Your Guide to eCitation
From Start to Finish

Agencies are faced with change and challenges all the time. This guide addresses both paper and electronic citations, while providing a practical outline for agencies to consider when addressing eCitation technology needs and financial constraints.

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Contents

Chapter 1

Let's Start at the Very Beginning

Introduction:

Although Law Enforcement has existed for several centuries, police departments as we know them today first came on the scene in Philadelphia in 1833 [i]. Since then, we have seen an ever-changing spectrum of policies, equipment, and technology.

During the early nineteenth century, the policing scene looked much different than it does today for many reasons, one of which was that there were no motor vehicles on the roads. The first recorded traffic accident took place in 1891, when Ohio driver James Lambert hit the root of a tree, causing him to swerve, lose control of his vehicle, and crash into a hitching post.[ii] Five years later, in 1896, pedestrian Bridget Driscol was struck by a car in London and became the first traffic fatality.[iii] Three years later came the first speeding arrest. New York City cab driver, Jacob German, was arrested for reaching the whopping speed of 12 MPH as he drove down Lexington Avenue! [iv] In 1904, the first paper traffic ticket was issued to Harry Myers in Dayton, Ohio. Mr. Myers, like Mr. German, was racing down the street at 12 MPH.[v]

Learn more in an article, 'Traffic Citations: Then and Now'   Click to Read

As the twentieth century progressed, and more drivers joined the roadways, there became a greater need for Law Enforcement agencies to be involved. By 1966, the U.S. Department of Transportation was formed, with a mission to:

Serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future. [vi]

Since then, U.S. Law Enforcement agencies have worked hand-in-hand with the DoT to keep the roadways safe.

Record Breaking Numbers

Today, we see reports of millions of traffic collisions every year and tens of millions of speeding tickets issued. Long gone are the days of 12 MPH record speeds. The fastest drivers of today are being caught at speeds of 200+ MPH and facing tickets for thousands of dollars. In some record-breaking instances, European speeding tickets have been issued for over 600,000 euros – or close to $1 million U.S. dollars! [vii]

In addition to speeding citations and other common moving violations, Officers in many states also have distracted driving laws to enforce, such as cell phone usage and texting-while-driving. In California, for instance, the Department of Motor Vehicles reported over 426,000 cell phone and texting convictions in 2013. [viii]
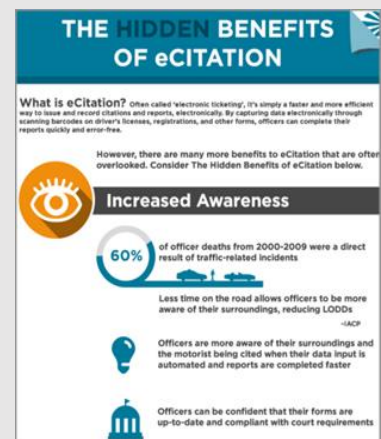
So Long, Pen & Paper

Fast forwarding over 100 years since the days of the first paper ticket, it is becoming rarer to find Law Enforcement agencies that still utilize a handwritten paper ticketing method. While we will go into further detail in Chapter 2, here are five of the most common reasons that agencies are investing in electronic citations:

[Infographic]
The Hidden Benefits of eCitation

THE HIDDEN BENEFITS OF eCITATION

Click to View

1. Officer safety

2. Reduces the time required for traffic stops

3. Accuracy from start to finish

4. Efficiency within the system

5. Reduces the need for grant writing

Although pen and paper ticketing is not yet obsolete in the twenty-first century, we predict that it will be a thing of the past by the twenty-second century. In the coming chapters, we will discuss the shortcomings of handwritten citations that can be addressed by making the switch to electronic citations.

We will also detail the equipment requirements for an electronic solution, funding considerations, and recommendations to ensure your agency gets exactly what it needs from a technology provider.

Citations of Yesterday

Pen & Paper vs. Technology

Although many agencies have made the transition to e-citations, some are still handwriting tickets with pen and paper. Before we explore electronic citation, let's first explore why Law Enforcement agencies are making the switch.

