



Pro Bono Publico

A United Effort for Law Enforcement in Nebraska: from one Officer to one thousand, we all work together.

An officer responds to a crash on a lonely highway in rural Nebraska. He quickly assesses the situation, requests appropriate support for injured parties, and proceeds to make order from the chaos of the crash. Instead of completing the report by hand as was done two years ago, an electronic crash report is finished shortly. A legible, 8+ page report is ready to be sent to his supervisor for approval and will be delivered to the Nebraska Department of Transportation before the end of shift. He can be on his way, back to serving the citizens of Nebraska more quickly than paperwork allowed in the past. But how did he get here?

Let's find out...

AWARD CATEGORY: Cross-Boundary
Collaboration & Partnerships
PROJECT END DATE: January 2021
SUBMITTED BY: Ed Toner, CIO State of Nebraska
PREPARED BY: Pam Kunzman, Chris Neukirch,
Charlie Lucas, Monica Spanke, &
Kimberly Mize

Executive Summary

In 2017 the State of Nebraska initiated several automation and process improvement projects which would impact resources statewide. Some of the changes required a careful review of the processes that involved law enforcement agencies throughout the state. The Nebraska State Patrol (NSP) used the proposed changes as an opportunity to work with our state government partner agencies and discuss how we could work together to accomplish the proposed initiatives.

Two of the changes that impacted law enforcement the most were the requirement of uniform citations to be electronically submitted by January 1, 2020, and a Model Minimum Uniform Crash Criteria 5th edition (MMUCC 5) compliant crash form to go live on January 1, 2021.

The State of Nebraska has a state-wide license for the use of TraCS (Traffic and Criminal Software). NSP had been using this product for e-citations since 2008 and had recently added the Crash Form to TraCS. By 2017, the NSP instance of TraCS was fully mature and was capable of being shared with law enforcement agency partners across the state on the same server.

NSP partnered with the Office of the Chief Information Officer (OCIO) to build robust, redundant servers that could handle the load of several agencies. NSP began sharing the software product with other law enforcement agencies, providing an affordable e-citation program. The expansion of TraCS to local partner agencies has converted at least 65 agencies who were submitting paper citations to submitting electronically using TraCS.

The Nebraska Crime Commission (NCC) supported this initiative through a grant process to provide equipment in police cars for rural agencies. The TraCS sharing model started slowly and expanded rapidly when the Nebraska Department of Transportation (NDOT) became involved.

“Having the same technology enhancements across the state means that our citizens receive the same great quality of service whether they live in an urban environment or a very rural environment. This is a great model for other states to follow.”

- Colonel John Bolduc, NSP

NDOT was in the process of upgrading and significantly expanding its crash reporting system. Rather than rewrite their electronic crash reporting form, NDOT partnered with NSP to employ the NSP TraCS Crash Form. In addition to over sixty agencies that were transitioned to TraCS from the sunseting NDOT system, 14 agencies that had previously submitted the crash form on paper were converted to electronic submission.



“As a State Government, we’re continuously improving the way we work to better serve Nebraskans,” said Gov. Ricketts. “Our agencies’ use of TraCS software more efficiently shares information and coordinates the talents of state and local law enforcement. This helps to more effectively prosecute lawbreakers and enhances highway safety across our state.”

**- Governor Pete Ricketts
State of Nebraska**

Idea

Nebraska had two initiatives to expand law enforcement automation and the use of technology. The first was the Nebraska Supreme Court requiring all uniform citations to be electronically submitted unless a waiver is granted. The second was the Nebraska Department of Transportation's implementation of the new MMUCC 5 compliant form, which was an 8-page form that made more sense to complete electronically.

A review of the law enforcement agencies in Nebraska demonstrated the challenges of implementing electronic citations and the new crash reports. Law enforcement agencies in Nebraska vary in size from a single officer to over 900, yet all are required to meet the same reporting requirements. Many work in rural areas where internet access is weak or not available.

