. Achieving equity in the justice system is one of those problems whose sheer enormity leaves it constantly in the shadows. To acknowledge the gaping chasm would be to take on an obligation that officials may understandably see as insurmountable. But that is where the courts and others can take a lesson from our clients – we must demonstrate a commitment to daunting challenges and draw from the courage of those	

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			whose experiences are far more overwhelming and intimidating than the task we face. The lack of language access leads people to be so completely shut out that their travails almost always go unseen by the justice system. The cause of their suffering is also the cause of its invisibility. Even within the confines of limited court resources, there are concrete and ameliorative steps courts can take and affirmative outreach they can do through these VRI Guidelines and in collaboration with others in the community to set a productive and committed path for equal access. Our hope is that the courts will put forth necessary measures to ensure true and meaningful access for all during these unprecedented times. Appropriate and consistently followed VRI policies, protocols, and safeguards must be put in place to ensure equal access at all points. With the ongoing public health crisis and heightened struggle for racial equity, we call upon the courts to be a beacon of hope and a leader in creating just and equitable access for the historically marginalized and disenfranchised communities we serve. To act otherwise will further deepen the devastating and disparate impact on BIPOC communities, as we continue to confront barriers to achieving racial justice. The Judicial Council must do and demand more to ensure that all our diverse communities seeking to utilize the courts have access to justice.	
11.	National Association of Judiciary Interpreters and Translators (NAJIT) by Board of Directors	NI	The Recommended Guidelines and Minimum Specification for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events [Proposed Guidelines], provides informational background, stating that the goal of the Language Access Plan [LAP] is to increase qualified interpreter services, as well as the availability of language access services. This	The committee thanks the commenter for their comment.

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			statement overlooks the fact that highly qualified certified interpreters and those providing services in languages of lesser diffusion may no longer be available to the courts because the Judicial Council has not updated interpreter compensation rates in over 15 years. The rates currently paid by the courts have not kept up with annual increases in the cost of living. As a result, independent interpreters are left with few options other than to travel long distances as a way of supplementing the low fees paid by the courts. The court's initiative to save money by using remote interpreting and thereby eliminating travel costs for interpreters fails to address the real issue, of the low fees interpreters are being paid at this time. The effect of further reducing interpreters' income will be to have fewer interpreters available to the courts. This is the opposite of what the Recommended Guidelines and Minimum Specifications for Video Remote Interpreting intend to accomplish. The Proposed Guidelines state that VRI will increase access to qualified (certified and registered) interpreters. Under California law, interpreters who provide services to the state's courts must be located or reside in California. Therefore, the argument that more interpreters will be available is not a factual statement. As a matter of fact, many interpreters of languages of lesser diffusion are finding it harder to remain available to the courts due to a shortage of cases and reduced compensation. It is worth noting that remote interpreting is more difficult than interpreting in person, as it requires a higher degree of concentration; interpreters must deal with technological and	The committee appreciates the feedback, but interpreter pay rate is outside the scope of the guidelines.

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			cognitive challenges that are unique to remote interpreting. Additionally, it also requires a greater financial investment on the part of the contract interpreter, who needs proper equipment and connectivity to provide these services remotely. It is unconscionable for the courts to place the financial onus on the interpreter. In short, remote interpreting is a premium service, not a discount service, and should be compensated as such. In terms of the Fiscal and Operational Impacts, any standardization of VRI efforts must also take into account international ISO standards regarding the sound quality needed for remote interpreting r so as to protect interpreters from the effects of acoustic shock, as well as to maintain the requisite clarity of sound throughout every proceeding. Paragraph 3 mentions the need for the interpreter to hear all parties but neglects to mention the quality of the audio input. There is equipment, such as external microphones and headsets with acoustic shock protection that are necessary to protect interpreters from suffering hearing damage or hearing loss. All court personnel involved in proceedings using VRI should have an ethernet computer cable connection rather than using Wi-Fi. They should also have external microphones, and not use the computer's integrated microphone. Sound quality is critical for VRI to be effective, and the microphones generally found in computers are not sufficient to provide interpreters with clear audio in order to interpret fully and accurately. Poor audio quality and sudden spikes in audio can cause lasting damage to interpreters. Additionally, sound that comes from holding facilities is even more problematic as connections over the phone have poor audio quality as well as the added concern of	

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			constant background noise and echo that distort sound. When sound quality is not clear, interpreters inevitably have to turn the volume up, which puts them at greater risk of hearing damage. Page 8 of the guidelines, number one addresses the need to interrupt or clarify. Experience during the pandemic has shown that in hybrid environments, even with consecutive interpretation, if the parties are not all in the same virtual space (regardless of their physical location) and the interpreter is not on camera, there is little opportunity for the interpreter to interject or request that any of the parties pause to allow for interpretation. This is compounded by connectivity issues suffered by the judge or attorneys and these interjections by the interpreter are not seen or heard. Page 8, paragraph 2 refers to lag time for interpreting and relay interpreting. It should be noted that none of the platforms in use by the courts at this time allow for simultaneous relay interpreting. Simultaneous relay interpreting is only available if interpreters have additional technology and training at their disposal or are physically at the same location. It is not always feasible to expect the interpreters to bear the burden of using additional technology rather than travel to one central location. Relay interpreting in the consecutive mode also requires that the LEP and all interpreters be visible to the court in order to signal if something is not working appropriately. Paragraph 3 mentions the need of the interpreter to hear all of the parties but neglects to mention the quality of the audio input. External microphones and headsets with acoustic shock protection are necessary to protect the interpreters from hearing	

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			damage or hearing loss. Paragraph 4 mentions that telephonic interpreting is less desirable than video conferencing. We concur. Telephonic Interpreting can be very confusing to the LEP listeners, who cannot distinguish the voices of the source language (SL) speakers since all they can hear is the voice of the interpreter. For telephonic Interpreting, interpreters must often identify the speakers, which is an added cognitive task that is very difficult to perform at high rates of speech. Paragraph 5 mentions sight translation. Measures should always be taken by the courts to prevent interpreters from being alone with defendants or witnesses. This applies to breakout rooms as well. When sight translating documents, the party's attorney should always be present with the interpreter and the client. Paragraph 6 states that the same rules for using qualified interpreters apply to assignments using VRI. This should also include the requirement to seek out and contract with interpreters locally, who live and work within the State of California. Paragraph 7 refers to Data Collection, with Part C referring to Budget Change Proposals. As stated before, remote interpreting is more demanding and stressful than in-person interpreting. It also requires a substantial investment in equipment, long term contracts for high speed internet, and a dedicated space suitable for remote work. We must emphasize, for all these reasons, that VRI or remote interpreting is not a discount service but actually a premium service that must be compensated as such. The per-	

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			diem rate for remote interpreting should not be reduced, but, quite the contrary, it should be increased, particularly given the fact that the California Judicial Council per diem fees have not increased in more than 15 years. Any cost saving brought about by VRI should not be at the expense of those providing this premium service to the courts. Visual/Auditory Issues – 1. Cameras focused on all stakeholders are essential both for the benefit of the LEP and the Interpreter, to allow everyone to identify who is speaking and read all visual cues. The interpreter and LEP need to be in view of all parties so that the interpreter or LEP can alert the court should any technological, terminological, or logistic issue arise. 2. Speakerphones are never an appropriate solution for any type of interpreted proceeding and are certainly not appropriate for simultaneous interpreting due to their very poor sound quality and logistical unsuitability for interpreted events. 3. The devices mentioned in paragraph 2, tablets and smartphones, should be emergency solutions only and not part of any permanent remote interpreting solution to be implemented by the courts. Wi-fi connectivity on tablets and smartphones can be unstable. Additionally, the smaller screen on these devices does not allow the parties to see all participants at one time, placing the interpreter and everyone else at risk of missing important information. The proper equipment for remote interpreting is a computer with an external microphone and hard-wired ethernet connection.	The suggested equipment for the interpreter or courtroom will be incorporated into education and best practice materials.

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			4. It is not enough to ask participants to speak clearly and in short sentences. The interpreter must have access to visual clues and the leeway to ask for pauses and repetitions when needed. 5. We must emphasize that built-in microphones--microphones integrated to the computer's hardware--are not a permanent solution for remote interpreting. Just as courtrooms have dedicated microphones, participants who connect on a video conferencing platform must have high quality microphones. The difference between "fifteen" and "fifty", "can" or "can't", for example, can be easily obscured by bad audio. Appendix A mentions providing LEPs with a phone number to call in order to participate in court proceedings. The use of a telephone for interpreted proceedings should be limited to very brief matters only. Trying to allow simultaneous interpretation over a phone with no visual cues puts the burden on the interpreter to identify all speakers or juggle multiple devices which negatively affects the interpreter's focus on the actual interpreting of proceedings. The suggested scenarios for hybrid situations also demand that attention be given to details, such as the interference a courtroom's PA system may cause to a participant's device also located in the courtroom. The best practice is for participants' devices to be hard-wired (ethernet-connected) computers with an external headset and integrated noise-cancelling microphone. The interpreter should be visible to the court and the LEP, and the LEP should be visible to the interpreter. The best solution in hybrid situations is to have all parties connected to the same digital platform so that everyone is in the same digital space.	

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			Remote interpreting is undeniably playing a critical role in providing LEPs with language access to the judicial system during the pandemic and should be used with a clear understanding of the technology and working conditions that must be in place for interpreters to provide services that approximate the quality of interpreting services rendered in person. This cannot be accomplished without making investments in both the technology needed and the professional interpreters who provide the vital link between the court and the people of limited English proficiency it must serve.	In addition to development of these recommended VRI guidelines for spoken language, the Judicial Council is also working with the National Center for State Courts to develop VRI training modules for courts and interpreters to support VRI and these guidelines. This training will be developed with and presented by experts including court interpreters. Best practice material for VRI events will also be periodically updated.
12.	Carol Palacio Court Certified Spanish Language Interpreter San Mateo County Superior Court Current CIAP Voting Member	N	While I am in agreement that VRI has the potential to become a viable option for expanding language access in the courts, I feel that it is premature to establish a statewide VRI program. The premise justifying the changes in standards being that the courts have successfully used VRI to provide remote interpreter services for hearings during the pandemic is not accurate. While many short, non-complex VRI court hearings have been carried out with reasonable success, I have experienced significant problems even in brief hearings, and have observed how current set ups and technologies used during the pandemic negatively impact interpretation and restrict access and participation by parties using interpreters and their attorneys. Attempts to conduct longer, more complex hearings remotely have not been successful in my experience. The wide-spread problems with these processes have been tolerated because we are in a pandemic and there is simply not another option, but they should not be considered acceptable, tolerable or even successful during regular times. I personally have observed many instances in which LEP court users' rights have been suspended or	The committee thanks the commenter for their comment. The recommended minimum technology specifications are designed to allow flexibility for courts and to allow for future advances in technology.

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			violated as a result of using the current technology we have available to us. Here are just a few examples: A Preliminary Hearing in which some parties were largely inaudible. As a remote interpreter I had to repeatedly interrupt the proceeding in order to request the defense attorney repeat her questions, I finally had to resort to calling the clerk's phone in order to ask for repetitions because, in addition to not being able to hear the attorneys, the courtroom could not hear me because the simultaneous function disabled my ability to communicate with the courtroom directly. I also had no way to know if there were additional things being said that I was missing, due to the inability to fully hear the proceeding. During a Small Claims Mediation, toggling into a breakout room disabled the simultaneous interpretation function such that I had to log out and log back in in order to be heard by the litigant. We ultimately decided to go back to the main room because the litigant couldn't hear the interpreter. We finally had to abandon the simultaneous mode altogether because the function remained disabled when we toggled back to the main room. The mediation was delayed significantly due to the struggle with technology and the use of consecutive interpretation. Because of this, the parties, although close to reaching an agreement, were prematurely cut off and the case remained unresolved and scheduled for trial. During a family law hearing, the simultaneous function stopped working, so THE COURT waived the litigant's right to an interpreter. Consecutive interpreting was going to slow the process down too much. The Court stated that they were talking	

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			about legal matters and the litigant wasn't going to understand anyway. I interpreted to the litigant that the Court had waived her right to an interpreter and that she should consult with her attorney after the hearing to find out what happened. I could hear the surprise and frustration in her voice upon hearing this from me. In a telephonic pretrial conference between an attorney and her client situated in jail, the attorney instructed me to do a partial reading of the plea form, not advising her client of significant portions of the form. I told her I couldn't do so, due to interpreter ethics. I was subsequently replaced by a different interpreter who signed off on the form. I'm not sure if it was subsequently fully translated. The defendant, being present over the phone, had no way to know if it was a partial translation. Neither did the Court because a different remote interpreter interpreted the plea. This could happen even without VRI, however, remoteness facilitates these types of interactions. Due to COVID, attorneys in our court have been allowed to sign off on forms for their clients, another anomaly that puts in jeopardy the rights of LEP court users. These are just a few demonstrative examples of what I have been experiencing during COVID. There have been many other occasions in which parties are difficult to hear, or communications break down due to software or hardware issues. Many times, attorneys have been unable to have private conversations with their clients due to limited hardware and technology. Although I personally have been grateful for the ability to interpret from the safety of my home during the pandemic, I believe that there should not be a rush to make VRI	

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			a statewide program without systems in place that actually work in a much more reliable fashion. Certainly, the ad hoc "solutions" that have been used due to the health emergency cannot be considered successful and absolutely should not be adopted as long-term strategies for providing access to justice. Even much more sophisticated systems present challenges and impact the participation of remote court users and create impediments for accurate interpreting. The solutions offered in Appendix A have not been successfully put into practice currently and some of the solutions offered are simply too vague, especially with regard to how confidential conversations would take place between attorneys and their clients. What we have seen in practice is that fewer confidential conversations, both brief and more in depth, are taking place because the technological hurdles are too great and many participants lack time and patience to allow for them to take place. As to the issue of confidentiality; I don't see a way to guarantee this when there are remote appearances. It is very difficult to determine, even with cameras, if there are persons in remote locations that are present and listening to or even recording proceedings. Although the Court may order that certain parties not be present or record, it is hard to know if orders are actually being complied with. I do appreciate the inclusion of point number 12. "The use of in-person, certified and registered court interpreters is preferred…" however I don't see it being put into practice during COVID. I foresee a real danger in extending COVID procedures into normal times. The temptation to choose "Cost Savings" over LEP Court Users' rights is significant. The savings in labor may	Language has been added to the guidelines to more clearly recommend that courts work with attorneys to ensure that VRI solutions allow for privileged communications before, during, and after hearings.

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			outweigh the cost of technology in the long run but the capabilities of technology, in my experience, are simply not there yet.	
13.	Superior Court of California, County of Orange by Sean E. Lillywhite, Administrative Analyst/Officer, Training & Analyst Group (TAG)	AM	In addition to comments on the proposed policy concepts as a whole, ITAC is interested in comments on the following: • Does the proposal appropriately address the stated purpose? Yes, it appears that the changes do adequately address the purpose as stated. • Would the proposal provide cost savings? If so, please quantify. Other than more efficient use of interpreter time as it relates to travel, it does not appear that there will be cost savings associated with this proposal. Especially, as this efficiency might be offset by the challenges posed by the use of video technology. • What would the implementation requirements be for courts—for example, training staff (please identify position and expected hours of training), revising processes and procedures (please describe), changing docket codes in case management systems, or modifying case management systems? Implementation requirements would be substantial, based on the recommended training approach, which involves providing materials and (in some cases training for) both internal and external parties. Training materials for staff would need to be created, and instructional videos for the public would need to be published. Due to the	The committee thanks the commenter for their comment. In order to support the guidelines, the committee agrees that there will be a need to develop and make accessible the following: training, multilingual instructional material provided for court users, and the periodic review and updating of best practices.

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			quickly changing nature of technology, there will likely be a need to continually refresh the materials and update the training. • How well would this proposal work in courts of different sizes? It does not appear that Court size is the main factor, but access to the necessary technology might pose an issue for courts that may not have the resources to support the process. The consistent guidelines will help all courts equally in understanding and implementing best practices as it relates to Video Remote Interpreting. All courts will need to redirect resources to implement the training sessions and reference materials for all parties.	
14.	Superior Court of California, County of Riverside by Vanessa Lopez Division Manager- Interpreter Services	NI	Fiscal and Operational Impacts: VRI services are regionally negotiated and governed by a Memorandum of Understanding (MOU) with the union(s). Depending on the language in the MOU, the payment of a stipend may be required for interpreters performing video remote interpreting. The MOU may also limit the types of matters where VRI may be used (short cause vs. long cause matters). The Court Interpreters Program (CIP) funding methodology is being reviewed and updated by the Trial Court Budget Advisory Committee / Funding Methodology Subcommittee to align program costs with the funding from the State. The CIP has been running a deficit requiring funds to be programmed from the Trial Court Trust Fund (TCTF).	The committee thanks the commenter for their comment.

S21-01
Recommended Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) for Spoken Language Interpreted Events

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

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15.	Superior Court of California, County of San Francisco by Staff Interpreters: Margo Seely Carla Cuevas Manti Henriquez Karina McMillan-Rea Elizabeth McCarthy Piedad Kretchmer-Blanco Aidong Ni Jean Garascia Cristina Visus Stephan Enoch Ted Kim Andrea Pollock Daniel Navarro Marissa Ayerdi Laura Villanueva Muriel Falak Marlon Vasquez Nina Safdie Shannon Raintree	N	This letter is being written in response to the Judicial Council's Invitation to Comment SP21-01 on behalf of court interpreters in San Francisco. We received information about proposed changes to the guidelines indirectly through the grapevine, so to speak, despite the fact that court interpreters are key stakeholders in the decisions that will be made about VRI. We maintain that despite the pandemic, this is an issue that needs to be addressed only after extensive feedback from interpreters and a much more careful consideration of technical limitations and impacts on effective communication. We object to changes around VRI being pushed through at this point, during a pandemic that has left all in the justice system with no option but to work under very difficult conditions. Almost a year into the pandemic, interpreters have been on the front lines of the informal rollout of limited VRI in response to emergency orders and court shutdowns. We now have a lot of experience with using it, how it affects proceedings and language access, and based on our direct experiences, we question the basic premise upon which the changes are being proposed: that VRI has been used successfully during the pandemic to provide language access in court proceedings. We present our commentary below. VRI, despite the way it is talked about as being the be-all, end-all to reduce court costs and streamline judicial processes, is fraught with problems and often causes unnecessary delays and additional costs. In terms of practical use of VRI in day-to-day	The committee thanks the commenter for their comment, insight, and patience. The committee recognizes that interpreters have been required to learn quickly and adapt to technologies that allow VRI events, and that there is often frustration at times with software, sound, visual or communication issues. The VRI guidelines for spoken language recommend that VRI events should be terminated if they are not facilitating effective communication and matters rescheduled.

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			situations at court, we have seen myriad impediments to accurate interpreting and to access to justice. Because of these problems, interpreters appearing remotely have often been passed over for another interpreter who is available to appear in person. Judges have refused to work with the remote interpreter, instead requiring one be sent in person to handle witness testimony, pleas and attorney-client conferences, thus negating both the technology in place and the remote interpreter. This results in extra costs to the courts and money essentially gone to waste. For use with Indigenous languages, one of the main perks of VRI laid out by the JCC, many times the Indigenous language interpreter will require a relay into English from the Spanish. When done remotely, this means that parties will have to wait for 2 separate interpreters to consecutively interpret in both directions English -> Spanish -> Indigenous language and then back again. This consumes undue amounts of time and will frustrate if not completely impede attempts at accuracy. Again, not necessarily less expensive and not less time-consuming. There has been virtually no training for interpreters or others using remote platforms. People are basically winging it. Since there is no one VRI platform for each court in each county, the technology and training required is vastly different depending on where you are. Attempting to establish training around VRI would mean that the courts and court staff need to all be using the same technology. Everyone from Judges, to clerks, PDs to DAs, Bailiffs, Jail Staff, Interpreters and litigants(?) will need training. Each tech system would have to have its own set of rules and trainings, best practices and trouble-shooting. Right	The Judicial Council is working with the National Center for State Courts to develop VRI training modules for courts and interpreters across standard platforms to support VRI and these guidelines. This training will be developed with and presented by experts including court interpreters. Best practice material for VRI events will also be periodically updated.

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	Commenter	**Position**	**Comment**	**Committee Response**
			now in San Francisco, for example, the system in place at the Hall of Justice differs from that at Civic Center and the Juvenile Justice Center, and we are just one small county. It appears that the proposed guideline changes would perpetuate this ad hoc system with different platforms being used and a disparate array of technical set ups and ways to connect. We hope those considering the issues will hear loud and clear that these systems have not worked very well at all and the approach is antithetical to the idea that people will be trained and consistent protocols and technical guidance will be followed. Additionally, 1. VRI negatively impacts language access by disenfranchising the LEP during legal proceedings. a. Adequate technology does not exist to allow LEPs to actively participate in their legal proceedings because they are not able to comment or to ask questions during the same; they are effectively isolated from the proceedings. b. Connectivity issues, poor quality video and audio (breaks in audio/video) create confusion for all parties, but especially interpreters (and by extension LEPs) who rely on clear and understandable audio/video to be able to adequately hear, see and understand in order to interpret accurately; c. Visual cues are important but often unavailable in the ad hoc set ups. Interpreters are often unable to see the courtroom or the parties who are speaking, leading to less accuracy and more interruptions. d. The process of interrupting to request a repetition is onerous, disruptive and cumbersome.	

List of All Commenters, Overall Positions on the Proposal, and General Comments				
	Commenter	**Position**	**Comment**	**Committee Response**
			2. VRI places an extra burden on the Interpreter a. Interpreters are often working alone for long periods on a platform that is even more mentally taxing than having to interpret in person; b. Interpreters are being asked to handle tech that we haven't been trained for, which adds an extra load to the cognitive strain already present when interpreting; c. Many interpreters have had to use their own phones or computers in a patchwork system which disenfranchises the LEP (see above) and places an extra burden on the interpreter. 3. VRI places an extra burden on the LEP parties and makes it even more difficult for LEP parties to understand and participate. a. Whether due to limitations on devices, access to the internet or general know-how, LEPs are at a disadvantage when appearing remotely due to some of the reasons stated above. b. Often LEP parties are unable to connect by video and only have audio access. In such situations, interpreters are regularly instructed to mute themselves on the courtroom feed and interpret court proceedings simultaneously over a separate phone line for the LEP party. These hybrid setups in effect gravely undercut meaningful language access. With no visual cues to rely on, the LEP party is forced to glean from the interpreter's uninterrupted verbal stream the meaning and import of what multiple, unseen and unidentified speakers are putting on the record in their matter. c. In custody defendants have restricted mobility and often do	

List of All Commenters, Overall Positions on the Proposal, and General Comments				
	Commenter	**Position**	**Comment**	**Committee Response**
			not have a microphone, or their microphone is muted, making it impossible for them to actually participate.	
16.	Superior Court of California, County of San Joaquin by Jacob Montez, Court Operations Manager Jury Services, Interpreters, Court Reporters, ADA Coordinator	A	• Does the proposal appropriately address the stated purpose? It is our Court's opinion that the updated Guidelines and Minimum Specifications for Video Remote Interpreting (VRI) does adequately address the stated purpose. The Covid-19 Pandemic brought various unforeseen challenges that drastically altered court operations. Courtroom procedures and proceedings were forced to adjust to the social distancing restrictions and in many cases moved to telephonic and virtual appearance by parties in court proceedings. Our Court implemented a mixture of both telephone and virtual hearings based on the Court's operational need. Though intended for LEP users of the Court, these updated guidelines provide the perfect framework for meaningful, high quality virtual court proceedings while aiding in the efforts to protect the health and safety of all participants. • Would the proposal provide cost savings? If so, please quantify. Initially the implementation of VRI would not be a cost savings in that the procurement of the appropriate equipment for VRI would be an added cost to the Court's budget. If equipment costs were provided by way of grant funding, the Court would then be able to realize the cost saving differences with having a remote hearing versus in person appearances by interpreters which require payment of travel time and mileage. VRI would also aid the court in increasing its pool of available interpreters which	The committee thanks the commenter for their comment. The goal of the revised guidelines is to provide general guidance including key considerations and recommended minimum technology specifications for VRI for spoken language events, and to be adaptable and helpful for courts of all sizes.

List of All Commenters, Overall Positions on the Proposal, and General Comments				
	Commenter	**Position**	**Comment**	**Committee Response**
			would lead to more competitive negotiations of contract interpreter rates. • What would the implementation requirements be for courts—for example, training staff (please identify position and expected hours of training), revising processes and procedures (please describe), changing docket codes in case management systems, or modifying case management systems? Implementation Requirements as follows: 1. Development of procedures regarding use of the equipment, an online tutorial for interpreters appearing virtually, bench guide for judicial officers. 16 hours IT Department Manager IT Supervisor Court Operations Manager Interpreter Office Coordinator 2. Training staff 1 or 2 hours Judicial Officers IT staff members Interpreters Interpreter Office Coordinator Courtroom Clerks 3. Modification to court docket codes. 1 hour IT staff member Courtroom Operations supervisor	

List of All Commenters, Overall Positions on the Proposal, and General Comments				
	Commenter	**Position**	**Comment**	**Committee Response**
			• How well would this proposal work in courts of different sizes? Implementation of the VRI process would benefit courts of all sizes. In smaller courts, interpreter services are primarily provided by contract interpreters as most only employ a small group of interpreters. Cost of equipment aside, these smaller courts would see cost savings in not having to pay for interpreter travel time, mileage and lodging. They would also be able to increase their pool of available interpreters that might not have otherwise been willing to travel to many of these remote locations. An increased pool of available interpreters would also aid court's in negotiating more reasonable rates and modifying the current practice of a full or half day rate to an hourly rate. In a medium size courts as with smaller court, VRI would also provide the cost savings in eliminating the travel time and mileage, increased pool of available interpreters and aid in negotiating reasonable rates. It would also allow courts of a medium size to more efficiently utilize interpreter resources by conducting VRI from one court location to another branch court location. Larger sized courts would benefit from cost savings in negotiating more reasonable rates, moving to an hourly rate, and having an increased pool of interpreters. Many of the larger sized courts also have court branches in remote locations that require travel time and mileage. Using VRI when appropriate would help to eliminate those costs.	

JUDICIAL COUNCIL OF CALIFORNIA

455 Golden Gate Avenue • San Francisco, California 94102-3688
Telephone 415-865-4200 • Fax 415-865-4205 • TDD 415-865-4272

MEMORANDUM

Date
March 5, 2021

To
Information Technology Advisory Committee

From
Data Analytics Workstream
Hon. Tara M. Desautels, Co-executive Sponsor
Mr. David Yamasaki, Co-executive Sponsor

Subject
Final Report on Data and Information Policy Concepts

Action Requested
Review and approve

Deadline
March 24, 2021

Contact
Leah Rose-Goodwin, Business Management Services
(415) 865-7708 phone
leah.rose-goodwin@jud.ca.gov

Executive Summary

The Data Analytics Workstream recommends that the Information Technology Advisory Committee (ITAC) approve the attached report on data and information policy concepts. This report is the final work product of the Data Analytics Workstream, which was charged with recommending a data analytics strategy for the branch that included developing branchwide data and information governance policy recommendations. Adopting these policy concepts will lay the foundation for future policy development and will help execute a new vision for data analytics in the judicial branch: *to analyze, use, and share data to inform decision-making in order to enhance and expand vital and accessible services for all the people of California.*

Recommendation

The Data Analytics Workstream recommends that ITAC:

1) Accept the workstream's report on data and information policy concepts;
2) Forward the report for consideration by the Technology Committee and then the Judicial Council; and
3) Formally sunset the data analytics workstream.

Analysis/Rationale

At its November 30, 2018 meeting[1], the Judicial Council approved the *Strategic Plan for Technology 2019-2022,* which outlines a goal to Promote the Digital Court[2] including "increas[ing] court-to-court data sharing for data-driven decision making."[3] In that same year, ITAC formed a Data Analytics Workstream with co-executive sponsors Hon. Tara Desautels and Mr. David Yamasaki and participants from across the judicial branch. Its mission was to recommend a data analytics strategy for the branch that included developing branchwide data and information governance policy recommendations.

The report on policy concepts (see Attachment A) contains recommendations for policy development in key areas of data and information governance: classification; access; use; sharing; maintenance; and disposal/retention. The report defines key concepts in each of these areas and, in some cases, provides examples to explain how the concept applies to the judicial branch. The proposed concepts are organized around the data and information lifecycle, a general organizing framework for data and information. They are intended to align with a draft vision and guiding principles for judicial branch data and information governance, which are included in the report as reference. Additionally, the proposal defines key roles and responsibilities for data and information management. The report also identifies a few areas of future policy development. These are areas that the workstream deemed were important but that should be addressed subsequent to the initial set of proposed concepts.

Policy implications

The report on policy concepts is intended to guide future policy development but does not contain policy recommendations. If approved, the Judicial Council will decide how these policy concepts could be used to develop data and information governance policies.

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[1] *https://jcc.legistar.com/View.ashx?M=F&ID=6786818&GUID=8F2A8400-854F-4724-A32B-9C46FDEBF002*

[2] *https://www.courts.ca.gov/documents/jctc-Court-Technology-Strategic-Plan.pdf*

[3] *https://www.courts.ca.gov/documents/jctc-Court-Technology-Strategic-Plan.pdf*

Comments

Over the course of its work, the workstream solicited comments from many different entities both inside and outside the judicial branch. Regular progress reports were made to ITAC and the Technology Committee; updates and presentations were given to trial and appellate court leaders and administrators, advisory committees, and the court information technology community. The workstream also solicited feedback from other state entities and the National Center for State Courts, as many others are similarly engaged in data and information governance policy development.

In December 2020, ITAC issued an Invitation to Comment (SP20-09) to solicit public input on the policy concepts to encourage public dialogue and to incorporate any feedback while the concepts were still being finalized. One comment was received but it was not specific to the proposal (see attachment B).

Alternatives considered

The workstream considered various aspects of a branch strategy for data analytics and solicited input from numerous judicial branch entities to guide their work. From those discussions, data and information governance emerged as the most important area for policy development. In turn, the proposed policy concepts were identified as the most essential and fundamental components of judicial branch data and information governance.

Fiscal and Operational Impacts

The report on policy concepts is intended to guide future policy development. Therefore, there is no fiscal nor operational impact at this stage.

Attachments and Links

Attachment A: Report on Data and Information Policy Concepts
Attachment B: Chart of comments on proposal SP20-09

Data and Information Policy Concepts

DATA ANALYTICS WORKSTREAM REPORT

MARCH 2021

JUDICIAL COUNCIL OF CALIFORNIA
INFORMATION TECHNOLOGY ADVISORY COMMITTEE

Judicial Council of California

455 Golden Gate Avenue

San Francisco, California 94102-3688

www.courts.ca.gov

Document Revisions

Version	Date	Name	Change Description	Sections
1.0	3/1/2021	ITAC	Report for ITAC review	All

Additional information

For more information, contact research@jud.ca.gov.

Table of Contents

Message from the Chairs

The Data Analytics Workstream has brought together judicial officers, court leaders, operations managers, and information technology specialists from across the state to collaborate and develop a data analytics strategy to support the judicial branch's goal of improving access to justice for all Californians.

Data analytics is essential to achieving this goal. Informed, data-driven decision-making will improve operations throughout the branch, facilitate resource management, and assist in fact-based budget advocacy. At a time when technological advances have made data analytics easier, faster, and more cost-effective, every judicial jurisdiction, whether large or small, can benefit from accessible and effective data analytics practices.

Workstream discussions over the last two and a half years have highlighted the need to develop agreed-upon standards and principles to address data access, quality, use, sharing, and security that will increase data reliability and foster collaboration. Accordingly, the workstream has developed the set of proposed data governance policy concepts described in this report. Our hope is that these policy concepts provide the initial foundation for a judicial branch data governance model and, eventually, a judicial branch data analytics strategy. Establishing a solid foundation is essential to ensure future progress toward that goal.

Tara Desautels, Co-executive Sponsor and
Presiding Judge of the Superior Court of Alameda County

David Yamasaki, Co-executive Sponsor and
Court Executive Officer of the Superior Court of Orange County

Executive Summary

Data tells a story about our court community: about the people we serve, their needs, how they use court services, and how we can improve those services. It tells a story about how courts function, the problems we are working on today, and how we might be able to anticipate and address the problems of the future.

The Data Analytics Workstream of the Information Technology Advisory Committee was formed with the mission to scope and recommend a data analytics strategy for the branch. Through extensive discussion and consensus-building, the workstream proposes a framework for judicial branch data and information governance that includes a vision for branchwide data and information, guiding principles, roles and responsibilities, and proposed policy concepts.

Following several major initiatives at the intersection of technology, data, and policymaking, the workstream was tasked with scoping and recommending a data analytics strategy for the branch. Over the course of its work, the workstream engaged in projects and activities along two tracks, technology and governance. The technology track focused on technologies, tools, and templates to help the branch utilize data analytics, while the governance track—the main focus of this report—established the framework of judicial branch data and information governance, starting with a branchwide vision for data and information:

> *The judicial branch will analyze, use, and share data to inform decision-making in order to enhance and expand vital and accessible services for all the people of California.*

This work represents an evolution in the way the judicial branch uses and thinks about data. In support of that new mindset, guiding principles will inform and lead the judicial branch's thinking around data and information. The judicial branch will:

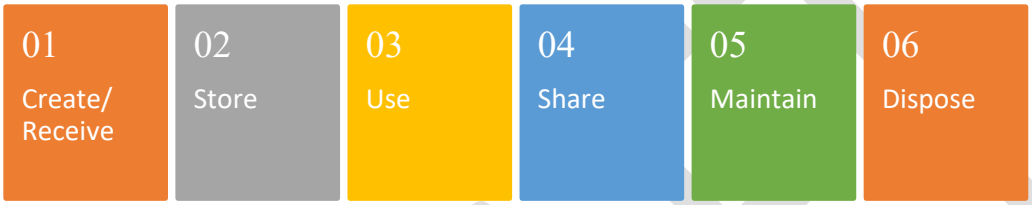
- Collect, use, and share data and information as appropriate to promote and support informed decision-making;
- Be clear about the use and purpose of data and information;
- Promote data transparency;
- When available, use the highest-quality, validated data and information;
- Assess data and information to ensure it is fit for the intended purpose or correctly represents the real-world construct that it describes;
- Follow published standards and governance principles when sharing data;
- Secure all data and information; and
- Manage data and information according to established retention requirements.

Proposed Data and Information Governance Policy Concepts

The judicial branch's proposed data and information governance policy concepts represent an evolution in thinking about judicial branch data. They encapsulate numerous conversations within California's judicial branch but also consider similar federal and state court efforts nationally. This progression reflects a change in the public's data-related expectations and recognizes the judicial branch's responsibility to steward its own data and information.

The proposed data and information governance policy concepts are organized around the framework of the data and information life cycle, with each policy concept addressing one or more of the stages of the life cycle.

The Data and Information Life Cycle



Policy Concepts

01 Create/ Receive

Classification: Data and information will be collected, used, and shared to promote and support informed decision-making. Classifications will be used to identify the source, use, and purpose of judicial branch data and information, helping to quickly and uniformly identify appropriate access and security levels, while upholding confidentiality and privacy rights.

02 Store

Access: Data and information access is permissions-based and supports and promotes data transparency while also safeguarding nonpublic data and information.

03 Use

Use: The use and purpose of judicial branch data and information should be clear, as well as the responsibilities inherent in using such data.

04 Share

Sharing: Better data and information sharing can help promote and support informed decision-making. Published standards and principles will facilitate sharing. Some data and information may be exempt from public disclosure, such as data for judicial administrative purposes.

05 Maintain

Maintenance: High-quality, validated data and information is crucial for informed decision-making. Data is of high quality if it is fit for the intended purpose of use or if the data correctly represents the real-world construct that the data describes. Data and information quality should be measured, and standards for data quality should be established. Data should be secured and managed appropriately.

06 Dispose

Disposal/retention: Data should be archived or disposed of according to established retention schedules.

In addition, the workstream recognizes the need for future policy development in the following areas:

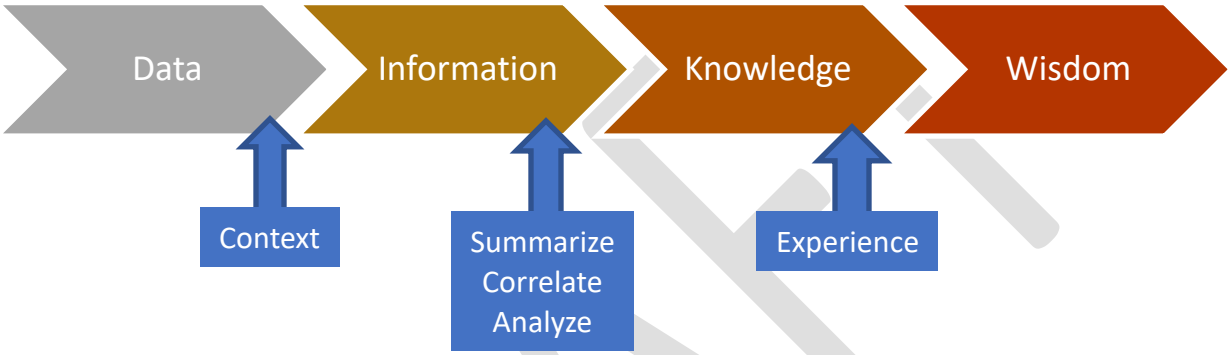
- Data and information management policies
- Data and information preservation
- *Trial Court Records Manual* and rules of court updates

The judicial branch data and information governance policy concepts are the foundation for the judicial branch data governance model. The policies will evolve over time and incorporate new concepts and changes as needed to accommodate and reflect any changes in the law or in branch priorities and requirements.

Introduction

Data analytics is the process by which information or data is collected and analyzed to draw informed conclusions and make business recommendations that are based on facts rather than anecdote or intuition. The path to wisdom starts with data, which becomes information when contextualized. Through analysis, information becomes knowledge, and finally, with the benefit of experience, knowledge ideally transforms to wisdom (figure 1).

Figure 1. From Data to Wisdom



The path to wisdom requires effective governance. Established data and information governance policies will enable judicial branch entities to quickly locate critical information in order to facilitate informed and consistent decision-making, while also ensuring that data is properly validated and protected. Any related information sharing must be properly authorized and legally compliant.

These policy concept proposals represent an evolution in thinking about judicial branch data. They encapsulate numerous conversations within California's judicial branch but also consider similar federal and state court efforts nationally. This progression reflects a change in the public's data-related expectations and recognizes the judicial branch's responsibility to steward its own data and information.

Prior Branchwide Initiatives

This work stems from multiple branchwide initiatives to use technology to innovate and increase access to justice, as well as the almost universal recognition of the importance of analytics-based decision-making. Advancements in data analytics tools have made analyzing data easier and more accessible than ever before. When combined with court-related technological improvements (e.g., modern case management systems, electronic filing, electronic juror summons, human resources platforms), these tools have created an opportunity for the judicial branch to enhance business practices and operations by making data-driven decisions. Information technology modernization (e.g., inexpensive storage, increased computing power,

cloud technology) and, in particular, case management system modernization, provide the necessary foundation to support and enable a comprehensive data analytics strategy.

As part of the Budget Act of 2016, the Legislature appropriated $25 million for the judicial branch for competitive grants known as the Court Innovations Grant Program. The funds were designated for trial and appellate courts to use for programs and practices that promote innovation, modernization, and efficiency. One of the awardees, the Superior Court of Orange County, received funding to expand the use of data analytics to facilitate court operations-related decision-making. This innovation grant and the Orange court's resulting experiences later formed the basis for the Data Analytics Workstream's technical research.

Additionally, recommendation 5.1 of the report of the Commission on the Future of California's Court System encouraged the expanded use of technology in order to improve efficiency and increase access to justice.[1] Subsequently, at its meeting on November 30, 2018,[2] the Judicial Council approved the *Strategic Plan for Technology 2019–2022,* which outlines the goal to promote the digital court[3] (figure 2). One of the main objectives of this goal is to "increase court-to-court data sharing for data-driven decision-making."[4]

Figure 2. Promote the Digital Court (*Strategic Plan for Technology 2019–2022*)

[1] Commission on the Future of California's Court System, *Report to the Chief Justice* (Apr. 2017), p. 213, https://www.courts.ca.gov/documents/futures-commission-final-report.pdf.

[2] Judicial Council of Cal., Technology Com. Rep., *Judicial Branch Administration: Strategic Plan for Technology 2019–2022* (Nov. 9, 2018), https://jcc.legistar.com/View.ashx?M=F&ID=6786818&GUID=8F2A8400-854F-4724-A32B-9C46FDEBF002.

[3] Judicial Council of Cal., *Strategic Plan for Technology 2019–2022* (May 2019), pp. 8–11, https://www.courts.ca.gov/documents/jctc-Court-Technology-Strategic-Plan.pdf.

[4] *Id.* at p. 9.

The *Tactical Plan for Technology 2019–2020* also outlined specific goals and objectives for this data-specific work:

- Create data collection, retention, sharing, reporting, and destruction standards that can be adopted by judicial branch entities.
- Create both local and branchwide data analytics governance models to facilitate the consistent and intentional use of data analytics, as well as public disclosure of analytics results, where appropriate.
- Consider potential local and statewide rule amendments or legislative proposals to clarify appropriate data analytics collection, governance, and publication.
- Investigate appropriate data analytics solutions for the branch and develop associated data analytics training and implementation resources.
- Consider a potential statewide request for proposal and master services agreement for data analytics products, software, and services, and make related proposals, if appropriate.
- Identify and prioritize areas of focus that might be appropriate subjects of a data analytics pilot program.[5]

The Budget Act of 2019 provided one-time funding to the judicial branch for business intelligence/data analytics projects in order to develop a common data warehouse platform. This funding model was designed to replicate the Superior Court of Orange County's court innovations grant at a statewide level; it provided support for five additional courts to participate in the first phase of a data analytics pilot program.

Formation and Mission of the Data Analytics Workstream

In 2018, the Data Analytics Workstream was formed with the mission to scope and recommend a data analytics strategy for the branch. The workstream had the following key objectives:

- Identify, evaluate, and prioritize possible policies, processes, and technologies to help the branch utilize data analytics to improve business effectiveness.
- Develop appropriate governance recommendations at the local court and branch level.
- Assess and report priorities for data collection.
- Identify and evaluate possible data analytical tools and templates.
- Identify whether new or amended rules of court and/or statutes are needed and advise the Rules and Policy Subcommittee of the Information Technology Advisory Committee for follow-up.

[5] Judicial Council of Cal., *Tactical Plan for Technology 2019–2020* (Dec. 2019), p. 22, https://www.courts.ca.gov/documents/jctc-Court-Technology-Tactical-Plan.pdf.

- At the completion of these objectives, seek approval of the Information Technology Advisory Committee, the Technology Committee and, if appropriate, the Judicial Council, and formally sunset the workstream.

Judge Tara Desautels of the Superior Court of Alameda County and Court Executive Officer David Yamasaki of the Superior Court of Orange County were selected as the co-executive sponsors; the group's membership was approved in August 2018.

Methodology

Initially, the workstream engaged in three foundational activities: it conducted a branchwide survey gauging interest in data analytics, performed an overview of available data analytics technologies, and engaged consultants to create a framework to develop data governance policies.

Branchwide survey

The survey's objective was to understand the prevalence of data analytics in the trial courts and courts of appeal, as well as the tools and resources needed to implement a more robust data analytics program. With significant statewide participation, the following survey findings guided the workstream's subsequent efforts:

- To the extent courts attempt to use data for decision-making, most continue to rely on Microsoft Excel spreadsheets, pre-programmed case management system reports, and manual analysis.
- The majority of respondents assessed their respective courts' current data analytics ability level as beginning to intermediate, at best.
- All respondents identified "advocacy for resources/funding," followed by "evaluation of resources/impacts of policy changes," as the highest priority areas to address with data analytics. Other identified priorities fell into operational categories such as calendar management, staffing allocation, and compliance reporting.
- Respondents reported that lack of expertise and bad data were the biggest barriers to implementing a consistent data analytics strategy.
- Correspondingly, survey respondents identified personnel training and systems/infrastructure seed funding as the top areas of need.

The responses were fairly consistent across court size and geographic location and confirmed that while the judicial branch, overall, was in the earliest stages of data analytics development, courts expressed high interest in and appreciation for better data and information management.

Technology track

Early on, the workstream divided its work into two tracks, technology and governance. The technology track objectives were to identify, evaluate, and prioritize possible technologies, tools,

and templates to help the branch utilize data analytics to improve business effectiveness in the areas of data preparation, data aggregation, and data visualization.

Workstream members brainstormed initial criteria for technology solutions, noting that they should be cost-effective, easy to learn/deploy/share/use/integrate, potentially cloud-based, and flexible. Members stressed that courts would need adequate training and support to render any selected tool or technology fully effective.

While technology track members engaged in a number of vendor visits to explore potential technology solutions, the Superior Court of Orange County's innovations grant for data analytics reached a major milestone in its program: it unified data from several different case management systems into a single, cloud-based warehouse that could be used for analytical purposes. This scalable model could meet branchwide data and analytic needs and satisfy the criteria suggested by the technology track members.

Five courts are participating in pilot projects based on the model used at the Superior Court of Orange County and funded with a fiscal year 2019–20 budget change proposal for business intelligence/data analytics. These pilots are designed to help courts use data more effectively to understand business practices. While initially using case management system data, the pilot projects are also exploring data uses in other areas, such as jury summonsing and self-help. Funding received in the Budget Act of 2020 for technology modernization will support additional data analytics pilots to increase the types of trial court case-level data that can be analyzed. This work will ideally improve data reporting and help fulfill branch goals and technology initiatives to improve data quality and make timely data reporting easier.

Governance track

The governance track of the workstream focused on establishing a vision, principles, roles and responsibilities, and the proposed governance policy concepts described in this document. Workstream members discussed various use cases for court information to ensure that any proposed policy concepts would be both practical and adhere to the law. Consultants from Gartner, Inc., a global research and advisory company, provided additional expertise concerning key data governance concepts and helped guide some workstream meetings.

Terminology

The following terms are used throughout this document:

Data	Facts and statistics assembled for reference or analysis.
Information	Data that has been validated, organized, and contextualized. It is the basis for analysis and decision-making. The governance policy concepts apply to both data and information.
Judicial branch entity (JBE)	The California Supreme Court, each Court of Appeal, each superior court, or the Judicial Council—collectively referred to in these policies as the judicial branch.
Data steward	A JBE role that determines data access and sets requirements for data quality, accuracy, and completeness. The data steward also validates data, establishes procedures and guidelines for data integrity, and addresses data-sharing requests. A JBE can identify one or more data stewards from within the JBE as needed based on local resources and requirements.
Data administrator	A JBE role responsible for maintaining and storing the data. It is a business role, associated with each data source, that ensures the confidentiality, integrity, and availability of data. It also implements related policies, standards, procedures, and guidelines. A JBE can identify one or more data administrators from within the JBE as needed based on local requirements.

Vision

The judicial branch will analyze, use, and share data to inform decision-making in order to enhance and expand vital and accessible services for all the people of California.

Data tells a story about our court community: about the people we serve, their needs, how they use court services, and how we can improve those services. It tells a story about how courts function, the problems we are working on today, and how we might be able to anticipate and address the problems of the future.

Data does not replace human judgment. It informs us, so that we can use facts and information to make better decisions.

Data will help the branch to focus our scarce resources on the areas of greatest need or greatest potential impact. But this data will also need to be protected and preserved to ensure the confidentiality of personal information maintained within the courts.

Principles

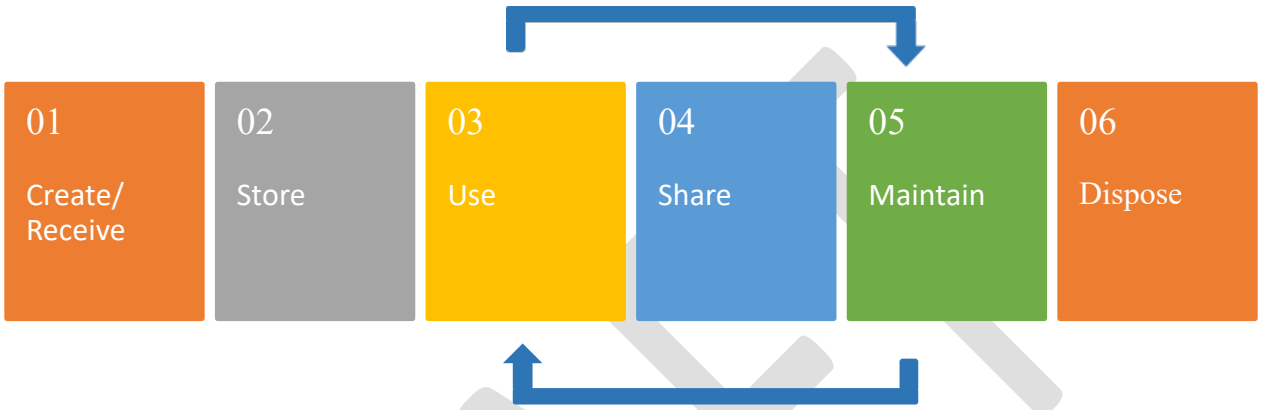
This work represents an evolution in the way the judicial branch uses and thinks about data. In support of that new mindset, the judicial branch will:

- Collect, use, and share data and information as appropriate to promote and support informed decision-making;
- Be clear about the use and purpose of data and information;
- Promote data transparency;
- When available, use the highest-quality, validated data and information.
- Assess data and information to ensure it is fit for the intended purpose or correctly represents the real-world construct that it describes.
- Follow published standards and governance principles when sharing data;
- Secure all data and information; and
- Manage data and information according to established retention requirements.

The Data and Information Life Cycle

Data and information are managed through a series of stages called the data and information life cycle (figure 3).

Figure 3. The Data and Information Life Cycle



01	**Create/Receive**	Data is first created or received.
02	**Store**	It is then stored locally or on the internet.
03	**Use**	The data is then used in calculations or analysis, or combined with other data.
04	**Share**	It may then be provided to others internal or external to an organization.
05	**Maintain**	Data may be updated when new information is received or corrections are needed.
06	**Dispose**	When data reaches the end of its usefulness or retention period, it may be destroyed. If data must be preserved permanently, it is archived.

Data and information may cycle through steps 03 through 05 several times while they are used, shared, and refined before they are disposed of or archived.

Proposed Data and Information Governance Policy Concepts

The judicial branch's proposed data and information governance policy concepts are organized around the framework of the data and information life cycle. Each individual policy concept addresses one or more of the stages of the life cycle.

Classification

Data and information will be collected, used, and shared to promote and support informed decision-making. Classifications will be used to identify the source, use, and purpose of judicial branch data and information, helping to quickly and uniformly identify appropriate access and security levels.

Judicial branch data and information classifications. Data and information should be classified as "public," "nonpublic," or "restricted" based on the nature of the data or information.

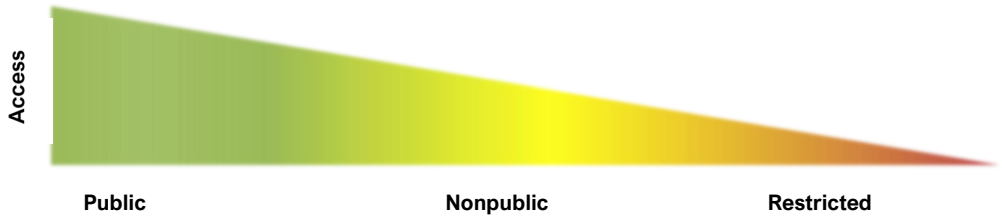
- ***Public.*** Most documents filed in court cases and most judicial administrative records, including data drawn from public case records, are subject to public access and are therefore classified as "public."[6]
- ***Nonpublic.*** Some case records are confidential by law or sealed by judicial order and, therefore, are classified as nonpublic (or not subject to public access).[7] Information drawn from such case records would also be nonpublic—for example, parties' personal identifying information. Similarly, some judicial administrative records may be exempt from public access and classified as nonpublic, although shareable between judicial branch entities for purposes of judicial branch administration.[8]
- ***Restricted.*** Some branch records require a higher level of restriction—for example, to protect privacy or security interests—dictating access limits within the judicial branch entity itself.

[6] See, e.g., Cal. Rules of Court, rule 10.500(a) & (e)(1); *Estate of Hearst* (1977) 67 Cal.App.3d 777, 782–783.

[7] See, e.g., Welf. & Inst. Code, § 827 (juvenile court records).

[8] See Cal. Rules of Court, rule 10.500(f) & (h)(2)(C).

Figure 4. Classifications of Judicial Branch Data and Information



Confidentiality. Categories of court case records that are confidential by law or may be subject to judicial sealing orders are identified in statute, the California Rules of Court, and the *Trial Court Records Manual*.

Individual privacy rights. In using and sharing data and information, JBEs will strive to protect the individual privacy rights of court users. When possible, only aggregate de-identified data and information (i.e., containing no information that would identify an individual litigant, witness, or other interested party) will be shared or disclosed to non-JBEs, unless greater detail is required by law. Private personal information about people who work at the court will also be protected.

> *Example:* The number of visitors to a JBE's self-help center or website and the general purpose of the visit would be classified as public information, while visitor names and other identifying data would be nonpublic and nondisclosable.

Access

Data access policies support and promote data transparency while also safeguarding nonpublic data and information.

Permissions-based access. Individuals are granted access to data and information at the level appropriate for the authorized function. Unauthorized access is prevented.

> *Example 1:* An attorney could view electronic copies of official records filed in cases in which they are the attorney of record but would not have unrestricted access to all electronic case records filed with a court.[9]
>
> *Example 2:* A court clerk may view public and nonpublic (or confidential) case records using the court's case management system but may not view the personnel records of other court employees.

[9] *Id.*, rules 2.518, 2.519.

Use

The use and purpose of judicial branch data should be clear, as well as the responsibilities inherent in using such data.

***Possessing* data (or a copy of data) confers responsibility and authority to make disclosure determinations upon a request from the public. *Viewing* data does not.** A judicial branch entity has authority and responsibility to make disclosure decisions about data and information in its possession upon request from a member of the public—both data it has collected and copies of data provided by others. A person or entity viewing data or information does not have the same responsibilities as one who receives a physical or electronic copy of data or information. The fact that JBEs share nonpublic data with each other does not convert the nonpublic data to public data.[10]

> *Example 1:* Several JBEs attend a webinar given by JBE 1. In that webinar, JBE 1 presents data for which JBE 1 is the data steward. If a request for a copy of that data is received by any JBE that attended the webinar, that JBE does not have the responsibility to disclose the data because they only viewed it and did not receive a copy. They must advise the requester that they have no responsive records.
>
> *Example 2:* JBE 1 sends JBE 2 a copy of a spreadsheet that is a judicial administrative record subject to public disclosure under rule 10.500 of the California Rules of Court. JBE 2 has the responsibility to grant public access to the spreadsheet upon request and may not merely refer the requester to JBE 1.
>
> *Example 3:* JBE 1 shares a copy of its security plan with JBE 2 to assist JBE 2 in updating its own plan. By sharing the plan with JBE 2 for purposes of judicial branch administration, JBE 1 does not lose the right to treat its plan as nonpublic.[11]

[10] *Id.*, rule 10.500(f)(6) & (h)(2)(C).

[11] *Ibid.*

Sharing

Better data sharing can help promote and support informed decision-making. Published standards and principles will facilitate sharing.

Data and information exempt from public disclosure. Preliminary, incomplete, unvalidated, untested data and information or draft analysis and reports that are collected or prepared solely to inform internal decision-making on a specific point and that would not ordinarily be retained may be exempt from public disclosure in some circumstances if the balance of the public interest clearly favors nondisclosure.

> *Example:* A court administrator informally collects preliminary data to quickly evaluate the impact of potential changes to the court's allocated state funding. The court administrator does not test the data or rely on it to make any decision. The data is exempt from public disclosure because it is preliminary and predecisional, and disclosure could lead to public misunderstanding regarding the court's actual budget and available resources.

Data for purposes of judicial branch administration. JBEs may share otherwise exempt or nonpublic data and information with each other to advance branch goals while still treating the data and information as exempt from public disclosure.[12]

> *Example:* The court administrator in the previous example may decide to share the preliminary analyses with another court administrator in the spirit of collaboration. By sharing the exempt data within the judicial branch, the court administrator does not lose the right to treat the data as exempt from public disclosure.

Data and information sharing. Standards and principles for data sharing differ based on the relationship between the sharing entities.

- **Sharing judicial branch data with non-judicial branch entities.** A data-sharing agreement may be appropriate.

  Example: A JBE may wish to share data with another agency or organization. If the JBE determines that the data is public data, then no data-sharing agreement is needed. If the JBE determines that there should be some restrictions on how the

[12] See Cal. Rules of Court, rule 10.500(h)(2)(C) (waiver), (f) (exemptions).

non-JBE uses the data (e.g., data can be republished if the source of the data is clearly labeled), then a data-sharing agreement may be appropriate.

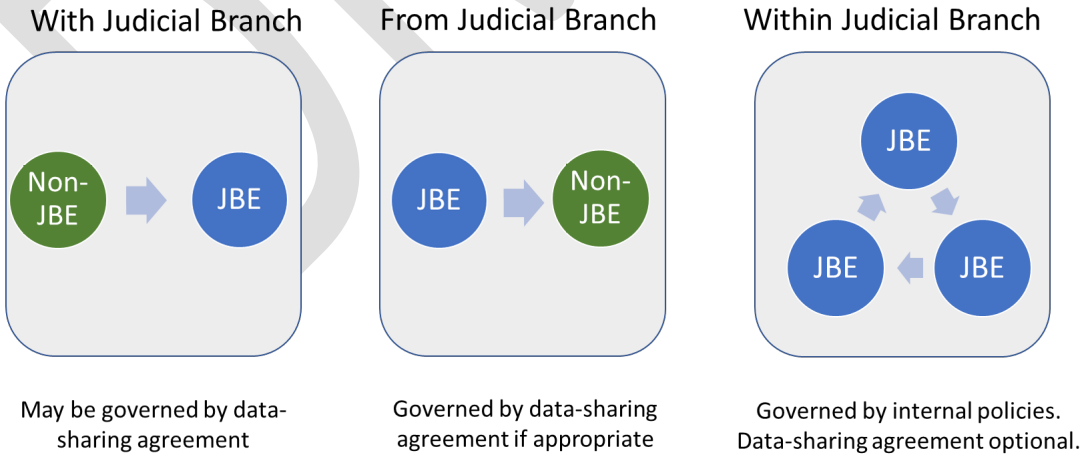
- **Sharing non-judicial branch data with JBEs.** Such sharing may be governed by a non-JBE data-sharing agreement. If one JBE receives data or information from an external source under an agreement limiting use of the data, that JBE may only share the data or information with another JBE under conditions stated in the agreement, and the use restrictions must be observed by the second JBE.

  Example: A JBE receives preliminary nonproprietary information from an external organization and signs a data-sharing agreement allowing it to share the information with other JBEs provided the original JBE notifies the vendor. All JBEs then must comply with the agreed-upon data-sharing limits and the notification requirement.

- **JBE sharing within the branch.** Data sharing among JBEs should adhere to published judicial branch policies and local policies. Typically, a data-sharing agreement is optional between JBEs. However, if certain handling of the data is required, a data-sharing agreement may be helpful.

  Example: Test data is used between multiple JBEs during a project with the understanding that the data should be deleted once the project is completed. Instructions should be provided to clarify the understanding between the participating JBEs to avoid uncertainty or misunderstandings—for example, if there are staffing changes within one of the JBEs.

Figure 5. Differing Data-Sharing Policies Based on the Sharing Relationship



Obligation to disclose data or information; consultation with data steward. Existing law states that each JBE has an independent obligation to publicly disclose nonexempt data or information in its possession upon request.

If a JBE receives a public request for data or information that it obtained from another JBE and has not previously published or publicly disclosed the data (e.g., in a report to the Legislature), the JBE that received the data or information request will:

- Notify the JBE that originally provided the data of the request;
- Consider the provider's position about disclosure; and
- Consider any corrections or updates to the data that the provider may wish to submit to accompany any disclosure of the original data.

Maintenance

High-quality, validated data and information is crucial for informed decision-making. Data is of high quality if it is fit for the intended purpose of use or if the data correctly represents the real-world construct that the data describes. Data should be secured and managed appropriately. Responsibility for maintenance of the data resides with the data administrator.

Data integrity

- **Data and information quality must be measured.** Data and information quality has many dimensions, including, for example, accuracy, reliability, and timeliness. Not all aspects of data quality will be equally relevant to all types of data. Assessing the different aspects of data quality applies to all phases of the data life cycle and gives greater confidence in the information being used for decision-making.

- **Standards and measurement of data quality.** Establishing data quality standards, putting mechanisms in place to measure the data against those standards, and continually monitoring performance measures and determining course corrections as needed are all part of improving data quality.

- **Best practices.** Sharing best practices and techniques will facilitate data improvement.

Data availability

- **Data protection.** Data and information assets (whether in electronic or physical form) should be protected by appropriate electronic safeguards.

- **Appropriate protection**. The level of security and safeguarding of data and information should be commensurate with the level of sensitivity of the content.

- **Backups and disaster recovery.** Appropriate backups and disaster recovery measures should be administered and deployed for all data and information.

Disposal/Retention

Data should be archived or disposed of according to established retention schedules.

Future Policy Development

The workstream recognizes the need for future policy development in the following areas:

- Data and information management policies
- Data and information preservation
- *Trial Court Records Manual, Privacy Resource Guide,* and California Rules of Court updates

Conclusion

The judicial branch data and information governance policy concepts are the foundation for the judicial branch data governance model. The policies will evolve over time and incorporate new concepts and changes as needed to accommodate and reflect any changes in the law or in branch priorities and requirements.

Appendix: Workstream Membership

Hon. Tara M. Desautels, Co-executive Sponsor
Presiding Judge of the Superior Court of California, County of Alameda

Hon. David De Alba
Presiding Judge of the Superior Court of California, County of Sacramento

Ms. Amy Downey
Assistant Court Executive Officer of the Superior Court of California, County of Madera

Mr. Paras Gupta
Chief Information Officer of the Superior Court of California, County of Monterey

Mr. Darrel Parker
Court Executive Officer of the Superior Court of California, County of Santa Barbara

Mr. Chris Stewart
Chief Technology Officer of the Superior Court of California, County of Sacramento

Ms. Andrea Wallin-Rohmann
Clerk/Executive Officer of the Court of Appeal, Third Appellate District

Mr. David Yamasaki, Co-executive Sponsor
Court Executive Officer of the Superior Court of California, County of Orange

Mr. Darren Dang
Chief Financial and Administrative Officer of the Superior Court of California, County of Orange

Ms. Deana Farole
Principal Analyst of the Superior Court of California, County of Alameda

Hon. Joyce D. Hinrichs
Presiding Judge of the Superior Court of California, County of Humboldt

Mr. Brian Taylor
Court Executive Officer of the Superior Court of California, County of Solano

Mr. Peter Vigna
CJIC/Calendar Support Supervisor of the Superior Court of California, County of Santa Clara

Workstream Staff

Ms. Debora Morrison
Attorney, Legal Services, Judicial Council of California

Ms. Leah Rose-Goodwin
Manager, Business Management Services, Judicial Council of California

Mr. John Yee
Information Technology Architect, Information Technology, Judicial Council of California

Task Team Members

Hon. Louis R. Mauro
Associate Justice of the Court of Appeal, Third Appellate District

Mr. Jake Chatters
Court Executive Officer of the Superior Court of California, County of Placer

Mr. Robert Oliver
Assistant Court Executive Officer, Superior Court of California, County of Solano

Mr. Robert Oyung
Chief Operating Officer, Operations & Programs Division, Judicial Council of California

Ms. Sarah Fleischer-Ihn
Attorney, Criminal Justice Services, Judicial Council of California

Ms. Suzanne Schleder
Information Systems Supervisor, Information Technology, Judicial Council of California

Ms. Rose Butler
Administrative Coordinator, Business Management Services, Judicial Council of California

Hon. Kyle S. Brodie
Judge of the Superior Court of California, County of San Bernardino

Mr. Alan Crouse
Deputy Court Executive Officer of the Superior Court of California, County of San Bernardino

Mr. Snorri Ogata
Chief Information Officer of the Superior Court of California, County of Los Angeles

Ms. Heather Pettit
Chief Information Officer, Information Technology, Judicial Council of California

Ms. Jamel Jones
Information Systems Supervisor, Information Technology, Judicial Council of California

Ms. Khulan Erdenebaatar
Senior Research Analyst, Business Management Services, Judicial Council of California

SP20-09
Judicial Branch Data and Information Governance Policy Concepts

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

	Commenter	Position	Comment	Committee Response
1.	*Margie Lara*	N/A	*Comments not specifically related to proposal.*	No response required.

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

JUDICIAL COUNCIL OF CALIFORNIA

455 Golden Gate Avenue • San Francisco, California 94102-3688
Telephone 415-865-4200 • Fax 415-865-4205 • TDD 415-865-4272

MEMORANDUM

Date
March 9, 2021

To
Members of the Information Technology Advisory Committee (ITAC)

From
Paras Gupta, Executive Sponsor,
Disaster Recovery Phase II Workstream

Subject
Request for ITAC approval of Disaster Recovery Workstream Phase II deliverables and closure of workstream

Action Requested
Please review and approve

Deadline
March 24, 2021

Contact
Paras Gupta, CIO, Superior Court of Monterey County
Paras.gupta@monterey.courts.ca.gov

Brian Damschen, SA II, Superior Court of Monterey County
Brian.damschen@monterey.courts.ca.gov

Summary

The Information Technology Advisory Committee (ITAC) Disaster Recovery (DR) Phase II Workstream is seeking approval and recommendation of its proposed Disaster Recovery Roadmap and associated documents at ITAC's March 24th business meeting.

Recommendations

The Disaster Recovery Workstream recommends that ITAC:

1. Approve and publish the Disaster Recovery to Cloud (DR2C) Roadmap and related materials to serve as reference for interested Judicial Branch Entities (JBE) to implement or upgrade their Disaster Recovery solutions.
2. Review and update previous ITAC publications on Disaster Recovery with applicable references to keep up with current trends and DR Phase II Workstream findings.

3. Explore funding options, either through Budget Change Proposals, Modernization Fund allocations, and other avenues to establish a shared DR Team for use by JBEs for consulting services related to backup and disaster recovery solution design and selection.

Background

A robust disaster recovery program is a critical component of an organization's continuity of operations or business continuity plan. In case of a significant disruption due to a disaster such as a flood, fire, earthquake, or other natural or human-made incidents, judicial branch entities require preparedness for recovery of their technology systems to provide timely restoration of essential functions and services to court-staff, justice partners, and the public.

Disaster Recovery is a crucial initiative outlined in the Judicial Branch Tactical Plan for Technology that aligns with Goal 3: Advance IT Security & Infrastructure in the 2019-2022 Judicial Branch Strategic Plan. It is widely recognized that reliable systems, applications, and supporting infrastructure are foundational to providing digital services and public access to justice.

In 2016, ITAC initiated the Disaster Recovery Workstream (Phase I) to document and develop model disaster recovery guidelines and a framework to serve as an adaptable model available to judicial branch entities (JBE) planning to implement disaster recovery services. The resulting documents were adopted by the Judicial Council and published in 2018 and serve as the foundational work for this continued effort.

As part of the Budget Act of 2016, the Legislature appropriated $25 million for a competitive grant program known as the Court Innovations Grant Program. The funds were awarded to courts for programs and services to promote efficiency through innovations and modernization. The Superior Court of Monterey County received funding for cloud-based disaster recovery to pilot and demonstrate the viability of emerging cloud-based disaster recovery solutions for timely recovery of critical court services and serves as a model for interested California JBEs to adopt.

ITAC formed the Disaster Recovery (DR) Phase II workstream in 2018 to leverage the innovation grant awarded to the Superior Court of of Monterey County to pilot the DR framework developed in the earlier phase and modernize the approach to implementing disaster recovery using cloud-based technologies. The DR Phase II workstream's key objectives were to establish master agreements with cloud vendors, develop a roadmap with design templates from pilot courts, and host knowledge sessions for the branch IT community.

Over the past three-plus years, the DR Phase II workstream has received tremendous support and participation from the judicial branch IT community. There were 26 courts and JCIT representatives who volunteered to collaborate on the solicitation, evaluation, and vendor selection for cloud DR solutions to establish master agreements for use throughout the branch. Several courts have since procured solutions and services using the vendors chosen through

this competitive procurement. An initial knowledge session was held at the conclusion of the assessment and design phase to share findings and recommendations. The session had excellent participation and was well received. The workstream will be providing panel-style presentations to the IT community in March and April of this year, where participating member courts - small, medium, and large, will share their solutions and lessons learned in modernizing their disaster recovery programs, including cloud-based solutions.

The resulting document - The Disaster Recovery to Cloud (DR2C) Roadmap, developed by the Phase II workstream - is intended to serve as a reference for interested courts in establishing a new disaster recovery program or in refreshing their existing program using emerging technologies, including cloud-based solutions. The DR2C Roadmap validates, builds, and expands on some of the concepts and technologies documented in the Disaster Recovery Framework.

The DR2C Roadmap does not make specific technology product, platform, or cloud service provider recommendations, or prescribe any particular project approach for implementing a disaster recovery solution. Rather, it highlights the experiences of participating courts in the areas of project methodology, selection, design, and implementation of cloud-based disaster recovery solutions, to provide a model for other interested JBEs to reference. The Disaster Recovery Phase II Workstream recognizes that it is not feasible for a single solution or approach to meet the disaster recovery needs across all California Courts as several considerations impact the selection and implementation of recovery solutions, including unique business and operational goals, current investments, available funding, geographic location, etc.

There is a strong interest from courts to explore new opportunities and pilot emerging disaster recovery technologies, including cloud and cloud-ready service offerings. In particular, the ability to design, test and deploy scalable disaster recovery solutions in a cost-effective and efficient manner is of great interest. This interest validates the workstream’s efforts as relevant and timely, while also highlighting the need for continued investments in disaster recovery initiatives and awareness.

Attachments and Links

1. Disaster Recovery Phase II workstream membership
2. Disaster Recover Roadmap: Recommendations, Design Templates, and Solution Deployment Examples
3. DR2C Knowledge Session Final Presentation

Attachment 1: Workstream Membership

Paras Gupta, Executive Sponsor
CIO, Superior Court of Monterey County

Mr. Brian Damschen, Project Manager
Systems Administrator, Superior Court of Monterey County

Mr. Sal Bonaccorso
Deputy CIO
Superior Court of Los Angeles County

Mr. Joshua Chau
Court System Administrator
Court of Appeal, Second Appellate District

Mr. Rick DeNoyer
IT Manager
Superior Court of Monterey County

Mr. Greg Harding
CIO
Superior Court of Placer County

Mr. Zing Nguyen
IT Infrastructure Manager
Superior Court of Santa Clara County

Mr. Robert Parrott
IT Manager
Superior Court of Mendocino County

Mr. Ev Plascencia
Deputy CIO
Superior Court of Santa Clara County

Mr. Pawan Sarna
IT Infrastructure Manager
Superior Court of Orange County

Ms. Cyndi Simpson
Principal Network Specialist
Superior Court of Marin County

Ms. Jessica Thomson
IT Director
Superior Court of Santa Barbara County

Contributors and Subject Matter Experts:

Ms. Nancy Blau
Systems Analyst
Superior Court of Santa Barbara County

Mr. Sabino Flores
Systems Administrator
Superior Court of Monterey County

Mr. Jeremy Forman
Network Administrator
Superior Court of Santa Barbara County

Mr. Steve Gaul
Information Specialist
Superior Court of Santa Clara County

Mr. Kile Gentry
Systems Administrator
Superior Court of Monterey County

Mr. Paul Grabow
Sr. Business Systems Analyst
Judicial Council of California

Mr. Sean Joo
Network Administrator
Superior Court of Orange County

Ms. Hana Miller
Supervisor, Data Applications
Superior Court of Santa Barbara County

Mr. Matt Nicholls
Information Systems Supervisor
Judicial Council of California

Disaster Recovery to Cloud Roadmap

A COMPREHENSIVE ROADMAP FOR CALIFORNIA JUDICIAL BRANCH ENTITIES

JUDICIAL COUNCIL OF CALIFORNIA

INFORMATION TECHNOLOGY ADVISORY COMMITTEE

Contents

1. Overview

1.1. Introduction

This *Disaster Recovery to Cloud (DR2C) Roadmap* is intended to serve as a reference guide for courts that are either establishing a new disaster recovery (DR) program or refreshing an existing program using emerging technologies, including a cloud-based solution. There are several considerations that impact the selection and implementation of disaster recovery solutions, such as business and operational requirements, funding, existing technology solutions, and geographic locations. Given these factors, it is neither feasible, nor necessary, for a single solution to meet the disaster recovery needs for all California courts. Therefore, this roadmap does not focus on any specific technology product or platform, but rather provides a reference for the benefits, selection, design, tools, and project methodology to support the implementation of cloud-based disaster recovery solutions.

This reference guide is intended to help courts of all sizes evaluate how modern cloud-based disaster recovery solutions align with their continuity of operations goals while also considering their current skills, resources, and investments in existing vendor eco-systems.

1.2. Background

The California Judicial Branch *Disaster Recovery Framework: A Recommendations & Framework Guide for the Judicial Branch* (available in the Information Technology Advisory Committee Library) was published by the Judicial Council in 2017 to assist courts in planning and implementing their disaster recovery strategies. To leverage this foundational work and continue to enhance the courts' disaster recovery efforts, the Information Technology Advisory Committee (ITAC) launched the Disaster Recovery Phase II Workstream. This new workstream combined efforts with a Court Innovations Program grant awarded to the Superior Court of Monterey County to pilot and demonstrate the viability of emerging cloud-based solutions for timely recovery of critical court services, and to serve as a model for interested California courts to adopt. This DR2C Roadmap is the result of those efforts.

1.3. Audience

The primary audience for this document is the court staff responsible for the planning, execution, support, and implementation of disaster recovery technology solutions. Due to the technical nature of concepts and topics related to disaster recovery systems, it is beneficial for readers to have a technical understanding of court applications and systems, networking, security, and computing infrastructure. For additional foundational disaster recovery information, please reference the *Disaster Recovery Framework*.

1.4. Components

The goal of this roadmap is to provide interested courts with information to support their pursuit of a modern disaster recovery solution, including:

- Benefits of modern recovery solutions
- Identification of key requirements to assist in evaluation and selection of cloud-based recovery solutions
- Templates and tools to deploy functional hybrid architectures that extend local priority system infrastructure to the cloud
- The viability of emerging cloud disaster recovery solutions
- Recommended project phases, tasks, and considerations for a disaster recovery project

1.5. Project Approach

When starting an initiative to implement an updated disaster recovery solution with the goal to leverage cloud services, there are four recommended project phases (see figure 1) that support a sound project methodology.

1. Discovery & Assessment
2. Selection
3. Design
4. Implementation & Pilot

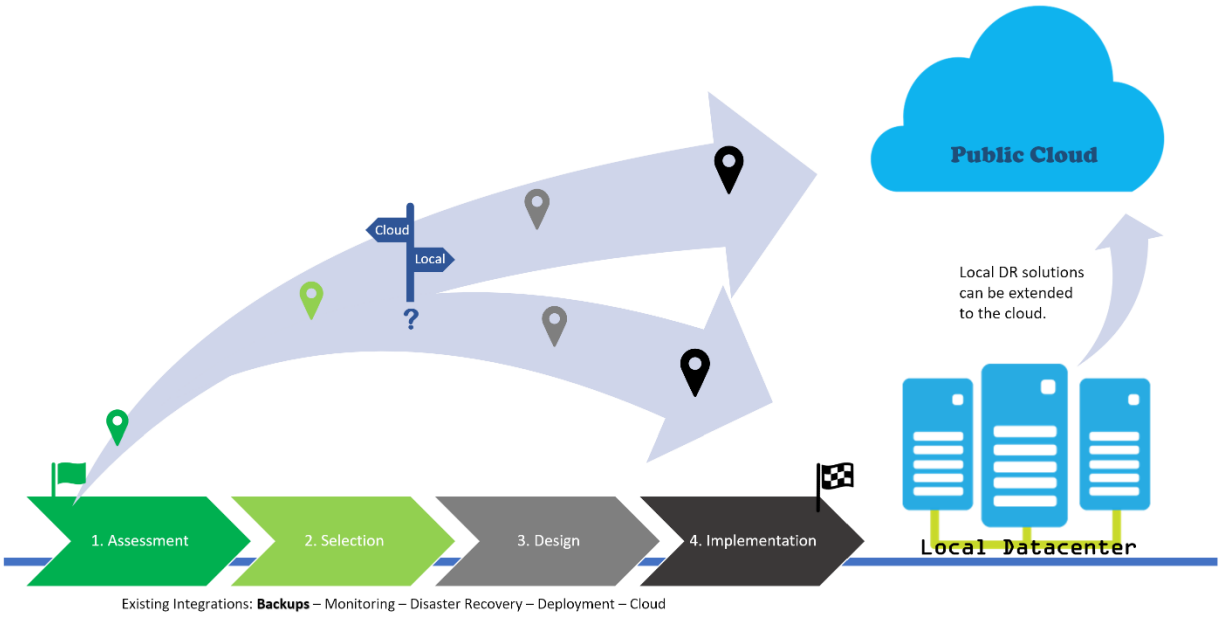


Figure 1: Disaster Recovery Project Phases

These phases of a disaster recovery project will have logical milestones along the path at which point realizing the tangible benefits of completing one or more of those milestones is possible without completing the journey in its entirety. For example, the Discovery & Assessment phase will yield detailed information about a court's local environment, which can be useful in planning for any future DR-related activities, not just in the cloud. The Selection phase should identify a desired disaster recovery solution that leverages the investments in currently used technologies to preserve local recovery capabilities while also implementing cloud replication tools.

This guide illustrates how to implement a cloud-based DR solution and the critical factors for success. It is important to note that these solutions are highly complex and require technical expertise and additional considerations to seamlessly integrate and manage hybrid local and cloud environments.

The milestones within each project phase will provide valuable information and experiences to advance a current disaster implementation, while posturing towards a future cloud migration. Detailed information on each of these phases can be found in section 4, Project Methodology of this document.

2. Modern Disaster Recovery Solutions

2.1. Benefits

With the current approach of having physical, on-premises disaster recovery solutions, organizations assume the responsibility of service disruption and recovery. In the event of a natural disaster, this dependency on physical solutions would likely result in extended down times as organizations recover from an outage. Modern recovery solutions can provide reliable, cost-effective, and powerful cloud-based computing resources to lessen the constraints of those physical dependencies and potentially shorten recovery time. The potential benefits of extending DR solutions to include the public cloud are many:

1. Reduced footprint–Public cloud offers an opportunity to reduce local resources, such as the supporting server hardware, the datacenter in which it resides, or simply the number of resources dedicated to virtualization and replicated data. Additionally, some capital investments may be reduced when moving to a cloud DR solution, which could translate to reduced maintenance costs long term.

2. Instant provisioning–Cloud infrastructure can be acquired on demand. Local DR has a hardware component that requires right-sizing, licensing, maintenance and asset replacement. Provisioning infrastructure on the cloud can be accomplished in a very short time. Cloud DR can also serve as a starting point to build out a secondary home for services as needed for those confined to a single physical data center.

3. Efficiency–Cloud infrastructure that supports the disaster recovery solution as well as the court applications that are replicated to the cloud consume only the resources needed.

4. Multi-regional protection–Cloud datacenters can be found throughout the globe and offers the ability to retain service availability in a regional or even coastal disaster scenario.

5. Service Level Agreements–Cloud disruptions are rare and can guarantee a higher level of service availability.

2.2. Identifying Key Requirements

Prior to evaluating or selecting a cloud-based disaster recovery solution, the following steps should be taken to validate a court's recovery objectives and existing systems, identify new opportunities, and cost considerations, and support capabilities for a new solution.

1. Define or confirm disaster recovery goals for *operational* continuity. These goals should be in alignment with the organizational Continuity of Operations Plan (COOP) and endorsed by leadership and operational stakeholders. This is an essential first step on which all other decisions in the process will be based. Courts looking for a good starting point to create these objectives should reference the *Disaster Recovery Framework* at: https://www.courts.ca.gov/documents/itac-dr-framework.pdf

2. Identify current backup and disaster recovery capabilities. Take time to list critical services, validate what backup and disaster recovery solutions are currently in place, and identify the currently accepted Recovery Point Objective (RPO) and Recovery Time Objective(RTO) for the organization.

3. Evaluate opportunities to simplify and migrate services and data to native cloud solutions. Determine if Software as a Service (SaaS) platforms exist that can assist with moving local services to the cloud. A common example would be the Microsoft Office 365 suite for email, document storage and personal file storage. Evaluate whether other business applications have a SaaS offering

that might make sense for the organization to pursue. The current or future plans for cloud migration are an important factor in scaling a DR solution.

4. Assess and document existing IT infrastructure and systems. Many cloud providers have discovery tools available to assist with providing a clear picture of existing local infrastructure design and dependencies that will inform the necessary cloud infrastructure design to fit a cloud DR solution.

5. Pursue solutions that leverage the current technology eco-system. It is crucial to verify that a new solution is compatible with the local infrastructure and backup/disaster recovery software already in place, as well as the local skills and capabilities for support. The solution should support both local and cloud-based replication to provide a roadmap for future expansion if a full cloud strategy cannot be pursued initially.

6. Analyze acquisition and on-going cost and budget considerations. Connectivity, infrastructure (networking, security), hardware (systems and storage), and software licensing should be included when evaluating a cloud solution.

7. Implement using a phased approach. It is easy to get excited about the possibilities that cloud solutions have to offer, however some real limitations exist. The recommendation is to take a "build-pilot-test" approach to prove the desired cloud-based recovery solution. Building the foundational components that support a hybrid infrastructure for on-premises and cloud, will allow courts to adapt to solutions that are relevant now with an opportunity to expand in the future.

3. Cloud Disaster Recovery Components

3.1. Categories

The components to consider for a cloud disaster recovery solution can be broken down into six major categories:

1. Local facilities
2. Connectivity
3. Virtual infrastructure
4. Storage
5. Replication
6. Templates and automation

This section will cover the considerations for each of these categories in more detail.

3.1.1. Local Facilities

One of the more overlooked areas of cloud disaster recovery planning is the local facilities. Even though the end goal resides in the cloud, many things need to happen to prepare the local site for cloud disaster recovery, including assessment of the current environment, existing technologies, and skills and knowledge of on-site staff. Ensuring that all these bases are covered will provide a solid foundation for the journey into successful cloud DR implementation.

3.1.2. Connectivity

The primary connectivity questions to explore are how the onsite data will make its way to and from a cloud provider and how fast the connection needs to be. Many factors can influence these answers, including:

- The desired RTO and RPO times
- The amount of data that needs to be transferred
- Whether funding is an issue
- The security requirements for the connection

Connectivity Options

Multiple ways exist to link a local side to a cloud provider to perform cloud disaster recovery (see figure 2). Although there likely are others, there are three main types of connections to consider:

1. VPN over public internet
2. Dedicated cloud provider link
3. Third-party data center link

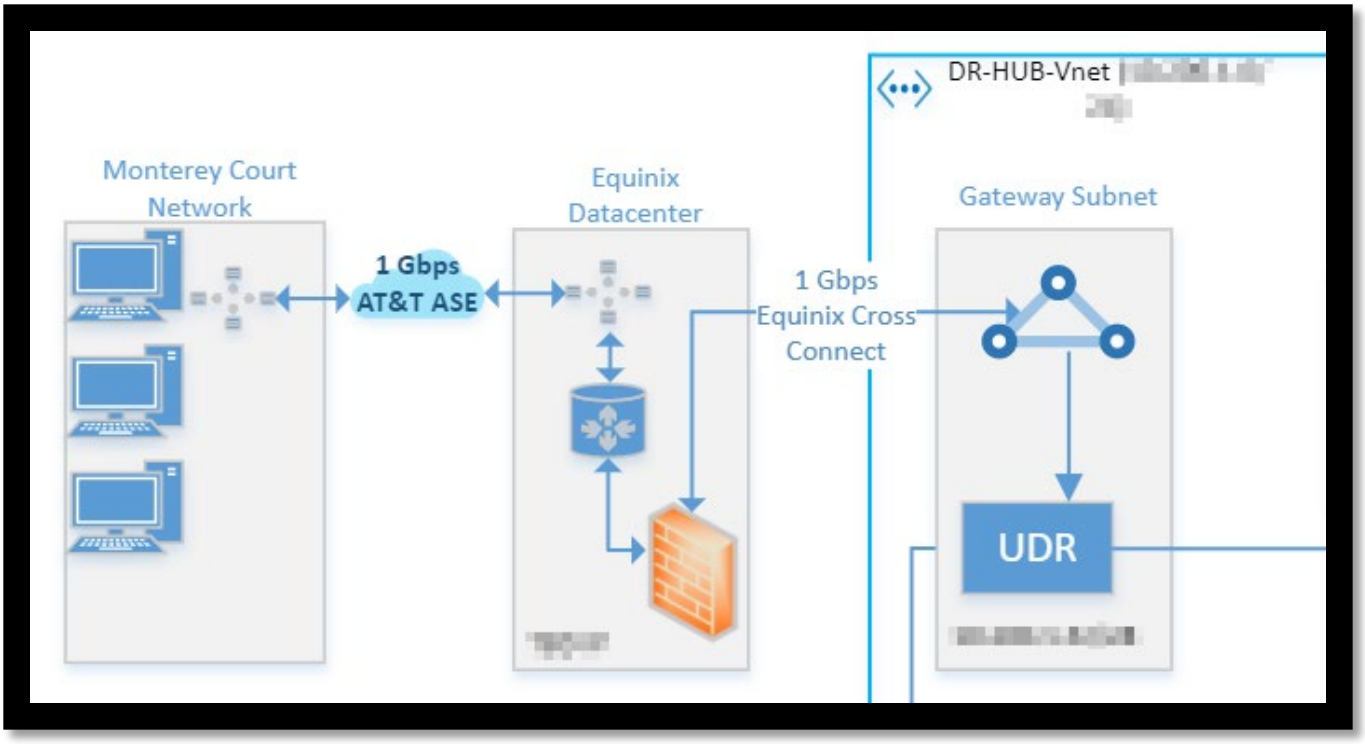


Figure 2: Sample Cloud Connectivity

1. VPN over public internet

Pros: VPN over public internet is the least complex, and in most cases, the cheapest solution to connect local infrastructure to a cloud provider. A local VPN concentrator, an internet connection, and knowledge to configure the cloud provider side are the core requirements.

Cons: Because VPNs are creating a private tunnel across the public internet, the quality of the connection is not assured and can be affected by the amount of internet bandwidth used by the local site for other activities, as well as any performance issues that may be encountered while traversing the public internet.

Note: Most cloud providers charge a monthly connection fee for VPN connectivity based on the speed.

2. Dedicated cloud provider link

Most major cloud providers such as Microsoft, Amazon, and Google now offer a dedicated private link to their cloud hosting by partnering with major network providers such as AT&T, Comcast, or Verizon. The network providers then set up a dedicated private link at an agreed upon speed to those cloud hosts for a set monthly fee. When using a dedicated cloud provider link, having an on-site resource with network expertise to configure and maintain these connections is extremely helpful.

Pros: The greatest benefit of this arrangement is a private link with guaranteed bandwidth to those cloud providers.

Cons: This solution is often very costly compared to other connectivity options. It requires technical configuration changes to local and cloud network configurations to run, adding a level of complexity.

Note: The cloud provider will also traditionally charge a monthly fee to maintain connection on its end.

3. Third-party data center link

A third option depends on geographic locations, the ability to leverage a third-party vendor's data center, infrastructure and existing connectivity for the selected cloud provider. An example of this setup includes co-location and cross-connects through Equinix to connect to Azure ExpressRoute. Once a dedicated link to the third-party datacenter is set up with network hardware hosted locally, it is possible to request a cross-connect from that hosted hardware to the cloud provider's network.

Pros: This solution can offer a substantial reduction in costs compared to the dedicated cloud provider link, without compromising any benefits.

Cons: This option is usually costlier than a standard VPN cloud connection, has more complexity than either a dedicated cloud provider link or a VPN, and requires additional hardware to be installed at the vendor's co-location facilities.

3.1.3. Virtual Infrastructure

The virtual infrastructure is the skeleton configured in a cloud provider on which all the servers of a disaster recovery solution will run (see figure 3). It also connects DR cloud storage to a cloud connection for replication, failover and failback. One of the most efficient ways to connect the cloud and the local environment is to extend the local network topology to the cloud. Because doing so connects all cloud services to each other, as well as back to local infrastructure, it is necessary to keep network security in mind when designing cloud infrastructure.

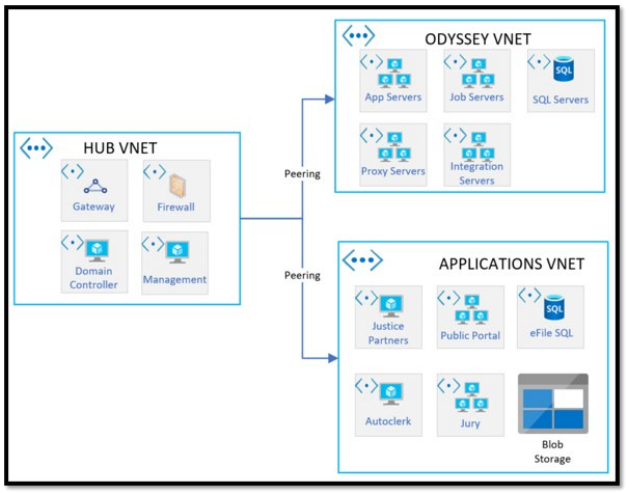


Figure 3: Sample Virtual Infrastructure

Virtual Infrastructure Considerations

When designing a cloud infrastructure, the design details rely heavily on the chosen cloud hosting provider. In this section, the virtual infrastructure relates to Microsoft Azure. However, most of the larger concepts will apply to any cloud provider. Decisions such as choosing a traditional versus hub-spoke layout or going with a hybrid cloud configuration versus keeping the cloud separate from the local site are important decisions that will also shape the design of a cloud DR solution.

1. Hub-Spoke Technology

In a hub-spoke design, the hub VNet is configured to act as the shared service connectivity housing the common infrastructure services that will manage all other environments in terms of security, access, logging, and monitoring. The hub is the intermediary point between the cloud resources and the on-premises datacenter(s).

For disaster recovery considerations, the solution will need to be self-standing. It may include but is not limited to the following services:

- Active directory services
- DHCP or IPM
- Internal and external DNS
- Internet access
- VPN access
- Perimeter security for services exposed to the public internet

These services are good candidates for the hub portion of a cloud deployment. Other VNets containing Priority 1 (P1) services act as the spoke and are connected via VNet peering.

2. Hybrid Cloud

A hybrid cloud configuration combines one or more private clouds (local sites in this case) with a public cloud provider. The benefit is a more seamless transition when moving services to and from the cloud. It requires less automation during failover/failback to configure active directory or DHCP, DNS, etc. One thing to keep in mind when considering a hybrid cloud approach is that hybrid cloud connectivity relies heavily on network design and benefits from in-house expertise.

3.1.4. Storage

Cloud storage is where all replicated data for a cloud disaster recovery solution lives. As such, it must be sized appropriately to allow data from all replicated services to be stored. Depending on the storage and replication solutions, and cloud infrastructure design, it can be one or many storage resources operating in the cloud. Storage pricing will vary depending on the availability level (cold, warm, hot; described below) and the amount of throughput up and down to the storage resource (see figure 4).

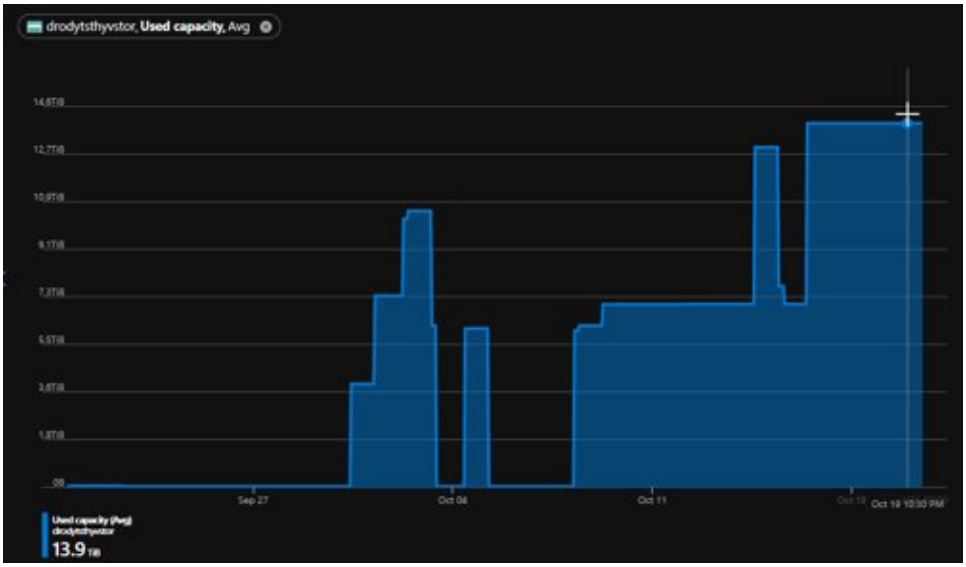


Figure 4: Sample Storage Usage

Storage Considerations

Each cloud provider has several options for replication and virtual machine data storage. Although the choices can at first appear overwhelming, factors such as the selected replication solution's preferred method, functions performed by the protected resources and the branch's financial considerations will narrow those options down considerably.

1. Hot, Warm, and Cold Storage

A given internet search produces a variety of definitions for hot, warm and cold storage. For cloud DR implementation, the most commonly used definitions are as follows:

- Hot storage is optimized for storing data that is accessed frequently. The hot access tier of storage is typically the cheapest from which to frequently access data; however, the price of hot storage itself is higher than for the warm or cold options. A live virtual machine is a good example of something that requires hot storage.

- Warm storage (sometimes referred to as "cool storage") is right at the happy medium of access costs versus price of storage. Warm storage is usually optimized for data that is accessed infrequently—maybe once a month.

- Cold storage traditionally has the lowest storage costs; however, it has the largest financial penalty to access and can take several hours to retrieve. This storage is best for archival purposes.

2. Redundancy

Many cloud providers offer different options and types of cloud redundancy. Most large cloud providers such as Google, Azure, or Amazon Web Services (AWS) operate multiple data centers worldwide. Cloud providers make locally redundant, zone-redundant, and geo-redundant storage possible:

- Locally redundant storage replicates the data within the same physical data center used to host the original data source. It is traditionally the cheapest option; however, should that physical location have an outage, data could be lost or inaccessible.

- Zone-redundant storage replicates data to multiple locations within a primary region. A region is a set of data centers that all exist within latency-defined areas and are interconnected via a dedicated high-speed connection. An example of a region would be the Western United States or the Central United States. This storage is more expensive than locally redundant storage. However, it is also more resilient than a single data center. An outage is still possible in a region but less likely than in one location.

- Geo-redundant storage replicates data to a secondary region that is typically hundreds of miles away from the primary area. It is the most durable option for cloud storage. However, it can also be the costliest.

3. Input/Output Operations per Second (IOPS)

IOPS is the benchmark of local and cloud storage options. Many cloud providers now rank their storage tiers using things like max throughput and IOPS. More expensive tiers usually have a higher max IOPS number, which will facilitate more high-performance

resources such as databases that require many transactions per second. By contrast, tiers with lower IOPS numbers are sufficient to store backups or infrequently accessed services. Backups and replication work fine between 2,000 and 6,000 IOPS, whereas something more intensive might need upwards of 20,000.

3.1.5. Replication Solution

The replication solution is the brains of the disaster recovery operation. It traditionally manages which virtual or physical machines are replicated to the cloud, the intervals for replication (affecting RPO), and handles any failover or failback processes. Considerations for this aspect of the cloud DR solution are pricing, recovery time objectives, compatibility with existing technology, and the ability to fail up and back in the acceptable timeframe.

Replication Solution Considerations

Several extremely powerful replication solutions are available on the market today. Many have similar features; however, they use different methods. In general, DR solutions can be grouped into five categories:

1. Traditional
2. Data management stack-based
3. VM-based
4. Hypervisor stack
5. SAN-based

1. Traditional

A traditional DR solution such as Microsoft Data Protection Manager, Veritas, or Commvault uses a client installed on each server to archive data in incremental backups to storage hosted either in the cloud or locally. In the event of a disaster, one of those backups can be used to rebuild new servers. These solutions are proven, do not require an environment to be virtualized, and typically do not require as much storage capacity as do other systems. They do, however, traditionally have high RTOs and RPOs, no application awareness, and little cross-platform support and are often unable to perform any source-side deduplication or continuous data protection (CDP).

2. Data management stack-based

Data management stack-based DR solutions such as Rubrik and Cohesity are relatively new to cloud disaster recovery. As the name implies, this type of solution replicates data at the data management stack level. As a result, this type of solution runs equally well with virtualized and non-virtualized machines. It can store data in an immutable format where massive changes can be verified, and malware caught before sweeping changes to DR data are made. This type of solution benefits from competitive RPO/RTO times and CDP, but it is slightly more cumbersome to host in the cloud because of the special software required to handle DR data at the data management stack.

3. Virtual machine-based

One of the more common new-generation DR solutions is VM-based. These solutions leverage available virtual machine infrastructure such as VMware, Nutanix, and Microsoft's Hyper-V by replicating and failing up/back the virtual machine using clients installed on the local site's virtual machine physical hosts. Because virtual machines are easier to failover and failback, they traditionally have competitive RTO and RPO times. Because virtual machines are easier to replicate, they also support continuous data

protection. The portability of VMs also makes setup of DR orchestration and automation extremely easy. A significant drawback of this solution, however, is that all critical systems must be virtualized before they can be protected.

4. Hypervisor stack-based

The hypervisor stack-based solution is not a complete solution on its own but usually relies on components of a VM-based solution to run. As a result, this solution is not hypervisor-agnostic and depends heavily on the local system's VM infrastructure solution. Currently, the only real hypervisor stack-based solution is VMware Cloud.

5. SAN-based

As the name implies, a SAN-based cloud DR solution requires the local site to have a storage area network. Because it leverages the SAN, this solution is the only one with hardware-based source-side deduplication, which can significantly speed up the process. This is also not a complete solution, because no SAN-based cloud DR solutions with built-in orchestration and automation components currently exist. SAN-based DR is best used in tandem with other solutions to set up a cloud DR solution for data that resides on an existing local SAN.

The tables below (figure 5) compare popular commercially available replication solutions, examining design, features, and pros and cons of each.

		VM Required	One Click Orchestration	Hypervisor	Cloud Providers	Monitoring and Analytics?	SAN Dependant?
VM	Zert0	Y	Y	Hyper-V, VMWare	Azure, AWS, IBM	Y	N
	Veeam	N	?	Hyper-V, VMWare, Nutanix	Azure, AWS, IBM	Y	N
	Actifio	Y	N	Hyper-V, VMWare	Azure, AWS, IBM, Google	Y	N
	Azure Site Recovery	N	N	Hyper-V, VMWare	Azure	N	N
Data management Stack	Cohesity	N	Y	Vmware, Hyper-V, Nutanix	Azure, AWS, Google	Y	N
	Rubrik	N	N	Hyper-V, VMWare, Nutanix	Azure, AWS, Google	Y	N
Traditional	Veritas		N		Azure, AWS, IBM, Google		N
	Comvault	N	Additional software req	Hyper-V, VMWare	Azure, AWS, Google	Additional software req	N
	Data Protection Manager	N	N	Any	Azure	N	N
SAN Based	Ontap Select	N	N	N/A	Azure, AWS, Google	N	Y
Hypervisor Stack	VMWare Cloud	Y	N	VMWare	AWS, IBM	Additional software req	N

	Traditional		Data management Stack		VM Based		Hypervisor Stack Based		SAN Based	
	Vendors: Veritas, Commvault, MS Data Protection Manager		Vendors: Rubrik, Cohesity		Vendors: Zert0, Veeam, Actifio		Vendors: VMWare Cloud		Vendors: OnTap Select	
Detached from infrastructure	No		Yes		Yes		Yes		Yes	
Source Side Dedupe	No		Software		VM Level		VM Level		Hardware	
RTO and RPO	High		Low		Very Low		Low		Low	
Orchestration Effort Required	High		Medium		Low		High		High	
Continuous Data Protection(CDP	No		Yes		Yes		Yes		Yes	
	Pros	Cons	Pros	Cons	Pros	Cons	Pros	Cons	Pros	Cons
	Established Base Line	No application awareness	Works on physical and virtual servers	More effort required to orchestrate VM backups	Hypervisor agnostic	All services must be virtualized	Detached from infrastructure	Not A complete solution -storage, orchestration, and analytics still needed		Not a complete solution- server, orchestration, and analytics still needed.
	Less storage capacity requrired compared to snapshot based systems	No cross platform support	Stored in immutable format					Not hypervisor agnostic		Limited to brand of SAN mfg

Figure 5: Replication Comparison Matrix

3.1.6. Templates and Automation

Templates allow cloud infrastructure conversion into infrastructure as code (IaC) and from IaC back to working cloud infrastructure. As a result, templates can be used to rapidly back up, restore, and replicate cloud infrastructure (see figure 6). Automation goes hand in hand with templates to use templates, virtual machines, and replication to orchestrate the disaster recovery tasks. These include initializing the cloud infrastructure, failover to that cloud infrastructure, configuring systems to run on that infrastructure instead of locally, and starting up those machines during a disaster scenario, with only a few clicks.

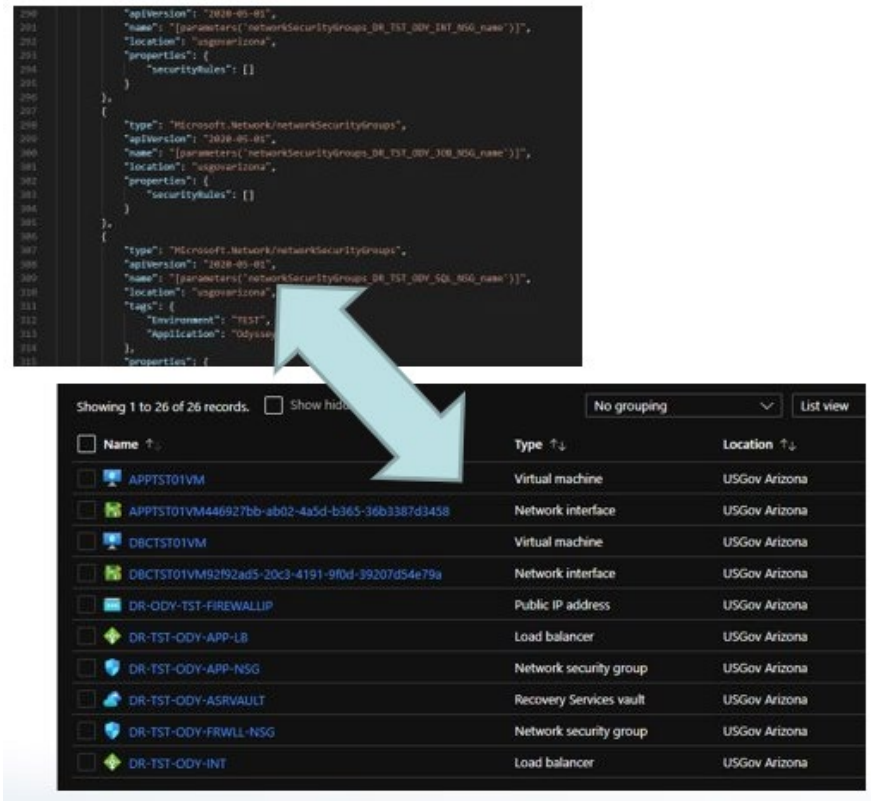


Figure 6: Sample Templates

Template and Automation Considerations

In evaluating automation, the number one priority is to verify that a given solution will work with a selected cloud provider. In this case, many cloud providers have built in tools that work well with their given solutions. In addition to the built-in automation tools in the cloud service provider's product offerings, a few open-source cloud infrastructure management solutions are available for automation. The most efficient way to manage cloud automation is with infrastructure as code. Some of these tools are orchestration tools; others are configuration management tools. Some tools are procedural; others are declarative. Above all, the selected solution must be compatible and optimized for managing cloud infrastructure for the selected cloud provider.

1. Orchestration or Configuration Management

Cloud orchestration tools look at the entire state of a cloud environment and attempt to ensure it is continuously in its desired state. If something is not functioning correctly, it automatically restores the system after reloading. Orchestration works well for environments that do not change often. Configuration management tools don't reset an entire system. Instead, they locally repair an individual issue. Some newer cloud management tools blur the line between these two types of tools.

2. Procedural and Declarative Tools

In choosing between procedural and declarative tools, just like with orchestration and configuration management, an overlap can sometimes exist within specific tools. A procedural tool is one that needs explicit direction and procedure defined in the code - and, it requires every small detail to be specified. A declarative tool 'declares' precisely what is needed and does not define the process of how to get that result. It takes a holistic view of the environment it is maintaining, and when the next check-up of that

environment runs, if there is any deviation to what was initially declared, it will attempt to restore the entire system to the originally declared state.

3. Cloud Provider Compatibility

Not all cloud infrastructure management solutions can provision all aspects of the specific cloud service provider's cloud infrastructure. It is important to verify which solutions work with the selected cloud provider before committing to one.

3.2. Cost Considerations

Cost is a significant consideration for cloud-based disaster recovery solutions. The following guidelines should be considered when factoring costs:

- Evaluate local investments in data centers and infrastructure against recurring cloud expenses. Cloud is expensive; however, as scale increases, so do the benefits of cloud DR versus on-prem.

- Optimize local resources. Right-size hardware and software licensing on the local systems before cost-estimating recovery solutions in the cloud. Many cloud DR solutions will replicate everything about a local server to the cloud. If a virtual machine is sized larger than needed locally for future growth, that machine will require more resources and, therefore, cost more when replicated to the cloud. Having a lean setup locally can potentially reduce costs.

- Use test cloud environments to prove concepts. Once a cloud infrastructure has been created, take advantage of this infrastructure to spin up a virtual environment for quick testing instead of using local resources. The effort to study cloud resource sizing and cost details would be well spent because considerable cost savings can be had if proper upfront research has been completed.

- Include licensing for the DR site. Virtual machines, network appliances, and applications running in the cloud all need licenses as well.

- Always-on cloud resources. Reserved Instances (Azure) for always-on cloud resources can reduce costs. Verifying which resources will work with a reserved instance is beneficial. However, it is important to minimize dependence on always-on resources whenever possible. Using IaC can assist in rapidly turning on and off cloud resources.

3.3. Current Feasibility of Cloud Disaster Recovery

Integration with any cloud environment increases complexity in many aspects of on-premise services. From configuring virtual hosts to work with cloud replication solutions, to setting up a VPN or high-bandwidth link to the chosen cloud provider, numerous additions to the on-premises site are required to implement a successful cloud DR solution. ***Therefore, at the time of this writing, cloud disaster recovery solutions are still more complex and costly than existing local site to site DR infrastructure.*** However, if applications are already hosted in the cloud, most cloud providers offer a straightforward way to setup disaster recovery replication from one geolocation to another, providing recoverability for cloud-based applications.

Setting up a new cloud presence requires staff or vendors/consultants who are up to date on their selected cloud provider offerings, DR solutions, virtualization, security, and cloud connection, and who possess expertise in how those technologies tie into the local site. It is important to realize the critical role that on-site technical expertise and resources play when working with a cloud presence.

For example, as cloud technology is continuously evolving and providers are continually optimizing their processes and procedures, resources must be committed to keep up with changes and training. What would be considered current at the time of setup, or go-live, may not be up to date in six months to a year.

4. Project Methodology

As previously mentioned, there are four recommended project phases that support a sound project methodology to define requirements, and select, design, and implement a modern disaster recovery solution. This section describes the detailed activities of each phase.

1. Phase 1: Discovery & assessment
2. Phase 2: Selection
3. Phase 3: Design
4. Phase 4: Implementation & pilot

4.1. Phase I: Discovery & Assessment

The Discovery & Assessment phase covers all tasks and activities related to the planning, hardware, policies, software, backup, and current disaster recovery for the local environment. The more work put into an assessment the better as this will greatly reduce the time required during design and implementation. If engaging a professional services vendor, being prepared for an assessment with documentation can streamline the experience and shorten the duration. The vendor will request a great deal of data to help with analysis along with performing their own environmental assessment to create a scope or plan.

4.1.1. Key Activities

The major activities in this phase are to:

1. Locate, create, and organize existing documentation
2. Review ITAC *Disaster Recovery* and *Next Generation Hosting Framework* documentation,
3. Define a scope and deliverables for the assessment
4. Identify tools to streamline assessment

This section provides details for each of these activities as well as additional considerations for the Discovery & Assessment phase.

1. Locate, create, and organize existing documentation. The data listed in this section and any other information collected on the environment will be useful during the assessment. All documentation should be revisited and updated with any changes throughout the subsequent phases of the DR project, including the following:

    - Data retention policies, current disaster recovery plans, backup and restore plan
    - Hardware, software, and licensing inventory, SaaS or cloud services
    - Network diagrams, IP address assignments, monitoring Infrastructure, security policies
    - Service catalog, service documentation

2. Review ITAC *Disaster Recovery* and *Next Generation Hosting Framework* documentation. The ITAC *Disaster Recovery Framework* is an in-depth document that provides guidance on DR maturity analysis, standard RTOs and RPOs, service prioritization, setting DR standards, providing reference and establishing methods of DR, and offers a build-your-own DR planning tool. The ITAC *Next-Generation Hosting Framework* provides tools and guidance on moving services to the cloud.

3. **Define a scope and deliverables for the assessment.** The scope of work for this phase of the project should focus on assessment and discovery by the court or a third-party vendor. A final assessment should create a report that documents the existing environment, readiness, and additional steps necessary to implement a cloud-based disaster recovery solution. The design and implementation assessment should be presented with solution design options available and define the scope of work for each option. Ensuring that the assessment phase is independent of any implementation processes is advantageous. The implementation should be clearly understood to be a subsequent phase meant to provide an opportunity to seek additional assessments, seek proposals from multiple vendors for the next engagement, or implement the solution with in-house resources. Discovery can be performed in-house by using tools and referencing whitepapers and knowledgebases. In this scenario it may negate the need for vendor assistance. The information gathered can be provided to a vendor for an assessment report, solution design or provide information to internal resources tasked with selecting available solutions.

4. **Identify tools to streamline assessment.** Many cloud service providers have developed calculators and tools that can be leveraged to streamline the Discovery & Assessment phase of a cloud disaster recovery project. These tools can be used by staff or vendors. Following are examples of available tools:

    - **AWS Cloud Adoption Readiness Tool(CART):** https://cart.splashthat.com/ is a survey designed to provide recommendations on migration to the AWS.
    - **Azure Migrate Service** https://aka.ms/azuremigrate/getstarted can assess Hyper-V and VMware server environments, databases, and web apps. Microsoft offers a virtual appliance that will collect metrics or complete a CSV template with server details. Azure Migrate Service also offers a dependency analysis at https://docs.microsoft.com/en-us/azure/migrate/concepts-dependency-visualization, which is an important data point when relocating services to a new location.
    - **Service Map**: https://docs.microsoft.com/en-us/azure/azure-monitor/insights/service-map offers detailed service mapping, which gathers information about all TCP connected processes joined to the service.

4.1.2. Additional Discovery & Assessment Considerations

1. **A disaster recovery plan and strategy are essential.** Having a disaster recovery plan and strategy in place with draft policies that align with the organization's Continuity of Operations Plan is advantageous. Once a solid disaster recovery plan is in place with a defined RTO and RPO, it will be much easier to select a modern solution, including cloud-based options that meet the needs identified.

    Application dependency also needs to be mapped as part of the court's technology inventory to determine which services are necessary to protect for failover in the event of a disaster.

2. **Backup and disaster recovery services are different**. Backup and disaster recovery services may overlap but are best treated as two separate services. Some disaster recovery solutions will also perform limited archival of data. However, a tried and true backup solution will better handle data archive and retrieval.

When evaluating options, existing disaster recovery and backup services should be considered to determine if they will complement the new service, as some DR and backup processes and applications can conflict with others.

3. **Thorough discovery upfront leads to accurate planning.** Having a current and comprehensive discovery/assessment of existing infrastructure will lead to efficient and more accurate planning for a disaster recovery solution. External expertise to augment your discovery phase provides for a second set of eyes from an outside source (e.g., vendor, consultant, or peer resources) and can help identify any overlooked challenges.

4. **Virtualization is key.** Virtualization is a major component and is foundational to most replication solutions. Nearly every major DR solution on the market works better with virtual servers. It is highly recommended to have an environment virtualized before attempting cloud replication.

4.2. Phase II: Selection

The Selection phase focuses on the tasks related to evaluating a solution that both fits the current disaster recovery needs and provides a path for the future. Many technologies are available for an organization to modernize their disaster recovery solution and/or leverage cloud disaster recovery solutions. Selecting and implementing the correct solutions that work together to create a functioning DR solution requires weighing requirements, geographic location, local environment, and the skills/abilities of the implementation team. If all these factors are considered prior to selection, a clear choice will become apparent.

4.2.1. Key Activities

The major activities in this phase are to:

1. Evaluate provider offerings
2. Choose a replication solution
3. Determine connectivity requirements
4. Evaluate automation tools

This section provides details for each of these activities, as well as additional considerations for the Selection phase.

1. **Evaluate provider offerings.** When considering a DR solution, it is essential to determine if the goal is to go straight to a cloud hosting solution or if the solution will be locally hosted for the time being. The selected cloud provider plays a key role in selecting many other components of a disaster recovery solution, as does the decision to go to the cloud or host locally. The replication solution, automation solution, and even decisions on connectivity depend on the specific cloud provider or the on-site hosting location.

2. **Choose a replication solution.** Once a cloud provider or local hosting has been selected, it is time to choose a replication solution. It will narrow down the number of replication solutions based on the compatibility with that specific cloud provider, or the ability to perform local site-to-site replication. From here, compatibility with the local environment should be evaluated. It doesn't matter what other benefits or features a replication solution has if it requires an organization to restructure their entire local environment to facilitate its use. The shortlist of replication solutions that meet the

local and cloud environment compatibility requirements makes comparison of each solution's RTO and RPOs against operational continuity and recovery goals easier. Additional factors such as costs, functionality, and configuration options should be considered in making the final selection for the replication tool.

3. **Determine connectivity requirements.** Several connectivity options are available to connect a local environment with a cloud provider, with varying degrees of cost. It is always ideal to buy the fastest, most robust connection available. However, cost is usually a consideration; therefore, selecting the proper connectivity option is an exercise in determining the minimum requirements for replication to function properly. This will involve calculating the total amount of data to be replicated, ascertaining the time window allowed to replicate this data, and using this information on a bandwidth calculator to determine the necessary bandwidth. It will be possible to compare that number to the cloud connection options available for the selected cloud provider, while factoring in cost.

4. **Evaluate automation tools.** With a cloud provider, replication solution, and connection tying everything together in place, the next component in the process includes evaluating automation tools. Working through the sequence with the filters mentioned above should distill a shortlist of automation tools for selection. These tools can then be evaluated against business requirements such as activation of failover and failback services with predefined triggers and the ability to manage local infrastructure. It is also important to consider the expertise of the technology team and whether they have any experience with available solutions.

4.2.2. Additional Selection Considerations

1. **Built-in orchestration tools streamline deployment**. When evaluating solutions, those with built-in orchestration tools can reduce time needed for configuration and deployment. This allows for one less application to integrate with the cloud DR solution and can free up time otherwise used to research and test potential applications to work on other aspects of the project.

2. **Existing skillsets can simplify adoption.** For example, if staff are knowledgeable of existing Microsoft technologies, it may be beneficial to select MS Azure as a cloud service provider. Many aspects of integrating Azure to other Microsoft services are a matter of point-and-click configuration. And using an end-to-end Microsoft solution may result in simplifying the disaster recovery configuration process.

4.3. Phase III: Design

Once a solution has been selected, this next phase focuses on the tasks related to solution design.

4.3.1. Key Activities

The major components in the Design phase are:

1. Cloud infrastructure
2. Cloud connection
3. Replication
4. Automation

This section provides details for each of these components as well as additional considerations for the Design phase.

1. Cloud infrastructure. The first step in solution design should be the cloud infrastructure on the selected cloud provider. This infrastructure provides the skeleton on which the rest of the solution will reside. A proper cloud infrastructure design will consider security best practices while at the same time facilitating the necessary connections between services and the local site. It will provide a home for Priority 1 (P1) services during a disaster and be configured to allow future growth of additional services or test environments. Engaging with outside expertise during the Design phase is beneficial to assist in maximizing cloud connection options to ensure the chosen solution is sized appropriately to the project.

2. Cloud connection. Once the cloud infrastructure is in place, designing the cloud connection between the local site and the cloud provider is possible. Replication, planned failovers, and failbacks will take place across this connection, so it is important to size it correctly. Devices from the local site must be able to communicate to DR storage in the cloud provider.

3. Replication. The replication solution is key in cloud-based disaster recovery. It controls what local services replicate to the cloud, how often, and major portions of how a disaster failover will occur. It is important to keep in mind which servers are Priority 1 (P1), including what the servers are hosted on, and how they will replicate to cloud storage. Many solutions will replicate across a public internet connection by default. However, it is also possible to set them up to use a dedicated private connection instead. There are often some smaller details of failover and failback that the solution is unable to manage.

4. Automation. The smaller yet oftentimes crucial failover/failback details not handled by the replication solution can be covered with a cloud automation solution. During the Design phase, it is important to identify what aspects of the failover will *not* be covered when clicking "failover" on the cloud replication solution. Oftentimes, automation needs to cover things like DNS, virtual machine startup order, and in some cases, run specific scripts to prepare a newly failed-over server for the cloud.

4.3.2. Key Activities

1. Predetermine naming conventions. Use naming conventions along with any grouping and tagging options available. Many cloud providers do not allow resource names to be changed or make it very difficult to change them once they have been created in the cloud. Combine this with the need to use an accurate naming scheme to quickly identify a specific resource out of a large list of every cloud resource in operation, and a solid naming scheme becomes extremely important.

2. Test new ideas using cloud infrastructure. Cloud offers the ability to take advantage of quick spin-up/spin-down of services to rapidly deploy test environments and potentially save on local infrastructure investments. Once the cloud infrastructure is ready, it becomes possible to test new ideas using cloud services quickly.

4.4. Phase IV: Implementation & Pilot

Once a solution design is complete, this next phase focuses on the tasks related to implementing and piloting a solution.

4.4.1. Key Activities

The step-by-step activities of the Implementation & Pilot phase are to:

1. Set up cloud hosting
2. Assign appropriate management roles to architects and administrators
3. Configure cloud IP range
4. Build necessary VNets or VPCs and add needed subnets
5. Set up and apply security groups to secure subnets
6. Configure peering of VNets or VPCs
7. Connect cloud environment to local site
8. Add necessary jump boxes, Active Directory, and any necessary DNS or DHCP resources
9. If required, set up a firewall and public IP addresses
10. Prepare the source environment
11. Deploy, configure, and verify the replication solution
12. Configure high-speed cloud connections to local site
13. Initiate pilot replication
14. Pilot failover exercise
15. Run pilot services in the cloud
16. Pilot failback exercise

This section provides details for each of these steps as well as additional considerations for the Implementation & Pilot phase.

1. Set up cloud hosting. Depending on the existing use of a public cloud, it may be necessary to enter into a cloud hosting agreement as a first step. Public cloud providers bill monthly based on consumption. The organization's finance team should be prepared to process invoices for subscription services. During the initial setup of a cloud provider, segregating the disaster recovery-related resources into a separate subscription or organizational unit is recommended, so that costs and security can be isolated. As the cloud solution is built out, further resource groups will be needed.

2. Assign appropriate management roles to architects and administrators. Prior to configuring anything in the cloud, it is important to lay out security and management roles early to keep rights and roles organized while allowing key team members access to assist with cloud infrastructure creation and future management.

3. Configure cloud IP range. Before creating any VNets, VPCs, or subnets, an IP range that will be used on the cloud provider must first be identified. Often services such as Amazon or Azure will provide a default range; however, if a hybrid cloud approach is desired, a range must be selected that will work with the local site.

4. Build necessary VNets or VPCs and add needed subnets. At this point, it is time to begin laying out the necessary infrastructure. If the necessary steps were taken during the Design phase, each resource should be created to that design's specifications. Take

extra care to use an easily decipherable and scalable naming convention on all new resources as many cloud providers don't handle name changes well.

5. Set up and apply security groups to secure subnets. Performing this step as soon as possible is key to quickly securing a presence in the cloud. It does not have to occur immediately after setting up VNets or VPCs and subnets; however, it should be performed before any external connection is made to the cloud site.

6. Configure peering of VNets or VPCs. This allows resources or virtual machines to communicate with other VNets or VPCs. It is recommended to set this up early to allow for testing of any jump boxes, firewalls, or virtual machines.

7. Connect cloud environment to local site. Be aware that many dedicated options like Azure ExpressRoute or AWS Direct Connect require additional lead time from the provider and cloud expertise to create those connections, and once they are in place, they can be costly. It is recommended to setup a bare-bones VPN connection during setup for a quick, cheap, alternative.

   Once this step is complete, the local site and cloud site should be able to communicate with each other.

8. Add necessary jump boxes, Active Directory, and any necessary DNS or DHCP resources. Once the cloud site can talk to the local site, it is then possible to set up and configure any necessary infrastructure services with cloud resources that will require an active connection to the local site.

9. If required, set up a firewall and public IP addresses. With cloud security, cloud networking, and infrastructure services up and running, it is now possible to set up and configure any public IP addresses and their associated firewall. It is advantageous to do this after configuring other virtual machine resources such as jump boxes or Active Directory servers, as they can assist in testing firewall connectivity while also providing authentication.

10. Prepare the source environment. Before a replication solution is deployed, the source environment should be prepped. At this point, virtual machines and virtual machine hosts should be organized. Many replication solutions benefit from organizing all production and all test VMs together on their own hosts, if possible. It is also advisable to make sure any on-site VMs are correctly sized, named, and configured before their initial replication to the cloud.

11. Deploy, configure, and verify the replication solution. Once the foundation has been created, deployment of the replication solution can begin. Depending on the solution, either the cloud side or the local site side needs to be set up first. Configuration of the solution should follow the solution design from the previous phase. It is recommended to initially test the solution on testing or staging servers. If possible, that testing or staging environment should be as close to production in size as possible to simulate similar RTO and RPO numbers during testing.

12. Configure high-speed cloud connections to local site. If setting up something more robust than the initial VPN connection, it is now possible to do so. Allow extra lead time if working with multiple providers to secure a dedicated line. Allow additional time for

a learning curve to set up and configure the connection on the cloud provider, or contract out to a knowledgeable vendor for assistance.

Once this step is complete, the environment is ready for replication.

13. Initiate pilot replication. Everything is now in place to begin replicating pilot data from the local site to cloud storage. Prior to performing a pilot failover, it is recommended to get a baseline RPO from several days of replication after the initial data sync.

14. Pilot failover exercise. After getting a baseline RPO and verifying RPO baselines, the next step is to perform a pilot failover of select services. It is advisable to time this step so a baseline RTO can be established. Be sure to involve subject matter experts to verify all failed-over services are working as expected.

15. Run pilot services in the cloud. This is optional but recommended. Once a service has failed over and been verified to work, continue operating it in the cloud for a short amount of time. During this time, monitor responsiveness of the service, and gather baseline information on its performance in the cloud. That data can be used in the future to verify cloud connection speeds, virtual machine sizing, and cloud infrastructure design.

16. Pilot failback exercise. Once all necessary cloud baseline data has been collected, the pilot service can now be failed back to the local site. During this failback, be sure to gather baseline data on how long this step takes and how much bandwidth is used. This information can be valuable when planning a real-world failback in the future. When all services have failed back, resume cloud replication to continue to protect those services.

    At the completion of this step, the disaster recovery exercise is complete.

4.4.2. Additional Implementation & Pilot Considerations

1. Backup cloud infrastructure as code. IaC should be backed up when possible to speed up deployments of new supporting infrastructure as recovery targets. Although virtual servers and network appliance configurations can be backed up using conventional methods, the time and effort put into designing and building cloud infrastructure cannot. This is where IaC plays a vital role, and it becomes possible to back up and replicate entire cloud environments with a few clicks.

2. There are benefits to a phased approach. A phased approach provides a learning curve for the implementation team, allows for validation of the solution, and builds confidence. It also allows a more managed one-at-a-time rollout of DR to the cloud on various services.

3. Vary test times to validate performance. RPOs can fluctuate with churn for some replication to technologies (ASR, Zerto, etc). With that in mind, it is advisable to test a new DR solution at various times and with different server loads.

4. Extending backups to the cloud. A backup strategy for cloud resources will need to be developed to protect items running on the cloud. Once an on-premises environment has been migrated up to the cloud, extending backups to those environments is essential.

5. Develop a cloud-based security strategy. A security strategy for cloud resources will need to be developed to protect items running on the cloud. Once an on-premises environment has been migrated up to the cloud, securing those environments in the same fashion as local systems is also important.

6. Combined or multifunction resources add complexity. Complexity will be added to cloud infrastructure, individual service failovers, cost breakdown/separation, etc. with combined or multifunction resources. In a perfect world, each service to be moved to the cloud would reside on its own virtual machine hosts, on its own virtual machines, have its own database, use its own storage and so on. In the real world, that is not always possible. Keep in mind that shared databases, storage, virtual machine hosts, etc. all add the complexity of determining what must fail up when attempting to configure and test one service at a time.

7. Failback considerations. The time it takes to failback (failback time objective or, FTO) is a major consideration as it can affect recovery exercises as well as actual incidents. It is one of the often-neglected details of cloud infrastructure. With all failbacks, there will be some downtime to copy down and sync cloud data back to local hosts. A planned failback can take quite a long time for large systems and this should be considered when attempting a failover/failback DR exercise.

   Additionally, a cloud disaster recovery solution should allow access to resources as the failback occurs. Some cloud DR solutions attempt to keep systems available for as long as possible during failback. Those are preferable to others which do not.

Several phases, tasks, and considerations are necessary for the recommended project management methodology to implement a cloud-based disaster recovery solution, and this section was intended to provide a comprehensive overview of all that is involved. The following section provides some real-life examples of pilots that were implemented to inform the recommendations contained within this *Disaster Recovery to Cloud Roadmap*.

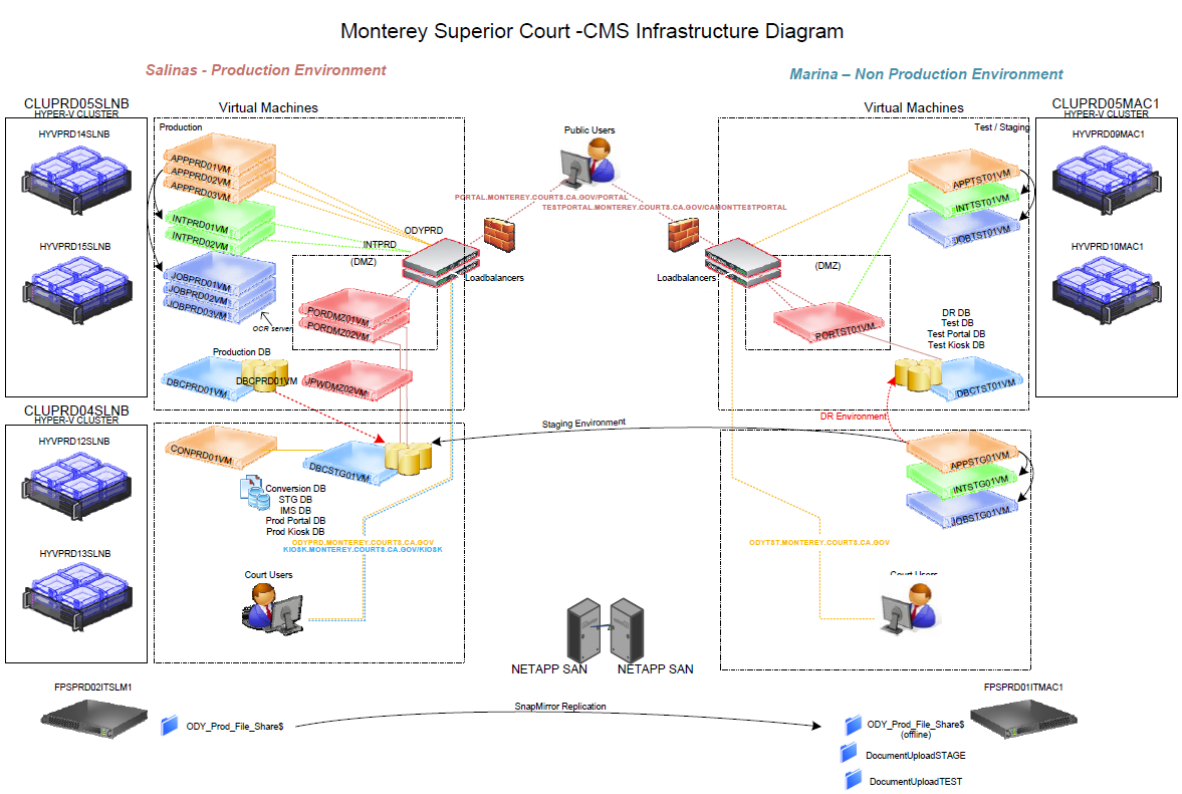
5. Implementation Examples

5.1. Superior Court of California, County of Monterey (ASR / Hyper-V)

Monterey Court's disaster recovery to the cloud implementation replicates Hyper-V virtual machines to Azure over a 1 Gbps data center link using Azure Site Recovery.

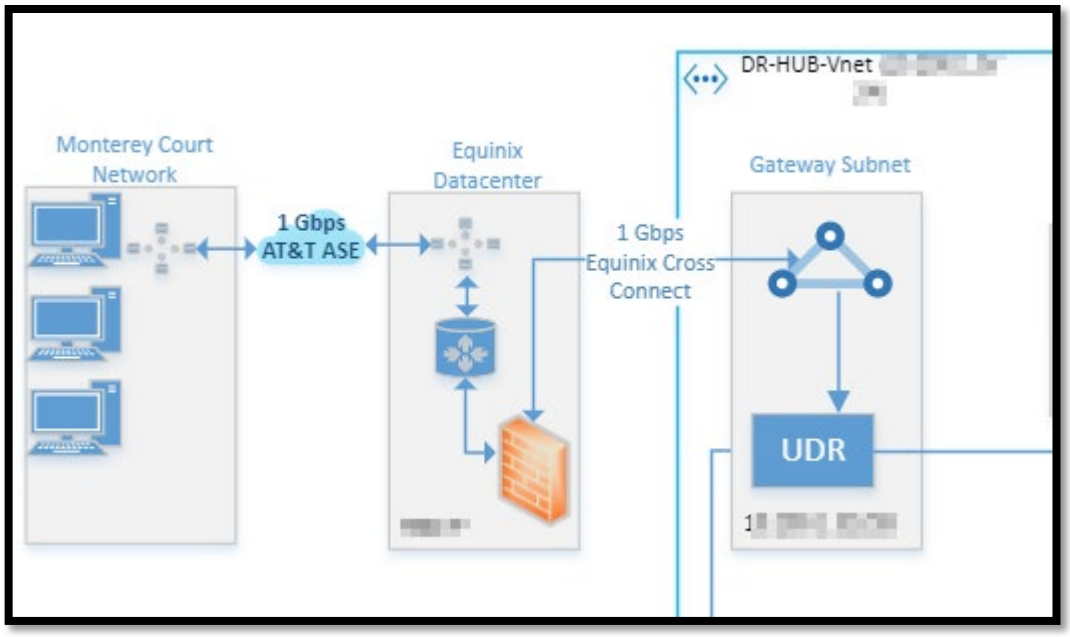
5.1.1. Local Site

- **Virtualized?:** Yes
- **Virtualization Solution (if any):** Microsoft Hyper-V
- **Existing Backup Solution:** Microsoft Data Protection Manager to cloud cold storage
- **Preexisting DR Solution (if any):** Site to site Hyper-V cluster replication
- **Diagram:** Example of P1 service virtualization and local site to site replication



5.1.2. Connectivity

- **Existing Internet connection:** 1 Gbps AT&T
- **Dedicated cloud connection?**: Yes
- **Dedicated cloud connection provider:** 1 Gbps AT&T ASE to Equinix Datacenter. 1 Gbps cross connects to Azure inside datacenter
- **Diagram:**



5.1.3. Connectivity Costs

- **Connectivity Monthly Cost:** $6,535.97/mo
- **Cost Breakdown:**

1000 Mbps Equinix Hosting VS 1000 Mbps AT&T Express Route

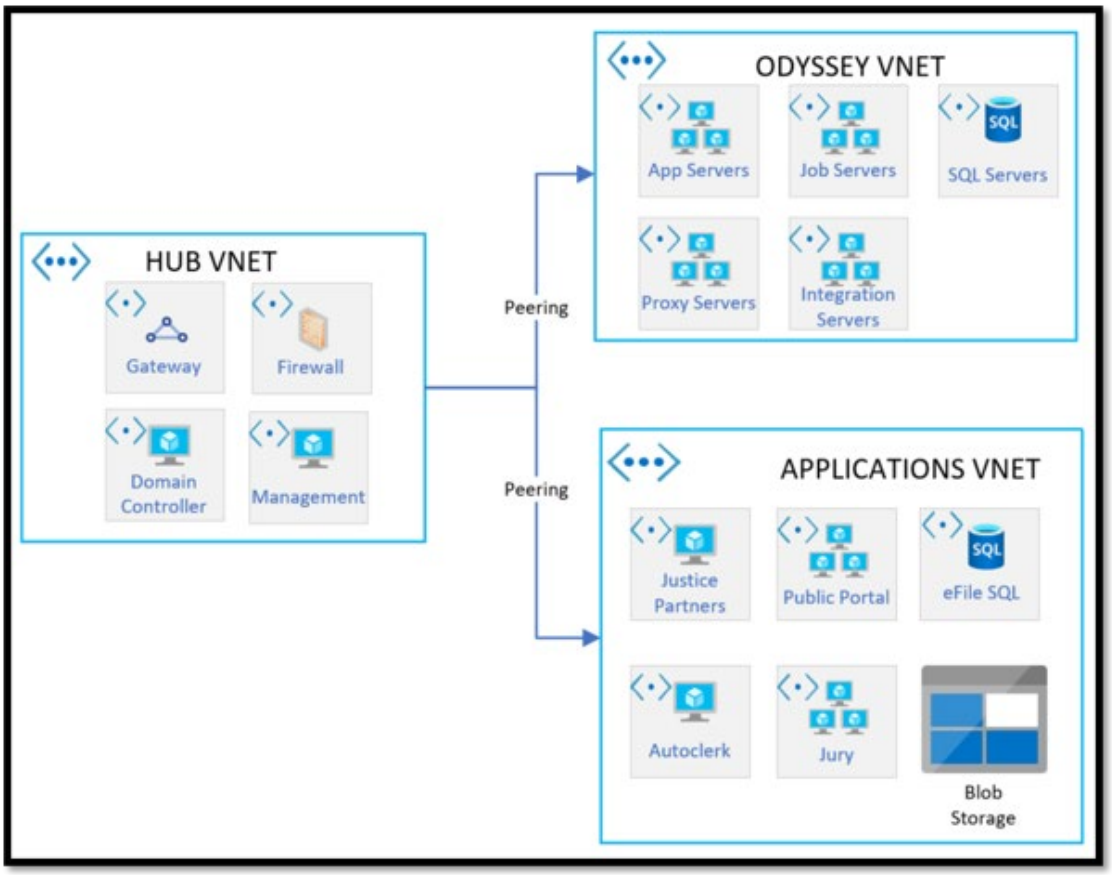
Item	Monthly
Equinix Datacenter Space / Power / Etc	$2,423.22
Azure Express Route Charges	$852.00
OPTIONAL: Internet Connection at Equinix	$2,000.00
AT&T ASE to Datacenter	$1,217.75
Emergency Redundant Network	$43.00
Total	**$6,535.97**

Item	Monthly
AT&T Redundant AVPN circuits	$12,073.30
AT&T NetBond, private peering	$3,969.00
Azure Express Route Charges	$852.00
Total	**$16,894.30**

5.1.4. Cloud Infrastructure

- **Infrastructure design:** Hub and spoke
- **Firewall:** Fortinet FortiGate
- **Public IP(s)?:** Yes, application specific
- **Additional security measures:** VNet Peering to segment applications, Network Security Groups for additional traffic control

- Diagram:



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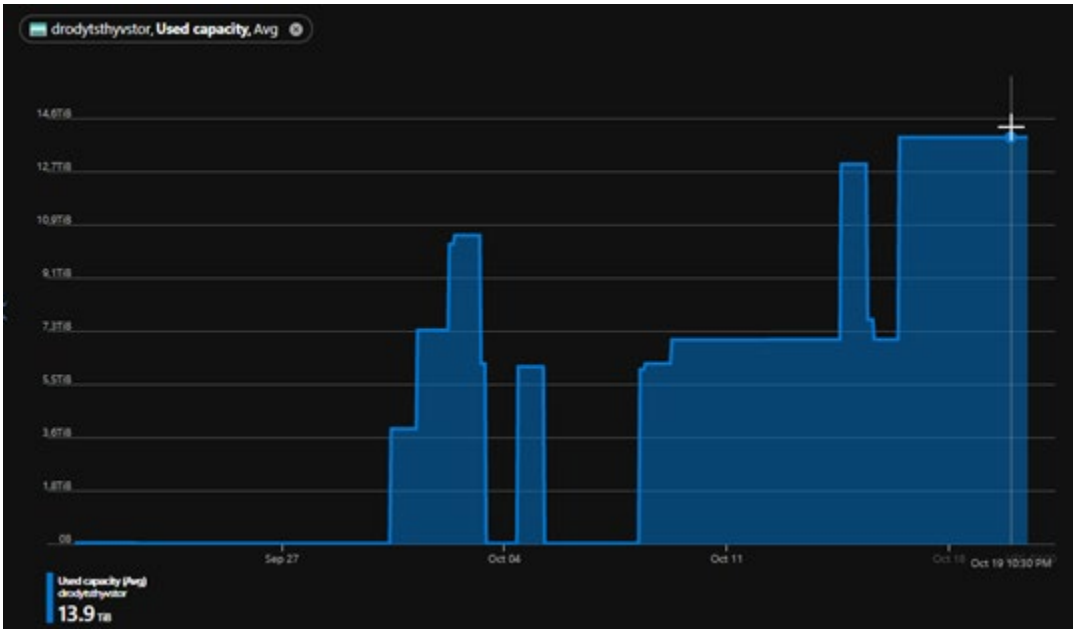
5.1.5. Storage

- **Storage Location(s):** Azure
- **Storage Type(s):** 1 Azure general purpose V1 Geo-redundant storage (GRS) per P1 application
- **Redundant?** Yes
- **If Redundant, what locations?:** Primary Azure USGov Arizona Region, Secondary USGov Texas Region
- **Storage size:** Currently 14TB for Odyssey Test site

- Diagram:



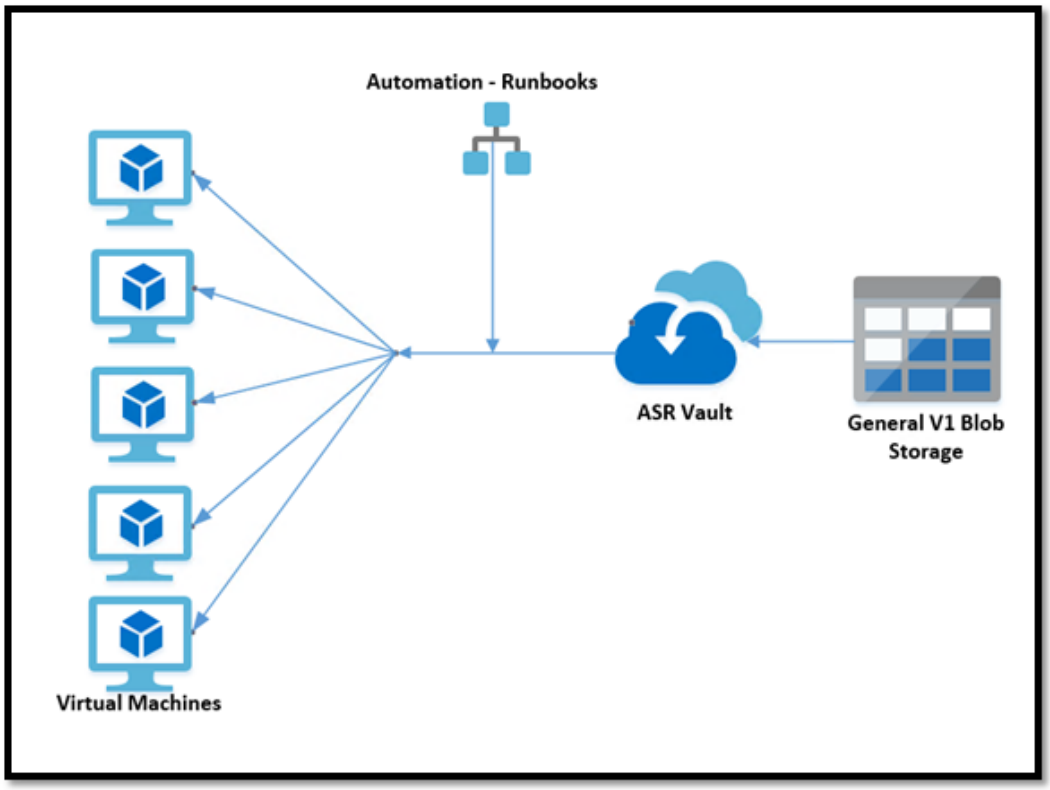
5.1.6. Cloud Storage and Hosting Costs

- **Monthly DR protection costs (please note if estimated):** $1,341.85 for Odyssey TEST environment (actual cost). Estimated approximately $100–$200 / month more for Odyssey Production.
- **Monthly live environment costs (please note if estimated):** $3,506.05 per month to host Odyssey TEST environment (estimated based on cost incurred from running TEST environment in Azure for 1 week).
- **Diagrams:**

Resource Name	Daily	Monthly
Odyssey Test Servers	$69.06	$1,036.50
Domain Controller	$3.58	$108.25
Blob Storage	$34.51	$1,035.30
ASR Replication Vault	$1.61	$48.30
Public IP address	$0.15	$4.50
Azure Firewall	$37.44	$1,123.20
ASR $25/mo fee per instance	-	$150.00
Running	**$146.35**	**$3,506.05**
Protected	**$39.70**	**$1,341.85**

5.1.7. Replication Solution

- **Cloud replication or site to site?:** Cloud
- **Replication solution:** Microsoft Azure Site Recovery
- **Estimated RPO:** 1-2 minutes
- **Estimated RTO:** <4 Hours
- **Diagram:**



5.1.8. Automation

- **Failover Automation (if any):** ASR Recovery Plan utilizing Azure Runbooks
- **Infrastructure as Code (if any):** Microsoft Azure Resource Manager
- **Diagrams (if any):** See above
- **Infrastructure as Code Templates:** Can be obtained by emailing dr2crequest@monterey.courts.ca.gov ref: Brian Damschen

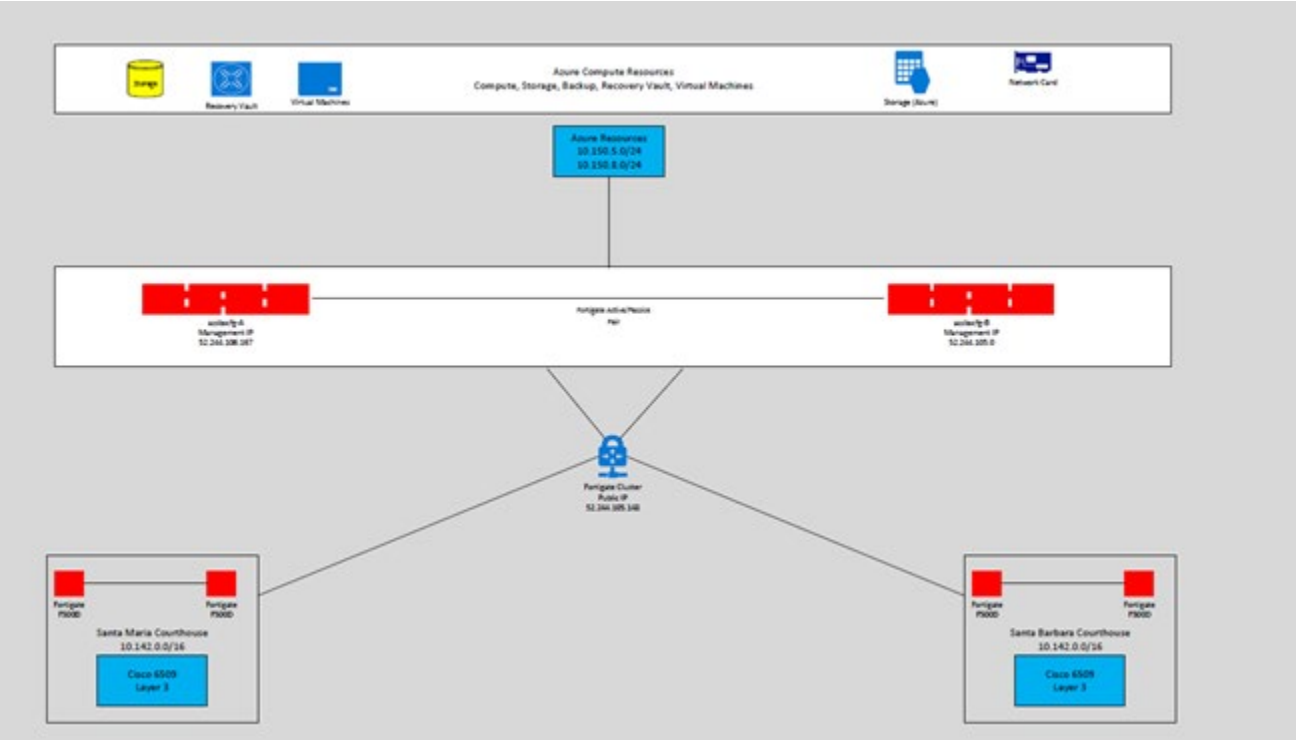
5.2. Superior Court of California, County of Santa Barbara (ASR / VMWare)

5.2.1. Local Site

- **Virtualized?:** Yes
- **Virtualization Solution(if any):** VMWare
- **Existing Backup Solution:** Veeam (local replicated to secondary datacenter
- **Preexisting DR Solution(if any):** Off-site backup to local secondary datacenter
- **Diagrams or graphics(if any):** None

5.2.2. Connectivity

- **Existing Internet connection:** 500Mbps L3,Wave
- **Dedicated cloud connection?**: No
- **Dedicated cloud connection provider:** NA
- **Diagrams (if any):**



5.2.3. Connectivity Costs

- **Connectivity Monthly Cost:** $2000 per month, ISP costs
- **Please provide any cost data or diagrams you may have:**

5.2.4. Virtual Infrastructure

- **Infrastructure design:** Hub and Spoke
- **Firewall:** Fortigate
- **Public IP(s)?:** not currently

- **Additional security measures:**
- **Diagrams (if any):**

5.2.5. Storage

- **Storage Location(s):** Azure
- **Storage Type(s):** General purpose v1
- **Redundant?:** No
- **If Redundant, what locations?:**
- **Storage size:** 14TB
- **Diagrams (if any):**

5.2.6. Cloud Storage and Hosting Costs

- **Monthly DR protection costs (please note if estimated):** $2200
- **Diagrams (if any):**

			Values	
ServiceName	ServiceType	ResourceName	Sum of ConsumedQuantity	Sum of Price
Virtual Network	IP Addresses	Standard Static Public IP	4437	$23.52
	Peering	Egress	156.657103	$1.33
		Ingress	270.366278	$2.30
Virtual Network Total			4864.023381	$27.15
Azure Site Recovery	0	VM Replicated to Azure	14.08199048	$299.24
Azure Site Recovery Total			14.08199048	$299.24
Bandwidth	0	Data Transfer Out	42.470888	$3.94
Bandwidth Total			42.470888	$3.94
Azure Bastion	0	Basic	746	$150.92
Azure Bastion Total			746	$150.92
Grand Total			38954.20015	$2,239.20

5.2.7. Replication Solution

- **Cloud replication or site to site?**: Cloud
- **Replication solution:** Azure Site Recovery
- **Estimated RPO:** Every 60 minutes
- **Estimated RTO:** < 1 Hour
- **Diagrams (if any):**

5.2.8. Automation

- **Failover Automation (if any):** Not currently in place but looking into ASR Recovery plan using Azure runbooks.
- **Infrastructure as Code (if any):** None
- **Diagrams (if any):** None
- **Infrastructure as Code Templates:** None

5.3. Superior Court of California, County of Orange (Zerto / VMWare)

The Superior Court of Orange County's disaster recovery to the cloud implementation replicates VMware virtual machines to Azure over a 100 Mbps dedicated Microsoft Express route link using ZERTO.

5.3.1. Local Site (Irvine, CA)

- **Virtualized?:** Yes
- **Virtualization Solution(if any):** VMware
- **OS Stack (Windows):** Windows 2019, 2016, 2012 R2 and 2008 R2 (w/extended support)
- **OS Stack (Linux):** Oracle Linux 7.x, RedHat Linux 7.x
- **DB Stack:** MS SQL 2016/2012, Oracle 18c/12c
- **Existing Backup Solution:** Veeam local onsite backup and NetApp Snap Mirror to another Court location
- **Preexisting DR Solution(if any):** Limited using NetApp Snap Mirror array-based replication
- **Diagrams or graphics(if any):**

5.3.2. Azure Primary Site (US GOV Arizona)

- **Virtualized?** Yes
- **Virtualization Solution (if any):** Azure platform
- **Existing Backup Solution:** Azure backups
- **Preexisting DR Solution (if any):** Azure Site Recovery (ASR)

5.3.3. Connectivity

- **Existing Internet connection:** 250 Mbps AT&T
- **Dedicated cloud connection?** Yes
- **Dedicated cloud connection provider:** 100 Mbps redundant AT&T Netbond Express route connection to Azure Arizona.

5.3.4. New Connectivity (in progress)

- **Existing Internet connection:** 250 Mbps AT&T
- **Dedicated cloud connection?** Yes
- **Dedicated cloud connection provider:** 1000 Mbps redundant Megaport Express route connection dedicated for Azure Arizona (Primary) and Azure Texas (DR) and with both regions connected internally leveraging Azure global VNET peering.

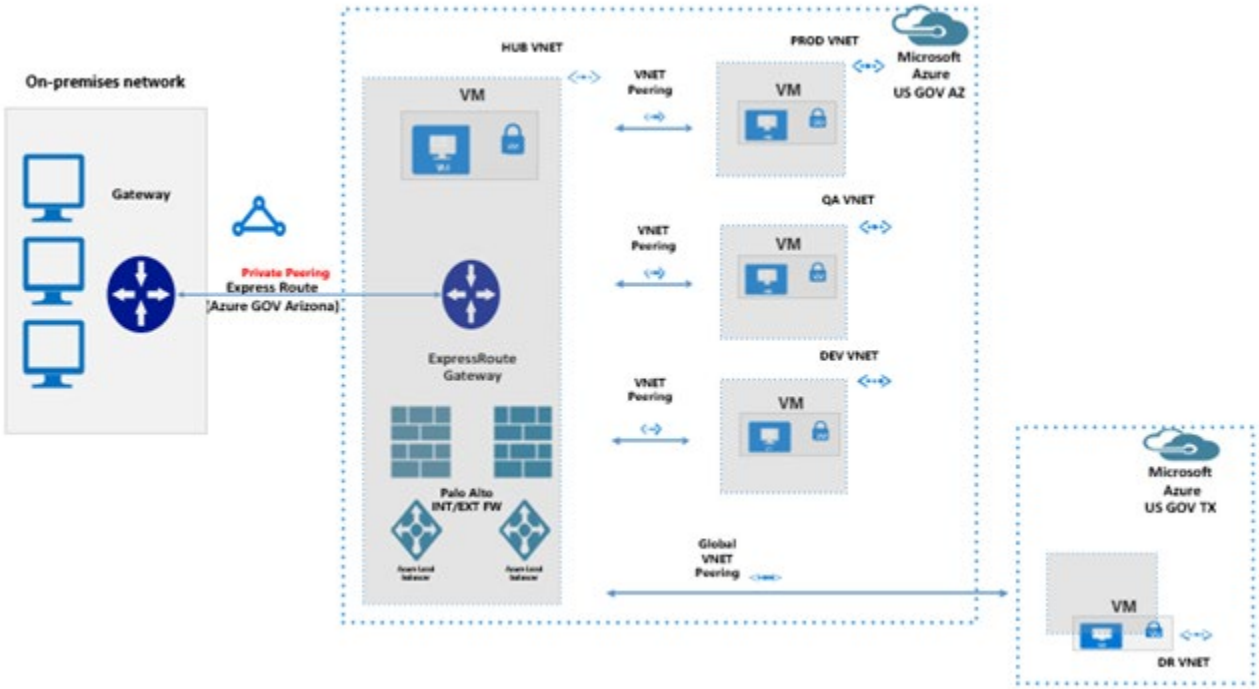
5.3.5. Connectivity Costs

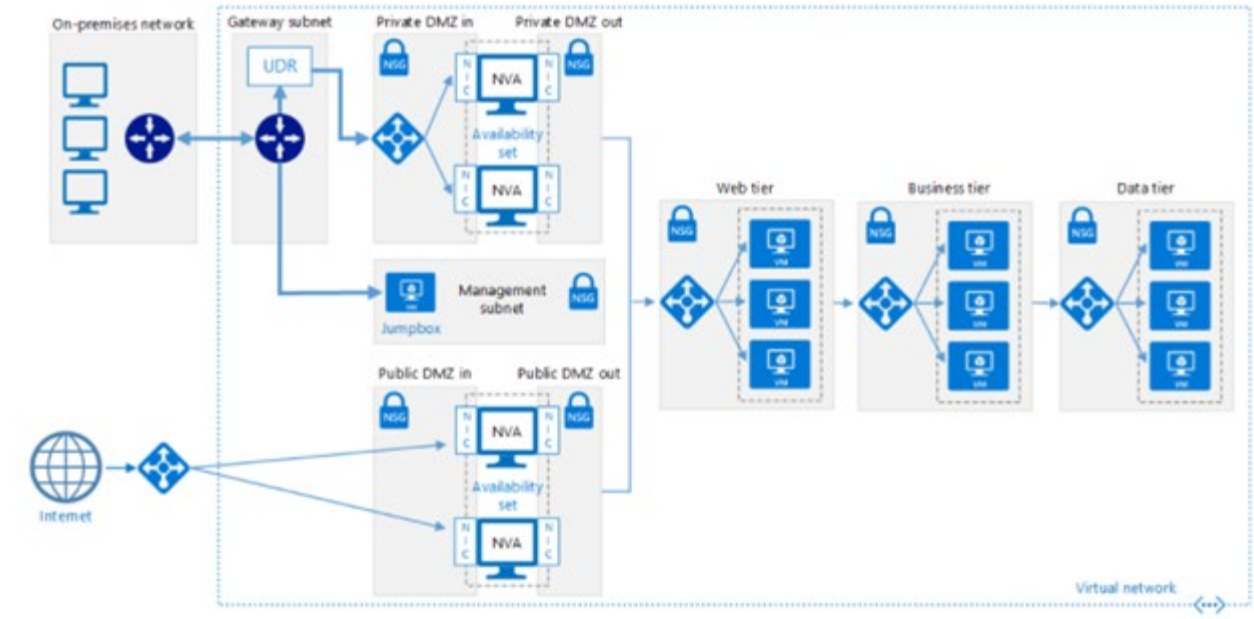
- **Connectivity Monthly Cost:** $5,078/month (will be greatly reduced as part of switching carrier from ATT to Megaport).
- **Cost Breakdown:**

Service	Qty	Monthly Recurring Charges
AVPN Circuit 100 Mbps Ethernet with Managed Router	1	$1,995.17
AVPN Circuit 100 Mbps Ethernet with Managed Router	1	$1,995.17
Netbond 100 Mbps Minimum Bandwidth Commitment - VNC (Private Peering, AZ)	1	$948.50
Microsoft Express Route, 100 Mbps metered	1	$140.00
Total Charges		**$5,078.84**

5.3.6. Azure Infrastructure (US GOV Arizona and US GOV Texas)

- **Infrastructure design:** Hub and Spoke
- **Firewall:** Palo Alto
- **Public IP (s)?** Yes
- **Additional security measures:** Network micro-segmentation, Azure user defined routes, (UDR's), Azure Network Security Groups (NSG's) for additional traffic control, Azure Network ACL's for storage accounts and Azure private link
- **Diagram:**





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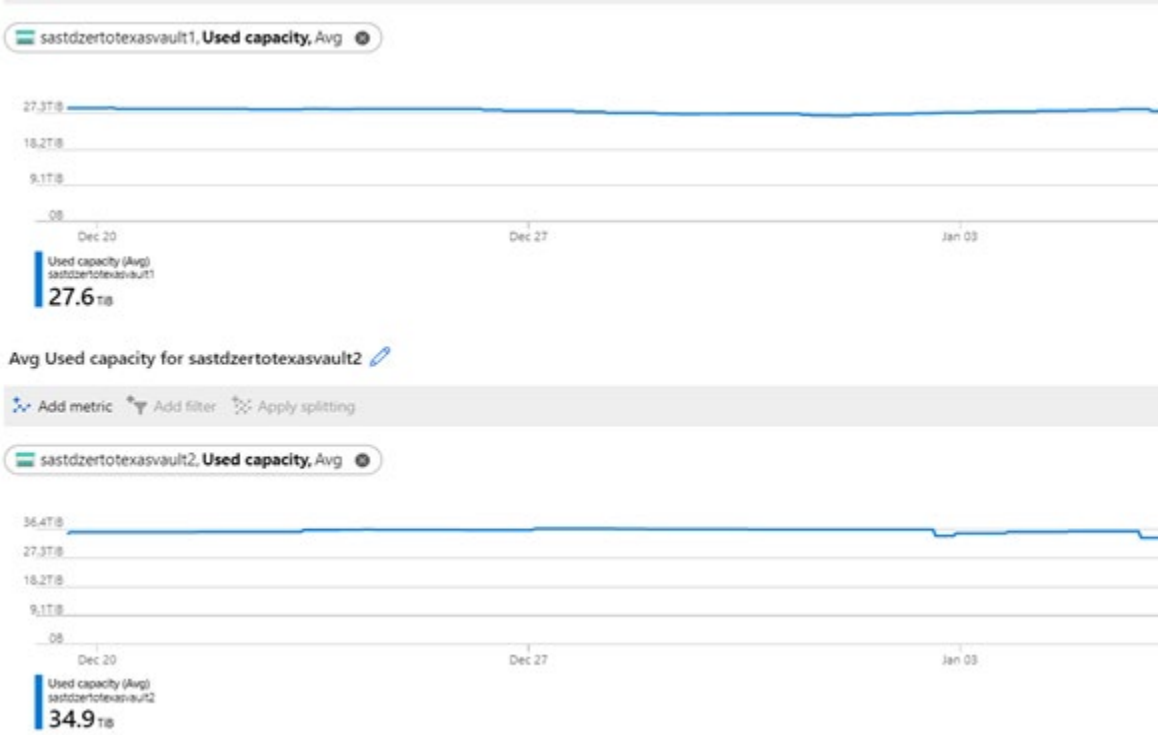
5.3.7. Storage

- **Storage Location(s):** Azure
- **Storage Type(s):** Azure general purpose v1 Local redundant storage (LRS)
- **Redundant?** No
- **If Redundant, what locations?** Primary US GOV Texas Region
- **Storage size:** Currently 60TB for 140 VM's (running on-premise and in Azure)
- **Diagram:**



5.3.8. Cloud Storage and Hosting Costs

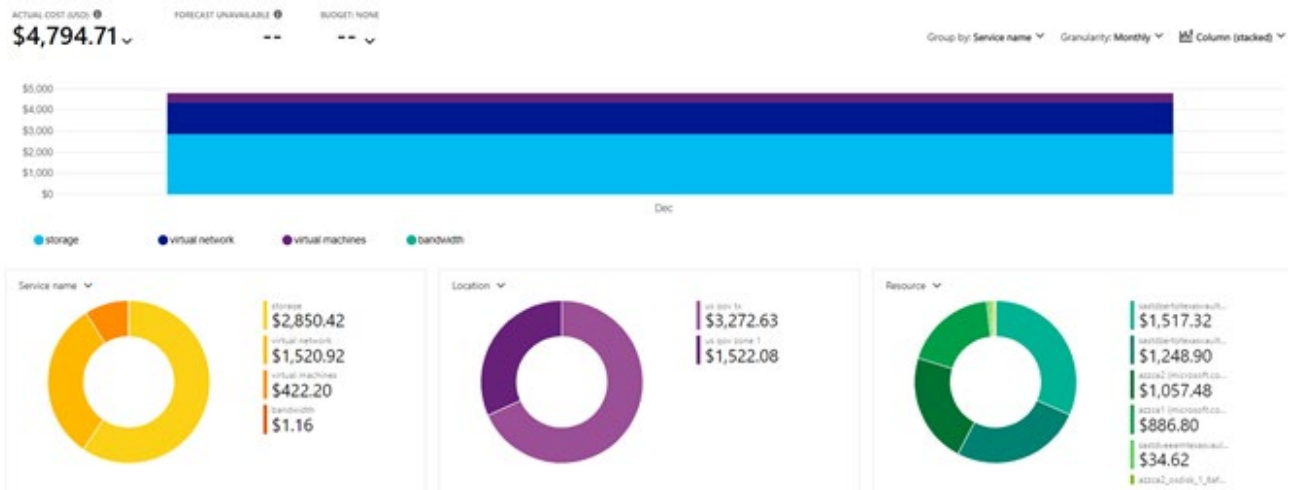
- **License Cost**: ZERTO Enterprise Cloud license and support
- **Monthly DR protection costs, for the protected workloads below (on-premise and in Azure)**

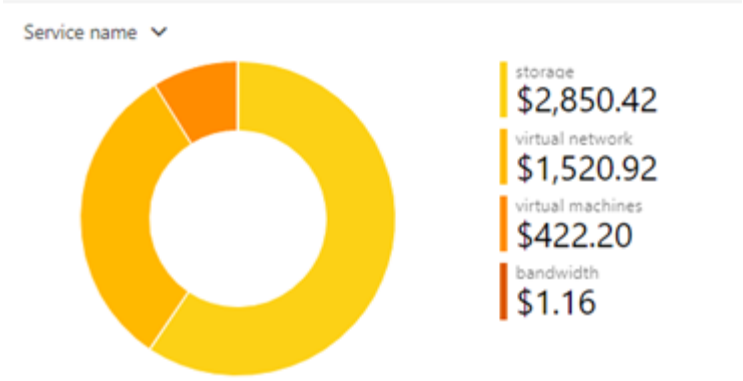
On-Premise (Irvine, CA)

- Tyler Odyssey PROD farm (Family Law and Juvenile CMS)
- Vision (Criminal CMS)
- Voyager PROD Farm (Civil, Probate and Mental health CMS)
- SharePoint PROD farm
- CRM PROD farm
- Public facing web apps
- IBM Data Cap PROD farm
- All Oracle and SQL PROD databases
- Internal web apps farm (IIS and WebLogic)

Azure (Arizona)

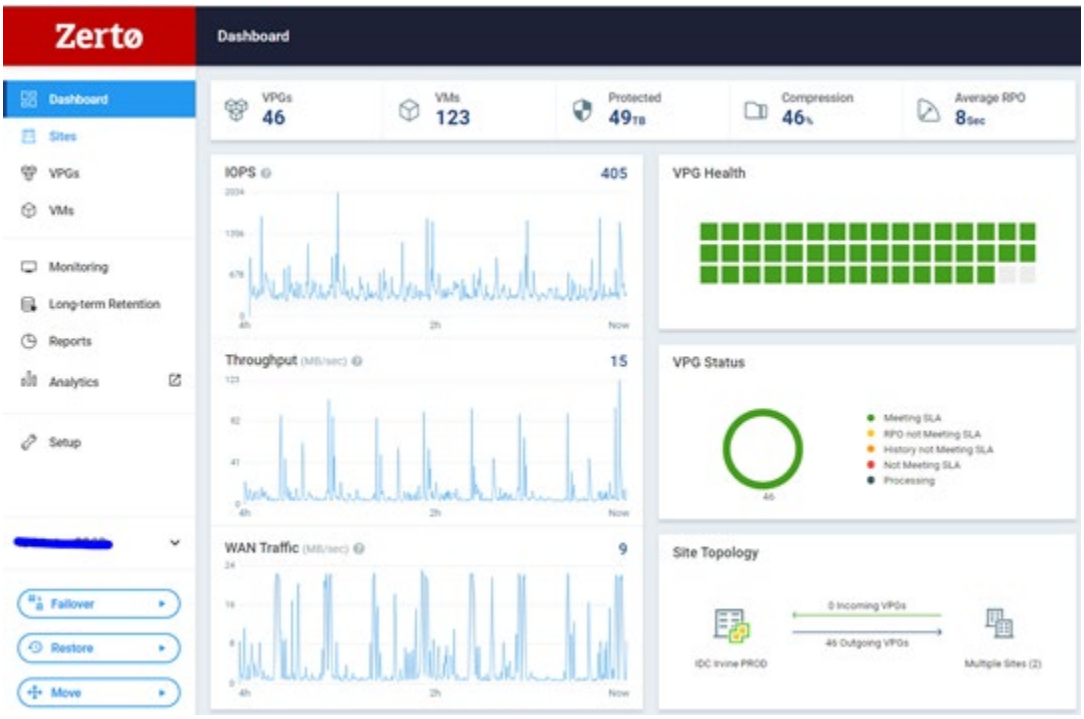
- Courts website
- Jury application
- Public facing web apps (IIS and WebLogic)

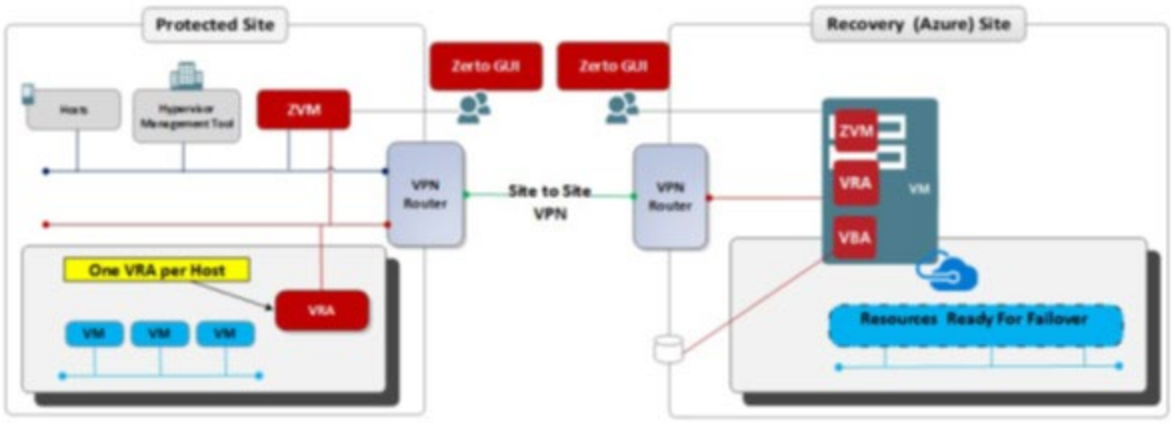


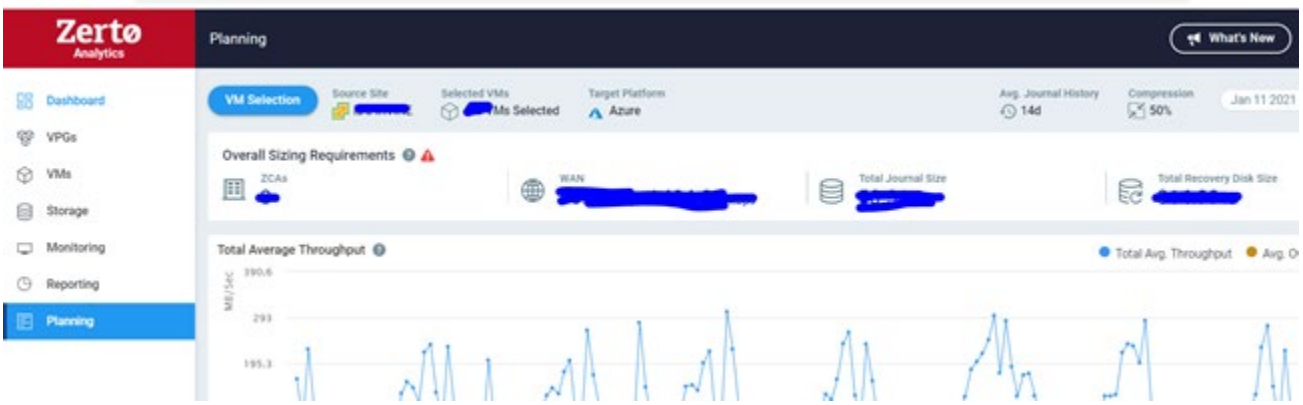


5.3.9. Replication Solution

- **Cloud replication or site to site?** Cloud
- **Replication solution:** ZERTO
- **Estimated RPO:** < 10 sec (VMware – Azure) and 1-2 minute (Azure-Azure)
- **Estimated RTO:** <4 Hours
- **Planning and Analytics:** ZERTO Planner
- **Diagram:**







5.3.10. Automation

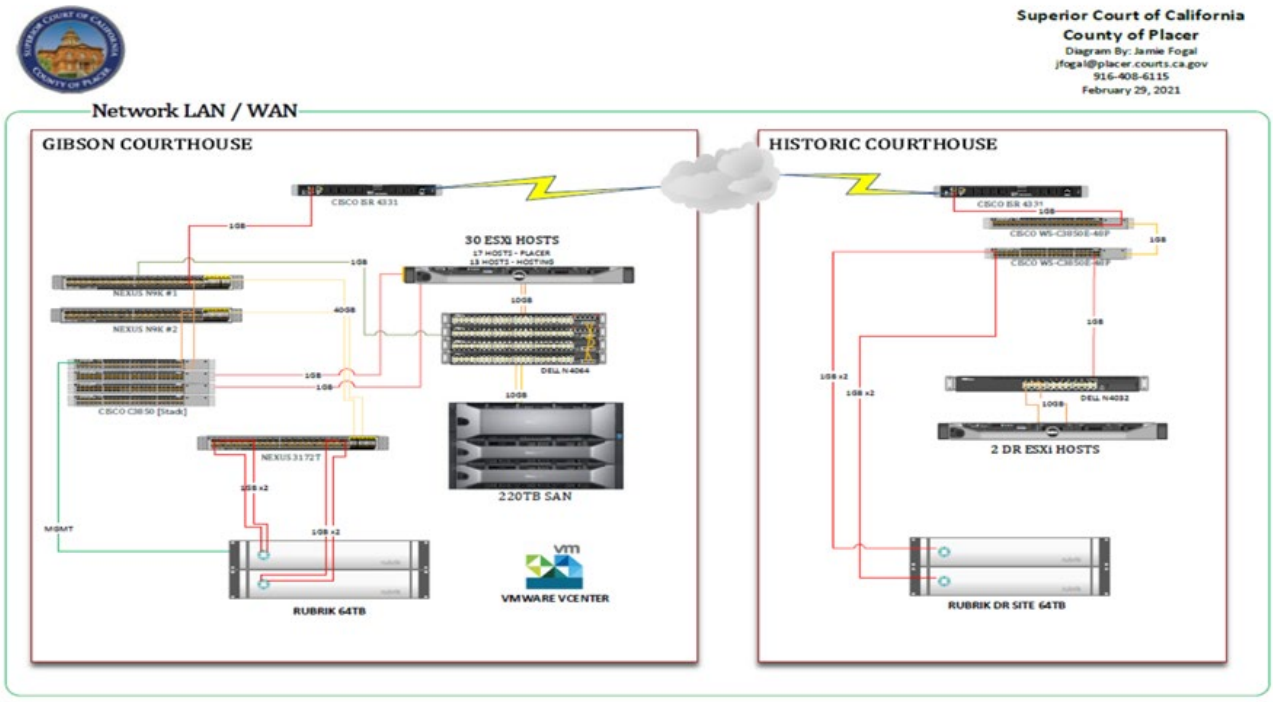
- **Failover Automation (if any):** ZERTO orchestration
- **Infrastructure as Code (if any):** Microsoft Azure Resource Manager
- **Diagrams (if any):** See above

5.4. Superior Court of California, County of Placer (Rubrik / VMWare)

The Superior Court of Placer County is utilizing a mirrored site to site 64TB Rubrik DR solution over a 1 Gbps connection.

5.4.1. Local Site

- **Virtualized?:** Yes
- **Virtualization Solution(if any):** VMWare
- **Existing Backup Solution:** Barracuda
- **Preexisting DR Solution(if any):** None
- **Diagrams or graphics(if any):**



5.4.2. Connectivity

- **Existing Internet connection:** N/A
- **Dedicated cloud connection?:** No
- **Dedicated cloud connection provider:** No
- **Diagrams(if any):**

5.4.3. Connectivity Costs

- **Connectivity Monthly Cost:** $1000.00
- **Please provide any cost data or diagrams you may have:**

5.4.4. Storage

- **Storage Location(s):** Secondary Local Site
- **Storage Type(s):** Rubrik 64TB

- **Redundant?:** No
- **If Redundant, what locations?:**N/A
- **Storage size:** 64TB
- **Diagrams (if any):**

5.4.5. Replication Solution

- **Cloud replication or site to site?:** Site to site
- **Replication solution:** Rubrik
- **Estimated RPO:** 2-4 hours
- **Estimated RTO:** 4 hours
- **Diagrams (if any):**

5.4.6. Automation

- **Failover Automation (if any):** None
- **Infrastructure as Code (if any):**
- **Diagrams (if any):**
- **Infrastructure as Code Templates:**

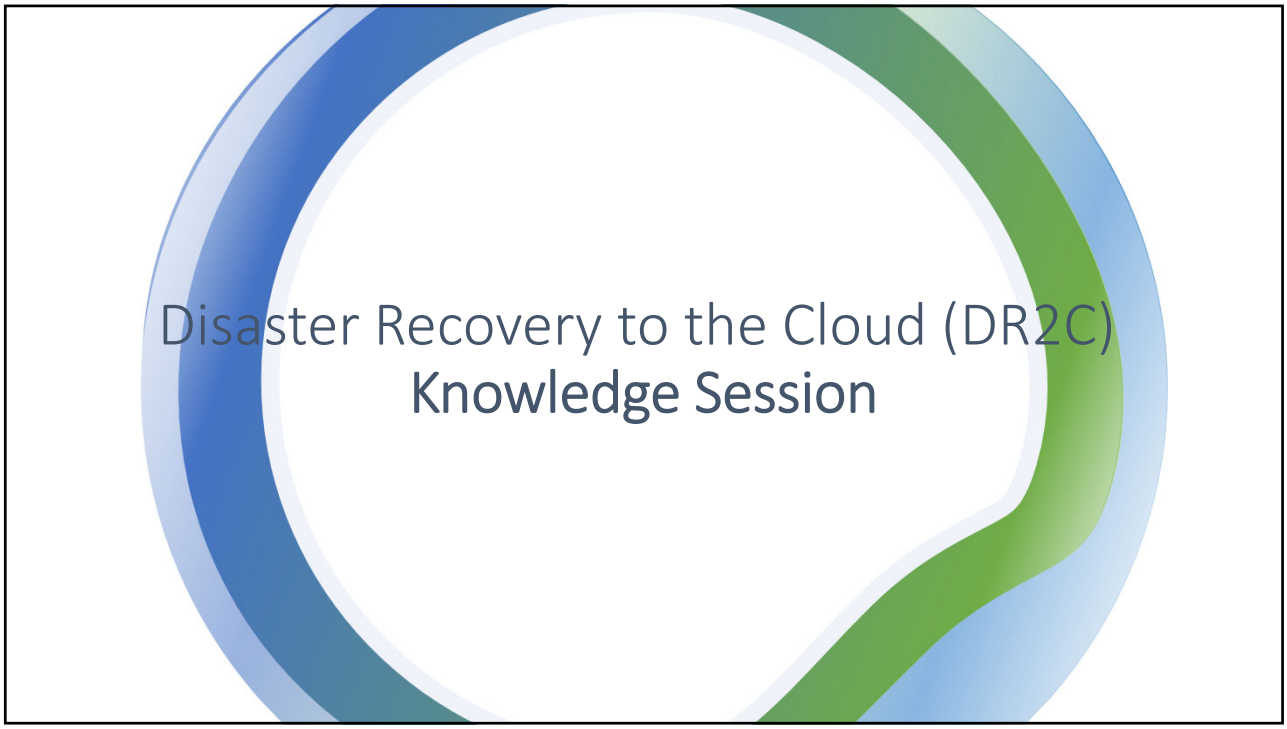
Appendix A

Critical Court Services

Objective

This list of services identified as candidates for modern disaster recovery deployments to alternate datacenters, or to the public cloud, was derived from previous ITAC documents: *Disaster Recovery Framework*, *Next Generation Hosting Framework*, recommendations from the Disaster Recovery Phase I workgroup and included in multiple disaster recovery deployments in California courts of varying size. These are common services among all courts.

- Case Management System
- Electronic Filing
- Justice Partners Portal
- Case Data Portal
- Jury Management System
- Telephone System
- File Storage
- Network and Infrastructure to support local and hybrid connectivity



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Objectives

- Provide a **clear pathway** to the Cloud
- Share a **phased approach** and considerations to transitioning from no or traditional disaster recovery to **Cloud** or a **Cloud-ready solution**
- Break down the aspects of Cloud Disaster Recovery into organized **key components**
- **Showcase deployment examples** of modern solutions and lessons learned from courts - **Placer (Rubrik)**, **Santa Barb (Azure Site Recovery)**, and **Orange (Zerto)**.