Problems with Pen & Paper

In the United States, well over $6 billion is generated from speeding tickets each year [ix], but the alarming news for some municipalities is that 10-15% of those handwritten tickets are dismissed due to illegibility.[x] When you look at these stats in terms of dollars and cents, millions of dollars are lost each year.
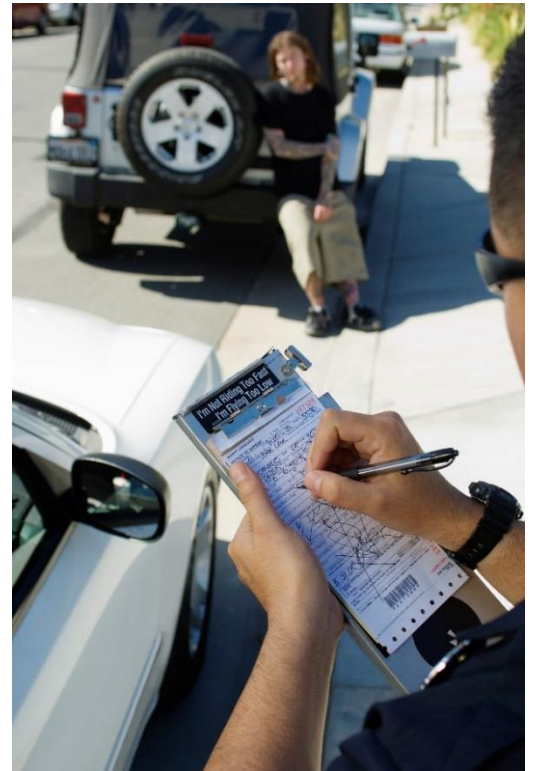
The Handwritten Citation Process = Slow and Labor Intensive

Delays

First comes a delay in which the citation information is transmitted to the courts –as much as 6 or more days in many cases, and even up to 6 months to reach state level courts! There is also the likelihood that Law Enforcement agencies will not have access to critical crash and traffic citation data for up to a year. Basically there are many different systems out there (RMS, traffic, criminal, court adjudication, crash records, etc) that are not connected to one another, so it takes time and manpower to manually enter (and re-enter) the data into each system. It is redundant and labor intensive.

Errors

Consider the manual steps of a handwritten citation process. First, an Officer jots down notes and information from driver's license, all while trying to maintain situational awareness for his/her safety. Then, back at the station, the clerk must decipher (possibly hard-to-read) handwriting. Finally, the clerk types the notes into system. When you take a minute to visualize these steps, it is no wonder that mistakes are bound to occur!

Misspent Time

Officers are forced to spend time on paperwork, rather than time on patrol. In some rural agencies, Officers might even be deployed on "delivery duty" to bring handwritten ticket information to the County Clerk's office for transcription, many miles away. In these cases, consider the resources that could be better utilized if citations were sent electronically to the county seat, without the need for "delivery" or a transcriber upon arrival.

