

IMPROVING DUI SYSTEM EFFICIENCY

A Guide to Implementing Electronic Warrants

Executive Summary

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Impaired driving has a profound impact on society and public safety, claiming the lives of innocent victims, causing significant injury, and costing millions of dollars in property damage, medical care, and criminal justice expenditures. Despite a 50% decrease in alcohol-impaired driving fatalities since 1982, more than 10,000 people are killed in alcohol-impaired driving crashes annually (NHTSA, 2017). The growing number of states legalizing marijuana and the spread of the opioid epidemic across large swaths of the country has also given rise to concerns about more drug-impaired drivers and drivers under the influence of multiple substances on the roadways. Clearly, addressing impaired driving must continue to be a national priority.

For law enforcement, prosecutors, and the judiciary to be effective in combatting DUI, they must have effective strategies to support investigation, prosecution, and adjudication. From a law enforcement perspective, the biggest challenge in making an impaired driving arrest is obtaining a blood alcohol concentration (BAC) or evidence of drug use. If the suspect refuses a breath test, or if the officer thinks there may be drug impairment and the suspect refuses a blood or urine test, the officer has little evidence to build the case unless he/she can obtain a warrant quickly. Drug-impaired driving presents additional challenges on account of the rapid metabolization of drugs within the body. The inability to obtain a warrant quickly means that drug concentrations in the body at the time of a blood draw will not accurately reflect concentrations in the body at the time of driving.

Luckily, with the availability of technology, lengthy and time-consuming processes for obtaining search warrants are becoming an anachronism. Electronic warrants (eWarrants) provide a mechanism for officers to obtain accurate BAC or toxicology results in a timely manner. These systems can significantly streamline the arrest process, allowing officers to complete requests in their patrol cars on tablets, smartphones, or computers. This practice reduces the amount of time that officers are off the street and the amount of time between the request, approval, and execution of the warrant. Use of an eWarrant system, in which electronic transmission of the warrant affidavit and judicial approval are done through an online information management system, further streamlines the process.

The automated nature of the content of most eWarrants also results in fewer mistakes and errors in the request, which in turn means fewer warrants are rejected by judges. As such, there is a greater likelihood that a blood test will be obtained, resulting in better case outcomes and more appropriate sentencing. By automating the warrant process, we give law enforcement officers a tool for pursuing justice and ensuring that individuals who drive while impaired are held accountable for their actions.

IMPLEMENTATION GUIDE

The Foundation for Advancing Alcohol Responsibility ([Responsibility.org](https://responsibility.org)) awarded a grant to the Justice Management Institute ([JMI](https://jmi.org)) to create a best practices guide for implementing and using eWarrant systems. JMI conducted a multi-phase study to document effective eWarrant systems consisting of:

- A legislative scan to identify which states permit the use of electronic warrants for searches and/or the establishment of probable cause.
- Web-based focus groups with judges and prosecutors and one-on-one interviews with law enforcement to discuss critical issues related to the implementation and use of eWarrant systems.
- Intensive case studies in five jurisdictions with well-established and diverse eWarrant systems (Maricopa County, Arizona; Delaware; Minnesota; Montgomery and Lubbock County, Texas; and Utah).
- Review of findings and the themes identified in the case studies with a working group consisting of experts in law enforcement, prosecution, court administration, the judiciary, and policy. The working group members also offered insight about the most effective strategies for designing and implementing eWarrant systems, funding and resource allocation, and overcoming common challenges.

The information gathered from these activities led to the development of an implementation guide for practitioners. The guide offers insight into the process of planning, designing, funding, and implementing eWarrant systems and highlights important considerations that can influence decision-making along the way.

LEGISLATIVE FRAMEWORK

All 50 states have legislation governing search and seizure that define probable cause, exceptions to the search warrant requirement, and unique restrictions such as the timeframe for the execution of a warrant or rights if a warrantless search is conducted. In reviewing state legislation, JMI found that 45 states include language (either in legislation or in court rules) allowing the issuance of warrants based on telephonic, video, or electronic affidavits.

If a state is considering the passage of legislation or amending current legislation, there are certain elements deemed to be critical. The actual elements that are desirable in a specific state or jurisdiction will vary based on the type of system used.