Nebraska is a member of the National Model program, which was built to work towards shared solutions to these problems. The TraCS product, which is a part of the National Model, was originally developed by the Iowa Department of Transportation, and is shared by way of statewide licenses to the member states. This license is a flat annual fee which allows for any number of users and includes all software upgrades and product enhancement work. There are currently 15 states and one Canadian province that are part of the National Model. A number of these member states also share TraCS software statewide. Due to the statewide sharing model of TraCS, it was a logical and cost-saving choice for agencies to use TraCS for both of these initiatives.

The issue of efficiently collecting Law Enforcement data is one that agencies in every state face. The amount of data public safety agencies routinely work with has grown exponentially with technology. There is little doubt as to the data's value; however, the value of data comes at a cost when the time spent entering the data overrides a law enforcement officer's ability to perform essential tasks. When properly implemented, technology and information systems allow officers to dedicate more time to law enforcement duties rather than manually complete administrative tasks.

Through funding provided by the Nebraska Office of Highway Safety, the Nebraska Crime Commission (NCC) holds the TraCS license for the State of Nebraska and issues sublicenses to other Nebraska public safety entities. NSP manages the development and support of forms, user administration, training, and client installation. The OCIO hosts and maintains the server infrastructure. The cost of this infrastructure is shared across the partner agencies to minimize the cost to the individual agencies. Additionally, NDOT has partnered with NSP to cover the costs related to the crash reporting part of the TraCS Infrastructure.

Available in TraCS

- Citation
- Warning
- Use of Force
- Pursuit Critique
- Field Interview
- DMV License ReExam
- Crash Investigation
- Incident
- Arrest
- NIBRS
- Title Inspection
- CMV Inspection
- Civil Service

"During the development of a new statewide crash database, Nebraska OCIO, Nebraska DOT, and Nebraska State Patrol identified an opportunity to consolidate NDOT's Electronic Accident Form (EAF) and NSP's Traffic and Criminal Software (TraCS) crash reporting systems into one enterprise system. NSP's TraCS system was identified as the best State enterprise platform for supporting Nebraska law enforcement crash reporting needs since TraCS was a complete law enforcement reporting suite and NDOT's EAF systems focused on just vehicle crash reporting."

- Don Butler, NDOT Partner & Project Sponsor

Comparable software solutions for electronic citations tend to cost several thousand dollars per agency, even for small agencies. The Nebraska TraCS model takes a different approach, as it is priced per officer so that the smaller agencies have a very affordable solution at a cost of under \$40 per user per year. Larger agencies take advantage of the maximum of \$12,000 per year cost to also realize savings. This cost includes the software, all

upgrades, forms development, interfacing data from TraCS to an agency's Records Management System (RMS) or other systems, interface to the court system, all server/database/application infrastructure costs, and continuous training and support.

TraCS Software

The TraCS system was designed as a fully customizable law enforcement data collection system, with many features specifically designed for roadside use in a patrol car. Since cellular connectivity cannot be guaranteed, the system is built to allow offline entry of data. For the safety of the officer and the public, a focus is placed on allowing data to be entered quickly, so a scene can be cleared. Barcode scanners are used to capture data from Driver Licenses and Vehicle Registrations, and where those are not available, interfaces can be created to fetch data from other government data systems, such as DMV vehicle records. Information can be populated from form to form when multiple forms are needed for a single incident.