Mind-Blowing Statistics
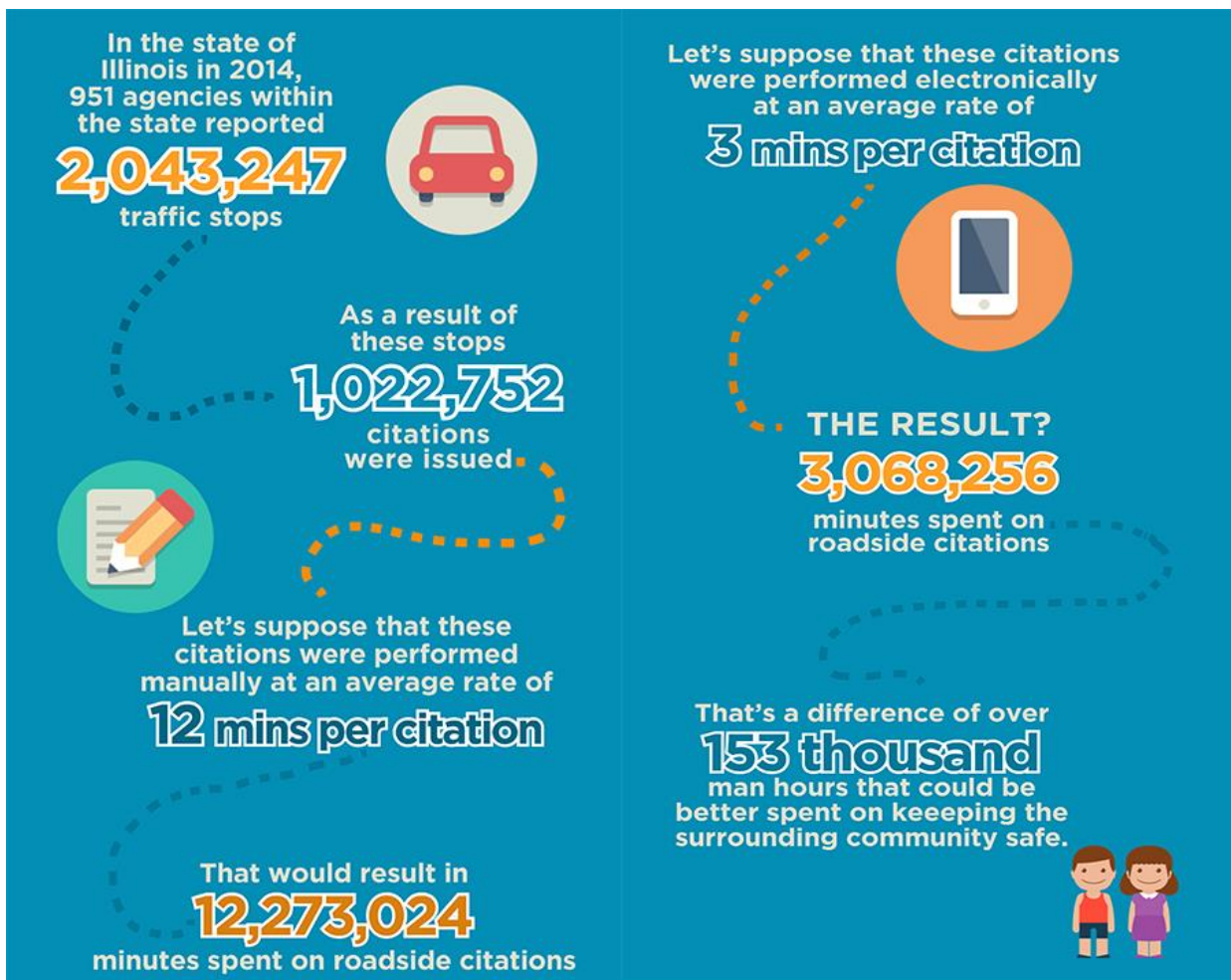
Reduced Budget

Referring back to the section on errors, consider what inevitably happens when an error-filled report reaches the judge. Tickets can be dismissed due to trivial mistakes and municipalities can kiss that revenue goodbye. Experience has shown that electronic tickets are much more likely to stand in court.

Officer Safety

Filling out handwritten paperwork requires time and attention. When an Officer's attention is focused on manual paperwork, rather than on situational awareness and potential dangers, safety becomes a major concern. Plus, as discussed in the following section, more time on the roadside presents more risk to the Officer - plain and simple.

Your Safety Matters

Law Enforcement is a dangerous profession. Case in point, there were almost 900 Line of Duty Deaths in the United States from 2010 - 2015. [xii]

482 of these deaths were vehicle-related.

What are implications of these sobering statistics within the Law Enforcement community?
There is a staggering need to explore new and improved methods of protecting our Officers.

The National Institute of Justice studies various aspects of Officer performance and safety, and indicates that there are numerous areas in which Officer safety can be – and should be – improved. [xiii]
These areas include:

- Police Roadside Safety
- Body Armor
- Equipment Standards and Testing
- Stress and Fatigue
- Use of Force
- Less-Lethal Technologies

Improving Police Roadside Safety

Even with important safety precautions such as the "Move Over" law, reflective markings and clothing, positioning of the patrol vehicle, mandates for Officers to wear seatbelts, and emergency lighting, there are unfortunately still many dangers present. The fact remains that when an Officer is pulled over at the scene of a traffic stop or motor vehicle accident, there is potential for a hazardous situation to arise.

Automated technology, such as area-imaging driver's license scanners, mobile printers, MDTs/Computers, and complete eCitation solutions have become increasingly more critical to the Law Enforcement profession.

