Fictitious Press Release

Iowa City PD launches new intelligent voice assistant for front line officers

The Iowa City Police Department has launched a tool that allows their officers to query license plate and driver's license numbers using their voice to minimize distracted driving and allow them to stay focused on what's important

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[Summary] IOWA TRIBUNE | TECHNOLOGY – The Iowa City Police Department, in collaboration with Cal Poly's Digital Transformation Hub (powered by Amazon Web Services), has released Voice Activated License Search (VALS), a new Amazon Transcribe powered voice assistant that provides law enforcement officers with the ability to conduct routine computer searches using only their voice. This new technology allows officers to stay focused on the task at hand while still having access to necessary information. Officers can now verbalize license plates and driver's license numbers using the 'police phonetic alphabet' as they would when calling in a request to dispatch with search results returning instantly to their squad car computer screen. VALS helps officers to focus on more important tasks while minimizing distractions to driving leading to a safer community.

[Opportunity/problem] The use of technology in law enforcement, like most professions, has increased efficiency and accountability, making it a requirement in most cities. However, unlike many professions, a law enforcement officer's computer is inside a squad car. The use of the in-car computer system has become so essential to their job that many states, such as Iowa, have passed laws exempting law enforcement from distracted driving legislation. Until today, the officer's primary input devices for their in-car computer system was a keyboard and touchscreen. An officer's use of a keyboard while a vehicle is in motion can act as a distraction for the driver. In the cases where officers aren't driving, it is equally important they maintain their focus on the situation at hand while looking up relevant information.

[Approach/Solution] Law enforcement officers' in-car computer systems use software to assist the officers in finding out essential information on the go. One popular category of this software is the computer-aided dispatch (CAD) system. The CAD system has many features such as the ability to search license plate, driver's license, and identification card information from state databases. This is done so that officers know who they are interacting with, if a car has been reported stolen, etc. These checks are usually performed with a keyboard which can create a distraction for an officer who is on the go. With VALS, officers can now simply state a search target out loud using the traditional and widely used police phonetic alphabet (Adam = A, Boy = B, Charles = C, etc). If they need to check the status of a vehicle registration, driver's license, or identification card, all they need to do is speak. VALS uses AWS Transcribe and a custom dictionary to convert the verbal message spoken in the phonetic alphabet to an accurate text string that the CAD system can use to run the query and report results. This improves efficiency for officers while minimizing the risk of distractions while driving or while protecting the community.

[Customer quote here]

"The new VALS tool makes it easier for me to stay focused on the situation at hand while getting quick and accurate driver's license and license plate search returns.", said David Schwindt, Iowa City Police Officer. "In the past, when I was on solo patrol, I had to key in plate numbers while driving or while trying to perform multiple tasks in my squad car. Some law enforcement agencies are worried enough about distracted driving they have implemented a screen black out policy for their in-car computers. This makes it harder to do our job on the go. VALS changes that. I'm looking forward to seeing what other workflows we can integrate it into.

[Customer experience] VALS allows front line officers to concentrate on law enforcement duties as opposed to clerical work. Checking for relevant information becomes as simple as pressing and holding the space bar while saying the query out loud. Officers can focus on the road in front of them and their mission instead of using a keyboard. The tool is integrated directly into the department's CAD system which makes it much more valuable and easier to work with. Overall, VALS both improves an officer's ability to serve the community and protects public safety.

Customer FAQ (Officers/Deputies)

Q: What tasks can I accomplish with this application?

A: You can query license plates, driver's licenses, and identification cards.

Q: Do you track an officer's use or location?

A: This tool is integrated into the CAD system and augments the capability of that software and is not a standalone tool or software package. Check with your CAD vendor to see if their software is tracking location.

Q: Do you maintain a copy of the queries or voice recordings?

A: No, the queries are streamed in near real-time to Transcribe and not saved

Q: What is the benefit of using this technology?

A: When operating a motor vehicle, you can increase officer and public safety by minimizing distracted driving. When parked, you can increase your situational awareness by not looking down at a keyboard.

Q: Do I have to use this application? What happens if I don't?

A: You are not required to use VALS and will face no consequences for doing so. If you choose not to use VALS, or if it is not working properly, you simply use the keyboard.

Stakeholder FAQ (Agency Management, Elected Officials, Community)

Q: Is this application CJIS compliant?

A: VALS and Amazon Transcribe can hosted on AWS GovCloud, which is CJIS compliant.

Q: How is it going to help my agency improve service to the public?

A: Voice-enabled queries can minimize distracted driving which will increase officer and public safety. Voice interaction also helps the officer to stay more focused on the situation at hand by eliminating the need to use a keyboard.

Q: How is it going to make my employees' work more efficient?

A: It will allow them to more safely and quickly search for license plates and driver's licenses while driving.

Q: Is there a cost to me?

A: The cost of this tool is a part of the CAD provider's platform. Check with your CAD provider to see if there is an increase in cost of their software.

Q: Does this app report information on queries, in detail or aggregate, to any entity outside our agency? A: No, the system does not save information on voice queries. Check with your CAD vendor to see if their software is tracking system queries.

Q: Does this work with our existing application(s)?

A: Check with your CAD provider to see if they currently support VALS.

Q: Does this work when there is no internet connectivity?

A: No. The officer's verbal query is transmitted in near real-time to the Amazon Transcribe service. The audio is immediately processed and the text is returned to the in-car computer system.

Q: Where do I get help? What if I have questions?

A: First, read the user's manual to see if your question is answered, in particular the troubleshooting section if you are experiencing a problem. If the system is still not working, have your agency system administrator submit a support ticket.

Q: We have one or more developers on staff. Can we make changes to the application?

A: The tool is integrated into the CAD system. Please discuss any potential changes or customization that you would like to make with your CAD provider.

Q: How much time will it take to learn to use the system?

A: Familiarity should only take a few seconds as you simply press and hold the space bar to activate the query function and then say the search out loud. VALS was designed to receive spoken queries in the same format as a human dispatcher.

Q: How is the app distributed? Is it on public app stores? Is it only privately accessed?

A: This tool is available as a feature that must be integrated into your CAD solution. Please contact your CAD provider to see if they support VALS.

Q: Is this app compatible with different types of hardware?

A: The software was written in Java to be compatible with any platform that can support a Java runtime.

Q: What are the hardware and software requirements to use this application?

A: The system requires Java 8 or later and requires the Oracle version of the Java runtime.

Q: How is the app updated and maintained?

A: Updates are sent out on a quarterly software update cycle and must be applied by your system administrator.

Q: Who is going to fund this solution?

A: The VALS application will be free, but related AWS charges are the responsibility of the agency and the agency's CAD provider.