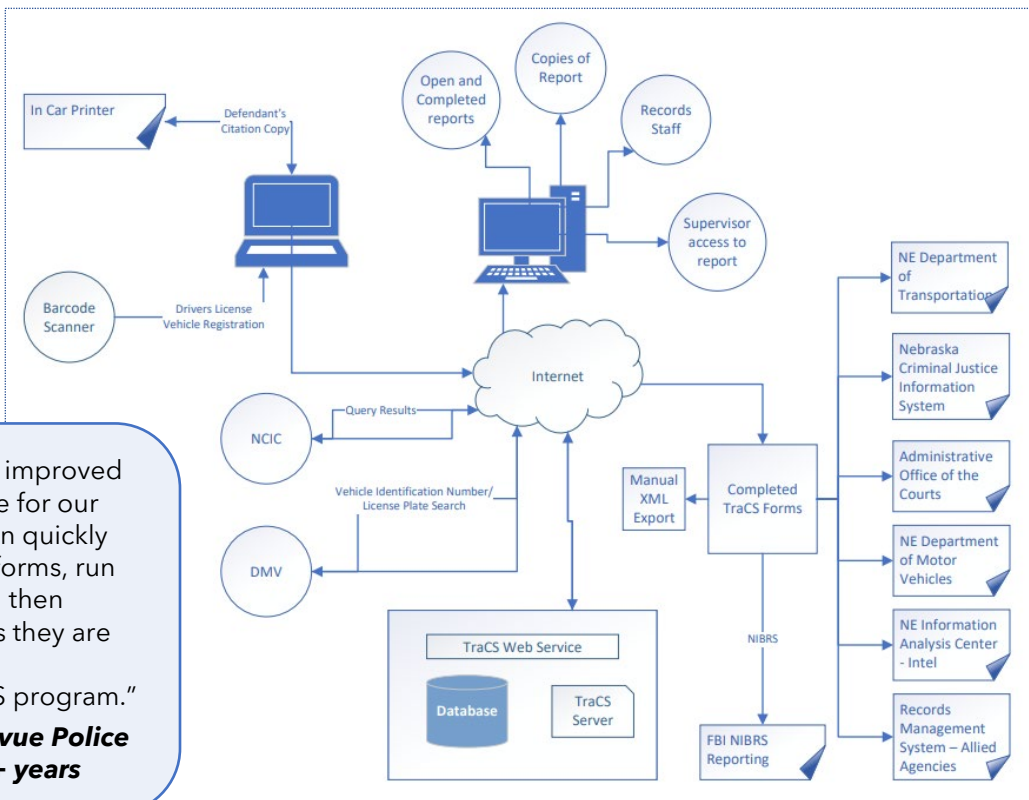
"Electronic citations have been a big benefit to the court system. Use of the TraCs system by law enforcement to issue citations has laid the foundation for county attorneys to seamlessly electronically file with the courts, greatly reducing the amount of staff handling and data entry."

- Jennifer Rasmussen, Deputy Administrator/IT, Administrative Office of the Courts

On the backend of the TraCS system, processes are built to transfer collected data to relevant systems across the state. Citations are electronically uploaded to the courts and prosecutors by way of the Nebraska Criminal Justice Information System. Crash Investigation forms are electronically sent to NDOT to be processed by their staff. Field Interviews are sent to crime analysts at the Nebraska Information Analysis Center. Additionally, data is extracted and sent to local agency-specific RMS systems.

Fourteen years ago, when TraCS was first implemented in the State of Nebraska, the system did not support a single centrally hosted environment. Supporting installations hosted at each agency proved to be complex and difficult to maintain. TraCS has grown and improved over the years and now has a web services-based architecture with a system for automatically distributing system updates. These changes to the base system cleared the path forward for sharing TraCS with more agencies.

Nebraska's TraCS implementation, depicted here, shows the maturity of the system and the value offered to law enforcement agencies statewide.



"These programs have greatly improved the efficiency and quality of life for our officers in the field. Officers can quickly complete and issue citations, forms, run NCIC and DMV queries, which then populate the citations or forms they are working on. That data is then subsequently fed into our RMS program."

- Sgt. Shaun Manning, Bellevue Police Department / Partner 4+ years

"I've been impressed by their willingness to collaborate and [also their] responsiveness. They are open to partnering not only with the DCSO, but also with our RMS vendor. We had unique interfacing needs, including adding custom data fields. The TraCS team didn't hesitate; they immediately went to work collaborating with us and our RMS vendor to quickly develop a solution. When we brought workflow errors to the TraCS team, they immediately went to work on revising workflows, not only improving our process but benefitting agencies statewide."

- Lt Jon Kramer, Douglas County Sheriff's Office / Partner 3+ Years

Implementation

Starting in 2017, NSP began bringing Police Departments and Sheriff's Offices onto TraCS. The initial forms included electronic citations and crash investigation as core components, along with a variety of other standardized law enforcement forms. The original goal was to share our existing system with partner agencies who could benefit from the reduced cost and remove the complexity of creating forms and managing servers.