There are two main implications of eCitation technology on Officer safety:
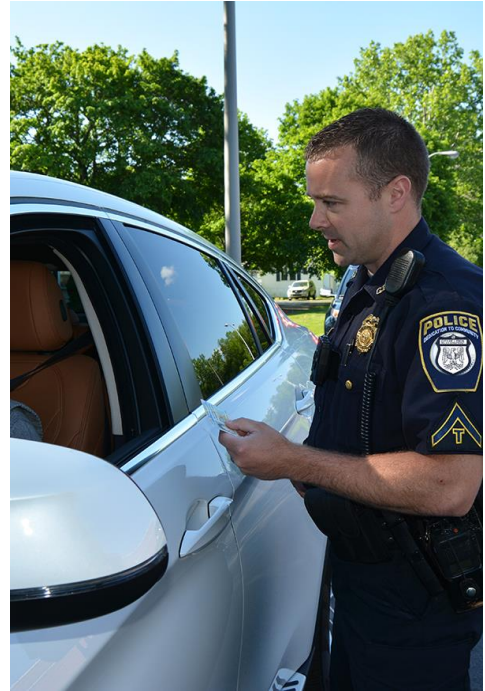
Time

The average time to complete an eCitation is between four and five minutes. Handwritten citations typically take anywhere from 20-30 minutes depending on the amount issued. *"Scanning is a lot faster. Time is cut in half moving from handwriting to the 4910LR."* (NY OFFICER) We cant forget about Officer Safety; less time on the roadside = less potential for roadside dangers.

Situational Awareness

An Officer's ability to remain alert and aware of his/her surroundings improves significantly throughout the duration of a traffic or accident stop, due to the simplicity and ease of operating the 4910LR area-imaging scanner. Officers report that the 4910LR can be comfortably held above or near the steering wheel, depending on their personal preference. Officers are able to scan quickly, without needing to concentrate on aiming or the scanning process, while keeping their eyes on the car in front of them and their surroundings. [Watch] an Officer's Safety Tip here. Furthermore, the "auto-populate" features of an eCitation solution, inputs driver information directly into the report – no typing needed. Click to learn more about situational awareness safety tips.

"I needed my attention and focus toward the front of the car. With this current model [4910LR], I've been able to hold up the license to the top of the steering wheel, sun glare hasn't been an issue… and I can scan with confidence…while I've got my attention on the car ahead of me for Officer safety."
- Officer, New York

"I couldn't scan and watch the vehicle in front of me with the old bulky scanner. If I was typing, I would constantly be looking down and couldn't keep my eyes on the road."
- Officer K., South Carolina

Citations of Today:
Electronic Citations

An electronic citation is completed…well, electronically! In most cases, eCitations are completed when an Officer scans the barcode on the back of a driver's license.

Using specialized eCitation software, the data from the driver's license is automatically auto-populated into the ticketing form/template.

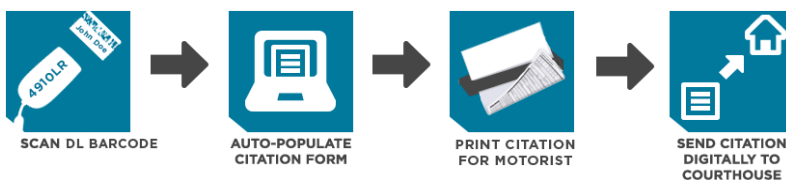*You will learn more about eCitation Software later on page 11*

Electronic citations can be printed directly from a mobile printer in the squad car.

In some cases, police departments issue tickets with a partially electronic system, using a magnetic card reader. In these instances, Officers must manually type in a driver's license number.

Then, driver information is populated from an external database. A completely electronic system is much easier!

Many of the e-ticketing software packages available today include the ability to quickly report and effectively process other types of incidents, including motor vehicle accidents, in addition to traffic tickets.

Here's how it works:

SCAN DL BARCODE → AUTO-POPULATE CITATION FORM → PRINT CITATION FOR MOTORIST → SEND CITATION DIGITALLY TO COURTHOUSE

Complete this process in 4-5 minutes!

Click to learn more - [Quickview] How eCitation Works

AKA
Electronic Citation
(also known as)

- eCitation
- e-Citation
- electronic ticketing
- eTicketing

Did You Know?

Not all barcodes are created equally. This PDF417 barcode is the type found on the back of a driver's license.

