What is the Future of eTickets?

The Scenario

It has been over 15 years since electronic traffic citations (eTickets) were first introduced.[i] Within a few years one or more law enforcement agencies in over two dozen states were using systems to electronically issue traffic citations. In 2003 infrastructure work began with the Global Justice Information Sharing Initiative standardizing data exchange formats for a number of functions including traffic citations. This evolved into work on the National Information Exchange Model (NIEM), which paved the wave for more standardized data transfer from law enforcement to the courts and statewide databases such as state departments of motor vehicles (DMV).[ii]

Examples of actual eTicket conversions include the San Jose Police Department and the Indiana State Police in 2007;[iii] several Alabama law enforcement agencies, the State of Maryland, Florida's Miami–Dade County, and Oklahoma City all by 2008;[iv] numerous municipalities in Cook County, Illinois by 2011;[v] and the Seattle Police in 2014.[vi] Issuing eTickets is now commonplace.

Benefits
There are some obvious benefits of eTickets that help both law enforcement and the courts.[vii]

- Officers spend less time on the side of the road, which is one of the most dangerous spots for an officer to be. Indiana State Police officers have cut their roadside stop time by a third,[viii] and Seattle Police said officers have reduced the time it takes them to complete a collision report from three hours to 30 minutes.[ix]
- Courts dismiss fewer citations for transcription errors, illegible handwriting, or incorrect information (e.g. a violation written to have occurred at an intersection of two streets that do not actually intersect), mismatched ordinance or statute numbers, misspelled drivers' names, or incorrectly written driver's license numbers. For example, law enforcement officers in Indiana can swipe a driver's license across their handheld device and accurately obtain the driver's name, license number, home address, height, weight, and hair color.[x]
- Data can automatically upload to the court and (optionally) to a statewide database system (e.g., DMV). Clerks save time and court data is more accurate since there is no more manual data entry into the court's case management system (CMS).[xi]
- Traffic violation and accident data can be instantly verified.
- Drivers can quickly be on their way; they could conceivably drive directly to the courthouse and pay

their fine (if eligible). They might even be able to pay directly from their SmartPhones without ever travelling to the courthouse. This added convenience and efficiency was noted in the 2005 COSCA Position Paper the Emergence of E-Everything.[xii]

The eTicket trend has been sweeping the nation for a decade and half, so why haven't paper traffic citations gone the way of three by five index cards? Why are so many jurisdictions still buying those leather bound ticket books and officers still scrawling out paper citations?

Challenges
First, converting to eTickets means local law enforcement, courts, and usually the DMV, must jointly commit to a long–term coordinated objective, one that usually takes months and sometimes years to achieve. It requires finding money to purchase the new equipment; selecting a vendor; entering into contracts; modifying and testing computer systems; training officers, staff, and judges; drafting new procedures, policies, rules, and occasionally laws; and finally launching, reviewing, and refining a new trans–agency operation.

Second, economies of scale enjoyed by large volume departments are often not realized by smaller agencies, many of which may be hard pressed to recover costs within the standard three to five year return on investment (ROI) break point. Typical examples of agencies with low ticket volumes might include transit police issuing bus riding tickets, local college police issuing tickets to students, animal control issuing barking dog tickets, and local code enforcement agencies issuing tickets for violations such as standing water, improper recycling, or construction site litter.

A recent analysis revealed that nearly six in ten courts in the United States are one or two judge courts.[xiii] Smaller courts may also be challenged to see a reasonable cost recovery period.

Third, even when there is no outright animosity between different government organizations, relations between the different branches (judicial and executive) and between different levels (local, county, and state) can seem independent and indifferent to an enterprise that needs a united front in order to succeed. Frequently, law enforcement agencies apply for substantial grants in order to get over the conversion "hump." A single handheld device, for example, could range from $1,000 to $4,500.[xiv] Annual software license renewals and upgrades can run into the thousands of dollars.   Though many newer court computer systems come with the capability to accept eTickets built in, this software feature is by no means universal. If a court needs modifications to its CMS, those costs may not even enter into the overall financial equation. If all stakeholders are not advocating for generally the same goal, the chances for funding success decrease.