Following that initial implementation of TraCS, the Nebraska Supreme Court approved rule changes requiring that all law enforcement agencies in the state write and transmit electronic citations unless they apply for an

"The Office of the CIO was fortunate to be able to assist the Nebraska State Patrol in their vision of providing an efficient, effective, and highly available software product for use across multiple law enforcement agencies. "

- Ed Toner, CIO, State of Nebraska

exception. This generated more interest in TraCS as agencies sought an affordable electronic citation solution. As a result, 57 agencies were onboarded to the TraCS system to meet the e-citation requirement. To accommodate this growth, NSP worked to improve the process for bringing an agency onto the system, while also working with the OCIO to ensure the infrastructure was sufficient to support the increased use.

In this same timeframe, NDOT was working on a process to rewrite their Crash Reporting forms to comply with the new MMUCC 5 standard. Seeing the benefits of the TraCS system, NDOT opted not to rebuild its existing Electronic Accident Form (EAF) system to the new standard. Instead, they decided to share a portion of the cost of the TraCS system, so any agency that needed a system for reporting crashes could use TraCS Crash Form at zero cost. By not implementing a new system for reporting crashes, NDOT supported the Nebraska CIO's goal of eliminating duplicate systems.

The new crash form went live on January 1, 2021. As this update involved eliminating the existing EAF system, this spurred a second round of rapid expansion of the TraCS system. It was important that all current users of the EAF system be converted to another electronic crash form system to retain the gains achieved with the EAF in terms of the number of crash forms being reported electronically. Put another way, we needed to convert as many agencies as possible, starting with those submitting the most reports.

NSP worked closely with NDOT and NCC to create a plan to bring the EAF agencies over to TraCS; over 80 agencies had used the EAF in the past year and needed to be motivated to move to the new statewide TraCS Crash system. At this same time, agencies that had been submitting paper crash forms were also requesting access. The team found that both could be accomplished through a specific and flexible process. The initial approach included

"[NSP was] very informative about what TraCS could offer my agency and gave a demo to show what it was capable of. As agency administrators, we thought TraCS was a great way to move forward, given the versatility of reporting and ease of use. ...training was very informative and simple to understand. The transition from EAF was seamless! We went live with TraCS January 1, 2021."

**- Captain Michael Doremus,
Hastings Police Department /
Partner since 2021**

agency assessment (to determine readiness and redirect agencies to resources needed) and active agency engagement for those that had the equipment necessary to proceed. The engagement phase flowed through our standard onboarding steps, with a regionalized training approach. When the COVID pandemic added complications, a new plan was developed to make the installation, administration, and training for the system

“NSP conducted a coordinated, well-planned, and proactive campaign to migrate law enforcement agencies to the TraCS Crash form; [the campaign] led to an exceedingly high conversion rate of agencies to the new platform. ... The electronic transmittal of crash report data maintains a higher quality level of data and quicker access to crash information for the Nebraska public and our safety stakeholders.”

- Don Butler, NDOT Partner & Project Sponsor

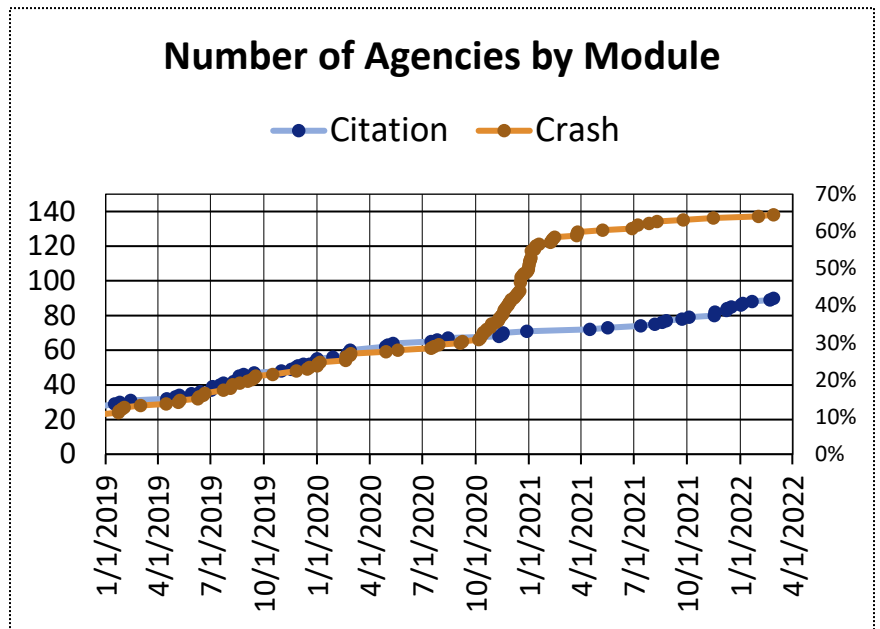
100% online. To address the volume of agencies being added, the team took advantage of collaboration software to enable shared internal and external communications essential to the success of the overall effort.