A UPC is the type of barcode you have probably noticed on the packaging of consumer goods.

Notice the difference in the appearance between the PDF417 and the UPC pictured below.

This is a PDF417 barcode.

This is a UPC barcode.

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Safe. Fast. Precise.

The four easy steps to completing an eTicket are quite simple:

(1) Scan driver information using a driver's license reader. Driver data is automatically and immediately input into the citation form.

(2) Select the appropriate violation code from the menu (i.e., speeding, failure to yield, etc.)

(3) Press print! The citation will print right from a mobile printer in the patrol vehicle so you can deliver it to the motorist.

(4) Easily send the digital citation to administrative offices, the courthouse or other 3rd parties if needed.

[Video]: Learn about eCitation with the 4910LR from an Officer's Perspective

Click the image above to play or click here to watch on YouTube

Quick Fact: *A Driver's License* Scanner *is the same thing as a Driver's License* Reader.

An Added Bonus

Information makes communities safer – data is used for mapping, visualization and predictive policing. For instance, data will show roads where there have been multiple speed-related crashes, areas where there are a higher number of drunk driving arrests, or instances of pedestrians being struck. This data can help agencies decide when and where to deploy Officers on patrol, with the intent of preventing incidents before they occur, commonly known as proactive policing.

Electronic Citation Equipment

What Do We Need?

There are 8 main categories of electronic citation equipment and many options within each category to choose from. Each category is outlined below, but when in doubt always check with a knowledgeable technology provider (learn more in Chapter 5) to be sure your specifications will be achieved.

❶ E-Citation Software

A software program is an essential component of an electronic citation solution. Software is required to receive driver's license data and process citations, warnings, accident reports, or incident reports. Some agencies may have access to state-sponsored publicly funded software, while other agencies may need to contract through independent vendors.

Examples of supported public-sponsored software applications include:

- TraCS
- MOVE
- eCWS

- SECTOR
- E-TIX
- KYOPS

❷ The 4910LR Driver's License Reader

Although there are a few other options out there, the 4910LR is well-loved by thousands of agencies in more than 40 states for several key reasons:

Form factor.

Purpose built for Law Enforcement and shaped like a radio mic, Officers are comfortable with the familiar feel of the 4910LR, reporting that it is easier to use than traditional barcode scanners. Plus the device can be safely and easily stowed on a mic clip when not in use.

▶ Click to watch a [Video]: How to store the 4910LR in your Squad Car.

Scan Performance.

The red LED backlight and visible green LED aiming beam are very popular with Officers for taking the guesswork out of barcode scanning. Whether day or night, the 4910LR DL reader scans well in all lighting conditions.

▶ Watch a [Video] on sunlight performance

▶ Watch a [Video] about night performance

Basic Camera Functions.

Gray scale image capture allows Officers to photograph, process, and store additional information with the paperwork, ranging from signatures and fingerprints to accident scene sketches, a false ID that was presented, and even a driver's license in the same frame as the speed results.

▶ Watch a [Video]: Crash Scene Sketch Image Capture

Compatibility.

The 4910LR can be configured to work with public e-citation and accident reporting software applications, including those listed on page 11. No public software available? No problem. The 4910LR is certified by more than 20 independent software vendors, as well.
Click to contact us if you have questions on software compatibility.

4910LR DL Reader

WHAT IS IT?
An aggressive bar code scanning of 1D, PDF, and 2D codes on hard-to-read and highly-reflective surfaces.

COMPACT
• Microphone-style device
• Safe & secure in-vehicle mounting

QUICKLY POPULATE DRIVER INFORMATION ON YOUR CITATION/REPORT FORMS

FAST AND ACCURATE
Aggressive barcode scanning on hard to read and highly reflective surfaces.

ELIMINATES ERRORS
Reduce the dismissed citations because of illegible handwriting and other manual errors.

WORKS IN ALL LIGHTING CONDITIONS

IMAGE CAPTURE
Quick gray-scale image capture of supporting documents for citations, accidents, etc. for proof of ID or documentation.
<1SEC.