Fourth, to enjoy optimal efficiency, courts need to employ automated payment systems so violators can pay electronically by credit or debit card without ever coming to the courthouse. Many courts do not have automated payment systems, and others believe that physically travelling to the downtown courthouse to pay a traffic fine is part of the retributive, therapeutic, deterrence process.

Various law enforcement agencies need to run their operations as they see fit.   Yet, if some agencies remain attached to paper tickets, courts may be saddled with multiple parallel ticket processing methods, which require more staff.   Differing operations must be managed, differing policies and rules must be remembered and applied, differing payment procedures must be used, and basically differing ticket handling methods confuse the public.
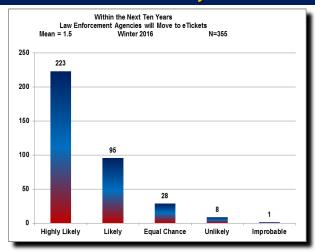
The Scenario

It is Monday morning, January 5, 2026. Once again, Jess reluctantly prepares to battle the county over her latest funding request for yet another court computer modification. Jess is the court administrator for the Outland County Justice Court, which receives citations from a variety of law enforcement agencies. The Court gets half of its tickets from the Canyon City Police (Outland County's main city); 20 percent come from the Outland County Sheriff's Office, which patrols unincorporated areas; another 20 percent comes from the Centreville Police, a village 40 miles from Canyon City; and ten percent come from County Animal Control for violations like barking dogs.

Following national trends, the Canyon City Police converted to eTickets five years ago. Both the police and the court enjoyed cost reductions from more efficient operations. Canyon City Police eTickets are electronically transmitted to the Court overnight allowing drivers to pay their fines the next business day using the court's ePayment system. Courthouse foot traffic has dropped off significantly and court staff no longer have to manually enter traffic citation data into the court's CMS. Dismissals due to illegible handwriting or incorrect ticket information have declined; and drivers with suspended licenses are now instantly identified from the state DMV database.

The down side? Jess went to the county five years ago requesting funding to modify the court's CMS in order to accept, process, display, and dispose of electronic citations. Courtdyne Industries has been the court's vendor for quite a while and their price tag for the modification was not cheap. The county demanded demonstrable cost reductions in return for their $40,000 "one–time–only" allocation.

Jess was able to show real cost savings after the first round of funding, but she is skeptical she will find enough savings this time to match the $25,000 she needs to complete the conversion. The County Sheriff and Animal Control both have "homegrown" computer systems, which are incompatible with the court's CMS; Centreville police still write their citations by hand and mail them to the court twice a week. The court is forced to maintain both an electronic and a manual citation processing system. Operating dual systems wastes staff time, is confusing, slows workflow, and confuses the public. None of the three agencies write enough tickets to show a convincing cost recovery, yet combined they are annoying. Undaunted, Jess pushes through the swinging door to the budget meeting, PowerPoint flash drive in hand, and prepares to make her pitch to the finance people.

Court Professionals Say This Scenario is Likely

Within the Next Ten Years
Law Enforcement Agencies will Move to eTickets
Mean = 1.5   Winter 2016   N=355

The Winter 2016 Future of Courts survey received 355 responses. Respondents assessed law enforcement agencies moving to eTickets in the next ten years as *Highly Likely*. The overall average was 1.5 on the five point scale with 1 being *Highly Likely* and 5 being *Improbable*.[xv] This assessment was basically reflected across jurisdictional levels with the general jurisdiction court respondents averaging 1.6 and limited jurisdiction court respondents averaging 1.4. *Baby Boomers,* Millennials, and *Generation Xers* all assessed the scenario at 1.5.