Overall, between January 1, 2019, and January 2021, 112 agencies were added to the TraCS system for a total of 124 agencies. Fifty-four of those agencies went live in the four-month period between October 2020 and January 2021. Additionally, even though the focus was to transition agencies using the EAF system, 14 agencies moved from paper submission of crash forms to electronically submitting them in TraCS.

Impact

The TraCS system expanded from 28 agencies to 124 over the course of two years. This was accomplished by a team of 3 business analysts and 3 developers at NSP, in partnership with our State OCIO and many other agencies, all while continuing to expand and update the range of data collection and reporting available in the system. Since the production release of the new crash form, an additional 17 agencies have come onto the system and many have been expanding their use from ‘crash only’ reporting to fully utilizing the other modules available, including electronic citations.

Many of these agencies were also able to take advantage of grants managed by NCC to acquire equipment, which enables mobile access from patrol vehicles. During the 2021 grant cycle, 77 computers were acquired by agencies across the state. As of the end of April 2022, 141 of the state’s 214 law enforcement agencies (66%) are using the TraCS system.



“Since the department was already using TraCS for accident reporting, we reached out to our contact with the Nebraska State Patrol ... and inquired about the possibility of using the TraCS [citations.] [NSP] was very helpful and knowledgeable and after a few conversations, we knew we would be working towards using TraCS for our update to our citation platform. ... We now have been live on TraCS citations for five and a half months. ...we are very satisfied with the product and service and the cost was extremely affordable.”

- Chief Rick Hickstein, Chadron Police Department / Partner since 2021

Now that we are near the point where almost all who are interested are on the TraCS system, we have set our focus on expanding the system itself. Some of these activities consist of creating additional forms in TraCS to replace paper processes and automate data entry, and also providing new and automated reporting capabilities. Some agencies are replacing entire separate systems, reducing their infrastructure costs and needs. Additionally, NSP, with the support of Office of Highway Safety grant funding, has been expanding TraCS to include a full suite of Records Management System forms, workflows, and automation. These new forms and features allow the tracking of a case and all of its details, from dispatch, evidence, and arrest data all the way to preparing a packet for a prosecutor to go to court. Agencies can also choose to utilize TraCS to produce files for reporting incident data to the FBI's Uniform Crime Reporting database through the National Incident Based Reporting System.

"The support team for TraCS is first class. They quickly and effectively respond to issues we may encounter. They were thorough and patient with the initial implementation and have been there for us since. We greatly appreciate their patience, skill and responsiveness."

**- Lt. Gary Young, Crete Police Department /
'Crash Only' Partner since 2021**

"What we achieved here sets the foundation that opens the door to additional data sharing, by mutual agreement, among agencies that are interested in taking that next step."

- Pam Kunzman, NSP IT Division Commander

By continuing to focus on a single consolidated system, we are reducing the number of systems agencies need to maintain, while increasing data quality, streamlining consistent report generation, and increasing the collaboration between NSP, other state agencies, and our law enforcement partners at the county and city level. Cross agency relationships are strengthened statewide. All of this is accomplished while lowering costs to those agencies, and in turn, to the taxpayers they serve.

Reference Links

National Model – <http://nationalmodel.us>

Nebraska State Patrol – <http://statepatrol.nebraska.gov>

Nebraska Crime Commission – <https://ncc.nebraska.gov/stat-reports>