AN OFFICER CAN USE IMAGE CAPTURE FOR:
● Report enhancing photos
● Ink on paper sketches & fingerprints
● Intelligent signature capture

Click to request a 4910LR T&E Unit for your squad car

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③ MDTs/Computers/Tablets

Getac F110

Agencies have several possibilities to choose from, including vehicle-mounted laptops, or rugged tablets, which can be mounted in-vehicle and removed for mobility. The key here is that the device is rugged. Durability is a necessity since devices in a patrol vehicle environment are exposed to temperature extremes, persistent vibration and other harsh conditions.

④ Mobile Printers

Brother PocketJet 7

Just as a mobile computer must be resilient to withstand variable conditions, a rugged thermal printer is also essential in a patrol vehicle. A good mobile printer fits easily within the space constraints of a patrol car, with the capability of quickly printing a high-quality report or citation. Thermal printers are recommended over other types of printing technology because mobile inkjet printers have multiple moving parts that can loosen and fail over time due to vehicle vibrations. Inkjet printers also require cartridge changes, whereas thermal printers don't use cartridges. The print head in a thermal printer produces heat and reacts with the chemicals on thermal paper.

⑤ Mounts and Cradles

Docking Station
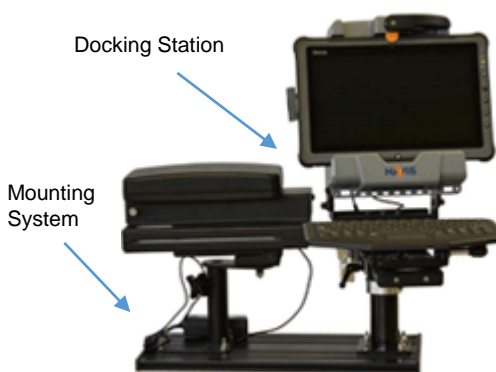
Mounting System

Havis Computer, Tablet, and Peripheral Mounting

It is important to have a secure storage system for all e-Citation hardware due to the unpredictable nature of the Law Enforcement profession. Within moments, a parked patrol car could be driving or braking quickly, turning sharp corners, or even involved in a collision. Unsecured items can easily pose a safety hazard to Officers. A cradle is a simple way to hold a laptop or tablet in place. A docking station not only holds the tablet in place, it also has port replication for peripherals and a power supply to charge the tablet. Console mounts and passenger side mounts are also options for securing your equipment and are custom-built to fit the particular model of patrol vehicle being outfitted.

⑥ Thermal Paper for Citations

With a thermal printer, you'll want to use a quality synthetic paper that holds up well to scratches, smears, light exposure and moisture. You can get paper in either continuous or perforated rolls depending on your preference. Click to learn more about thermal media for Law Enforcement.

⑦ Power Supply

Brother Power Adapter

You don't want to have to worry about battery failure in the middle of a report. Having replacement batteries on hand will ensure that electronic equipment is always up and running. If printers are fixed-mounted in patrol vehicles and solely powered by the vehicle's power source, a battery eliminator is an effective alternative and reduces the cost of printer ownership.

⑧ Choosing a Technology Partner

Learn why choosing the correct technology partner is critical to your success on the next page.

Technology Partners

What is a technology partner?

If your department is considering electronic ticketing, it is important to work with a reputable technology partner to help narrow down the options available and fine-tune the details. A technology partner (also known as a "reseller") will understand the components of an eCitation solution, as well as the space constraints and environmental factors within a patrol vehicle.

You'll want a technology partner who will carefully consider the needs and obstacles your agency currently faces. The partner should assist with a run-through of equipment installation and provide a training schedule, plus sit down with department Officers and IT personnel for a Q&A session to iron out details and deliver a solution that meets your requirements.

Tips to Consider When you are Evaluating a Technology Partner

Reputable - Many years of experience working with a diverse range of agencies.

Reviews - A portfolio of satisfied Law Enforcement clients.

Connections – Long-standing relationship with the manufacturer(s) of best-in-class products with the best service, support, and pricing.

Reliability – Available after the sale for software adjustments, hardware troubleshooting and more.

Seeking & Sharing Knowledge – Attends conferences, trainings, and meetings to stay well-informed on the most up-to-date details of an eCitation solution. Are they willing to trouble shoot and support the technology solution long after the sale is completed?

Collaborative – Look for a tech partner who acts as an extension of your team. Will they take your support call and assist to your satisfaction?

" *The lowest bid may be enticing, but be sure to know what you're getting – and what you're not!* "

- RAD DeRose, President and CEO

"A Little Help From Our Friends" (July 15, 2015)

Money Matters

Funding Conundrums

Whether you're a large, statewide agency or a small rural agency, there is always the issue of funding. New equipment, new technology, and new personnel all need to be backed by cash flow that can be hard to come by.

Here are 10 tips for you to consider before investing in an e-citation solution:

1 Look into State or Federal grant funding to offset costs. Ask your neighboring agencies at State Law Enforcement conferences or other networking opportunities.

2 Check to see if there is a state-sponsored software program available to your agency.

3 If needed, purchase incrementally. When getting started, outfit a few cars at a time. For equipment refresh, upgrade one component at a time.

4 Keep an eye out for promotions, such as trade-in discounts or buying in bulk.

5 Don't sacrifice quality for price. Purchasing consumer-grade equipment might make sense at first, until it breaks shortly thereafter.

6 Some states permit local departments to reserve a portion of proceeds from handwritten citations (usually a small fixed amount) to fund future investment in ecitation. See if this is an option in your area.

7 Consider the percentage of handwritten citations that are dismissed in your department for illegibility or processing errors. These errors are costly.

8 Also consider the labor that can be saved by implementing electronic ticketing. Duplication of effort means wasted resources. **Learn more about 'soft ROI (return on investment) here**.

9 How can you pay for the equipment?
   a. As a traditional capital expense
   b. A monthly operating expense

10 You can structure your purchase to allow you to refresh your equipment every four years. Ask us about our 'As a Service' Model. You can also ask about our 'Shared Service' Model allowing multiple jurisdictions to purchase and get support together.

If you still have questions or are unsure of the answers to these questions, consult with an experienced technology partner (discussed in Chapter 5).

Just For Fun…Officer's Stories

An Unusual Way to Find Funding

A town board member from a Midwestern town was issued a hand-written ticket by his local Police Officer, but the Officer's handwriting was not legible.

At the next board meeting, the board member held up the ticket he had been issued and announced that the ticket was illegible.

The town board approved funding for e-Ticketing at that very meeting!

A Quick Citation

Recently a Chief from PA was in uniform and walking back to his unmarked car. There is one intersection in town where no left turns are permitted. Someone makes a left turn in front of him (oops)

He waves this person over and uncovers:
-- there is no registration on the windshield (it had been scraped off)
-- the person does not have their driver's license
-- the person does not have insurance

The Chief calls into headquarters to get one of his Officer's to come out with his car set up with our eCitation solution. The Chief heads back to his car and notices the Officer he called in pulling away from the scene already!

3 tickets and 2 warnings were issued in under four minutes! The Officer was done an on his way back to headquarters before the Chief got back to his car.

On-the-Spot Technical Support

A SUNY Albany Police Officer stopped by a conference we were attending and mentioned that he had a scanner that just didn't work. This was an opportunity for L-Tron to the rescue!

Charlie (one of our Tech Specialists) went over to speak with him.
After some dialogue, it was agreed that the Officer would bring his vehicle up the next day and Charlie would trouble shoot in-vehicle.

The Officer and the vehicle did comeback to see us the next day -- Charlie went out to the vehicle walked through the issues and "fixed it" on the spot. Needless to say the Officer was quite pleased.

ABOUT L-TRON CORPORATION

E-Citation & Beyond

Our 3rd generation 4910LR DL scanner, purpose-built for Law Enforcement eCitation and incident reporting, gets you off the curb and back on patrol, keeping our communities safe.

Specializing in hardware for today's squad car, our solutions have been implemented in thousands of municipalities across 40+ states over the last 14 years.

"Dealing with your company has been a great experience. The promptness of the communication has been outstanding. I will be recommending your company to everyone in the law field."

– Scott Chief of Police

" L-Tron's customer service representatives are wonderful! I ordered 16 scanners and needed to have them delivered quickly. The representatives with whom I dealt were very professional and accommodating. THANK YOU! "

- County Deputy Clerk, AZ

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▶ [Watch a Video]

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Questions? Looking for a T&E unit?

Our Team of Law Enforcement Technology Specialists are ready to help you!

CLICK TO CONTACT US

📞 800-830-9523

✉️ info@L-Tron.com

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