- Provision for the transmission of the warrant by electronic means, ideally allowing for flexibility to adapt to emerging technologies by not prescribing the specific electronic or digital methods of transmission.
- Provision for oral testimony by telephone or video to allow officers to be sworn in remotely without having to give the oath in-person.
- Language that addresses the need for recording the oral statement and certification by the judge that the sworn oral statement is a true recording under oath.
- Language that addresses the retention of the recording as part of the record of proceedings.
- Inclusion of sworn statement under penalty of perjury to provide further efficiency (i.e., allowing the officer to electronically sign a penalty of perjury statement in lieu of providing testimony).
- Permission for electronic or digital signature by the officer and the approving judge, judicial officer, or magistrate, ideally allowing for flexibility for emerging technologies, but at a minimum including electronic encrypted digital signatures, signatures affixed by electronic stylus, or typewritten signatures.
- If electronic or digital signatures are going to be permissible, inclusion of language related to identity verification protocols should be included, again without being too prescriptive to allow for flexibility as security protocols evolve.
- Language allowing the reporting of failed tests to licensing agencies, ideally allowing for electronic information exchange between eWarrant systems and licensing agency systems.

PLANNING AND DESIGNING AN EWARRANT SYSTEM

Among the greatest lessons learned from jurisdictions that have implemented electronic warrant systems is the need for robust planning in the design phase. There are four major steps to this process:

Identify and engage agencies and individuals. Central to the planning process is collaboration to help align multiple perspectives with legal issues, processes, and technology. Effective eWarrant systems require input from a variety of stakeholders, both traditional and non-traditional. In each of the jurisdictions studied by JMI, a premium was placed on early collaboration – involving judges, law enforcement, prosecutors, and information technology personnel at the state or county levels – as part of the project management team. There are other individuals though who can provide useful insight on the design of the system and its implementation, including legislators, laboratory technicians involved in the analysis of blood tests, the defense bar, county or state government representatives for the procurement process, state department of transportation/office of highway and traffic safety, traffic safety resource prosecutors (TSRPs), sheriffs and police chief associations, and the state driver licensing authority to name a few.

There are two primary steps that should be taken to engage stakeholders and to build a collaborative project team:

1. Identify the appropriate stakeholder groups
2. Create a system to solicit their input and foster participation in planning

Engage in high-level preparation. Once a collaborative project management team has been identified, a deliberate planning process should be followed, starting first with a series of high-level preparation tasks:

- Clearly state the problem to be solved (i.e., articulate what issues the eWarrant system will address) and define the goals and objectives of the project.
- Decide on a high-level approach – determine who will conduct on analysis of the current process for requesting and issuing warrants; identify who will be the lead organization to manage the analysis; determine whether an existing system already has a built-in solution; designate one agency/entity with the authority and responsibility to address future issues as they arise.

- Know the budget (develop a high-level estimate of costs, using information from other jurisdictions, and possible blind consultation with vendors and consultants early in the planning process).
- Map a planning process in terms of time, resources, and responsible parties.
- Procure technical assistance if using a consultant.

Analyze business processes. Business process analysis is a proven technique for clearly defining needs and solutions to those needs. For an eWarrant system, the analysis will necessarily deal with software, hardware, and processes. The business analysis will typically take between six to nine months. The following steps are commonly used in a business process analysis, tailored to an eWarrant system. The deliverable is often called a business requirements document (BRD), which provides specific details about the solutions that will be implemented for the eWarrant system.

1. Undertake information-gathering (e.g., collect data and gather existing process documentation; conduct interviews and site visits to gather requirements from key stakeholders and users; conduct statutory research).
2. Map the existing “as-is” business processes (e.g., use information gathered to create a narrative description, workflow diagrams, user lists, and data/document indexes and repositories).
3. Map the new, proposed business processes (e.g., complete a business requirements document, requirements traceability matrix, workflow diagrams, business rules, and user roles and permissions).
4. Identify all data and information exchange touchpoints.
5. Catalogue all forms and documents to be automated.
6. Define administrative tools (i.e., identify who requires access and to what degree as well as the particular values or items that need to be included in order to navigate through the system).
7. Specify performance requirements (i.e., anticipate agency decision-maker and frontline staff expectations for system performance and work with system developers to mitigate issues and ensure that the system functions to meet the needs of its users).

Determine technological requirements. A business process analysis for an eWarrant system will need to be paralleled or followed by an analysis of the technological requirements, which should include:

- Involvement of state or county information technology (IT) personnel to help understand what technology options are available currently and what may be needed.
- Consideration of security and privacy issues related to any existing platform or a new platform to be developed, in addition to the design features.
- Identification of what expectations law enforcement, prosecutors, and judges have about how the system should operate, particularly in terms of how they will access and use the system.

