



**LOS ANGELES COUNTY
SHERIFF'S DEPARTMENT**

REQUEST FOR INFORMATION

RFI NUMBER 667-SH

**INTEGRATED VOICE RECOGNITION SYSTEM
Patrol Operations**

(IVRS)

November 2018

Prepared By
County of Los Angeles

These guidelines are intended to provide general information only and are subject to revision. This is NOT A SOLICITATION to purchase commodities or services.

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1.0 INTRODUCTION

- 1.1 The Los Angeles County (County) Sheriff's Department (Department) is seeking information from vendors who can provide a self-hosted commercial off-the-shelf (COTS) Integrated Voice Recognition System (Solution).
- 1.2 The patrol operations of the Department cover a vast array of environments, both geographically and socially, that requires basic and specialized law enforcement services. Often, performance of these duties require patrol personnel to simultaneously operate vehicles, Mobile Digital Computers (MDC), radios, and other systems. Due to the complex and challenging driving environment, the Department is investigating systems that have the potential to reduce distracted driving incidents.
- 1.3 The primary goal of this Request for Information (RFI) is to obtain information regarding the feasibility of utilizing a COTS Solution in conjunction with existing MDCs and software applications during patrol operations. A successful COTS Solution implementation will allow hands-free operation of MDCs and software applications during patrol operations.
- 1.4 Vendors of interest are those who are capable of providing a turnkey solution with minimal customization and ongoing maintenance and support.
- 1.5 The Department will review the responses to this RFI, which may subsequently lead to further investigation including vendor demonstrations, and/or an invitation to provide a limited-time, zero-cost pilot to the County.

Additional information about this RFI, subsequent demonstrations, and the zero-cost limited pilot may be found in Section 6.0 of this RFI. Vendors who wish to furnish information about a product, system, or solution may do so formally in writing as outlined below in Section 4.0, Information Requested, and Section 5.0, Vendor Responses, to this RFI.

2.0 BACKGROUND

- 2.1 The Sheriff is an elected County official having the responsibility of being the chief law enforcement officer of the County. The Sheriff enforces Federal, State, and local laws in the unincorporated areas and contract cities. Moreover, the Sheriff provides general law enforcement services to the Southern California Regional Rail Authority (METROLINK), the Los Angeles County Metropolitan Transportation Authority, the Community Colleges, and County Facilities. The Sheriff operates and maintains the County Jail System, inclusive of inmate transportation

services within the County, provides bailiffs and security to the courts, and serves civil and criminal processes as dictated by the courts.

- 2.2 The Department is comprised of, in part, twenty three (23) patrol stations across four (4) patrol divisions; each patrol station has an independent detective bureau. In addition, there are seven (7) centralized detective bureaus and multiple other detective units within the Special Operations Division, Court Services Division, and Custody Division. The Department fields approximately 3,500 motor vehicles of various types for over five thousand (5,000) patrol officers and fifteen hundred (1,500) detectives across the County.
- 2.3 The County encompasses an area of 4,083 square miles with a population of nearly 10 million. The Department provides general and specialized law enforcement services for approximately five (5) million of these residents, spread over an area of approximately 3,157 square miles.

3.0 SOLUTION OVERVIEW AND REQUIREMENTS

- 3.1 The Department currently utilizes two MDC laptop models: 3,800 Panasonic CF-31 and 120 Getac V110 rugged laptops. Approximately 3,300 MDCs are actively deployed to in-service vehicles. The remaining 620 are either spares or are undergoing maintenance. The Department is seeking a COTS Solution to integrate hands-free technology with the Department's MDCs and software applications (see Attachment A, Functional Requirements Checklist).
- 3.2 The software must be able to integrate with Northrop Grumman's proprietary Personal Computing Messaging Switch System (PCMSS) software program running under Microsoft Windows 7 and Windows 10. PCMSS is setup to communicate with a Terminal Input / Output Process (TIOP) running on a customized Computer-Aided Dispatch (CAD) system which is specific to the Department. The Department has a customized (TIOP) TCP/IP which is the most commonly used protocol for communicating, and comes standard with Microsoft Windows. PCMSS can use TCP/IP to communicate with the COBOL CAD system via either version of the TIOPS: MSSTCP and SRVT. MSSTCP is an older version, and supports one copy of PCMSS per terminal/computer. SRVT is newer and supports multiple PC's running PCMSS on a single line.

The PCMSS has several forms and fields which the end-user can activate via an input button, either via a touch screen interface, by computer mouse, computer touch pad, or keyboard. Within the PCMSS system, each form is labeled and named based on the information the end-user is requesting. One example of the type of PCMSS form that

could be used is the "Vehicle License Plate" form. The user would press the "Vehicle" button to activate the form. A form would be requested and presented to the end-user. The form would have several fields where the end-user would enter in the appropriate information based on the field's description. Once completed the end-user would push the "send" button and a query would be sent out. The return, if there is one, would show up under "waiting messages". