

An Assessment of the Transition to a Paperless Initial Appearance Court

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Table of Contents

Acknowledgments	iii
Table of Contents	iv
List of Figures	vi
Abstract	vii
Introduction	1
Literature Review	25
E-filing in Snohomish County	25
Barriers and Limitations	26
Paper on Demand	26
Information Management.....	27
Paperless Environment	28
Methods	29
Interviews and Questions	30
Survey and Questions	31
Findings	33
Finding 1: iCISng Has Impacted Work Positively	33
Finding 2: iCISng Improved Efficiency	35
Finding 3: Impact on Clerk of the Court.....	36
Finding 4: Training Successful	37
Finding 5: More Information Available	38
Finding 6: Savings and Improved Public Safety	39

Finding 7: Clear, Precise Release Conditions and Court Orders.....	40
Finding 8: Meeting Goals in the Arizona Supreme Court’s Justice 2020 Strategic Agenda.....	43
Conclusions and Recommendations	44
Conclusion 1: Training is Vital for Success.....	44
Recommendation 1: Additional Training for New Update and Features	45
Conclusion 2: Bring other departments to paperless environment	45
Recommendation 2: Take necessary steps to bring other departments	45
Conclusion 3: Future Enhancements	46
Recommendation 3a: Improve speed of iCISng	46
Recommendation 3b: Improve iCISng links	46
Recommendation 3c: Better Communication with CTS	46
Conclusion 4: There are additional gains through process improvement	46
Recommendation Number 4: Utilize the time savings for process improvement	47
References	48
Appendix A: Presiding Judge Norman Davis’s iCISng Concept.....	51

List of Figures

Figure 1: FY 13 Filings	3
Figure 2: Top Ten Most Charged Criminal Offenses in FY13.....	5
Figure 3.A: Overview Initial Appearance	7
Figure 3.B: Preliminary IA Administrative Arrangement Process	11
Figure 3.C: IA Hearing Process.....	14
Figure 4: ePTR Flowchart	23
Figure 5: iCISng has impacted work positively	33
Figure 6: iCISng improved your efficiency.....	35
Figure 7: How much do you believe it has improved your efficiency	36
Figure 8: Savings and Efficiency Matrix	40
Figure 9: Maricopa County Justice Court Precincts	42

AN ASSESSMENT OF THE TRANSITION TO A PAPERLESS INITIAL APPEARANCE COURT

Johnny Tse

Abstract

The Superior Court of Arizona in Maricopa County's (Superior Court) new case management system, integrated Court Information System next generation (iCISng) allows for a paperless process that brings case history information on a defendant from booking all the way to the Initial Appearance Court (IA Court). This ensures that defendants are seen by a judicial officer within 24 hours of arrest and provides needed criminal history information to the officer in order to properly evaluate the release conditions for defendants.

The Superior Court seeing the need for an innovative solution to improve case processing by saving time, improving efficiencies, ensuring safe transfer of information by eliminating physical case file transportation by couriers, and providing real time criminal history information to Judicial Officers and court employees created iCISng. It was designed for judicial officers by Judicial Officers.

The Initial Appearance Court was previously disconnected from the Superior Court case management system. Pre-trial Services had to enter defendant and case history information on three separate tracking systems.

The Judicial Officers of the Initial Appearance Court needed more information readily available to manage their caseload effectively and efficiently. Prior to iCISng, judicial officers spent more time researching case information resulting in slower

resolution of cases before the Initial Appearance Court. A quicker resolution with needed criminal history for each defendant improves the administration of justice by allowing a more thorough, careful consideration of release condition of defendants, and its effects on the victims of crime and the community.

iCISng helps the Superior Court attain goals outlined by the Arizona Supreme Court's strategic plan, Justice 2020 A Vision for the Future of the Arizona Judicial Branch. iCISng will strengthen the administration of justice, while improving operational efficiencies and communications.

Introduction

Superior Court Presiding Judge Norman Davis, challenged court administration and Court Technology Services (CTS) at the Superior Court of Arizona in Maricopa County to bring forth a new case management system and replace an antiquated system that was paper intensive, redundant, and slow. “Any case management system must serve all of its users,” he stated when first envisioning the iCISng – paperless IA Court (Appendix A).

It is envisioned that iCISng will be developed into a dynamic case management system that will improve efficiency, save paper, have a paperless queue, improve workflow, save transportation costs of moving physical case files, and reduce the problem of missing case files. iCISng should have functional case type specific screens that follow the workflow, reduce the significant duplication of effort for data entry, and logically entered data is connected to how a case moves through the system. iCISng should have an “Initiation” process or screen to initiate a case after it is filed by the Clerk of the Court (Clerk) to populate all necessary data in order to start the case. It is hoped that iCISng will further promote accuracy. Data entry screens should also maximize the use of logic design concepts including mandatory fields, warnings, and stop functions if the data entry is improbable (e.g. a date of birth entry that would make someone 200 years old). iCISng improvements are expected to make the entire case processing system more easily understood and transparent, and allow for more management innovation and adaptation.

iCisng is envisioned to provide operational management. Court functions are regulated by statutory mandates, rule requirements, or best business practices. Violation of some standards is more serious than others and failing to meet a legal or business standard can result in consequences ranging from loss of liberty to delayed data reporting. iCISng is being designed to alert judicial officers and court employees if a defendant must be seen before the statutory deadlines. An auto-calendaring module is expected to assign court dates to meet statutory and rule-generated time frames, and be adjustable to changing legal standards.

This project provides an analysis of the transition to a paperless IA court. It reviews perceptions of the impact on users of the new case management system.

Superior Court of Arizona in Maricopa County

The Superior Court is the state's general jurisdiction court. It is a single entity with locations in each county. Arizona has 15 counties and 15 superior courts. Superior Court of Arizona in Maricopa County is the state's largest court with 154 judicial officers and more than 200,000 annual filings. The Criminal Division accounts for approximately 23 percent of the Superior Court's annual caseload. As Figure 1 below demonstrates, that amounted to 46,807 criminal filings in FY2013.

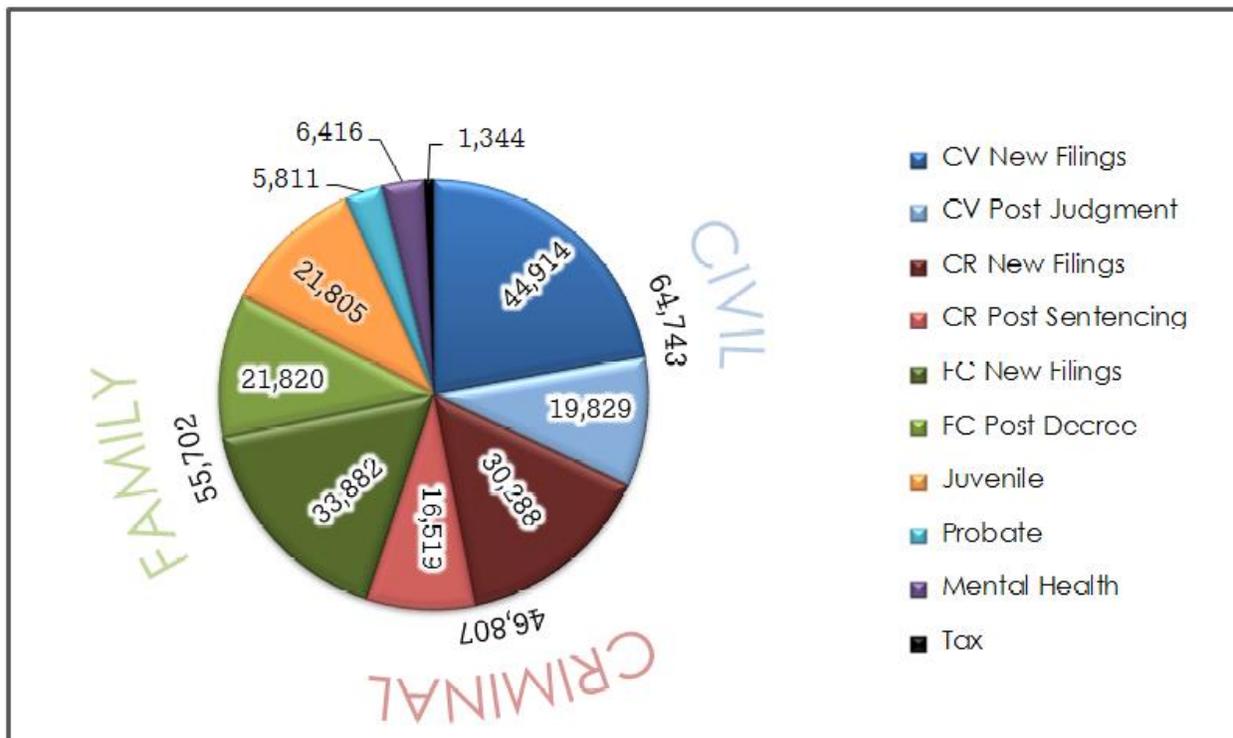


Figure 1: Fiscal Year 2013 Filings

The Superior Court attempts to align many of its goals with the Supreme Court’s strategic agenda. The Superior Court attempts The Arizona Supreme Court’s strategic agenda “Justice 2020 A Vision for the Future of the Arizona Judicial Branch” calls for:

Goal 1: Strengthening the Administration of Justice

Goal 2: Maintaining a Professional Workforce and Improving Operational Efficiencies

Goal 3: Improving Communications

Goal 4: Protecting Children, Families, and Communities

Goal 5: Improving the Legal Profession

Arizona Chief Justice Rebecca Berch stated, “While our justice system undoubtedly looked quite different a century ago, the Arizona Supreme Court’s essential vision remains unchanged: to provide the people of Arizona with a court system that fairly and impartially administers justice and efficiently resolves disputes. Courts must ensure that the rule of law protects the rights of all.” Chief Justice Berch felt that technology should be used to improve access to court documents and make it more transparent, accessible, and effective. The ongoing improvements in the Arizona Judiciary are important for maintaining public trust and confidence in the justice system (Justice 2009). The Superior Court agrees with this assessment and under its current leadership has made technological improvement a priority in meeting these statewide goals.

Initial Appearance Court

In reviewing the operations of IA Court, Court Administration learned that IA Court and the Pretrial Services Agency (PSA) case processing was driven by hand written documents that had to be copied, scanned and manually distributed. The paper process required numerous redundant data entry processes and was disconnected from the case once the IA hearing was complete. Many of the documents, including the release order and criminal history, produced at the IA Court were simply not available for the next judicial officer at the preliminary hearing. PSA entered defendant and case history information in three separate tracking systems and much of the information was

not available to the pre-sentence probation officers who supervised the defendant upon release.

In Maricopa County, most people who are arrested for allegedly committing a new crime or for an outstanding warrant are booked at the Maricopa County Jail. Arizona Rules of Criminal Procedure require an arrested person to be given an Initial Appearance hearing within 24 hours of arrest. Judicial Officers at IA Court hold hearings every 3 hours; the IA Court operates 24 hours a day, seven days a week. Approximately 200 hearings are conducted every 24 hours. In a given year, IA Court sees over 64,000 defendants. Figure 2 shows the top ten most charged criminal offenses in FY13. Marijuana and drug paraphernalia were the top two offenses for FY13.

Top Ten FY13	
Charge Category	Total
MARIJUANA VIOLATION	9,136
DRUG PARAPHERNALIA VIOLATION	8,848
DUI	7,385
ASSAULT	7,119
DANGEROUS DRUG VIOLATION	6,849
THEFT/SHOPLIFTING	5,880
BURGLARY	5,429
NARCOTIC DRUG VIOLATION	4,936
SEX RELATED VIOLATION	4,405
WEAPON VIOLATION	3,544

Figure 2: Top Ten Most Charged Criminal Offenses in FY13

To assist the judicial officer, a PSA officer conducts an interview of the defendant prior to the hearing to ascertain whether he/she financially qualifies for a public lawyer, whether he/she has sufficient ties to the community and whether he/she will likely

appear in person for future hearings in this matter. The PSA officers also conduct a risk assessment and a comprehensive criminal history background so that they can recommend appropriate release conditions to the judicial officer.

IA Court completes eight dockets per day. There are six full-time Judicial Officers and couple of judge pro tems. The IA Court Judicial Officers preside over the court proceedings on a rotation system and the schedule is determined by the presiding IA Judicial Officer. The IA Court Judicial Officers also travel to juvenile court on weekends and holidays and preside over juvenile detained calendars.

Each docket has a set cut-off limit of 40 items, with the exception of the 11:00 a.m. docket. The 11:00 a.m. docket has a set cut-off limit of 30 items. Each IA Court docket has a cut-off time of three hours prior to hearing times which are scheduled for 2:00 a.m., 5:00 a.m., 8:00 a.m., 11:00 a.m., 2:00 p.m., 5:00 p.m., 8:00 p.m., and 11:00 p.m. Figure 3.A shows how a case proceeds through the IA process as an overview.

OVERVIEW INITIAL

APPEARANCE

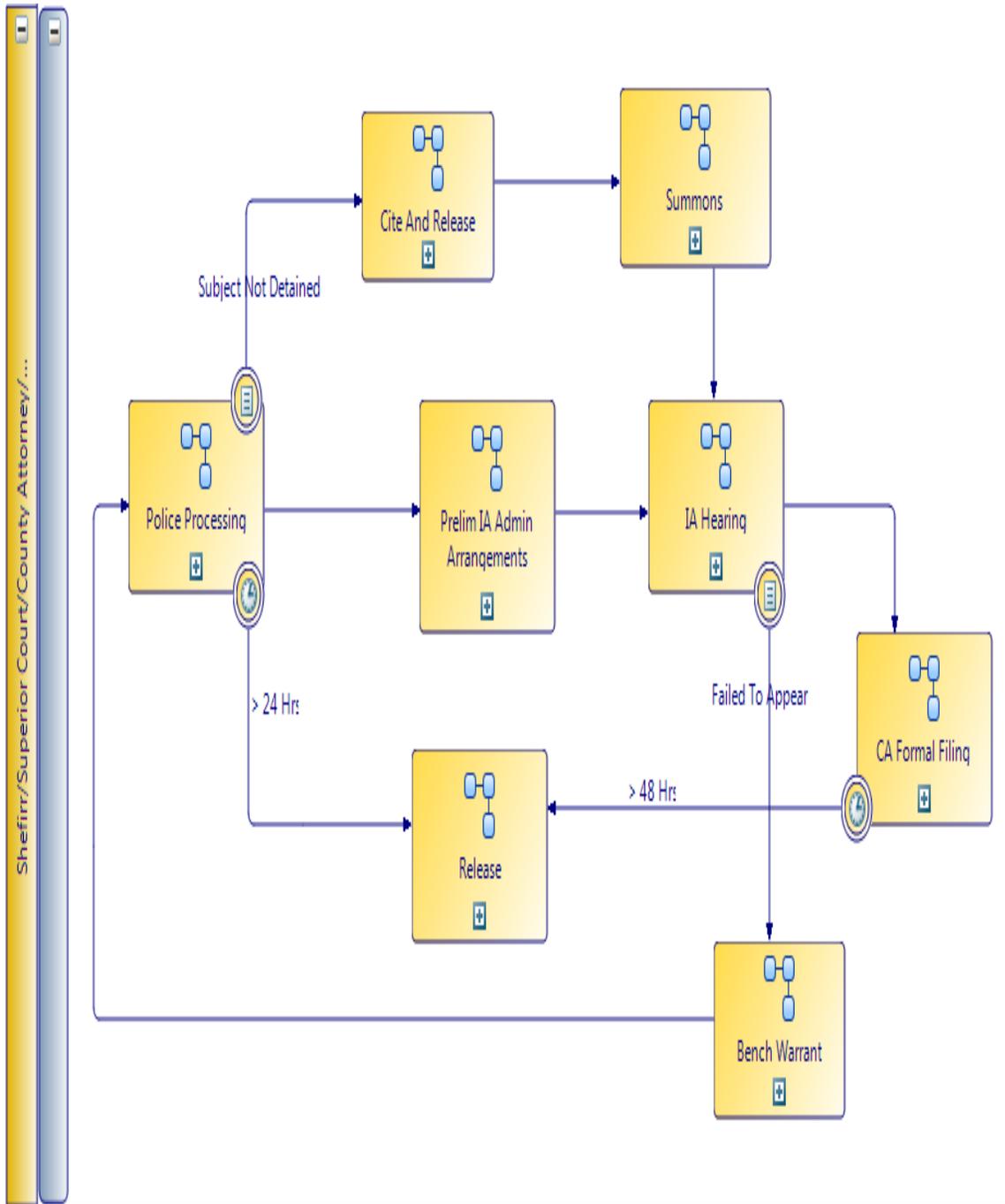


Figure 3.A

Standard Pre-IA Process

- The arresting officer inputs data into the Maricopa County Sheriff's Office's (MCSO) pre-booking system.
- Defining data feeds from the pre-booking system to iCIS via ICJIS. Not all inmate data to IA docket in IA staff has the ability to manually add data to IA docket.
- Pre-booking data also feeds to the MCSO Jail Management System (JMS).
- The pre-booking system auto populates each IA docket/calendar.
- A Form IV is generated if data feeds from the pre-booking system. A Form IV contains information associated to the arrest, the probable cause statement of the arresting officers, the charges, the location and time of arrest, defendant information, etc.
- The arresting officer submits an Arizona Proposition 100 (Prop 100) release questionnaire for new felony arrests, which is submitted to the judicial officer with the IA packet. The Prop 100 questionnaire is generated manually. Arizona Proposition 100 also known as the Bailable Offenses Act was passed in 2006 by Arizona voters. Prop 100 prevents bail for those charged with a serious felony offense that cannot prove they are in the United States legally. (Arizona Bailable Offenses, Proposition 100)
- IA staff he sees a hard copy of the warrant for all warrant arrests.

- IA staff determines if a pretrial interview/criminal history is required for all matters on the docket and updates the IA docket accordingly (Full, No, or Partial).
- IA staff updates the IA docket depending on the IA case type and data sent from the pre-booking system.
- Paperwork, typically in the form of a warrant, is submitted to pretrial staff if a full or partial interview is required or if criminal history information is required. IA staff has been completing the partial interview requirements.
- IA staff selects 10 line items at the time per docket and print three copies of the same.
- One copy of the docket print out is by IA staff steering courtroom proceedings.
- IA staff submits one copy of the docket print out to PSA staff, along with pertinent paperwork.
- IA staff submits one copy of the docket print out to MCSO staff so MCSO staff knows which inmates to transport to PSA for an interview.
- IA staff prints out incomplete forms; for example, the release order, order regarding counsel, etc., which includes writing the IA docket line on each of the required forms that will be utilized during court proceedings.
- IA staff holds forms and any paperwork until PSA staff returns the interview paperwork.
- PSA staff completes interview and returns paperwork to IA staff.

- IA staff submits all paperwork and forms to the judicial officer.

As seen in Figure 3.B shows the detailed preliminary administrative process of the case initial key in data and charts the movement through the preparation of the PSA packet for the IA hearing.

PRELIMINARY IA ADMINISTRATIVE ARRANGEMENT PROCESS

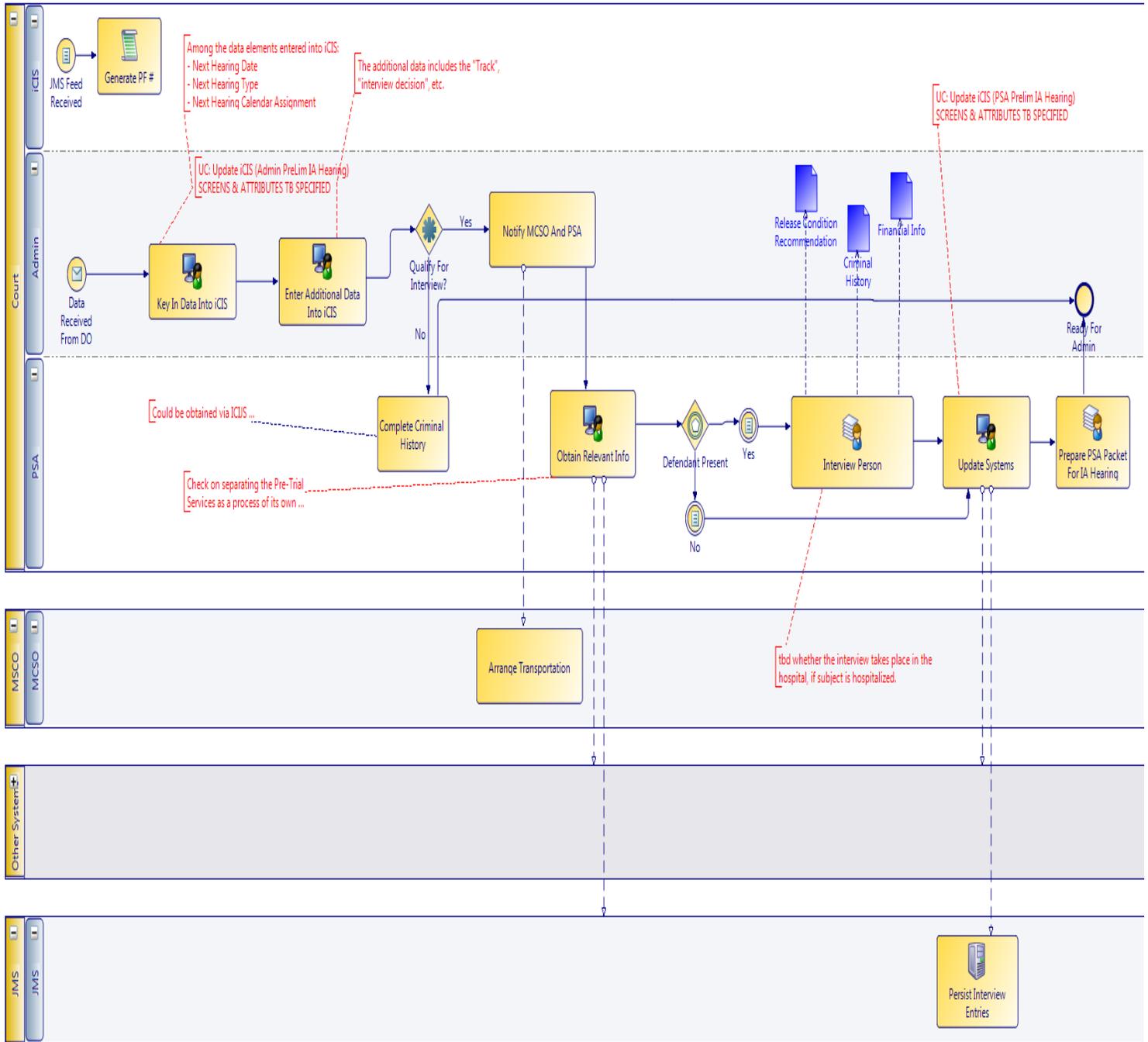


Figure 3.B

Initial Appearance Hearing

The judicial officer performs the initial appearance hearing in the designated courtroom in the 4th Avenue Jail. The judicial officer may also perform the initial appearance outside the courtroom (sometimes directly in front of a holding cell when a defendant is deemed dangerous to others or himself), as well as outside the scheduled docket time.

The judicial officer performs the following functions at the initial appearance hearing as outlined in the Arizona Rules of Criminal Procedure:

- Obtains defendant's name, date of birth and address.
- Advises defendant of alleged charges.
- Appoints counsel.
- Determines release condition or bond.
- Determines probable cause as to alleged charges.
- Writes the release conditions or bond on the release order form.
- Signs the necessary forms (release orders, Fugitive of Justice (FOJ) forms, and order regarding counsel) and hands all forms to the court administration staff person in the courtroom.

The IA staff performs the following functions at the IA appearance:

- Makes notations on the IA copy of docket.
- Notations include release and bond conditions, the next court date, and anything else as determined by the staff and/or judicial officer.
- The notations copy of the docket is filed and kept for three months.

- Writes the next court date and time on the release order.
- Obtains signature of defendant on the release order.
- Keeps all original forms and distributes copies in the courtroom as needed.
- Carbonless copy paper is used on the release order, the canary copy is distributed to the defendant; the pink copy to MCSO; and the gold copy to PSA (Carbonless copy paper, 2014).

Figure 3.C shows the IA hearing process. iCISng sends IA hearing calendar notification to IA court employees and judicial officers. Judicial officers are also sent IA packets that include financial information, completed release recommendation, release order, completed Form IV, completed order regarding counsel, and criminal history. During the IA hearing, the judicial officers update the final orders. After the IA hearing, the result is updated into iCISng.

IA HEARING PROCESS

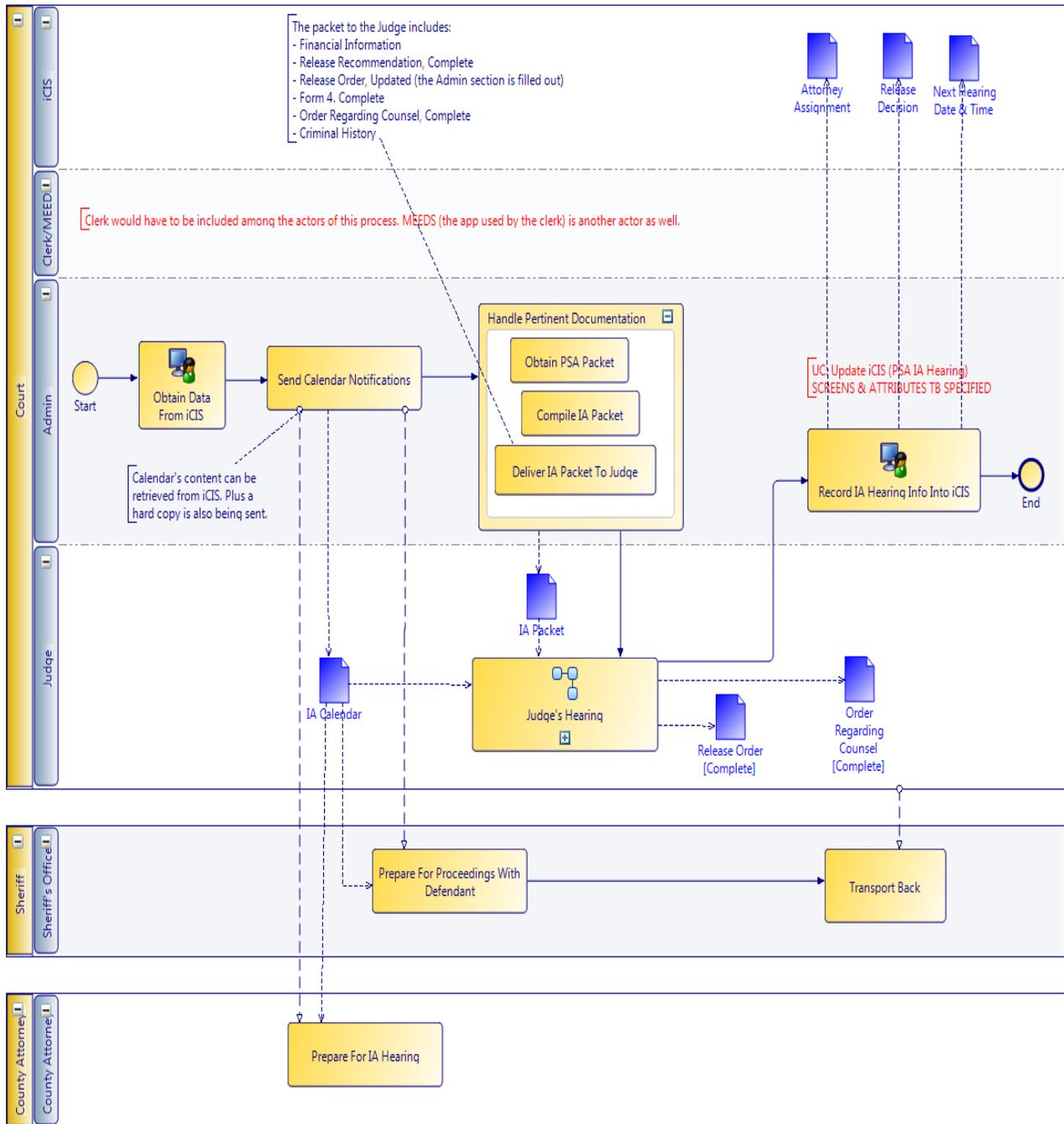


Figure 3.C

The Problem

The IA Court and PSA case processing has always been driven by handwritten documents that had to be copied, scanned and manually distributed. The paper process required numerous redundant data entry processes and was disconnected from the case once the IA hearing was complete. Many of the documents, including the release order and criminal history, produced at the IA Court were simply not available for the next judicial officer at the preliminary hearing. Pretrial Services entered defendant and case history information in three separate tracking systems and much of the information was not available to the pre-sentence probation officers who supervised the defendant upon release.

The IA Court Judicial Officers needed more information readily available to manage their caseload effectively and efficiently. Prior to iCISng, judicial officers relied on staff to prepare paper documents. Once they received the paper documents, the judicial officer prepared for the IA hearing. Some information was simply not available because they were in physical files and not readily available within the timeframe for the IA hearing. Having additional information for each defendant improves the administration of justice by allowing a more thorough and careful consideration of release conditions for defendants and its effects on the victims of crime and the community. A PSA officer was physically required to attend court sessions to assist in gathering data and scheduling future court dates.

iCISng... the new way

The new case management system, iCISng, has been operational in IA Court since May 2012.

With iCISng, IA Court and Pretrial Services have improved efficiencies by use of electronic work queues, ensuring safe transfer of information by eliminating physical distribution of case files, automating many activities that previously required staff time, and providing real time, simultaneous access to criminal history information and data to judicial officers, justice partners and court staff. Case processing information now flows electronically, in real time through the system as each agency conducts its work.

Judicial officers, IA staff and PSA officers conveniently and quickly produce and access all information through iCISng. It is a paperless case processing system that pushes information electronically from pre-booking to pretrial services to the IA Court and beyond once the charging agency formally charges the defendant. iCISng has electronic work queues that organize work, displays the defendant's mug shot so that he/she is easily identifiable, produces numerous warning notifications to the users to assist in case processing, produces documents and electronically files (e-files) those documents into the electronic case management system. For example, iCISng produces the release order and terminates the IA case automatically in the courtroom and allows for the Judicial Officer and the defendant to sign documents electronically. It emails the IA packet (release order, probable cause statement and PSA summary) to the next court once the IA hearing is complete. It also produces real time statistical

reports upon the completion of the IA hearing. iCISng sends data to the court's justice partners. Before iCISng, all of processes required staff to manually produce the IA packet and mail them to respective courts.

iCISng was designed to improve case processing by eliminating redundant data entry. iCISng helps Judicial Officers move effectively and efficiently through the assigned cases for each scheduled calendar by allowing them to select the needed information to make an informed decision on a defendant appearing in court.

Conversely, when the paper case files were used, the Judicial Officers would have to flip through all the paperwork to locate needed information, if there was information, to formulate the release condition of the defendant.

iCISng automatically sets the future court date, gathers and reports the data, and thus has removed the need for a PSA officer to be in attendance at the IA hearing. This allows the PSA officer to focus on conducting interviews and criminal history research instead of working on administrative tasks.

The design of the new case management system includes important elements such as functionally specific screens, case termination capabilities, common design characteristics, data population and expanded data sources, user generated reports, and automated calendaring. iCISng allows for the following:

1. Electronic initial processing of the case via data feed from pre-booking
2. Electronic work queues
3. Enhanced edits

a. Edits to review data coming in on Release Questionnaire (Form IV) to ensure the accuracy before case processing starts.

b. Edits for PSA work to ensure recommendations are accurate and fall within the statutory requirements.

c. Edits and logic to assist judicial decision making. For example, the judicial officer will receive a warning message if the judicial officer decides to release the defendant on a non-bailable offense statute. The system will not prevent the judicial officer from releasing the person, but rather, will provide a warning message.

4. Criminal History Document (CHD)

a. Quicker for the judicial officer to review because it is meaningfully organized.

b. Ability to save the information and keep it with the case. It reduces redundancy and assists judicial decision making because the result will be available for use at future hearings and pretrial services, if person is released to their supervision.

c. Eliminate redundant work for the judicial officer, court staff, pretrial service staff and probation staff.

5. Formal appearing documents

a. Release orders are no longer handwritten.

b. Documents are dynamic and provide information that is pertinent to that defendant.

c. Data elements can be captured from the release orders. This data can be provided to justice partners. This eliminates redundant data entry by court staff and by each respective justice partner.

6. Electronically file (e-File) IA documents when the case is filed by the County Attorney. E-Filing the IA packet, instead of distributing and scanning, saves time for Clerk of Court and court staff, resulting in the documents being available in the criminal case quicker (reduction from 1 week to 8 hours).

7. Reducing of paper usage

a. Cost savings in the elimination of paper, equipment and toner.

b. Eliminates non-value added activity.

8. Ease of criminal court seeing what current release order is for person released in IA and reduces confusion on the defendant's release status.

9. iCISng allows IA Court and the Criminal Court to work seamlessly instead of operating in separate environments with separate access required to pass from one area to the other.

10. Information is pushed to the user. Researching a case could take several hours when the information is not readily available or in a logical order. With iCISng, information is readily available via quick links and displayed on summary screens. For example, there is a summary screen available to the judicial officer that quickly shows a dozen or so important data points to assist in making decisions on release conditions. Before iCISng, IA users had to conduct extensive research to answer simple questions.

11. Defendants must have the IA hearing within 24-hours from arrest. The system monitors that time and displays the amount of time left on the calendars. Alerts are sent when a case falls outside of certain processing guidelines.

The iCISng Petition to Revoke Warrant Module (ePTR)

After conviction, some criminal defendants are sentenced to probation in lieu of confinement. The defendants placed on probation are usually monitored by probation officers who ensure that the defendant is complying with all terms of probation. If a defendant fails to comply with the conditions of probation, the probation officer may seek to revoke probation and ask the judicial officer to issue an arrest warrant.

In the past, if a probation officer wanted to obtain a warrant to revoke probation, the officer completed a hard copy petition and forwarded it to the judicial officer for review. After review, the judicial officer decided whether to grant the request and, if so, asked the Clerk to issue a warrant. The paper warrant then made its way to the MCSO, where the warrant was entered into the state-wide criminal database. The entire process normally took 1-3 weeks to complete.

ePTR allows the entire process between systems to operate electronically. Once a violation is determined to merit revocation, the probation officer starts the process by completing the petition in the Adult Probation Department's (APD) online system. That petition is automatically submitted electronically to the judicial officer's work queue. The Judicial officer grants or denies the petition. The clerk issues an e-warrant that is electronically transmitted to the MCSO. All of the required data points in iCISng are

automatically entered, so staff will not need to manually enter the data. All of this can occur within a matter of minutes.

Paper PTR Process vs. e-PTR Process

Paper PTR Process (could take weeks to complete)

1. Probation officer fills out 9 page template entering all data (client name, address, case number, offense, new violations).
2. Submits to supervisor for approval (walks file to supervisor's office).
3. If approved, supervisor gives to support staff for quality assurance, formatting and printing (if not approved, supervisor returns to officer for edits and steps 1, 2, and 3 are repeated).
4. Support staff returns to probation officer for signature.
5. Probation officer signs and gives back to support staff to log and send to Fugitive Apprehension Unit (FAU) (or Probation Officer walks it to Judicial Officer if urgent).
6. FAU processes and sends to Records for delivery/tracking
7. Records logs and delivers to Court
8. Judicial Officer rules and sends to Clerk of Court & MCSO
9. Clerk of Court enters into iCIS
10. Runner picks up the signed PTR/Warrant, logs & takes to FAU
11. Upon receipt FAU begins work on case

e-PTR Process (a few hours to approximately two days maximum)

1. Officer fills in allegations, evidence, and notes for FAU officer on an electronic form in APD Online. Most data is auto-populated from Adult Probation Electronic Tracking System (APETS) (Client name, address, criminal case number, offense, etc).
2. Officer submits to Supervisor for approval (electronically).
3. If approved, Supervisor submits to Court (electronically) & sends file to FAU. If not approved, supervisor returns to officer for edits and steps 1, 2, 3 are repeated.
4. Judge accesses Court Queue, rules, and sends to Clerk of Court & MCSO (electronically). Figure 4 shows the steps after a decision has been made by the judicial officer to issue a warrant.
5. Officer, supervisor & FAU get immediate notification of Court's ruling.
6. FAU begins work on case.

ePTR Flowchart

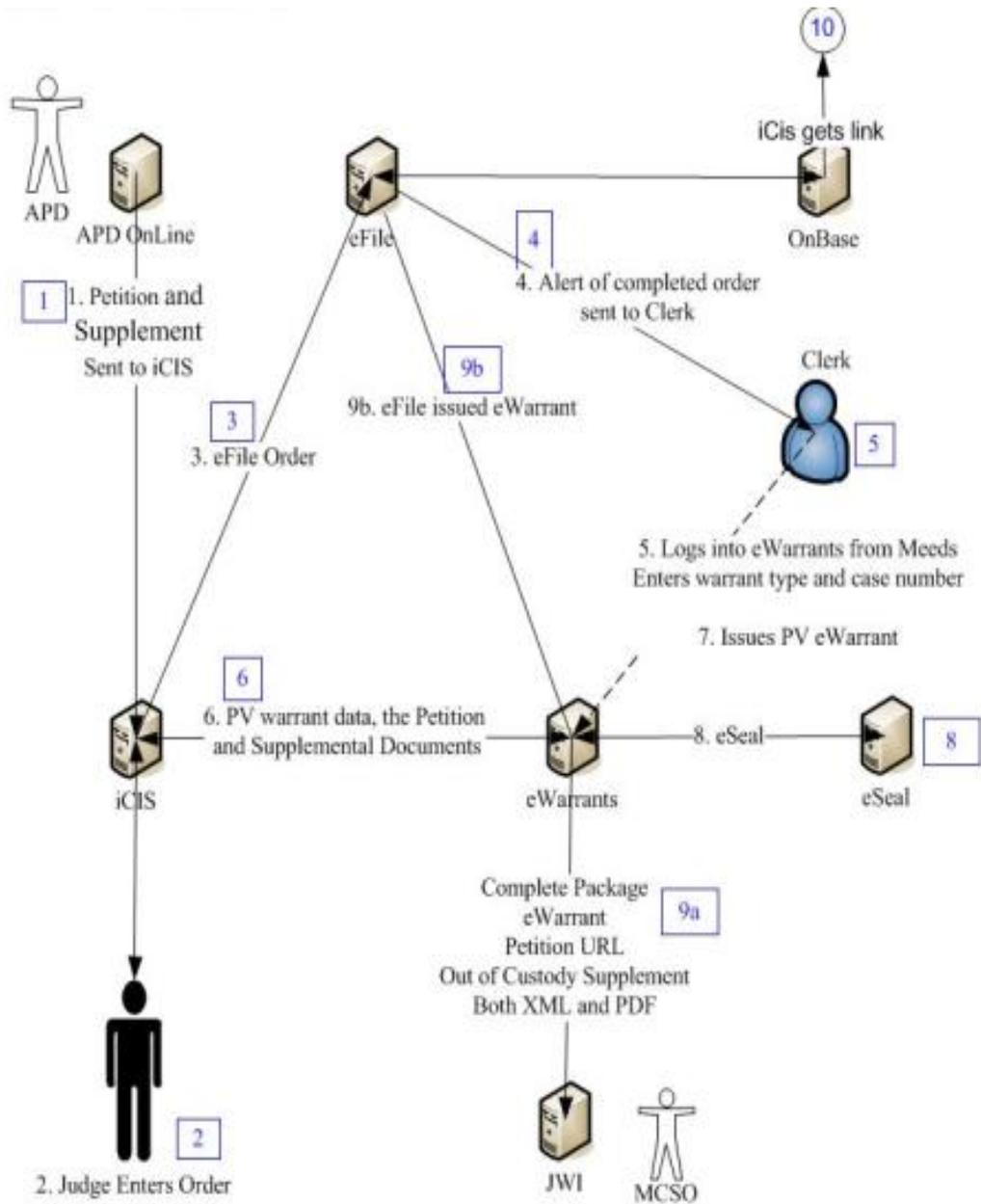


Figure 4

Research Questions

Why transition to a paperless court?

The transition to a paperless court was an attempt to achieve improved efficiency, reduce cost through savings in paper, toner and equipment replacement, and a paperless work queue and workflow.

What are the benefits and disadvantages of a paperless Initial Appearance Court?

The benefits of a paperless Initial Appearance Court are ensuring safe transfer of information electronically, reduce the need for transfer of physical documents and files, provide more complete and real time case history to judicial officers and court employees. The disadvantages are the loss of connectivity and reduced inter-departmental interaction between IA Court, Pretrial Services Agency, and Clerk's employees since the documents and files are moving electronically and there is no longer a transportation need for the physical case files.

How does it affect judicial officers and staff (from pre-booking to the IA Court) improve process efficiencies?

iCISng has had an overall positive effect. It has simplified the flow of the case from pre-booking to the IA Court. PSA officers have access to criminal history information from multiple sources in iCISng. It allows the PSA officers to conduct full interview to establish risk classification of defendants. Once they complete their full

interviews, the case file is electronically transferred to IA Court employees for preparation. Once, IA Court employees complete their preparation, the case file is electronically transferred to the judicial officer's work queue for their review and preparation before the IA hearing. Each user is able to see how many defendants are in the pipeline heading into their respective sections. PSA officers are able to see how many defendants are queuing up for them from MCSO. IA Court employees are able to see how many defendants PSA officers have interviewed and are heading to IA Court employees. Judicial officers are able to immediately begin review case information on the defendants in their work queue.

Literature Review

Organizations try to move to a paperless environment for many reasons. Many make the change for monetary reasons. The cost of managing information is high. Organizations make changes when it becomes necessary to cut costs or the cost of maintaining a current system becomes cost prohibitive.

For trial courts, one of the reasons is usually the cost of using, printing, storage, and accessibility of paper files. One such example is Snohomish County. A self-represented litigant had to print their own forms or complete them online and print or print them out and handwrite the information on them. Then, the litigant had to deliver the form to the Clerk's filing counter, pay the statutory filing fee, wait for a case number to be assigned and a barcode to be applied. The paper trail continued when the newly filed document had to be retrieved from the filing counter to be delivered to the indexing

division located two floors away, and then entered into the state database. After the entry into the state database, the filing moved to next step to be scanned. Before scanning, all staples had to be removed. After scanning, the forms had to be verified on the system. It was then reassembled and returned to the to the records division to be attached to the appropriate case file. The court looked to electronic means as a way to tame this “paper tiger” (Kraski 2010).

Alyce Roberts examined the potential for e-filing in the criminal courts of Anchorage, Alaska. She identified the three top potential barriers cited by Judicial Officers to e-filing include budgetary constraints, technological limitations at the court, and lack of staff to implement these services (Roberts 2010).

Jim McMillan of the National Center for State Courts identified many benefits for electronic documents that apply to the iCISng IA Court (McMillan 2010). He stated that there were many practical reasons for courts to embrace a “paper on demand” (POD) environment. Documents are e-filed or scanned to the court system when filed. The stored document is deemed as the original. One important benefit that McMillan stated was that multiple users would be able to view the document simultaneously. Many courts have headed in this direction for efficiency and cost savings in paper, storage, ease of access to documents, maintenance of electronic files, secure environment for court information, environmentally friendly, built-in calendaring and scheduling capabilities, and data-entry time savings.

The physical space savings is substantial since, in addition to the construction costs, the space for the files would need to be heated, cooled, and staffed. The benefit

of electronic court documents is that they can be accessed by multiple users simultaneously without the need for printed copies. There would be no need to have staff regularly move case files from record storage facilities to the courtroom. Electronic files can be protected from loss with backup and cannot be lost through theft from public viewing. Electronic files actually increase public access to case files since more than one individual could be reading them at one time. Use of electronic documents would allow the court to be environmentally friendly. With built-in calendaring and scheduling capabilities, the litigants would be better served by reducing the need to wait for a court date. Data entry would be reduced and save potential data entry errors. McMillan's bottom line is that courts should make careful decisions on their direction and not be locked into proprietary file formats. Instead, they should choose standard based electronic file formats when possible.

According to the White Paper, "Outsourcing: Reducing Cost and Risk in Information Management 2.0", in the mid-1990's, a typical four-drawer file cabinet held 15,000-20,000 pages and cost \$25,000 to fill and \$2,000 a year to maintain. The costs were broken down to 5% spent on equipment, 20% on space, and 70% on salary. Their analysis indicated that companies spend \$20 on labor to file a document, \$120 on labor to search for misfiled documents, and \$250 on labor to recreate a lost document. They indicated that hard copy documents contained fewer safeguards than electronic documents and found that most employees who stole customer or business information took it in the form of hard copy documents or files. Electronic documents can be protected with data backup and recovery. This is important for business continuity

should some form of disaster happen. Electronic documents can also be protected through privacy (security settings to limit access to particular files or documents) and encryption to protect them from internal and external theft. Protected electronic documents can also have an access log to identify who has had access to those documents. A hard copy document will have no such log (Outsourcing 2011).

Chief Judge Kuenhold and Robert Roper identified the challenge that any court will face with electronic filing. There will be always some form of resistance to any change. This is very true with conversion to a paperless environment. Those that are used to the paper file will miss it and the texture of the documents. Kuenhold and Roper indicate that it is important for users to know the benefits of a paperless environment to help market it to them. “For the judges, it provides a more reliable method for accessing documents, eliminates the wait and deliver manual method for getting files folders and documents, provides enhanced and more efficient methods for searching for documents, and facilitates mobile judging from anywhere a judge has internet access” (Kuenhold and Roper 2007).

One true benefit noted is accessibility of the case file simultaneously by different individuals that must work on the case. In the case of Superior Court of Arizona in Maricopa County’s IA Court, PSA officers are able to work independently of each other; as one is completing the criminal background check and another is interviewing the defendant simultaneously. This ability allows for improved operational efficiencies within the IA Court. As each case file is updated, the information is available to

everyone involved with the case. The judicial officer is able to begin reviewing the case file and IA Court employees are adding additional information to the case file.

Methods

The literature review served to identify what has been tried, what has worked and not worked in other jurisdictions. It also serves as a guide for such projects to head in the right direction. The lessons of others help the next organization avoid the same issues they have faced. The methodology in this project assesses the outcomes of those lessons learned in Maricopa County.

The research used in this project included: (1) interviews with users of the iCISng eight months after implementation, and (2) a follow-up survey to see if the changes made were lasting.

The initial interviews included all users of the new case management system. They included judicial officers, bailiffs, judicial assistants, pre-trial services officers, IA court staff, court administrators, and clerk of the court staff. The interview utilized open ended questions to help solicit the most information from the interviewees.

The interviews were conducted in the IA Court work area, pre-trial services work area, and Judicial Officers' chambers. The interviewees were only identified by their position to allow for anonymity and to allow them to speak freely.

The first interviews were conducted in January 2013. It was conducted approximately 8 months after implementation. Interviews were conducted by panel of 2-3 individuals using a selected set of questions. The panel consisted of court employees

that were familiar with those being interviewed. The court employees were there to ensure that the interviewees were comfortable with the questions. They were Diana Hegyi, Director of Research and Planning, Danna Quinn, Human Resources Director, and Johnny Tse, Management Analyst. All interviewees answered the same set of questions. Judicial Officers, managers/supervisors, and staff were interviewed. The interview questions were:

1. What do you know about iCISng?
2. Has the deployment of the 1st NG module impacted your work? If so, how?
3. Have you seen any efficiencies? If so, what?
4. Is information more or less available? What information?
5. Staff – What changes have you noticed with the work staff performs? Spend more, less or about the same amount of time on job related activities? New employee skill level? Training?
6. Biggest improvement because of NG?
7. One thing to improve?
8. Did you feel prepared for the change?
9. What business process would you like improved as we deploy more modules?

The challenge for the interviews was that they were open-ended questions. While this allows for more complete answers, it takes much longer than surveys to administer and analyze. One main benefit of the open-ended questions was that it provides a better picture of what needed to be improved and what is deemed successful.

The follow-up survey was conducted in December 2013 to see the lasting impact of the IA Court module of iCISng. Eighteen answered the survey. It was sent to IA Court, PSA officers, and Judicial Officers. The survey questions were:

1. Do you use iCISng?
2. Has the iCISng enhancement (IA) module impacted your work? Please provide a short statement after your response explaining your answer.
3. Has iCISng improved your efficiency?
4. Do you have easier access to case information with iCISng?
5. How long did it take for you to be comfortable with iCISng?
6. What improvements have you seen in your work because of iCISng? (Check all that applies)
7. What is your favorite part of iCISng compared to old iCIS (if applicable)?
8. What was your favorite part of old iCIS (if applicable)?
9. Priority of future enhancements? Speed, links, auto-sizing, better quality control before updates, reports
10. What additional upgrades would you like to have?
11. Do you need additional training?
12. Has iCISng help to improve your work environment (less stress)? Please provide a short statement.
13. Please indicate whether iCIS has improved your work performance in the following areas (Check each item where iCISng has improved your

performance). Accuracy, speed of data entry, increased ability to review my work, and easier access to case history.

It was much easier to draw information from the survey than the interviews since the answers were more defined.

An additional interview was conducted with the Clerk of the Court to identify the changes that affected the Clerk's operation because of the iCISng. The interview was conducted with Angelica Mejia, Criminal Court Operations Supervisor. She is in charge of the unit that handles the Criminal File Counter, Docket and eFile. Prior to the implementation of iCISng IA Court, the Clerk's Office received the Release Questionnaire/Form IV/Initial Appearance Document (IAD) packet from IA Court. It was on average a 5 page set of documents that were sorted, file stamped, barcoded, and scanned. Since the implementation, the Release Questionnaire/Form IV/Initial Appearance Document (IAD) packet from IA Court is e-filed directly into the Clerk's e-file system queue.

Findings

The interviews and follow-up surveys provided many interesting findings.

Finding 1: iCISng Has Impacted Work Positively

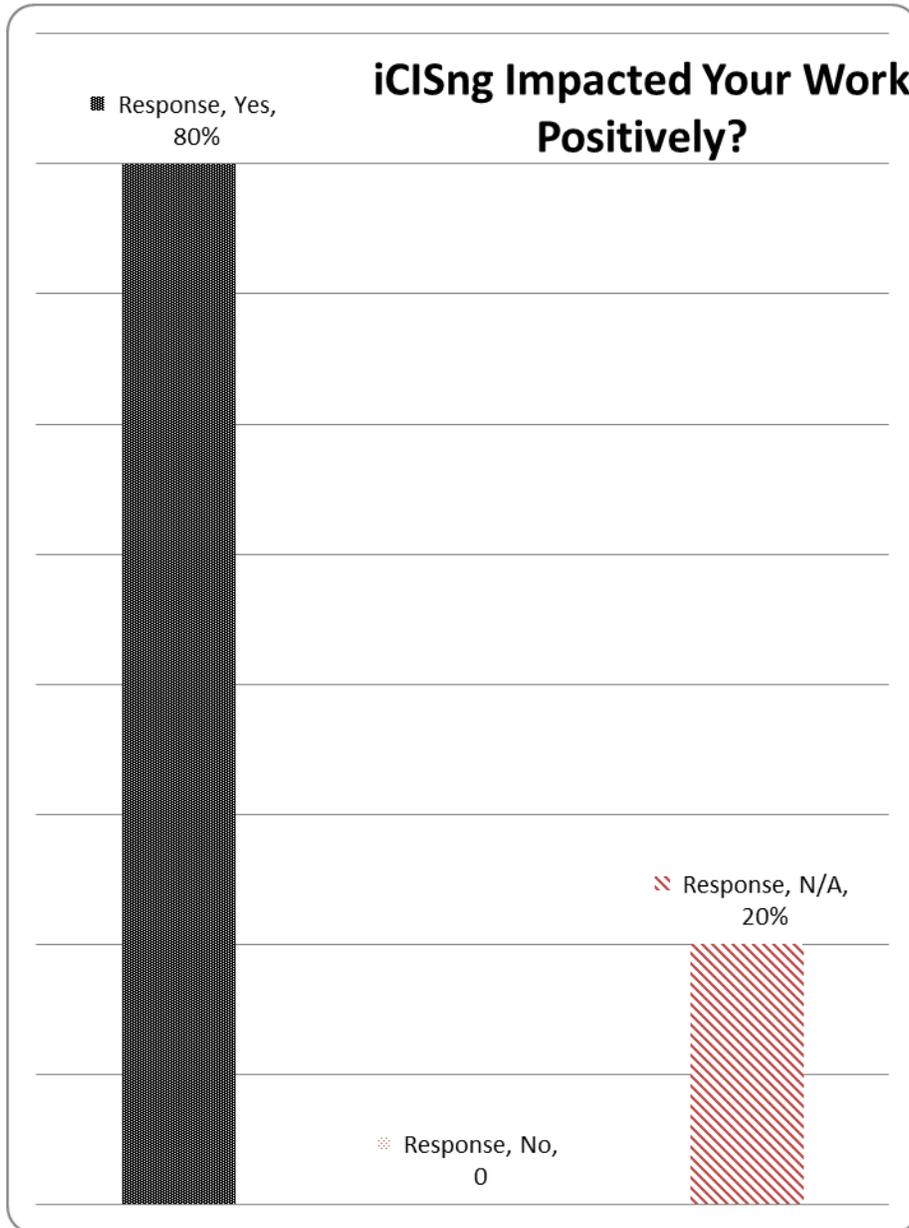


Figure 5

As shown in Figure 5, the survey result found that 80% of the respondents entered “yes” to the question “Has the iCISng enhancement (IA) module impacted your work positively?”, while 20% answered N/A. From those that responded with “yes”, many include short statements such as:

“Less paper use.”

“Ability to work ahead and not wait for Form IV”

“Reduced paper use, organized information”

“Made job run smoother.”

“Efficiently obtain criminal histories.”

“Very easy to maneuver around.”

“Less paperwork.”

The result was similar from all surveyed groups: Judicial Officers, IA Court employees, and PSA employees.

Finding 2: iCISng Improved Efficiency

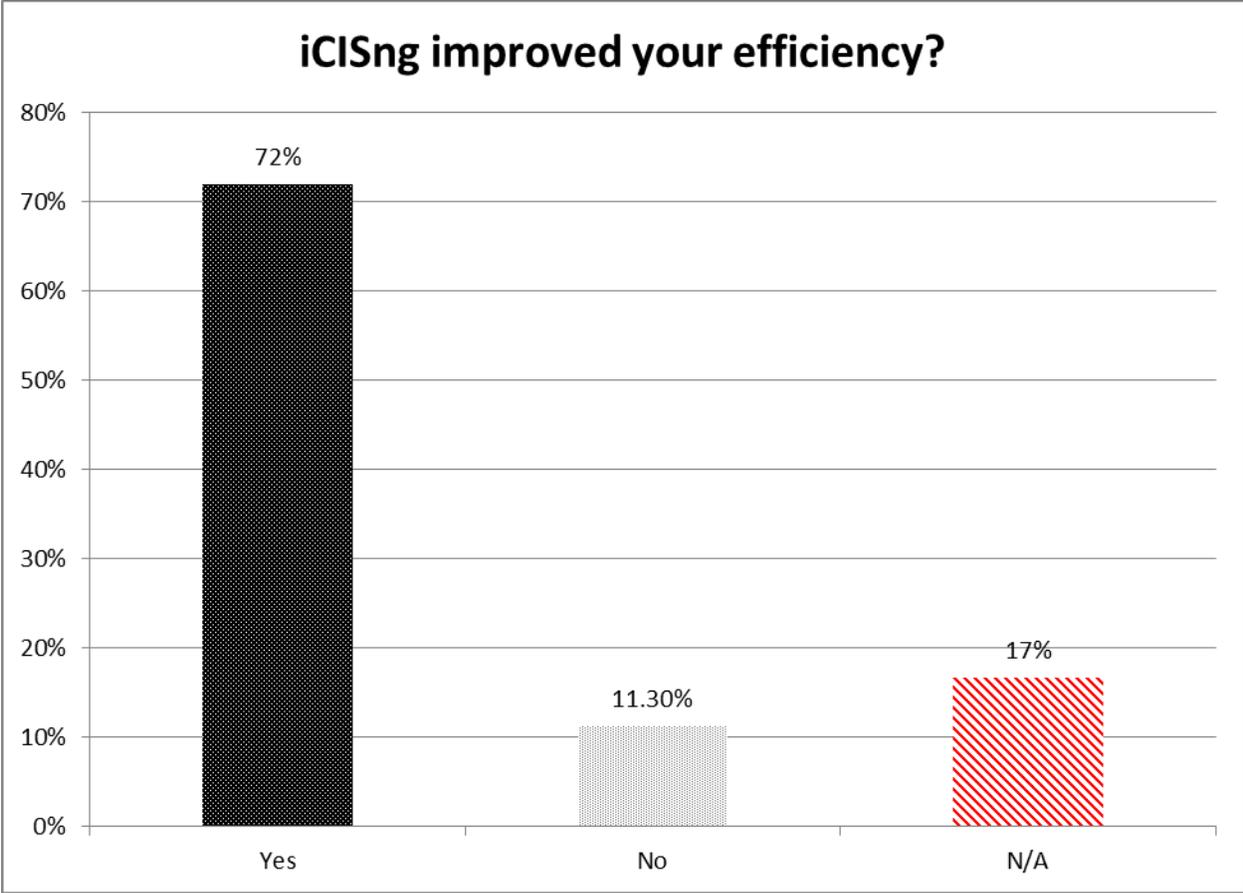


Figure 6

The question "Has iCISng improved your efficiency?" resulted in 72% "yes" on improved efficiency, 11.3% of the respondent indicated a "no", and 17% indicated "N/A" as a response as shown in Figure 6. The sub-question for those that answered "yes" was asked "how much do you believe it has improved your efficiency?"

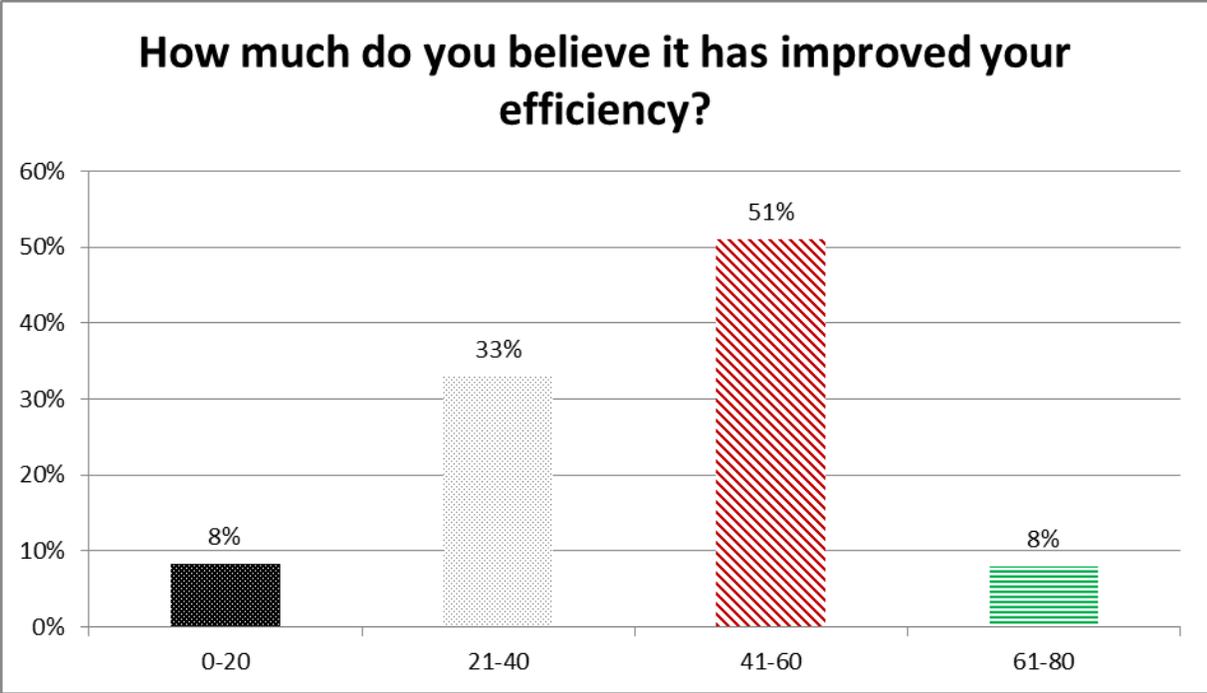


Figure 7

Those that answered “yes,” indicated that they believe iCISng has improved their efficiency. As shown in Figure 7, the highest percentage was recorded for those who believe that they improved their efficiency by 41-60%. Overall, 92% of the respondents saw at least a 21 percent improvement in their work efficiency and more than half saw better than a 41% improvement.

Finding 3: Impact on Clerk’s Office

Clerk of the Court’s Criminal Operations Supervisor Angelica Mejia identified that the process is less paper intensive since the IAD packet are submitted electronically and not a paper packet. All e-filed packed are cleared within 8 hours (normally processed within 2 hours). The target for clearing her unit is 2 hours after receipt during

normal business hours. She finds it is more accurate since entry no longer needs to be ten keyed in the system for the barcodes. Because of the iCISng IA Court module, the case file information is available much quicker to everyone. The court, Maricopa County Attorney's Office, and the public when applicable. She had to reallocate her employees from the packet processing to e-file section of the unit to meet the increase in demand for e-file approvals. The changes in the way the packet are sent to the Clerk's Office via electronic form, allowed for the reallocation of her employees to meet the new demand on the e-filing section of the unit.

Finding 4: Training Successful

The survey results indicates that the respondents are very comfortable with iCISng and received adequate training to meet their needs. When asked "Do you need additional training?" The response was 93% with "no" and 7% with "yes".

Staff was training to use the new online application in a setting that represented their work environment. Issues that were identified during the training exercises also helped to improve the iCISng by adapting the system's response to real life scenarios. Judicial Officers were trained in their portion of the iCISng. They have the ability to review the case files online. In the past, they had to wait for the physical files. Once they had the physical files, IA staff could not look at the case file since there is only one copy. With iCISng, the case file can be viewed by multiple users, so the Judicial Officer and IA staff are able to view it simultaneously. During the iCISng implementation, trainers and system engineers were available 24 hours a day for the entire

implementation. Trainers were available for every shift of IA Court. Trainers were available when needed, software engineers were available to make needed adjustments, and adequate training was provided to ensure that staff and Judicial Officers were comfortable with the implementation of the new system.

Finding 5: More Information Available

There are intangible benefits. The Judicial Officers and employees report they have more information available to them at the time they need it. Having this information allows them to make more consistent decisions. Having concurrent access to the information between the court and its justice partners were very beneficial. The improved access should help to increase public trust that the Court is working for the community. iCISng gave everyone access to more information that were needed to do their jobs. The Judicial Officers had access to have additional information available for them to decide on release conditions. They are able to view all documents in the IA packet. Judicial Officers have indicated that additional access to information is very useful in making decisions. They have access to additional case information (other pending matters) that in the past were not available to them. It gives the Judicial Officers access to release conditions from PSA. The result with more information is speeding up hearings since they don't have to ask the deputy county attorney for information since it is available on their screens.

The IA Packets have more information and can be accessible when needed through the system. Sheriff's Office had to deliver mug shots with physical case

information to the court. Now with iCISng, digital photos are taken of the defendants and are attached to the electronic court files. The mug shot follows the electronic case file to IA Court employees, PSA, and the IA Judicial Officer.

Finding 6: Savings, Processing Efficiency, and Improved Public Safety

Cost savings were generated by the transition to paperless court. There was an 90% reduction in the use of copy paper in PSA and IA Court. In PSA, 20 cases of copy paper previously used monthly and has been reduced to 2 cases per month. The survey results indicated that the less printing of documents resulted in lower use of toner for the printer and copiers. The PSA and IA Court employees are able to plan out their workload and work ahead on future calendars instead of waiting for paper files to arrive before they are able to start preparing the files for defendant interviews, and the IA Court docket. The improved movement of electronic files (e-files) allows for additional time for PSA staff to expand interviews at the jail before the defendant reaches IA Court. The expanded interviews also allows the Judicial Officer to have a more in-depth risk assessment of the defendant and provide for clearer release conditions since additional information is available at the Judicial Officer's disposal. Supervisors at PSA and IA Court has indicated through their interviews that the improved efficiency with the e-files and expanded interviews has allowed supervisors to be supervisors and can perfect supervisory duties such as regular auditing of staff work, better collaboration with justice partners. They used to help out during the interviewing to help process defendants. Release conditions and orders were on NCR paper.

Everyone had to write hard to get through all the copies. It is no longer the case. NCR paper is no longer used in IA Court.

The improvement allowed the supervisor to be solely a supervisor instead of stepping in to help out the PSA staff during interviews. This implies that there was a shortage of one FTE and iCISng has improved the work process to allow the current staff to cover the workload and the supervisor to do supervisory work that includes quality assurance of the work product.

Figure 8 below is a savings and efficiency matrix derived from Kuenhold and Roper on cost savings and efficiency that was achieved with iCISng.

Savings and Efficiency Matrix	Achieved
Reduce cost in intake	Yes
Faster case file retrieval	Yes
Faster case history compilation	Yes
Faster PSA complete defendant interviews	Yes
Reduce transportation costs	Yes
Reduce data entry time	Yes
Reduce time to prepare case files	Yes
Reduce need to prepare mailing IA packets to other courts	Yes
Reduce mailing and courier costs	Yes

Figure 8

Finding 7: Clear, Precise Release Conditions and Court Orders

In the interviews, IA court employees indicated that court orders are clearer and more precise since they are not handwritten. Any changes to the release conditions on the court order are done electronically. The only copies that are printed are those being provided to the defendant. The defendant also benefits by having a legible, clear, and precise copy of the court order with the next court date. The defendant signature is captured electronically and added to all court documents that are automatically attached

to the defendant case file. The deputy county attorney has access to case files for their needs. All case file documents are available online for the judicial officer and those that need access to them.

Indigent Defense/County Attorney did not have access to case information before iCISng because the IA Court was not directly linked to the old iCIS system. They now have instant access to release orders and attorney assignments directly through this new system. The system allows for Indigent Defense/County Attorney to view the needed documents on their computers. PSA had three separate tracking systems and had to enter defendant information separately and into each of the three tracking systems. iCISng brings all the required tracking and defendant information onto one platform. PSA has access to all information in one location. PSA is able to interview and pull criminal history on each defendant immediately during the interview with the defendant for their risk assessment.

Justice Courts' defendants that appear before IA Court had their IA packets delivered to each of the 26 justice courts daily, often after the scheduled hearing since it was being transported by couriers. With the new system, it saves approximately 6,000 courier trips annually since they are now emailed directly to each of the County's justice courts. Maricopa County is the fourth largest county in the United States and has a land area greater than seven states (Maricopa, 2014).

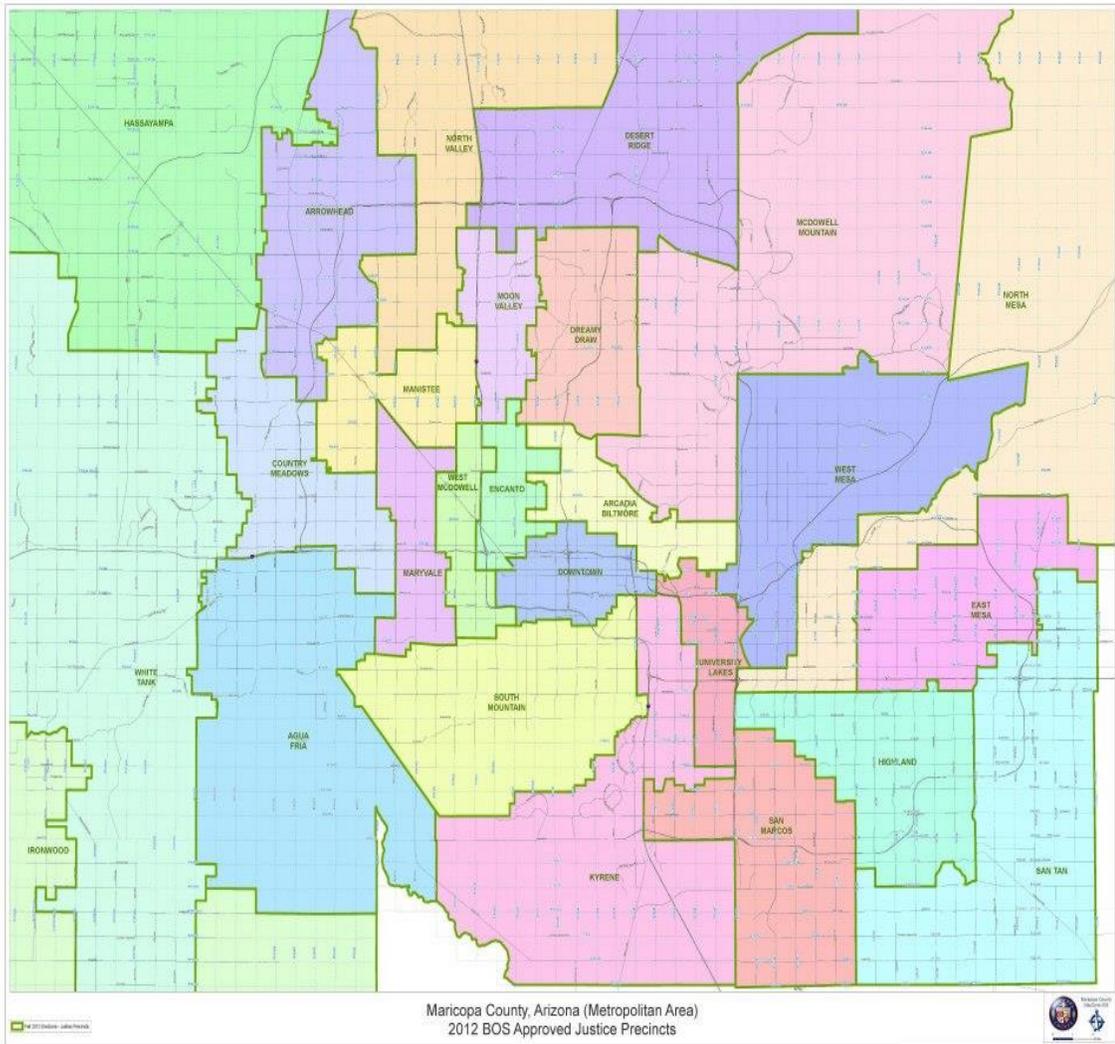


Figure 9

In Figure 9 shows the large geographic area that Maricopa County covers. For example, Ironwood Justice Court is located in Gila Bend, Arizona, which is 68 miles from downtown Phoenix, Arizona where the IA Court is located. The map below provides the justice court precincts.

Out of county Courts previously had IA packets mailed to them and many times would receive it after the defendant's scheduled hearings. Before iCISng, the IA packet would need to be copied, collated, and prepared for mailing. After the preparation for

mailing, it would be transported to the mail room for weighing and mailing. It would take 1-3 business days before reaching those courts.

Municipal Courts did not receive the IA packets before the defendant appeared in their court. Now, the IA packets are emailed immediately after their hearings.

Previously, the defendants would be transported to the municipal courts before the IA packet would arrive by mail. The Judicial Officers would not have much information to work with since the IA packet would be in the mail during the court hearings.

Access to justice is improved when the defendant is receiving a legible, clear, precise copy of the court order with the next court date. The release order makes it easy to understand and know when the next court date will be and where. This increases compliance by not having the need for the defendant read through illegible copy of their release order to identify what is expected of them and when.

Finding 8: Meeting Goals of the Arizona Supreme Court's Justice 2020 Strategic Agenda

IA Court module of the iCISng meets the goals established by Arizona Supreme Court. It helps to provide prompt, reliable information to decision makers, and improve service to the public. This is achieved by providing the needed case information to the judicial officers so that they are able to make the proper decisions. iCISng updates immediately during the IA hearing and thus provides case information to those that need the information. iCISng improves operational efficiencies by reducing the environmental impact of the IA hearings by reducing use of paper, that results in reducing the use of

toner, copiers, envelopes, postage, and time. It improves communications by having IA packets delivered immediately to justice partners so that their operation can run better. Justice should not be delayed by paperwork.

Conclusions and Recommendations

The research conducted for this project indicates that a transition to a paperless IA Court is possible and can result in improved efficiency, cost savings, and ensure the public trust in the courts. The data collected in this project provides the Superior Court of Arizona in Maricopa County with additional room for improving its IA Court module of iCISng. The findings show that the transition to the paperless IA Court went relatively well. The findings indicate that all the users received appropriate training that ensured their success with the new system. There is greater consistency in having case information available for the judicial officers.

Conclusion 1: Training is Vital for Success

When planning a project of this nature it is imperative that adequate training is provided. Interviews and the follow-up survey indicate that most respondents were very comfortable with the new system. The comfort that was experienced by the users was made possible by the training. The training involving mock exercises allowed the participants to become aware and most importantly comfortable with the new work environment.

Recommendation 1: Additional Training for New Update and Features

It is important for the court to continue to provide training for the users of the new system. Training allows the user to learn new ways to improve the efficiency and effectiveness of the system. Continued training will allow current users to learn about features that are available in the system. With additional updates, enhancements and features being added to iCISng, it is clear that continued training is imperative to the continued success that has been achieved so far by this new system.

Conclusion 2: Expand the Paperless Environment to Other Departments

Cost savings were generated by the transition to a paperless court and other departments can benefit.

Recommendation 2: Take necessary steps convert other departments to iCISng

The Superior Court should bring additional departments into the paperless environment. It is important to bring other departments of the Superior Court to iCISng more quickly. It is not cost effective to have a dual system while awaiting the development of the other modules for iCISng. It might be practical to collaborate with a private sector organization to speed up development of the other modules. A public-private collaboration might create new insight into the continued development of the paperless court environment.

Conclusion 3: There is a Need for Future Enhancements

The surveyed respondents identified system performance speed and links to as the top two priorities for future enhancements.

Recommendation Number 3a: Improve system performance speed of iCISng

The Superior Court can further increase the satisfaction of users with improvements to the speed of the system. As the users are becoming more familiar with the system, they want more speed.

Recommendation Number 3b: Improve iCISng links

A second area of improvement noted by the respondents is for links to probable cause statement and warrants. They would like the links to open more smoothly within the system.

Recommendation Number 3c: Better Communication with Court Technology Services (CTS)

Another area of improvement would be better communication and information from CTS before upgrades are rolled out or implemented. CTS should provide advance notice and possible impacts of the system upgrades to affected parties.

Conclusion Number 4: There are additional gains through process improvement

The new system has allowed supervisors and managers more time to supervise and it would be advantageous to use the additional time for process improvement.

Recommendation Number 4: Utilize the time savings for process improvement

The implementation of the new system is the perfect catalyst for process improvement. Those departments that are scheduled for future enhancements should begin preparation by examining their business practices that would incorporate the paperless environment. This review of business practices should occur prior the new enhancements. This allows the departments an opportunity to develop new business practices (best practices) that will be ahead of the game. Process improvement is important at all times, but is even more important when a new system is being implemented.

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Appendix A: Presiding Judge Norman Davis's iCISng Concept

Memorandum

To: Judicial Executive Committee
Marcus Reinkensmeyer, Judicial Branch Administrator
David Stevens, Chief Technology Officer, CTS
iCIS Project Design Team

From: Norman J. Davis, Presiding Judge

Re: iCISng Concept Plan

Date: July 7, 2010

I would like to propose a concept design for further development of our evolving iCISng case management system. With the recent announcement by Microsoft that it will no longer support our SQL Server 2000 database, it is apparent that we are running out of time to upgrade our case management system. This project to enhance our aging iCIS system will be an intense multi-year effort, most of the design work lies ahead, and most of the meaningful contributions will come from others more knowledgeable for this very important upgrade. It occurs to me, however, that this project represents a unique opportunity to enhance our case management system to function at a significantly higher level than any in use today.

From my observations and those I have heard from many others, I believe we need to make some significant alterations to our current iCIS system. CTS concurs with this general assessment and will not have the same technological constraints that existed with the iCIS system. They have been hard at work laying the foundation for an enhanced system and have already roughed out some pretty amazing architecture. Any case management system must serve all of its users, and it is from that standpoint that I offer my suggestions.

A. Functionally Specific Screens. iCISng should be built with functionally-specific screens or dashboards that mirror how the user enters and retrieves data from the system. These screens would consist of at least three general types:

1. Fixed Data Entry Screens. Many employees are tasked with the function of inputting data into our case management system at various times as each case progresses thru the system. Currently, there is significant duplication of effort for this data entry, and data is entered in a variety of ways with multiple input screens not logically connected to how a case moves thru the system. Concurrent with development of iCISng we will be evaluating the legal processes and business functions

in each department with a view towards streamlining each process and applying technology to improve it wherever possible. This will identify process functions in the legal process that should be mirrored by a data entry screen for each function wherever data is entered into the system. For example, we likely would identify an “Initiation” process or screen to initiate a case after it is filed by the Clerk to populate all necessary data to start the case. To further promote accuracy data entry screens should also maximize the use of logic design concepts including mandatory fields, warnings, and stop functions if the data entry is improbable (e.g. a date of birth entry that would make someone 200 years old).

Function-specific data entry screens will make each process more efficient. By minimizing navigation between multiple screens, we avoid the confusion and mistakes caused by sorting through data and screens that do not directly support the specific function. Thus, functionally specific screens facilitate better management, educate employees to the legal and administrative processing of cases, greatly simplify each function, and reduce training time for new employees to learn each function. We also expect that the iCISng improvements will make the entire case processing system more easily understood and transparent, and allow for more management innovation and adaptation. These data entry screens would of necessity be fixed with respect to data fields to ensure accuracy and consistency of entry, but would have some user flexibility for data presentation to meet the needs and personal preferences of each user.

2. Flexible Viewing Screens. Viewing screens that require little or no data entry should have maximum flexibility to meet the needs and personal preferences of each user. For example, a Judicial Officer may want to have all information the system contains on an individual or case on one screen, with customized blocks or tabs of information, some visible at all times and others available by selecting a tab to show the data. Users should be consulted to assist in the design of several “default” screens for new users to utilize until further familiarity allows total customization by the user. CTS has already demonstrated new technology that meets these requirements amazingly well. As I understand their design concept, a viewing screen or dashboard could be custom built for the user by selecting “data blocks” comprised of multiple elements in each block. For example, a data block could be identifying information for an individual, all financial obligations for a Defendant, MVD records for a litigant or the like. In turn these data blocks would be arranged in grids with one, two or three spaces on a line for data blocks in any configuration desired by the user. CTS provides for even greater personal customization by allowing data within each data block to be arranged in columns of the user’s choosing, and for exporting into a PDF or Excel format.

3. Management Screens. Every function of the Court is regulated by statutory mandates, rule requirements, or best business practices. Violation of some standards is more serious than others and failing to meet a legal or business standard can result in consequences ranging from loss of liberty to delayed data reporting. The information needed by the court to determine compliance with legal and management

standards is largely available from the data entered into the data entry screens. For example, if Criminal Rule 5.1 requires the court hold a preliminary hearing for a Defendant in custody within 10 days of the initial appearance, the information as to whether that hearing is timely scheduled can be calculated from information entered on an “Initial Appearance” data screen, and information as to whether it actually occurred could be calculated from an “EDC/RCC” data screen.

Departmental presiding judges, court administrators and managers could then have composite management screens that display real-time reporting of legal and management data. The management screens could report performance data based upon some gradation of criticality. For example, a management screen could be listed from most to least important, or grouped in 3 levels of criticality, perhaps: Level 1: possible violations of constitutional or statutory requirements; Level 2: noncompliance with essential legal and management standards as determined by leadership, and Level 3: deficiencies in collection of necessary data entry and reporting functions. The reporting methodology would necessarily vary depending upon the performance measure.

Some functions would require an alert when any single case became noncompliant to allow for immediate remediation, and others may simply report a percentage or number of errors. Management screens would need flexibility to adjust tolerances within their area of responsibility, and to allow any problems to be resolved quickly by the appropriate supervisor. For example, an administrative supervisor in the “initiation unit” may want to see every case that is not initiated within one day, the department administrator may want to see any cases not initiated after two days, and the departmental presiding judge and trial court administrator after 5 days. Examples of the type of performance measures that could be embedded and generated from the data entry screens include:

- Number of criminal trials and hearings not set within the time frames required under the rules or statutes.
- Number of bond forfeiture hearings not automatically scheduled when a warrant issues and a bond has been ordered.
- Number of criminal sentences not falling within statutory mandates with immediate notification to Judicial Officer, preferably while sentencing is in process.
- Number of post-conviction relief petitions filed and not forwarded to appropriate Judicial Officer within predetermined time frame.
- Number of civil cases referred for compulsory arbitration not set for hearing or resulting in decision within time frames.
- Number of motions filed without ruling within time determined by the Judicial Officer to ensure compliance with 60-day ruling requirement.

- Number of probate cases where probate bond or proof of restricted account was not posted within time frames as ordered and possibly set citation hearing automatically.
- Number of Conservator cases that have not filed annual accounting, and auto generation of citations/orders suspending authority/setting hearings etc.
- Number of tax appeals not ruled upon within time frames to determine if extension of rule should be requested or additional resources are needed.
- Number of dissolution decrees entered within 60 days after service with immediate alert to Judicial Officer at default hearings that the hearing is scheduled too soon.
- Number of motions for temporary orders in family court not set or heard within time required by ARFLP.
- Number of Orders of Protection filed but not heard on the same date.
- Number & percentage of Preliminary Protective Hearings set/held in dependency cases more than 7 days from removal.
- Number & percentage of Initial Dependency Hearings set/held in dependency cases more than 21 days after petition filed.
- Number & percentage of Permanency Hearings set/held in dependency cases more than 12 months from removal.
- Number of juvenile detention hearings set more than 24 hours after detention.
- Number or percentage of trials set beyond optimum as indicator of need for additional resources, training, or process adjustment.
- Number of terminated cases forwarded to administrative queue for data input that are not closed within time frame.
- Number or percentage of required data fields not populated within time frames set to complete monthly/periodic reports.
- Number of continuances of a trial or hearing and reasons for the continuances.

The system should not only capture numbers and percentages of cases within or outside of established standards, but list specific cases within the search parameters, and allow immediate remediation to the extent possible on each case. In some circumstances remediation will not be possible, e.g. when a case was actually heard outside of the time allowed. In such circumstances, an appropriate user should be able to remove the case from an action list and simply allow it to be counted statistically.

The above examples are only illustrative, and the design team or other designated persons will need to review all constitutional, statutory, rule and administrative code standards, as well as the mandates study recently completed by court administration, to identify all of the legally required standards that need to be monitored. Some additional standards will need to be administratively confirmed or established to complete an appropriate critical performance matrix required to effectively manage the court.

B. Build to Terminate Cases. The ability to terminate cases accurately and timely cannot be overemphasized. Accurate termination is essential to equalize case assignment between Judicial Officers in one department and to properly allocate Judicial Officers among departments. Additionally, accurate termination is essential to generate precise case aging, time-to-termination and other management statistics, and to persuade our funding source to increase or reallocate resources based upon a demonstrable need. A computerized case management system should recognize that the accurate entry and calculation of some data is significantly more valuable to competent management of the court than is other less-critical data.

Currently, data needed to terminate a case in iCIS is entered in various places, by different people, and with varying degrees of quality control. This has long created a struggle to obtain timely and accurate case counts. Often case counts are sporadically accurate and then only with significant manual intervention. Part of the difficulty is the need in some areas to populate data in the system for reporting purposes when a case is closed. For example, the entry of an order dismissing a dependency petition in Juvenile Court may legally terminate the case, but administration may still need to enter a wide variety of detailed supporting data that is now done concurrently with termination of the case.

To allow a case to be terminated accurately and timely when all legal matters are complete but still allow time for administrative entry of data, it may be necessary to separate case termination from closing. Accordingly, a case would be “terminated” when all legal matters are complete and a finalizing document (Sentencing Order, Judgment, Decree, Adoption Order etc) is entered, and the case is thereafter “closed” when all required data for reporting purposes is entered by administration into the case file. With this separation all cases should then be terminated in one of three ways:

1. Courtroom. All cases that are actually terminated in the courtroom by the entry of a Judgment, Decree, Sentencing Order, Order of Dismissal or similar document would be terminated by the Clerk of Court with standardized touch- or click- input screens, customized for the function involved. This would terminate the bulk of all cases including virtually all criminal cases, civil and family court cases heard by default or stipulation, as well as most juvenile and probate cases. Once the “Judgment entered” field was entered the case would be terminated, and a notice sent to a queue with the responsible administrator to complete any remaining data fields to “complete” the case.

2. Judicial Officer Assistant. All cases terminated outside of the courtroom by a Judicial Officer would be terminated with a specifically designed “Termination Screen” to allow each judicial assistant (or administrator in some Judicial Officer calendars) to terminate the case upon entry of the requisite termination document. The termination screen would be simply written without reference to innumerable drop-down

codes, and with a high degree of logic, and specific training for judicial assistants to ensure accuracy.

3. **Computer Terminations.** A significant number of cases, primarily civil and family court cases, are routinely dismissed for lack of service or lack of prosecution. The computer is well-suited to continue this function with administrative oversight and thoughtful programming to avoid precipitous dismissals, e.g. dismissal would be delayed when a default hearing is scheduled a few days beyond the designated dismissal date.

Upon the dismissal of any case or party by any of the three methods outlined above, an electronic notice of dismissal or electronic minute entry, customized to fit what actually occurred, would be automatically generated and distributed electronically to all parties in the case. This would not only avoid any expense of sending paper minute entries and be informational to the parties, but also would serve to ensure accuracy when cases are dismissed in error. In such cases, an easy and similar reinstatement policy should generate a reinstatement notice upon when authorized by a Judicial Officer *sua sponte* or in response to motion or request.

C. Common Design Characteristics. Currently, iCIS has been uniquely designed for each department with widely disparate functionality and views in each department. To accommodate rotation of Judicial Officers and staff between departments, facilitate faster training, reduce errors, and speed development, the iCISng system should have cross-departmental comparability to the extent possible. This can be accomplished by a court-wide design team comprised of knowledgeable Judicial Officers, administrators, clerk employees, CTS business analysts and programmers. Some areas of uniformity might include:

- **Similar Functional Flow.** Separate data entry screens for each legal or business function that mirror a similar or identical function in other departments, with somewhat different terminology and other limited changes, e.g. case initiation, calendaring, termination etc.
- **Similar Structure of Functions.** Every department will likely need a data entry screen to initiate cases. Every judicial assistant in every department will likely need primarily two data entry screens—one to manage filings and activities in a case from initiation to termination, and one to actually terminate the case, again with slightly different terminology but similar visuals.
- **Cross-Department Compatibility.** We should develop templates for viewing screens that have similar data functionality and configurations to allow someone familiar with a screen view to have a similar screen view upon rotation to a new assignment. For example, a civil “Termination” screen would look similar to the family court “Termination” screen except “Judgment”

becomes “Decree” etc. In addition, data maintained in one department of the court that is relevant to decisions made by a Judicial Officer in another department should be readily to the Judicial Officer. E.g. Judicial Officers in the Criminal, Juvenile, and Family Court departments can make better sentencing, custody and placement decisions if they have access to relevant information from the other departments. Such information sharing will also make possible the virtual integration of some case types involving the same parties that are now located in multiple departments of the court. Due process and other legal issues presented in the use of such information will, of course, need to be addressed by the bench.

- Similar Screen Patterns. Each department could have two kinds of data entry screens—legal process screens and data population screens. The primary input screens would be legal process screens to track all of the essential functions for judicial processing of a case until the case is terminated. A few data screens may be required to populate data required for statistical and reporting purposes that is generally not used for judicial processing. Notably, the Juvenile and Criminal departments may require such screens to enter data after a case is terminated and finally close the case.
- Common Data & Programming Modules. Change is constant and inevitable, and the agility of our technology development should mirror the innovation of new legal processes. The exact nature of new legal processes may not be predictable, but the anticipated technology applications to implement the changes may be more so. For example, in the future we will likely develop new specialty courts to handle a specific kind of case or pilot a new calendar configuration to improve efficiency. The exact nature and extent of such programs is unknown but iCISng should foresee such future development by designing easily adaptable data entry and viewing screens and a flexible calendaring system that are easy and quickly adaptable to the legal process change when it does occur.

D. Data Population & Expanded Data Sources. Significant planning will need to be done to ensure that data entered into the iCISng system and information available to the system is smoothly integrated and presented to the user in an efficient and effective manner. Some considerations in this area include:

- Data fields requiring manual entry should be populated as soon as possible in the process, by the person whose function, knowledge and position will ensure the most accuracy, and without the need for repetitive entry by another person.
- Currently, some data entry into iCIS is redundant and multiple people are charged with entering the same data. This redundancy is unnecessarily

costly, reduces accuracy, and diminishes accountability for timely entry. Wherever possible data should be entered only once. Data that is repeatedly used in multiple applications and processes should be auto-populated to maintain the accuracy and integrity of the data with single entry accuracy.

- We should also explore importing reliable data from other agencies to speed up case processing and accuracy, e.g. sentencing data from the Clerk of Court that is now reported to DPS. Another example would be to transfer fingerprint and DNA information collected at the jail from MCSO.
- Over the last several years the Clerk has made laudable progress in scanning and e-filing documents that are now available for immediate access and viewing. Strategic and seamless links to these documents should be embedded for maximum utility and efficiency by the user.
- A new financial management system (RFR) is currently being developed by CTS that will be integrated with the iCIS case management system, and eliminate the need for redundant data entry. This development will also allow Judicial Officers and other appropriate users to view comprehensive case and financial information together on one screen. The design team will need to determine from the users how financial data such as probation fees, fines, restitution and the like should be summarized and presented.
- Systems integration is rapidly advancing and the iCISng system will fully support an intergovernmental, collaborative systems approach. As such integration progresses we will be able to broaden the sources and types of information available to the court for decision making. It may be possible in the near future to access data from ADES (child support payments and some CPS records), ICJIS (real-time offender data, custody status, ICE holds, etc.), federal data repositories, and other court departments (e.g. GPS data on current location of defendants).

E. User Generated Reports. Currently, we have an overreliance on CTS to generate reports and statistical information. Many requests are never completed because of time constraints or the desire not to overload CTS or divert programmers from more important tasks. With proper planning iCISng will give us the ability to generate standard statistical data real time and embed it in electronic dashboards, and for users to construct customized reports. Accordingly, iCISng will need to generate customized reports in several ways.

1. **Routine Reports.** Routine departmental and performance reports will need to be reviewed and generated timely. Currently, this process requires significant manual intervention to correct and adjust the data into a fairly accurate report. Even with this manual intervention, the absence of consistent automatic termination of cases

and lack of accurate accounting for post-adjudication matters in all departments hinders accurate reports from being generated. Statistics are currently inaccurate or non-existent for post-decree family court petitions, post-judgment civil filings including garnishments, provisional remedies and the like, warrant cases and PCR petitions in criminal, guardianship and conservatorship annual or subsequent filings after appointment in probate cases, and dependency and delinquency cases in juvenile. Accordingly, iCISng will need to promptly and accurately terminate all initial cases, and, thereafter, accurately identify all post-adjudication petitions and track them to termination and closing to ensure accuracy in routine management reports.

2. Embedded Screen Statistics. Careful thought will need to be given by the bench and administration to what real-time statistical information should be embedded in viewing screens and continually updated. Obviously, the data reported will need to fit the function of each viewer and assist them in management of their cases or prevent legal errors. As a Judicial Officer, I would think a number of motions or requests filed with the Clerk that have not been ruled upon within a number of days specified by the Judicial Officer, together with the functionality to electronically rule or set the motion for hearing, could be one such embedded statistic. I don't know if we have the technical capability to scan docket to identify filed documents not yet ruled upon, even (especially) when the litigant has not provided a copy to the Judicial Officer, but this would be ideal. There are many other very significant statistical numbers that should be identified to ensure the user is aware of potential case flow management problems.

3. Customized Reports. Careful thought will need to be given to constructing a statistical reporting module that allows the user to generate customized reports for any information, within reason, that the user requires to better perform his or her job. This could easily include data downloadable to an Excel spread sheet format for manipulation or embedded commonly-used algorithms or formulas to generate averages, numbers and cases above or below a standard, grouping and counting of case types, passage of time between events with ranges and averages etc. When we are finished, it should be a rare report that requires a CTS programmer to generate.

4. Exception Reports. Routine exception reports will need to be generated, some automatically and some customized by the user. It is extremely inefficient for anyone to review hundreds or thousands of cases looking for cases with problems or outside legal or management standards when those cases can be culled electronically and presented to the user to immediately start addressing the problems. Between embedded electronic management tools and reports to identify exceptional cases, the court and every user will be able to better serve the public and bring every case into normalized standards. Some exceptions will be significant enough that iCISng will need to not only identify the exception but immediately electronically alert the appropriate Judicial Officer and/or administrator of the exception.

5. **National Comparability Reports.** The Maricopa County Superior Court has consistently sought and achieved excellence in its judicial processes. Comparing our performance to other courts of comparable size and complexity is one benchmark of our continuing progress. With varying state laws and rules, different court structures, and other variable factors between court systems, true comparability is difficult, but our Court has long supported participation in the NCSC's Court Tools performance measurement system as one way to gauge our progress. With routine generation of Court Tools Reports we will be able to continuously monitor our performance relative to other national courts of excellence on a more objective basis.

F. Calendaring. The calendaring module embedded within iCISng will need to be sophisticated and dynamic to meet the various needs of a wide variety of calendars and users. It will also need to be agile to accommodate changing calendars, management styles, pilot projects, and instant updates. All cases will need to have hearings set within statutory and rule-generated time frames, and easily adjustable to changing legal standards. Case allocation algorithms will need to be flexible as well to allow immediate adjustment of case loads for extraordinary and routine circumstances.

G. User Maintenance. We have an amazing group of people in CTS that continually are improving our technology and computer systems. If we have a common frustration, it is that we do not have enough of their time or more of them to complete an ever expanding list of technology projects. One partial answer to this is to move maintenance of our case management functions from CTS to administration. We do not now know exactly what changes will occur this year, but we do know changes will occur and with reasonable predictability the nature of the changes. For example, we know that the legislature will continually change statutes, the Supreme Court will change rules, and we will rotate Judicial Officers and administrative personnel between divisions and assignments. The iCISng system would accommodate these predictable changes by including tables to make these changes in a user-friendly manner. All changes to any computer process that do not introduce an entirely new function or procedure could be made in this manner. It takes a little longer to program these functions into the system, but the returns in cost savings and the immediate ability to modify easily are immense.

H. Development Characteristics. Although iCIS is one of the better case management systems in the country, one systemic deficiency in its development has been continual modification by approximately 4,000 users without sufficient business analysis prior to programming. This has led to short-sighted applications that require continual modification, and some frustration by the users and CTS. In some cases, multiple changes to the same programming are made within very brief periods, and not infrequently abandoned before implementation, reversed or further modified by the same or different user. CTS has evolved its governance structure into a much more logical and effective system to address this issue and iCISng will be developed with the benefit of this new structure. We will also use a court-wide design team to provide

cross-court consistency to work with each department to avoid a repetition of this in the future.

The vision for iCISng is more of the model that commercial computer developers use to create a complete computer management system whose business rules and applications are so well developed before programming starts that the completed product requires little modification. For example, Microsoft develops and rolls out Office 2007 to be used as is, and then begins work on Office 2010 to include enhancements. With continual legal and procedural changes, courts obviously can't be quite this rigid, but there is much to be learned from this model. This change will require foresight and users to spend time in the development stage to clearly map out their business requirements to ensure everything is considered at the front end. We will also have the opportunity to look at our current business practices to ensure that all procedures and processes are efficient and compliant with all legal requirements. With court-wide development concepts we will also be able to learn lessons from each department to improve consistency, efficiency and hopefully increase the speed of development.

I. Conclusion. Conception of an idea is always easier than its implementation, but so is effective implementation impossible without an initial concept. Much of the detail needed to complete this project will develop during the design stage by those best able to identify and articulate the solutions. We need to encourage all who use and are impacted by our case management system to offer suggestions and be involved with the design process. The development of iCISng will be a herculean effort if it is to be done right. Administration, probation, and the Clerk's office will all need to be involved at all levels to make this project reach its potential. Judicial Officers will not be called upon to write computer code, but they are in probably the best position to direct what the system should do and what they require to provide fair and impartial justice in a timely manner. The Maricopa County Superior Court has a rich history of innovation and adaptation. It has long embraced new ideas, scalable pilot projects, best practices and better use of technology in legal processes. It is vital that those most able to see and understand the technology needs of the court are heard and involved in the development of iCISng.