Ideally, the eWarrant system can be built onto an existing platform. Beyond the obvious benefit of likely being more cost effective, use of an existing platform can reduce the need for user hardware, benefit from use of existing access and security protocols, and streamline the implementation process. If this is not feasible, a new system must be constructed.

Development of technology requirements can be conducted in parallel with a business process analysis, but should be predicated on business requirements. The following steps are commonly used in the development of technology requirements, tailored to an eWarrants system:

1. Perform technology information-gathering (i.e., document existing technologies and infrastructure including network diagram, network hardware and software (including bandwidth, security, access controls, and operating systems) host systems, end-user hardware and software, and mobile technologies that may be used by law enforcement or other stakeholders).
2. Conduct a technology gap analysis to assess whether the existing network and application technologies will support a solution, or whether the foundational technologies need to be upgraded/supplemented.
3. Define architecture of the new system (i.e., identify the key components and delineate which agencies or entities have ownership of each of these components).
4. Define suite of technologies that will meet the needs for the eWarrant system (e.g., if the jurisdiction is currently using faxed affidavits and warrants, how much will the system simply mirror a document management exchange in digital format?).

FUNDING ELECTRONIC WARRANT SYSTEMS

As with any technology solution in criminal justice, the major questions are, “How much is this going to cost, how is it funded, and who is going to pay for it?” There are no easy answers to these questions, and they will undoubtedly vary from state to state, county to county, agency to agency. High-level preparation should provide early cost parameters that will be refined as a result of understanding the technology requirements highlighted in the previous section.

The type of costs will vary – from hardware and software costs to personnel costs for programming. There may also be costs associated with hiring consultants to conduct business process analyses. A good planning process should take all possible costs into consideration to identify opportunities for multiple funding sources and cost-sharing. Among the jurisdictions studied by JMI, costs for design and implementation ranged from zero (in the case of Delaware in which costs were just absorbed as part of the normal function of the Delaware Justice Information System) to \$350,000 in Minnesota to build an eWarrant module into the state’s e-Charging platform.

The jurisdictions studied used several different funding sources – including state or grant funding, fees for cost recovery, and other low-cost options – to cover the expense of their eWarrant systems. Agencies that are considering developing their own eWarrant system should explore each of these funding strategies to determine their feasibility.

POLICY AND OPERATIONS

A central theme throughout interviews with stakeholders who have implemented eWarrant systems is that consistency ensures reliability and operational policies foster consistency. Although states may have explicit policies enumerated statutorily or through court rule, there are certain key policies that should be considered by jurisdictions seeking to implement or refine electronic warrant systems:

Authentication and security. Even on a secure system, user authentication is paramount for ensuring that judges can identify the law enforcement officers with whom they are dealing and vice versa. Authentication and security risks decrease if the system is both secure and verifiable at each end of the communication and if the network is secure. Authentication and security, then, are categorized on digital systems as user identification and network security.

User identification methods include login authentication, which authenticates a user before access to the system is granted; network access authentication which authenticates both user identity and application access to the network services; and IP security authentication which is necessary for officers and judges to electronically sign warrants. User identification technologies include usernames and passwords, authentication codes, and biometrics. Comparable technologies are used to authenticate electronic signatures by officers on applications and affidavits and by judges on warrants as well as other types of related orders.

Network security is key to determining how secure user identification needs to be. In non-technical terms, if a network is not secure, and access to it is easily compromised, user identification is critical to authentication and security. Network communications between law enforcement and the courts may be provided in a closed network environment, using dedicated, leased lines. But, most network communications today are virtual, or virtual private networks (VPNs), that utilize the public Internet or components of it. Most network security is provided by server authentication and encryption. If there are not current authentication and security protocols in place for other systems that can be incorporated into an eWarrant application, jurisdictions should consider conducting a security needs analysis.

Officer’s oath and swearing to factual statements. One of the challenges to an eWarrant system is the need to take officers’ oaths and have them swear to the facts contained within the warrant. In many places, statute or local rule requires this be done in-person, which can present a barrier to the timely issuance of the warrant. In some jurisdictions, it may be necessary to engage the courts in changing the administrative rules of criminal procedure to allow probable cause statements to be sworn in electronically or digitally as was the case in Utah. In other instances, legislation may need to be changed.

Some of the options identified in the case study jurisdictions and by the expert working group members for addressing oath issues include:

- Adding a penalty of perjury statement on the warrant (i.e., declaring the facts stated in the warrant to be true and correct) which is then signed and dated.
- Allowing the swearing-in to occur over a recorded telephone line or video conference which is permitted in Georgia.



- Allowing law enforcement officers to swear in other law enforcement officers as is common practice in Texas.

Warrant retention. Another policy consideration is how long, and where, pending and executed warrants will be retained. In making determinations about the retention policy, some questions to consider include:

- Are there statutory requirements for the retention of records, specifically warrants?
- Which agency will have responsibility for storing the warrants?
- What is the impact on storage space (largely determined by length of retention policies)?
- For what purposes might someone need access to stored warrants, and who would be authorized to access these documents?

Beyond policy, the expert working group pointed to pilot testing and training as critical elements for ensuring consistency and uniformity in the use of eWarrant systems.

Pilot testing. In an effort to identify potential challenges or issues with a new eWarrant system, many jurisdictions have opted to run a pilot test of the system with a subgroup of offenses or in a single jurisdiction before going fully “live.” Many of the current statewide systems, such as the one in Utah, began in a single jurisdiction with a single law enforcement agency.

The pilot test validates the processes and functionality of the system, identifies potential glitches in the software, and highlights any unforeseen challenges. The pilot test also provides insight into training that will be needed or any areas of additional resistance to change that may need to be addressed. During and following the pilot test, it will be important to collect and assess feedback. Standardized questionnaires to solicit user feedback, along with metrics on system performance, are both useful tools for systemically documenting the pilot test process.

Both user experience and system performance should be analyzed to identify:

- Pervasive issues that may require additional programming or development.
- Aesthetic issues related to layout and format of the online interface.
- Paper documentation that is generated from the system.

- Training needs to provide more clarity for users.

Depending on the scope of revisions identified, particularly those related to reprogramming or development, it may be necessary to conduct additional tests prior to full implementation.

Training. To ensure that users of any eWarrant system are able to navigate the system efficiently, proper training is necessary. The better and more comprehensive the training, the less likely that users will encounter problems, thus minimizing frustration with the process and increasing acceptance and support for the system’s use. Important activities for any eWarrant training initiative include:

- Identify all agencies that may require training and education on system implementation and use.
- Identify which entity will be responsible for developing a training curricula and associated materials.
- Identify who will be responsible for conducting training (i.e., will one individual or entity be responsible or will a train-the-trainer format be used?).
- Develop a standard training curricula and materials to be used by all parties involved to ensure consistency.
- Determine when it is most advantageous to train system users and in what venue.
- Explore the possibility of offering continuing legal education (CLE) credits as an incentive for completing the training.
- Update and augment the training to reflect feedback from system users (i.e., as issues with the system are identified, incorporate these into training to educate users on how to troubleshoot effectively or avoid complications).

Regardless of the training approach employed, all jurisdictions should seek to ensure consistency in educational content and materials. Furthermore, it is recommended that feedback be elicited from practitioners to gauge whether the level of information contained in the training is adequate and to determine whether existing materials require updating and/or augmentation. As common issues with system operation and use are identified, training should be modified to make sure that they are addressed.

MEASURING EFFECTIVENESS

Ongoing assessment of eWarrant and eWarrant system effectiveness is critically important for ensuring the intended goals are being met, and if they are not, measures of effectiveness can help pinpoint areas for improvement. If a jurisdiction is creating an eWarrant system, attention should be given to the types of metrics that can be built into the system as a data dashboard or for regular reporting (e.g., number of system logins; number of warrant requests submitted; number of warrants approved and rejected; average length of time from submission to return of service, etc.).

Other metrics that can be helpful are those that document the user's experience. Although these metrics typically are not built into the system itself, a short annual questionnaire or roundtable at the state law enforcement/judicial conference can be used to collect information (e.g., How easy was it to access the eWarrant? How easy was it to submit the affidavit? Did you encounter any problems when preparing or reviewing an eWarrant?).

Finally, eWarrants are intended to provide law enforcement, prosecutors, and judges with the tools they need to effectively respond to DUI and to hold offenders accountable. These broader outcomes can be measured by tracking information and analyzing change over time (e.g., number of refusals to submit to chemical testing; number of motions made to suppress BAC tests on the basis of probable cause; number of DUI convictions, etc.). Agencies are also encouraged to collect baseline data to be able to show how eWarrant systems improve overall system efficiency and outcomes. For example, showing the amount of time that can be saved by transitioning to an electronic warrant system or reductions in warrant rejection due to errors.

CASE STUDIES

Jurisdictions interested in developing and implementing their own eWarrant system are encouraged to first examine the systems/processes in place in other localities and learn from both the challenges and successes of agencies in other states. Each of the systems studied by JMI have unique features and operate in a slightly different manner; they represent locally-based to integrated statewide systems.

eSearch Warrants in Minnesota

In Minnesota, the courts use a statewide electronic charging system, known as e-Charging, for criminal complaints and to move information between law enforcement, prosecution, courts, and the state driver and vehicle services department. In addition to criminal complaints and search warrants, e-Charging is used for electronic citation processing, DWI processing, and law enforcement incident report submission to prosecutors.

Minnesota prioritized the development of eSearch warrants for blood draws in DWI cases because in addition to court decisions requiring search warrants for blood or urine tests, the state was experiencing a growing number of legal challenges around blood draws and implied consent. These factors combined with a significant increase in blood draw requests and the challenges to obtaining time-sensitive warrants in rural areas provided the needed impetus for the creation of an electronic system.

What to know about Minnesota's system:

- The Bureau of Criminal Apprehension (BCA) was responsible for the planning, design, and implementation of the eSearch warrant application with a \$350,000 grant from the Department of Public Safety's Office of Traffic Safety.
- A collaborative group of stakeholders, including law enforcement, the State Court Administrator's Office, and district court judges, worked together to draft the warrant template.
- The roll-out of eWarrants for DWIs began in October 2016 with a 3-month pilot program, first with the Minnesota State Police in Hennepin County. By mid-November 2016, eight municipal police departments had been added to the pilot, with successive roll-outs across the state by judicial district. By April 2017, the system had gone statewide.
- Officers seeking a warrant for a blood test log onto a secure portal to complete and submit an electronic search warrant application to a judge.
- The system is designed to interface with Driver and Vehicle Services so that the officer can conduct a search based on name and date of birth to confirm the identity of the suspect and auto-populate the demographic fields (e.g., address; driver's license) as well as the vehicle information.



- The on-call judge receives an email with a hyperlink directly to the warrant in the system. After reviewing the warrant, the judge may either issue it by applying an electronic signature or reject the application.
- Experienced officers typically can prepare warrants in 10 minutes or less, and officers report the average processing time, from submission to judicial approval, is between 15-20 minutes.
- Since the eSearch warrant became available, Minnesota law enforcement officers have submitted over 2,500 applications for DWI-related search warrants. Ninety-eight percent of those applications are approved and result in the judge issuing a search warrant. In addition, the error rate on DWI forms has been reduced from 30% to nearly 0%.
- The state uses a rotation system for assigning judges to review warrants. When the officer chooses the jurisdiction and county in which the warrant is being issued, the UCJIS system automatically selects one of the on-call judges. The system then generates a text and email message that is sent to the assigned judge to notify him/her there is a warrant pending review.
- The penalty of perjury statement eliminates the need for administering the oath in-person or via video call. Thus, upon receipt of the warrant, the judge can promptly review and affix his/her electronic signature if the warrant is approved and return it electronically.
- The entire process averages 20 minutes from request to judicial approval, although it can take up to an hour. With the implementation of eWarrants, Utah has improved its test submission rate from 77% to 96% (Berkovich, 2015).
- There has also been tremendous buy-in from stakeholders on the use of the electronic warrant system in Utah, especially in rural areas where there is limited access to judges.

Utah Criminal Justice Information System (UCJIS)

The state court system introduced an electronic warrant pilot program in the spring of 2008, in response to a court decision (*State v. Rodriguez*, 156 P.3d 771 (2007)). The Utah Department of Public Safety (DPS), the Salt Lake City District Attorney's Office, and the Administrative Office of the Courts (AOC), with collaboration from judges, came together to build an eWarrants system to speed up access to warrants in DUI cases. Since more than 90% of state law enforcement is connected to the Utah Criminal Justice Information System (UCJIS), which unifies data from dozens of separate data sources and agencies, the decision was made to incorporate the eWarrants system into the UCJIS platform.

What to know about Utah's system:

- A grant of \$30,000 was provided to DPS to hire a contractor for the additional programming, which was supplemented with additional JAG funds increasing the total grant to \$34,693. Another grant of \$49,511 was awarded to the AOC, although they ultimately only used \$25,250 of the award, to develop the system. Additional and ongoing funding comes from impound fees.
- Patrol cars in Utah are equipped with computer terminals with Internet capabilities that officers use to log into UCJIS to initiate the warrant request. Each officer has an assigned username and security token that is tied to his/her qualifications and training, allowing the hero statement of the officer's training and qualifications to be auto-populated. The remainder of the warrant includes both drop-down menus and text fields to streamline the process and reduce errors.

eSearch Warrant and eReturn Applications in Maricopa County, Arizona

The development of the eSearch warrant and eReturn Applications for blood draws in DUI cases began in the summer of 2011. The following year, the Presiding Judge of the Superior Court in Maricopa County issued an administrative order authorizing a two-year electronic search warrant pilot. The pilot project became permanent by Local Rule 4.10, effective May 28, 2014. Once the eSearch warrant and eReturn applications were made permanent, it was expanded to include all Department of Public Safety (DPS) law enforcement officers across the state to allow them access to the system.

What to know about Arizona's system:

- The Maricopa County Superior Court and Phoenix Police Department held three informational sessions with law enforcement to collaborate on the design, development of policies, and implementation of the system.
- The Superior Court received grants from the Governor's Office of Highway Safety to develop the software and enhance the law enforcement officer website to include the return of service. The first grant was provided in the amount of \$30,576 to build the software and cover training costs. The second grant was provided by the State Administrative Office of the Courts in the amount of \$87,838 to modify the software to enhance the application for use by DPS statewide.

- The eSearch warrant application was designed and programmed in-house by the court information technology department as part of the court's information system.
- Officers are assigned a serial number to access the application via the Internet. The application includes a series of checkboxes and pull-down menus that allow the officer to indicate the type of offense, qualifications and training, probable cause for the stop, roadside tests administered, suspect behavior, and refusals.
- Judges receive notice of a pending request and can log onto the system into their "work queue," which shows affidavits they have received and their status (i.e., new, in progress, completed).
- The average time to secure an electronic warrant using the Maricopa County system is between 15–20 minutes. Since implementation, there has been a 13% increase in DUI search warrants.
- By June 2018, the software will be modified to allow all 14 counties and all cities in Arizona access to use the DUI eSearch warrant and eReturn applications.
- The costs for automating and incorporating warrants into the DELJIS platform were absorbed into the DELJIS budget as a part of routine system improvements. Thus, the primary cost to the state was for equipment to allow law enforcement to access the system remotely.
- Law enforcement officers access DELJIS and the eWarrant form with a secure sockets layer (SSL) account through the Internet using laptops, tablets, and desktops. Upon logging into the system, officers enter the suspect's name and date of birth. The DELJIS system automatically searches for the individual to find additional information including criminal history and can access the state's department of motor vehicles records.
- Officers complete the remainder of the request using fillable fields on location of incident, actions of the defendant, statements made, and other facts supporting probable cause. A PDF document is produced, which is then faxed to the on-call judge. The on-call judge swears the officer in via video conference. After review and approval, officers receive the signed PDF via fax. Judges use their bar code as an electronic signature.
- DUI blood draw warrants receive priority within the system, and the average turnaround time is approximately 8 to 10 minutes.

Delaware Justice Information System (DELJIS)

Delaware was the first state to implement an integrated criminal justice information system that supported electronic sharing of criminal justice information among the criminal justice community. DELJIS has been in existence since 1983, and it is constantly changing to meet the needs of system participants, including law enforcement. eWarrants was built into the DELJIS platform, making Delaware one of the first states to use automated warrants.

What to know about Delaware's system:

- Delaware implemented an automated warrant system in 1991, allowing law enforcement to enter complaint data through a mainframe system using Microsoft Word fillable forms to create warrants online. DELJIS later converted the Microsoft Word form into a PDF and housed it on its system. The request for adding blood draw eWarrants to DELJIS was accelerated through the issuance of a policy memo by the Chief Magistrate.
- The design and implementation was a collaboration of the courts, DELJIS, the state prosecutor, and state and local law enforcement.

Electronic Warrants in Texas

Texas does not have a unified court system; each of the 254 counties is responsible for their own criminal justice and court systems, resulting in a patchwork of practices, policies, and results. Several jurisdictions in the state have worked to implement eWarrants. Two counties – Montgomery County and Lubbock County – have implemented eWarrants as a tool to enable the state's No Refusal program.

What to know about Montgomery County's system:

- The Montgomery County District Attorney (DA) worked with Document Logistix, a document management company, to create the application called Mynorefusal.com – a low cost eWarrant which is available at no charge to those wishing to use it.
- Officers log into mynorefusal.com, either by phone or laptop, and using a series of drop-down menus and open text fields provide details about the alleged offense, evidence, results of SFSTs, and other factors relevant to establishing probable cause. The warrant is then signed electronically (typed name followed by "/s") or written by hand on the computer screen if touch screen capability exists.

- Once signed, the system generates a PDF document which is transmitted to a judge by email or fax. The judge receives an email and a phone notification of the pending warrant for review.
- Since the eWarrant capability has been developed, there has been a significant decrease in the number of individuals who refuse breath or blood tests.

What to know about Lubbock County's system:

- The Lubbock electronic warrant system was established in 2012 with a trial period which lasted about 6 months.
- The Lubbock police department trained both officers new to the procedure and judges on the electronic warrant system. Lubbock encountered no significant costs associated with implementing electronic warrants other than the time the officer spent learning the system.
- Once an officer has made a stop and determines probable cause exists to request a blood draw warrant, the officer will write an affidavit on a department issued tablet. The affidavits are standard forms with drop-down menus, as well as text fields.
- Once the judge receives a call, or email alert, that there is an affidavit for review, the judge retrieves it in a PDF document. After it is approved, the judge affixes his/her signature and includes a printed name, date, and time. The approved warrant is then faxed or emailed back to the officer.
- On average, warrants in Lubbock County are being processed within 5 to 10 minutes.
- Following the successful implementation of the system, other law enforcement agencies expressed an interest in using the warrant process created by the Lubbock District Attorney.

TROUBLESHOOTING AND MITIGATING UNINTENDED CONSEQUENCES

The implementation of new processes and systems inevitably produces some challenges as well as unintended consequences. Knowing what challenges may arise early in the design and implementation stages can help offset long-term impact as well as mitigate any unintended consequences.

Troubleshooting. Although it is impossible to predict every conceivable challenge a jurisdiction may face when implementing an eWarrant system, there are several common issues that jurisdictions studied by JMI experienced. These include:

- **Outdated computer systems** - many criminal justice agencies, and courts in particular, operate on legacy systems. These antiquated systems rely on old technology, old programming and methods, and adding new features or creating bridges to access data is almost impossible.
- **Resistance to new technologies** - frontline staff as well as supervisors in law enforcement, prosecutors, and judges may be reluctant to try new systems and technologies. Reasons for their reluctance can vary from simple discomfort or unfamiliarity with new hardware to poor experiences with new technologies that historically have negatively impacted workload. Early engagement of individuals who will use the system is imperative to identify their expectations, needs, and concerns. This is the first step in preparing for resistance and devising a strategy to manage and/or overcome stakeholder apprehensions.
- **Lack of consensus about the format of the eWarrant form** - building consensus among judges about how the final form should be laid out on screen, what it would look like in printed form, where signature boxes would be, and so on has been a larger challenge than foreseen by many. As with overcoming resistance, early involvement of judges in the planning and development phases is important to identify format concerns and work towards a reasonable solution that would satisfy most.

Unintended consequences. While it is not possible to foresee every potential challenge that will arise post-implementation, proper preparation and planning can minimize problems. The involvement of a diverse range of stakeholders at this phase is key to obtain a multitude of perspectives on how the eWarrant system could potentially affect decision-making and the ability of practitioners to perform their jobs. The lessons learned in five jurisdictions studied by JMI, as well as information provided by the expert working group, provide insight into how to mitigate common unintended consequences.

1. Decrease in DRE evaluations.

With the implementation of eWarrant systems, law enforcement officers have confidence they can obtain a chemical sample from a suspect in an expeditious manner. As a result, there is increased reliance on the blood alcohol concentration being admitted as evidence in court. Similarly, the ease in acquiring a blood draw can lead to a false sense that any drug use will also be captured and admitted into evidence and it is no longer necessary to rely on a DRE's opinion. Overreliance on blood testing to make a case instead of relying on extensive documentation of the signs and symptoms of impairment that are part of a DRE evaluation can result in a weaker case. Another drawback in this scenario is if DRE evaluations are not performed, there may be no findings to support polysubstance-impaired driving even if an officer assumes a blood test will provide sufficient evidence.

To address this problem of officers forgoing the DRE evaluation, Utah has incorporated eWarrant training and the continued need for DRE evaluations into its DRE school to ensure not only officers, but also prosecutors and judges continue to recognize the value and merit of the DRE evaluation.

2. Increase in lab turnaround time for blood test results.

This unintended consequence was experienced by nearly all the jurisdictions studied, with return times increasing from as little as 2-3 weeks to as much as 3-4 months or longer. Among the reasons for the longer return times noted by the expert working group were the increased volume of samples being submitted for testing as well as the requirement of technicians to testify in court, which reduces the amount of time they have available in the lab. To reduce the burden on the laboratories, Utah as well as other jurisdictions, have relied on the rules of criminal procedure, which allow for video testimony from experts.

BEST PRACTICES AND LESSONS LEARNED

Regardless of whether a jurisdiction opts for implementing a fully-integrated system or simply automates the warrant, there are a number of lessons learned that can be applied. Individuals involved in the development of the most effective eWarrant systems shared the following strategies that ultimately laid the foundation for successful implementation:

- **Agency leadership** – identify the agency that will take the lead in the development and implementation of the eWarrant system. This agency will assume responsibility for coordinating efforts, convening stakeholders, and maintaining communication throughout the process.
- **Early and consistent stakeholder engagement** – identify and convene the right people as early in the process as possible. Stakeholders should not be limited to those in the lead agency or law enforcement; instead, input should be sought from a diverse range of individuals representing various facets of the DUI system. Communication with stakeholders should continue throughout the planning, development, and implementation phases to elicit feedback and obtain buy-in.
- **Identification of system needs** – determine what the new system will look like and how it will improve upon existing practice to guide system development. To accomplish this task, the lead agency should clearly state the problem to be solved and develop a series of goals and objectives. A high-level approach to preparation will allow the agency to make decisions based on thorough information-gathering.
- **Identification of funding sources** – develop a high-level estimate of costs for system development and implementation and include contingencies in the budget. If the system is to be used by multiple agencies, there may be shared costs and opportunities to reduce the financial burden on the lead agency. Various funding sources should be explored (e.g., state or grant funding, fees for cost recovery, and other creative solutions) to determine their viability.
- **Input from frontline users** – engage with individuals who will be using the system on a consistent basis to obtain their feedback on whether their needs and expectations will be met. By including them in the process, additional challenges that may not have been considered can be identified and resistance to change can be overcome.

- **Pilot testing** – start small when rolling out any eWarrant system and pilot the technology with a single agency. This initial testing period provides an opportunity to build support for the new process/system and to address any user or technology issues before they create frustration.
- **Consistent training** – develop comprehensive and consistent training to prepare users to seamlessly navigate the eWarrant system. There are multiple approaches to training that are commonly used including self-guided training, in-person training, online help resources; jurisdictions are encouraged to use the approach that will be best received among the target audience and to update content as necessary.
- **Use of device agnostic technology** – ensure that the technology chosen allows the user to access the eWarrant on different types of systems (e.g., Windows, Mac, Apple iOS, Android) and hardware (e.g., smartphone, tablet, laptop, or desktop computer); this also creates flexibility for adapting to new technologies as they emerge.
- Addition of a penalty of perjury statement on the warrant to allow for statements to be sworn in electronically or digitally as opposed to in-person.
- Inclusion of a pull-down menu of reasons for rejection if the warrant is denied, along with the option for text input, which not only allows the officer to see the reason for denial and potentially correct it, but also serves as a source of data for additional training if common mistakes are being made by officers.
- Real-time tracking and data analytics that allow officers and judges to see the warrant status and allow system administrators to run reports on system use and outcomes.

Lastly, ongoing review and updates to eWarrant systems is a practice that practitioners agree is of vital importance. By capturing system analytics and tracking change over time, the benefits of the system can be quantified.

CONCLUSION

Although the process for designing and implementing eWarrants can be time-consuming and seemingly complex, the bottom line is that whatever system is adopted, it should be user-friendly and make the DUI arrest process more efficient. By following the steps outlined in this report, agencies can replicate the success experienced in other jurisdictions and learn from the challenges they faced. Through proper planning, stakeholder engagement, pilot testing, and training agencies can implement and expand eWarrant systems.

Once designed, there are a number of key policies and operational practices that have demonstrated significant positive results in DUI enforcement and adjudication. These include:

- Checkboxes or prompts to ensure completeness and accuracy of information being submitted.
- Incorporation of pre-populated information for such items as officer hero statements (summarizing qualifications and training), driver's information, etc.
- Inclusion of open text fields to allow officers to add a narrative or observations as necessary.
- Automated judicial assignment based on the location the warrant is being requested (alternatively, several jurisdictions use a pull-down menu that shows available judges).

¹ For the purposes of this guide, an *eWarrant* is defined as simply a computerized version of the search warrant affidavit and judicially approved warrant. As discussed in this guide, eWarrants range from a very simple Microsoft Word document or an Adobe Acrobat file (PDF) to an online, fillable form. The process by which eWarrants are stored and transmitted is known as the *eWarrant system*.

² A BRD details the needs and goals related to the eWarrant system, the processes required to meet these needs/goals, the factors that will influence what is built and why, and documentation of user needs and expectations.

³ A RTM links the business requirements in the BRD throughout a validation process that tests all the requirements of the system.