2

Agenda

- Introduction & Background
- Pathway to the Cloud DR (Componentization, Approach, Phases/Transition)
- Considerations (Compatibility, Skills, Cost, Etc.)
- Deployment Examples
  - **Placer (Rubrik)**
  - **Santa Barbara (Azure Site Recovery)**
  - **Orange (Zerto)**

3

DR2C : Charter & Goals

Shared by ITAC DR Phase II workstream and
Cloud Based Disaster Recovery Innovations Grant

4

DR2C Team

Phase I

Contra Costa, Imperial, Inyo, Judicial Council, Kern, Los Angeles, Madera, Merced, Monterey, Napa, Nevada, Orange, San Benito, San Bernardino, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Solano, Sonoma, Stanislaus, Tuolumne, Ventura, Yuba

Phase II

Marin, Los Angeles, 2DCA, Mendocino, Orange, Santa Clara, Santa Barbara, Placer, Monterey, Judicial Council

5

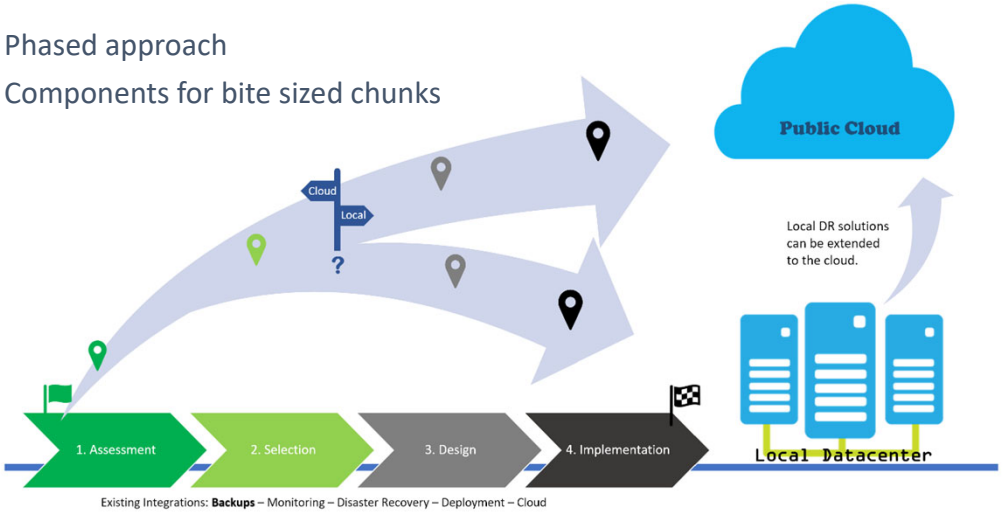
Priority Services

- Case Management System
- Portal - Online case records & services
- Public Website
- Jury System
- Criminal E-filing Services
- DMS
- Local file services (personal drives, dept drives, etc.)
- Telephone System

6

Pathway to The Cloud

- Phased approach
- Components for bite sized chunks



7

Discovery and Assessment Phase

- Locate, create, and organize existing documentation
- Review ITAC Disaster Recovery and NexGen Framework documentation
- Define a scope and deliverables for the assessment
- Identify tools to streamline assessment

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Selection Phase

- Evaluate provider offerings
- Choose a replication solution
- Determine connectivity requirements
- Evaluate automation tools

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Design Phase

- Cloud infrastructure
- Cloud connection
- Replication
- Automation

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Implementation Phase

- Cloud Setup and infrastructure configuration
- Cloud Connection
- IP Addressing
- Local Environment Preparation
- Replication Solution Deployment and Testing
- Pilot Failover/Failback

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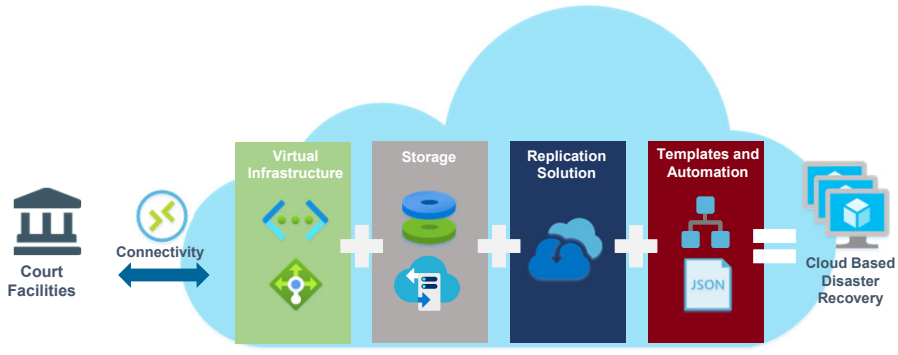
Cloud DR Components



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Options

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Local Infrastructure & Connectivity

- Server OS
- Virtualization Solution
- Existing Disaster Recovery/Backup Solutions
- P1 Services to be protected
- Virtual Clusters

- VPN
- 3rd Party Datacenter
- Cloud Provider Private link

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Virtual Infrastructure & Storage

- Network Topology design
- Cloud network infrastructure (VNets or VPCs, firewalls, load balancers, subnets, etc.)
- Cloud network security (Peering, network security groups)
- High Availability

- Hot, Warm, Cold Storage
- Redundancy: Local vs Geo vs any at all?
- Input/Output Operations per second
- Data Encryption

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Replication and Automation

- Traditional
  - Veritas, MS Data Protection Manager
- Data management Stack Based
  - Rubrik, Cohesity
- VM Based
  - Zerto, Veeam, ASR
- Hypervisor Stack based
  - VMWare VMWare Cloud

- Cloud Provider Compatibility
- Manual vs automatic triggers for failover
- Infrastructure as Code for quick deployments

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DR Considerations

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Cost Considerations

- Storage
- Connectivity
- Hot, Warm, or Cold site

- Controlling ongoing costs for cloud footprint ($$)
- Securing funding for initial technology costs ($$)
- Choosing DR vs Cloud Hosting ($$)

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Local Environment Compatibility

- Virtualization
- Replication Solution
- Existing local DR configuration

Leverage Court's investments in technology resour

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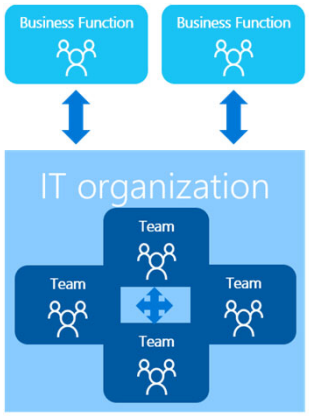
Skills and Abilities

- Local Infrastructure
  - Virtualization
  - Replication
  - Databases
  - Change Management
- Connectivity- cloud and local network
  - VPN
  - Dedicated Cloud Connection
  - Datacenter hop
- Cloud architecture and automation



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Placer - Deployment Example

- VMWare
- Rubrik
- Local DR
- 1 Gbps site to site link

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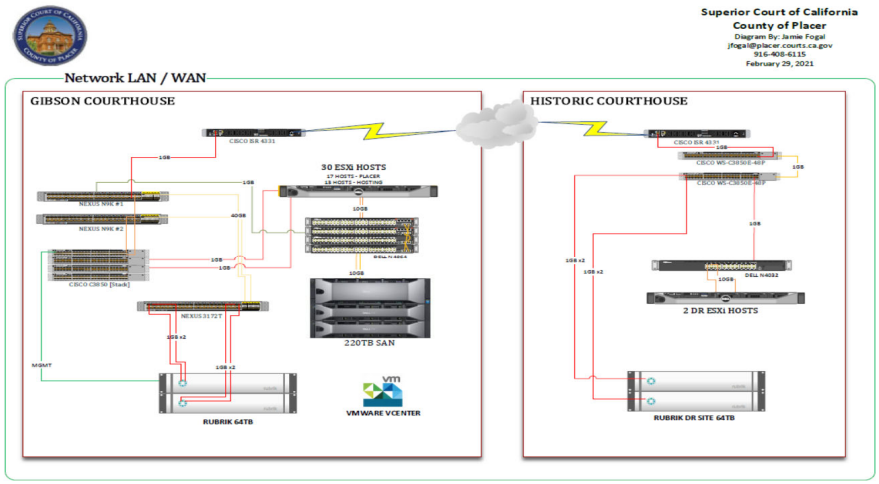
Placer - Architecture



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Placer - Lessons Learned

- Data Compression was higher
- A Computing Source is needed to restore in a the Sandbox
- User Interface was very easy to use
- The Company is very easy to work with and they support their customers.

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Santa Barbara - Deployment Example

- VMWare
- Azure Site Recovery
- Azure Cloud Provider
- 500 Mbps shared connection

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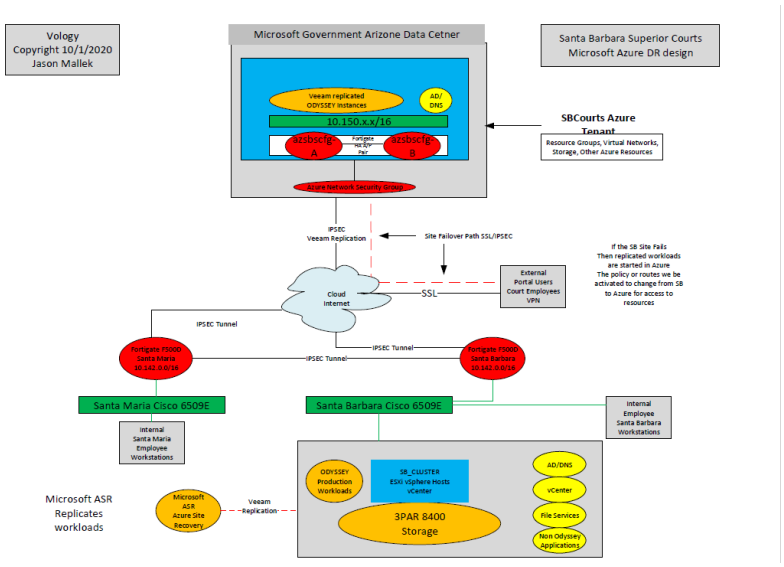
Santa Barbara - Architecture



Santa Barbara - Lessons Learned

- Make sure to size Azure VMs with enough resources to handle replication or they will stall processes
- Reverse replication was not originally set up for us so we had to configure that
- Set up a test VLAN in Azure in order to test PROD without bringing on premise environment down

Orange, DR Journey

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Challenges

- Consolidate and migrate from legacy stack (IBM, SPARC) to VMware x86
- Enable a hybrid cloud DR strategy with VMware and Azure
- Reduce the cost and complexity of traditional DR
- Reduce the RPO and RTO while maintaining simplicity and control
- Legacy DR site had limited compute and lacks Geo separation

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Solution

- Zerto Continuous Data Protection solution and Azure enabled the realization of the cloud DR strategy
- Removed the need for a physical DR site with seamless integration with Azure
- Achieved RPOs in seconds, RTOs in minutes, with built-in Orchestration
- Reduced complexity and streamlined DR operations
- Seamless Test failovers with no impact to production
- Ability to create offsite clones in Azure

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Orange – Infra Stack

Hardware Stack
- Compute – Cisco UCS blades, Fabric Interconnects
- Storage – NetApp
- Networking – Cisco Nexus

Software Stack
- Virtualization – VMware
- Backup Application - Veeam, NetApp Snap Mirror

Cloud Stack
- Public Cloud - Azure GOV
- Regions - Arizona, Texas
- Cloud Connectivity - 1Gbps Express Route
- Carrier - AT&T, Megaport

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Orange – Apps Stack

OS Stack
- Windows 2019, 2016, 2012R2, 2008 R2
- Oracle Linux 7, RedHat 7

Database Stack
- SQL – 2016, 2014, 2012
- Oracle – 18c, 12c

CMS Stack
- Criminal – Vision (OS: Linux, DB: Oracle)
- Civil/Probate – Voyager (OS: Linux, DB: Oracle)
- Juvenile/Family – Tyler (OS: Windows, DB: SQL)

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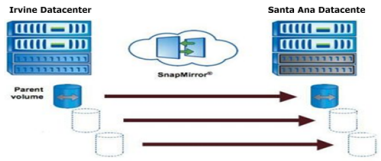
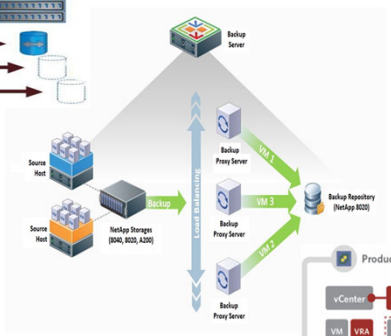
Orange - Journey to DR/BCP

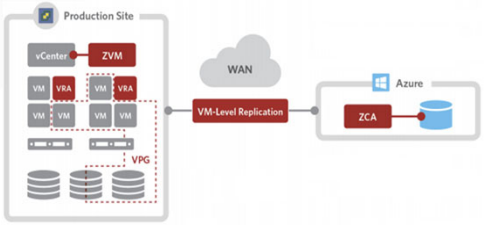
NetApp site-to-site replication



Veaam Backup & Restore



Zerto CDP



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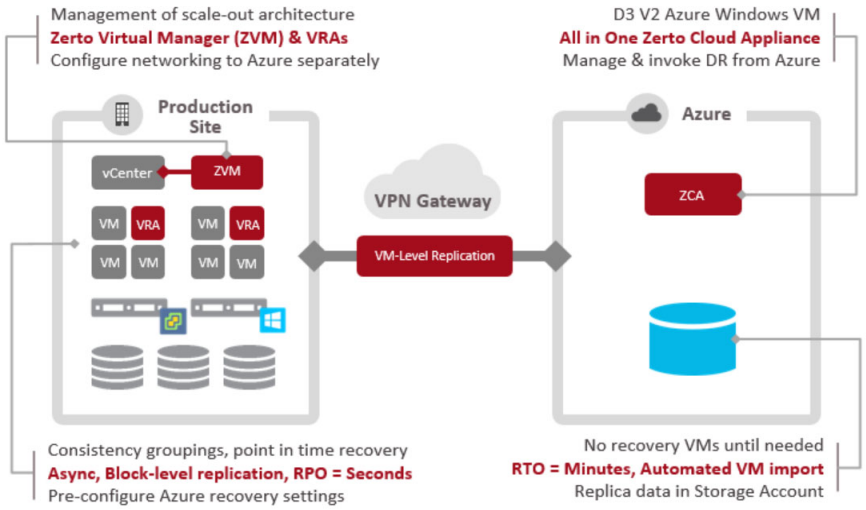
Zerto - Architecture



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Zerto - Salient Features

- Hardware-agnostic
- Agentless
- Single management UI for all operations
- Ease of deployment, administration and maintenance
- No additional components to protect, failover, and failback Linux
- Recovery with built-in orchestration and automation
- Pre- and Post- scripts to automate the custom recovery process

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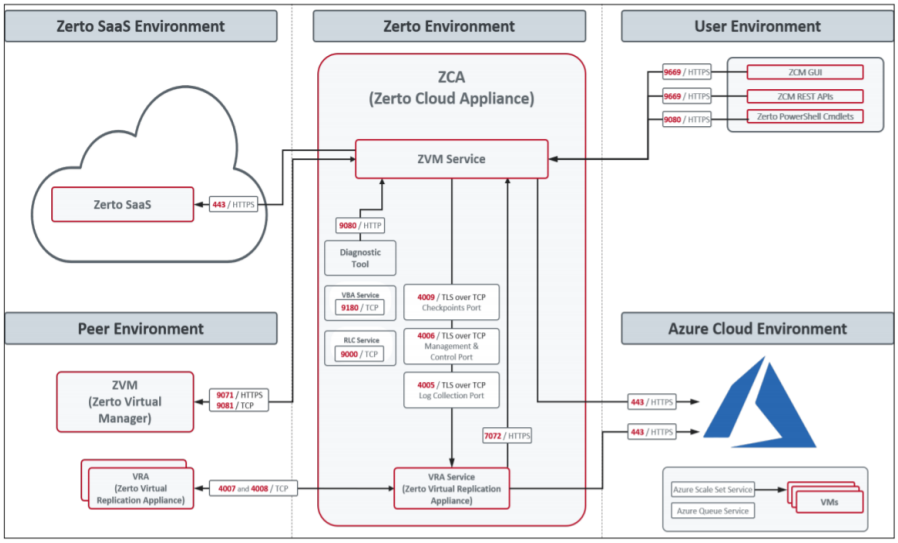
Zerto - Network Ports



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Orange – Zerto VPGs

Virtual Protection Groups

- On-Prem to Azure: 44 VPGs, 121 VMs
- Azure to Azure: 9 VPGs, 18 VMs

Protected Applications

- CMS: Odyssey, Voyager, Vision
- LOB: SharePoint, CRM, E-Filing, Jury, Web Apps

RPO & RTO

- On-Prem RPO: ~5-10 seconds
- Azure RPO: ~1-2 minutes
- RTO (on-prem to Azure): ~ 30 minutes
- RTO (Azure to Azure): ~ 10 minutes

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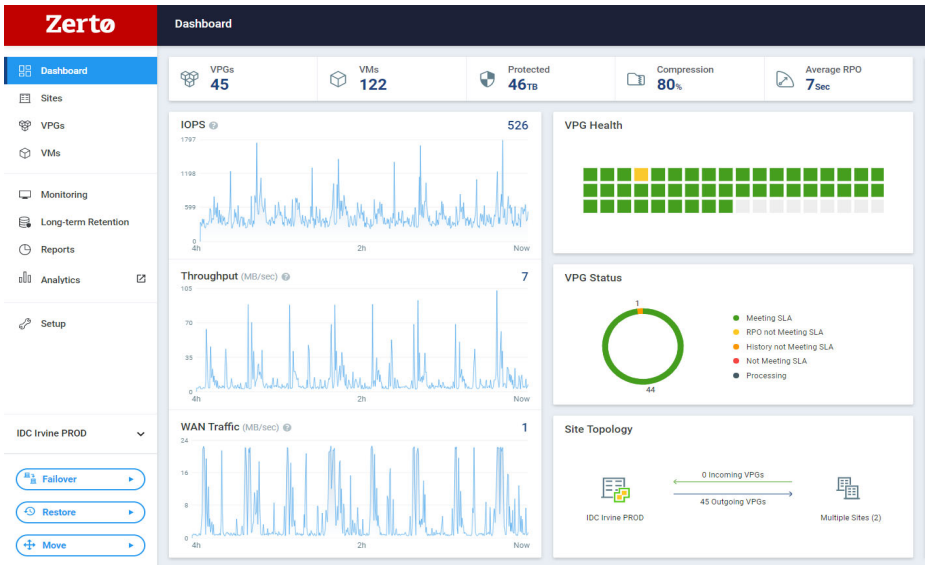
Zerto - Admin UI



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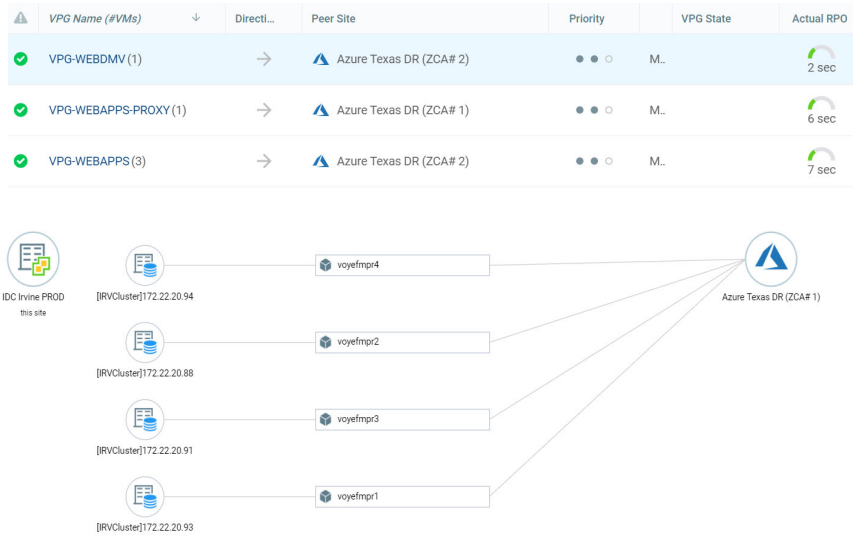
Orange - Zerto VPG's



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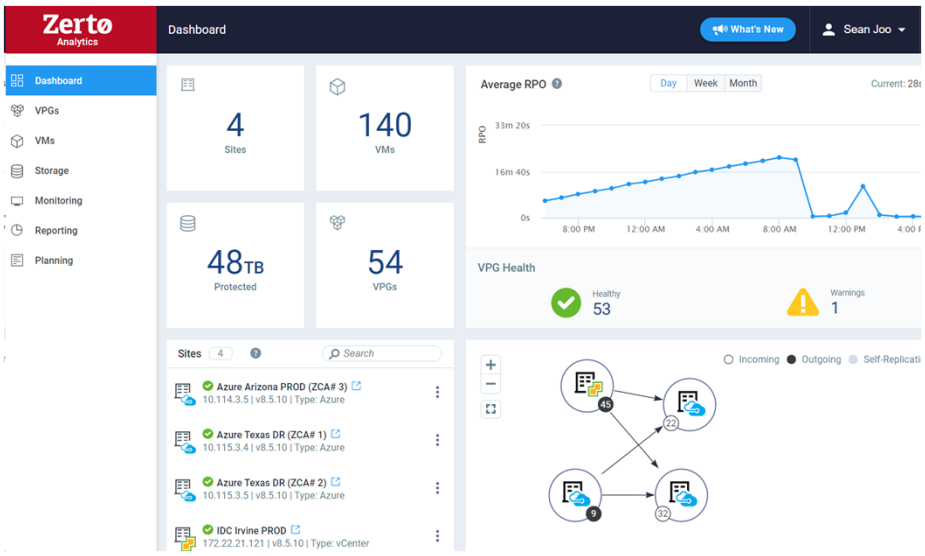
Zerto - Analytics



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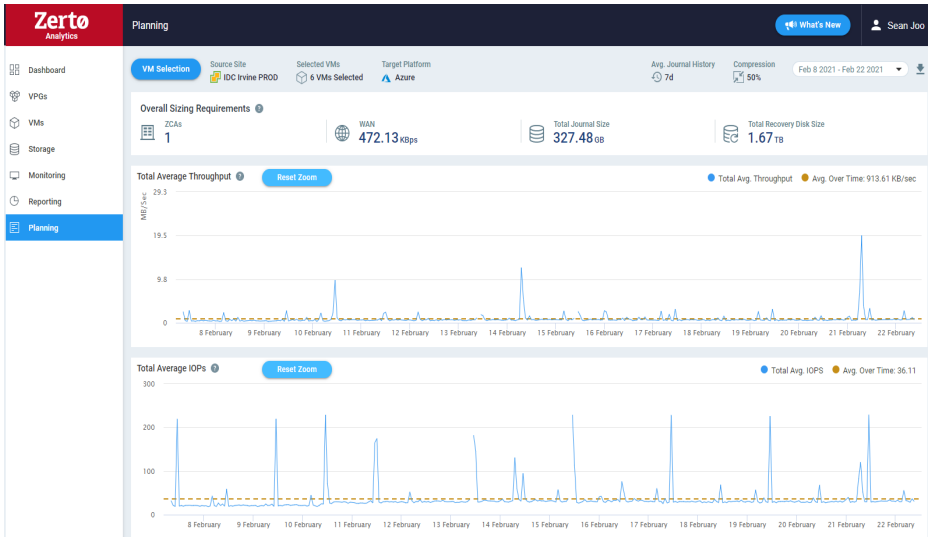
Zerto - Planner



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Zerto – Cost Components

Network
- Express Route: 50 Mbps - 10 Gbps
- Data Plan: Metered or Unlimited

Zerto
- Perpetual license
- Annual support

Azure
- Dedicated Compute: Zerto Cloud appliance
- Storage: Azure blob storage (LRS/GRS)
- On Demand Compute & Storage: DR Drills

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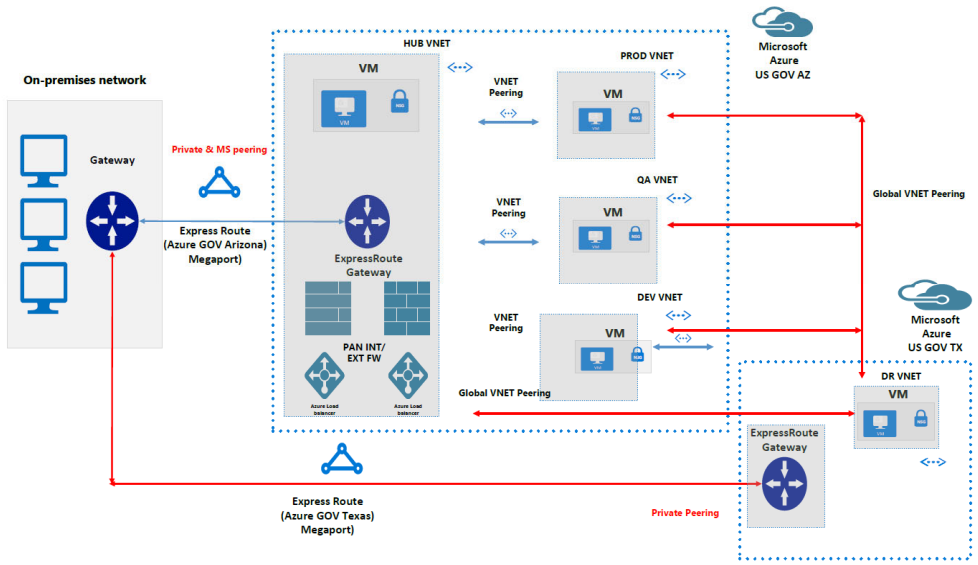
Orange – Azure (Hub-Spoke)



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Lessons Learned

- Troubleshoot issues between Zerto and Azure
- Bandwidth – Initial sync and Failback
- Lack of granular RBAC controls
- Applications dependency mapping

Next Steps...

- Actual failovers and failbacks
- DNS automation
- Create Run books
- Protect SMB and NFS workloads

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Q&A

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Branch-wide Resources

ITAC Disaster Recovery Framework
https://www.courts.ca.gov/documents/itac-dr-framework.pdf

ITAC Next Generation Hosting Framework
https://www.courts.ca.gov/documents/itac-ngh-framework.pdf

DR2C Roadmap Document
coming soon

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Questions?

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