
CASE STUDY

# Dragon NaturallySpeaking Helps Clearwater Police Fight Crime

## Innovative Department uses Voice Recognition Technology to Allow its Officers to Work 68% more Proficiently than Typing by Hand

### CHALLENGE

Improve the efficiency of a police department by eliminating the need for officers to hand type information into their computers while on patrol and driving.

### STRATEGY

Use Dragon NaturallySpeaking to voice-enable officer's individual patrol car computers to speed up the information collection and inquiry processes.

### RESULTS

With Dragon NaturallySpeaking officers can dictate information an average of 68% faster then typing by hand. Enables the quick and safe completion of necessary paperwork and computer related tasks while on duty – providing additional time to focus on more important aspects of law enforcement, such as suppressing crime and patrolling the streets.

With limited funding, government organizations must do things faster and at a cheaper cost in order to keep up with ever increasing workloads. The Clearwater Police Department in Florida is no exception. Making technology work for law enforcement has been one of police chief Sid Klein's primary goals. In fact, over the years the organization has been quite successful integrating community policing and technology to make their officers and the citizens of Clearwater safer and better informed. From the uniformed patrol officer to the undercover vice detective; from robbery/homicide investigators to school resource officers; from police service technicians to dispatchers and civilian support personnel, they can all take a piece of the credit for the progress.

Gary Bonzo has been a police officer for nearly ten years, the last seven at the Clearwater Police Department. He recently served three years on a street crimes unit (Community Problem Response Team (C.P.R. East)) before returning to patrol where he is currently assigned. Additional responsibilities for him include part-time Field Training Officer, assistant Defensive Tactics instructor and program coordinator for the "Dragon Patrol". "Dragon Patrol" is the name he coined for officers currently using Dragon NaturallySpeaking on patrol.

**"Dragon NaturallySpeaking enables me to quickly complete necessary paperwork and computer related tasks thereby giving me more time to focus on more important aspects of law enforcement, such as suppressing crime and patrolling the streets. Using it has made me a more proficient officer. The product is amazing, and its potential seems to be unlimited."**

**Gary Bonzo,**
Clearwater Police Officer

The Clearwater Police force has been using Dragon NaturallySpeaking for over a year. Last year the department purchased twelve licenses of the product. Dragon Patrol has been in operation since May 2006.
The business need that prompted the organization to search out the product was simple. According to Officer Bonzo, "I needed a way to complete lengthy reports faster and easier then hand typing on a laptop keyboard, in the dark, hunched over in a cramped police car. I remembered hearing about speech recognition ten years ago through word of mouth and magazines and did an internet search on the topic. One website I looked at provided a demonstration video of Dragon NaturallySpeaking that was impressive. I also looked at various posts about the product on internet user chat sites. My search experience with Dragon NaturallySpeaking's competition was poor."

"I also read a thesis paper written by the Buffalo Maine Police Department on speech recognition a few years ago. The way they implemented Dragon NaturallySpeaking was much different from the way we have implemented it. Without getting in to the content of the paper,
I will just say their method was obviously flawed.

They did not use Dragon NaturallySpeaking in a manner that would have provided them the best results. During his research their chief of police compared recognition quality and prices and decided that speech recognition was not faster or less expensive then their current method of transcribing recordings. In contrast, my pilot program with Dragon NaturallySpeaking provided results that were nothing but impressive. The recognition statistics were quite high, and the digital recorder capability intrigued me."

"I presented my research on speech recognition to Lt. Nancy Miller. She spoke with Captain Tony Holloway and arranged for me to present the information during an administrative meeting; Deputy Chief Dewey Williams attended the meeting and recommended the technology to Chief Sid Klein. The ultimate decision to move forward with voice recognition was made by Chief Klein. Our process for digitizing information before using the product was slow. Information was typed into a Microsoft Word program or a police report writing program (LERS). Some detectives used audio recordings that they later transcribed."

To say the program has been a huge success would be an understatement. Adds officer Bonzo, "There are currently twelve officers using Dragon NaturallySpeaking on patrol. We recently purchased ten more licenses. The ten additional officers will be trained on using the product in the next few weeks. It should be noted that not everyone who has tried the software has continued to use it. One officer was an extremely proficient typist (80 wpm) and a few others were not very technological savvy. However, there are many other officers volunteering to take their position in the program. I use Dragon NaturallySpeaking everyday at work. I use it continuously when I am in my patrol vehicle. Different officers tend to favor certain aspects of using Dragon NaturallySpeaking. For example, some officers use the software only to dictate reports while other officers use it to navigate their computer while driving. I use Dragon NaturallySpeaking to its fullest extent. The software interacts with virtually every program on our department's computers. Some of the programs do not recognized the "Say What You See" feature, so I wrote macros to allow Dragon NaturallySpeaking to operate the program. The first twelve officers trained on Dragon had an average error percentage of 3.72% after one month of use. After two months of use, the average error percentage decreased to 2.95%. Establishing a custom vocabulary with street names, businesses, etc. reduced the number of errors. Dragon NaturallySpeaking saves me time and allows me to multitask safely while driving a patrol vehicle and performing my duties as a police officer".

"Today I use Dragon NaturallySpeaking for generally any kind of document that requires typed text. I create two or three police reports a night that range from 500 to 2000 words. In addition, the reports require a relatively large amount of data entry to be completed as well. I use Dragon NaturallySpeaking to write all my police reports, memorandums, dictate and send emails, surf the web, and operate the various police related programs on my laptop. I am able to conduct registration checks on vehicles, receive information in reference to calls for service, send messages to other officers, and many other features using a silent dispatch system called RADCOM, while driving my patrol vehicle. I use custom message boxes to provide me with information for gate codes and maps of apartment complexes, fine amounts, department phone numbers, and lots of other data I need immediately when on the road."

"Because the majority of our officers typed their reports instead of using a transcription service to transcribe dictation, there was no immediate monetary savings by discontinuing those services. However, no one can argue that using Dragon NaturallySpeaking increases the productivity of our officers. This translates directly into a savings by enabling the officer to perform more tasks in a shorter amount of time – thereby decreasing the number of officers needed and reducing the need for overtime. According to the data I collected during the pilot program, the average user could dictate information using Dragon NaturallySpeaking 68% faster then they could type it. That percentage was based on a head-to-head report writing exercise in a stationary patrol car after two months of using the software. The time savings is evident by the results of the aforementioned writing exercise. Now, if our officers were to perform the same writing exercise in a patrol vehicle while driving, the amount of time saved using Dragon NaturallySpeaking would be monumental. The average officer spends several hours each shift driving from one call for service to the next. The officer who types his or her reports must set aside time during the shift to park their cruiser and type up their reports because an officer cannot safely drive and type at the same time. The time that that officer spends driving is, for the most part, wasted because he or she is not performing any productive tasks other then traveling from point A to point B. However, officers on the "Dragon Patrol" can safely drive and dictate at the same time. Their time is used more efficiently, freeing up additional hours and minutes to patrol the streets and perform more productive tasks."

"The bottom line is – Dragon NaturallySpeaking enables me to quickly complete necessary paperwork and computer related tasks thereby giving me additional time to focus on more important aspects of law enforcement, such as suppressing crime and patrolling the streets. Using it has made me a more proficient officer. I would like to see every officer who wishes be able to use Dragon NaturallySpeaking. One could only imagine how much more efficient our police department would become. The product is amazing, and its potential seems to be unlimited."



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