

Creating higher-quality reports while increasing trooper safety

A large midwestern state police department achieves 50% reduction in report turnaround time while improving trooper safety and situational awareness using Nuance® Dragon® Law Enforcement speech recognition

Challenge

- Incident reports often took days to create and submit
- Completing reports to send to prosecutors within a trooper's shift contributed to increased overtime costs and organizational stress
- Multiple applications and "task switching" on patrol vehicle MDTs increased opportunities for impaired situational awareness

Solution

- Dragon Law Enforcement provides a faster, safer and more efficient way to create incident reports by voice
- Ensure timely filing of high-quality incident reports; officers simply speak and dictate reports 3x faster with 99% accuracy
- Keep officers safer and more situationally aware by conducting common tasks, like license plate look-ups, by voice

Results

- >50% average reduction in report creation turnaround times
- 4 out of 5 troopers using Dragon Law Enforcement produced more detailed reports
- 70% of troopers reported an improvement in situational awareness, spending more time heads-up with eyes on their surroundings

Background

A large midwestern state police department—serving a population of several million—had a time-consuming and resource-intensive incident report process. The agency needed to meet growing documentation demands at the state and federal level, as well as address the challenge of growing trooper reliance on in-vehicle software applications to complete daily documentation tasks. The goal: Improve incident report efficiency and enhance trooper safety with usage of in-vehicle applications.

“Dragon Law Enforcement is a key component of our strategy to update our documentation processes and successfully manage multiple in-vehicle software systems and databases. The result: Higher quality reports, in less time to prosecutors, while increasing trooper situational awareness and safety.”

Command Staff from midwestern state police department

The challenge

This midwestern state police agency has a long history of incubating progressive ideas in the field to meet the challenges of the day. In 2017, one of their posts began exploring solutions to meet increased demands at the state level to improve their incident reporting process.

At the heart of their challenge was a documentation workflow that incorporated multiple hand-offs, introduced different formats to capture incident reports (from voice files, manually typed reports to handwritten notes), to time-lags and corrections inherent in the transfer of information from trooper to the administrative team and back again. The proliferation of numerous discreet software applications also added to the challenges of managing and navigating the amount of information troopers needed to retrieve to complete an incident report and file it in a timely manner to meet prosecutor deadlines.

The existing process was far from optimal to meet these goals. Troopers would create an audio file documenting an incident, transmit the file to an administrative team for transcription; who returned a document back to the trooper for proof-reading and—assuming no further corrections—submitted the document into the Records Management System (RMS). Manually typed reports and handwritten notes were also inserted into the process. This manual process was increasingly placed under strain, particularly with prosecutors seeking accelerated access to case information.

At the same time, the number of databases and applications troopers used were increasing and competing for their attention. As the agency was tasked with enforcing the state’s distracted driving laws, management was also tasked with addressing the potential of “cognitive overload” in their technology packed patrol vehicles

The solution

In 2017 the agency deployed the Dragon Law Enforcement speech recognition solution to a core group of its Troopers and quickly realized the potential to streamline their incident reporting processes, while allowing them to preserve the existing investment in their technology platform.

The agency paired Dragon Law Enforcement with the Nuance PowerMic III handheld microphone, which doubles as a mouse. The combination of Dragon Law Enforcement with PowerMic III allowed troopers to use the familiar “push-to-talk” functionality of their in-car systems to dictate report narratives, issue commands to retrieve information (like running a license plate), and navigate their application suite, all while staying heads-up and hands-free.

Working with Nuance, the agency’s administrative leadership put troopers utilizing Dragon Law Enforcement through a training process to ensure the long-term success of their effort to transform their incident reporting process. Troopers using Dragon Law Enforcement spent a day in a classroom setting and joined weekly support calls hosted by Nuance and the agency leadership to assess their progress and respond to any questions.

One of the command staff in the Technology Unit referred to their insistence on training and support this way: *“The best technology is of little value if our troopers are not properly trained and use it in strict accordance with our policies and standards. We are confident we have found in Dragon Law Enforcement a tool to drastically increase documentation efficiency and report quality, all while keeping our troopers safe and situationally aware.”*

The results

During the pilot and into implementation of Dragon Law Enforcement, the agency realized three major benefits core to its mission:

- **Time Saved:** Troopers reduced incident report turnaround by almost 50%, moving reports to prosecutors faster and more efficiently. This was a two-to-one-hour reduction. In addition, the lag-time from a voice file submission to the administrative team, to when it was received back was drastically reduced.
- **Situational Awareness:** 70% of pilot participants reported experiencing an increase in their situational awareness by speaking - rather than typing - report narratives and navigating software applications by voice.
- **Increased Report Specificity:** By a ratio of 4 to 1, Troopers cited an improvement in the detail and specificity in their incident reports using Dragon Law Enforcement; a welcome benefit for prosecutors seeking detailed incident information—as quickly as possible—to take criminals off the street.

As the agency concluded the pilot and began a post-by-post roll-out of Dragon Law Enforcement, additional benefits like reduced ergonomic strain, the ability to safely look-up plate numbers by voice, as well as increased usage of “beneficial but not required” applications emerged. According to one Trooper, *“Dragon Law Enforcement not only speeds the process of background investigations, but also*

the time-consuming process of opening my roster of applications to start my shift. Using Dragon to reduce our login process to a few spoken commands is a huge time saver, not just for me, but all troopers. That time savings will scale quickly across trooper’s system-wide.”

Future plans

Today, the agency plans to accelerate the roll out of Dragon Law Enforcement system-wide. They will formally measure and report on key metrics, such as the efficiencies gained that free up time for troopers to be visible in their communities and, ultimately, protect and serve the citizens of the state. These metrics will not only include quantifiable metrics, like time saved, but also more subjective qualitative factors such as ergonomics, trooper satisfaction and, just as important, the ability to attract and recruit new troopers into the academy.

“The Nuance team has been a true partner tailoring the Dragon implementation to our unique processes and policies”, said a senior command staff member. “Management has seen proven results and we look forward to making Dragon Law Enforcement a tool that is so intuitive for troopers as to almost become invisible in their daily documentation workflow. We are also confident the productivity and safety gains we continue to accrue will be anything but invisible.”

About Nuance Communications, Inc.

Nuance Communications is reinventing the relationship between people and technology. Through its voice and language offerings, the company is creating a more human conversation with the many systems, devices, electronics, apps and services around us. Every day, millions of people and thousands of businesses experience Nuance through intelligent systems that can listen, understand, learn and adapt to your life and your work. For more information, please visit nuance.com.