The Respondents

To respond to the above scenario and the likelihood that eTickets will become *the* accepted method of issuing traffic citations in the next ten years are Tim Leger, Judicial Administrator for Lake Charles City Court in Louisiana; Tim Guesman, Business Systems Analyst and Acting Department Systems Administrator for the Las Vegas Justice Court in Nevada; Angela Graddy, Court Administrator for the Yuma Municipal Court in Arizona; David D. Beach, Director of Court Services for the Municipal Court in Findlay, Ohio; Gerry Durfee, Court Administrator for the Municipal Court in the City of Maryland Heights, Missouri; Sharon Yates, Deputy Court Administrator for the Coconino Superior Court, in Flagstaff, Arizona; Cheryl Stone, Court Administrator for the Municipal Court in Eugene, Oregon; and Albert De La Isla, Principal Administrative Analyst for Criminal Operations at the Orange County Superior Court in California.

How Well Does the Scenario Predict the Future?

Despite the optimistic assessment of the Future of the Courts survey results, many of our responders thought it likely that we would still have handwritten tickets ten years from now. Tim Leger (Lake Charles, Louisiana) agreed that the scenario of courts receiving some paper tickets is highly likely. Changing operating system platforms, planned software obsolescence, and a lack of uniformity of existing networks will all play a part in this.

Lake Charles City Court is a hybrid court. Eighty percent of the traffic and 40% of the criminal matters originate from the Lake Charles Police Department (LCPD) and are handled by the City Prosecutor. Roughly 20% of traffic and 60% of criminal matters are handled by the District Attorney.

Over eight years ago, LCPD bought their officers ten handheld eTicket writers. The intent of the initial project was to eventually issue all citations by handheld eTicket writers. The City Court even pledged money to buy the police more eTicket writers as needed. After six years, the project never got off the ground and LCPD abandoned it. One of the main reasons was the cost of the software.

Last year, the Louisiana Supreme Court gave the City Court a $10,000 grant to import citation data from the police database to the Court's database. The grant was used to build a software interface for the LCPD's AS400 mainframe and export the data to the Court's SQL based server.

Tim Guesman (Las Vegas), Angela Graddy (Arizona), Albert De La Isla (California), and Gerry Durfee (Missouri) all could see some tickets still being handwritten ten years from now. Angela and Tim thought the eTicket/handwritten divide would be because of cost. Courts may have multiple law enforcement agencies filing cases and there may need to be multiple integration points if each agency is using different eTicket hardware and software. For example, one agency may use handheld writers, another agency may have the eTicket equipment installed in their patrol cars, yet another agency may only transmit data to the court from their CMS at the stationhouse. Multiple entry points mean multiple methods of accepting data, which means more money needed for computer conversions.

Tim and Albert both considered it likely their courts would still be receiving some handwritten tickets from lower volume agencies where conversion costs would be prohibitive. Angela declared that unless state and local law enforcement agencies assist smaller courts, jurisdictions will still have paper tickets and of course handwritten tickets would still need to be a back–up in case of a system outage.

Gerry thought more serious tickets like DWI will still need to be handwritten because prosecutors should be able to see the citation as the issuing officer wrote it.

On the other hand, David Beach (Ohio), Sharon Yates (Arizona), and Cheryl Stone (Oregon) all hope to see courts receiving only eTickets within ten years. Cheryl and David both thought it was highly likely that all citations will be eTickets within that time frame.

Does Your Court Receive eTickets Now?

Gerry, Cheryl, and Albert said their courts receive eTickets. Gerry said the Maryland Heights Municipal Court receives eTickets for non–moving violations but tickets for more serious offenses (e.g., DWI) are still handwritten. Cheryl said Eugene Municipal Court receives electronic data from handwritten tickets; the court then matches the data with the submitted paper tickets.] Albert said Orange County Superior Court has an interface with three different eTicket providers that support multiple police agencies, but the Court still receives handwritten tickets from smaller agencies, direct filed misdemeanors (eTickets that are electronically filed are currently only for infractions), and from officers who are not normally assigned traffic and do not have a handheld device.

Angela said that currently Yuma Municipal Court receives eTickets only from the Arizona Department of Public Safety (city police), and not all officers write eTickets. The court still receives handwritten tickets from the college police, fire department, railroad police, and city code enforcement. Her court just applied for funds from a statewide justice system improvement account to obtain 30 eTicket writers for the local police department. The 30 writers cover only a portion of the police civil traffic unit.

Sharon responded that one Justice Court receives eTickets from the Coconino County Sheriff's Office; all four Justice Courts receive eTickets from the Arizona Department of Public Safety.

Tim Guesman said that Las Vegas Justice Court still receives handwritten tickets.

As Tim Leger previously noted, at one time a small number of tickets the court received were electronically based. The eTicket writers at that time were clumsy and did not fully interface with the existing police servers. No electronic data was ever streamed to the Court. Over the last year, the court has been importing data from the police into the court's CMS. Even though the police import 80% of citations, they still deliver handwritten citations to the court for filing. All matters from the District Attorney come as paper bills of information.

David said that the Findley Municipal Court is not yet receiving eTickets. Their CMS vendor is working right now on conversion. Local law enforcement is willing to proceed with it and anticipates a 2017 "go live" date. The court expects to still receive a limited number of handwritten tickets perhaps for a year or two. Some very small police departments will still need to get on board.

Is Your Court's CMS Vendor Hosted or "Homegrown"?

Respondent and Location	Court Case Management System
Tim Leger (Louisiana)	• Homegrown. Currently in discussions with Microsoft to redesign the court's existing system into a more current platform.
David Beach (Ohio)	• Vendor based system although there have been a number of customizations made.
Tim Guesman (Las Vegas)	• Vendor based system: Odyssey by Tyler Technologies
Angela Graddy (Arizona) Sharon Yates (Arizona)	• AOC based system. It was originally produced by AMCAD, but the AOC has since taken over maintenance. The court will be migrating to a newer system in 2018.
Gerry Durfee (Missouri)	• Vendor based system run on the court's server: offered by Public Safety Software.
Cheryl Stone (Oregon)	• Vendor based system: InCode by Tyler Technologies
Albert De La Isla (California)	• The CMS was purchased and the Court has full access to make modifications to the software in house with no vendor involvement. The original vendor, in the 1990s, was KPMG.

Can Parties Pay Their Fines Electronically in Your Court?

David, Gerry, Cheryl, Sharon, and Tim Leger all said that parties can pay their fines electronically in their courts. David's court uses GovPay Net; Gerry's court uses nCourt; Cheryl's court uses InCode; Tim said litigants can pay through a third party vendor via his court's website.

Albert and Tim Guesman both said customers can currently pay traffic fines via their court's website or on the phone through an Integrated Voice Response system. Tim's court rolled out online and phone payments for criminal fines on December first of this year.

Angela said currently customers can pay electronically only through the FARE program (Arizona Fines, Fees, Assessment, and Restitution, Enforcement), but they are working with the city's IT to provide this service.

Change is always difficult and there are always going to be some bumps in the road, in David's opinion; when implementing a new process folks prefer to stay with what they know. "The biggest roadblock I think (since I started requesting in 2006) was that the police department did not see the benefit until they suffered a shortage of officers and new staff in records." There also seemed to be a lack of communication from the state regarding the court's CMS and the host vendor.

Angela and Tim Guesman both thought that cost is by far the biggest obstacle. Angela cited the cost of the handheld tickets writers, the software upgrades, the licenses, the training and the annual support costs. Tim could see that it would be difficult to convince smaller, lower volume districts on homegrown systems and paper tickets to pay the $1,000 to $4,500 per officer for the equipment, software upgrades, and licensing costs to make this change. "Las Vegas Justice Court has facilitated the process of converting the eTicket data to integrate into our case management system within our own budget. Regarding how law enforcement agencies have funded their conversion from handwritten tickets to eTickets, I cannot answer that one, as each agency has its own budget independent of the court."

Albert believed that cost and the infrastructure to support the electronic interface are the main roadblocks. Officer acceptance has also been slow, but new eTicket legislation will eliminate a big concern regarding issuing citations. "The bill allows an officer to provide the defendant a citation without the defendant's original signature. Meaning, they can print out a copy of the citation in their car, approach the vehicle for the signature and provide the defendant the printed citation. Today, after getting the signature, they have to go back to their vehicle to print the signed citation, creating one additional trip or contact with the defendant."

Sharon, Cheryl, and Tim Leger saw computer software conversion as the most significant obstacle. Sharon noted that the platform her court uses needs to be updated before they can expand to other courts. Cheryl said that her court finds that vendors are not as willing to work with one another on automated interfaces. "If a fully integrated system is not purchased up front for law enforcement, courts, defense attorneys, and prosecutors, some vendors are unwilling to create the necessary interfaces to integrate systems that create the needed efficiencies."

Data quality and integration concerns are additional roadblocks nearly as big as cost. With the potential of multiple agencies filing into a court with different eTicket hardware and software, courts need to develop integration points for each. This will inevitably result in data quality issues that must be tested before each department goes live with the court. If data quality is compromised, trust and confidence in the courts will be lost.

Tim Leger commented that it was taking an average of one and a half to two years to fully implement new software to accept the handheld ticket writer data. As the life cycle of most software solutions is under two years by the time the new software is implemented, it is almost outdated

What Will It Take to Make eTickets Universal by 2026?

Tim Guesman imagined that jurisdictions will have to mandate that all agencies submit only eTickets. It may also be necessary for courts or larger jurisdictions to financially assist smaller agencies to convert to eTickets. "This could be seen as a long-term investment to eliminate the court's cost of processing and handling of handwritten tickets."

Angela, Sharon, and Albert all cited the need for adequate funding. Angela and Sharon said money was needed to successfully integrate their court's CMS with law enforcement agencies and other courts. Albert pointed out the need for funds to build the technical infrastructures (court and law enforcement) to support a single portal for all agencies and vendors to upload eTickets.

Courts will need to standardize case management systems and law enforcement agencies will need to standardize eTicket systems. This will allow for one integration point between courts and citing agencies which will allow for easier implementation. In addition, costs for the implementation of eTicket systems, including building integration points with courts, must decrease in order for eTickets in smaller courts to become feasible. Tim Leger said that uniformity and conformity of courts, police, and the prosecutor is needed.

Cheryl cited greater cooperation between vendors and greater flexibility between justice partners.

Future technological innovations are an unforeseen dynamic. Currently acquiring even a modest number of eTicket writers can cost well over $100,000. However, we have all seen the trend toward technological innovation becoming less expensive. Could innovations in eTicket writers and data interfaces be on the horizon? "*The Square*" now allows vendors to swipe credit cards on their SmartPhones; could it soon be used to swipe drivers' licenses? Small mobile portable printers sell for just a few hundred dollars; could they be installed in patrol cars? It takes only a little imagination to envision these devices replacing existing expensive handheld eTickets writers.

What Should Courts Be Doing Now to Prepare for eTickets?

Tim Guesman and Gerry Durfee said courts need to ensure they have case management systems that can interface and handle electronic data. It would also be helpful to have parameters in place, so law enforcement agencies moving to eTickets have an understanding of the eTicket data format they need to send as they make the transition.

Cheryl and Albert thought courts should be either developing new systems or upgrading their existing electronic infrastructure with multiple justice partners that includes a systemic view of all partners. Courts will need to find the most robust and yet most efficient system for the future that can easily integrate with other technologies.

Courts need to create an infrastructure able to accept eTickets. This means changing their case management systems along with an electronic document management system aligned with national standards in order to store and display imaged citations. Courts also can work through their local committees that focus on countywide programs for all law enforcement to reduce costs and allow courts to work with just one vendor to make implementation and support easier.

Tim Leger brought up the advantage of the court, police, and prosecutor having developed a central strategic plan. This is particularly perceptive advice since many courts interviewed did not have one. One court had a full plan; three courts had informal plans (not written down; one court had a plan only to comply with state AOC requirements; and two courts did not have plans.

Certainly a goal such as implementing eTickets requires a robust strategic plan. The kind of plan envisioned here would need to be more than a typical single agency "to do" list; it would have to involve *all* organizations with a stake in the success of such a program. It would have to realistically lay out practical goals and objectives, it would need to discuss strengths, and weaknesses, threats and opportunities from *all* perspectives.

Such a plan also cries out for a committed champion, an individual above any single agency or organization. A champion could bring together the various independent entities and demonstrate the power of a united campaign. A champion would need to devise new arguments beyond simple ROI cost recovery. The community would be safer because officers would spend more time patrolling; a modern justice system could be more like a 21st century business and less like a 19th century relic; justice would fully respect the citizens whose time is valuable. These could be viable arguments to elevate discussions with funding bodies beyond questions like "how soon can we see cost savings?"

Sharon, Angela, David, and Tim Leger all emphasized having courts, law enforcement, and other integral agencies working together to the central goal of integration. David underscored law enforcement and courts striving to nail down the procedures prior to implementation. Angela pointed out the need for research and talking to the other agencies. Sharon agreed that having conversations with local jurisdictions around the use of technology and cost avoidance of the system as a whole is a huge benefit. "Every agency is entering similar information into their own case management system, which leaves room for error. We should be able to have one agency enter the information and the other agencies benefit from the data entry instead of paying additional costs for someone to reenter the information."

To prepare for eTickets, courts need to begin working with law enforcement agencies, determine their needs, and build support for implementing eTickets. Early support will allow the court and law enforcement agencies to request funding as a coalition. In addition, courts should begin researching how eTickets will integrate with their CMS and begin looking at potential data quality issues and concerns. As courts move forward with implementation, they should thoroughly test and audit data to ensure it is correct to maintain trust and confidence in the judiciary.

We Want to Hear from You!

Write to us at the following email address for a copy of the entire combined list of survey results and send us your comments to: courtfutures@gmail.com

Phillip Knox & Peter C. Kiefer
December 12, 2016[xvi]

[i] The Bureau of Justice Assistance and the U.S. Department of Transportation, The Use of Electronic Citations: A Nationwide Assessment, June 2003.

[ii] Meeting of the Global Justice Information Sharing Initiative Advisory Committee, April 21–22, 2004, Reston, Virginia

[iii] Kathryn Dolan, Indiana Court Times, June 30, 2009

[iv] Katharine Lackey, "Electronic Citations Speed Up Ticketing Process for Police," USA Today, June 25, 2008.

[v] Dorothy Brown, "eTickets Remove Some of the Frustration of Getting a Traffic Ticket," Defender Times, 2014

[vi] Michael Hawthorne, "SPD Replacing Handwritten Traffic Tickets with eTickets," KOMO News Seattle, November 10, 2014.

[vii] Tim Dees, "Seven Reasons Why eCitations are Better than Paper," Police One, August 21, 2015.

[viii] Dolan

[ix] Hawthorne

[x] Dolan

[xi] Dolan

[xii] Conference of State Court Administrators, Position Paper on the Emergence of E-Everything, December 2005.

[xiii] An analysis of the Bureau of National Affairs, 2014 Directory of State and Federal Courts, Judges, and Clerks, BNA, Arlington, VA, estimated that 58% of all U.S. courts were one judge courts.

[xiv] Lackey

[xv] In all the surveys we asked respondents to assess scenarios using a 1 to 5 scale (1: highly likely, 2: Likely, 3: Maybe (50-50 Chance, 4: Unlikely, 5: Improbable). The probability labels are based on averages of the responses: (1.0–1.9: Highly Likely, 2.0–2.4: Likely, 2.5–2.9: Maybe (50–50 Chance, 3.0–3.4: Unlikely, Above 3.4: Improbable).

[xvi] Considerable thanks goes to Keith B. Kaplan, Jeff Barlow, and Ridge Franks who made significant contributions to this piece.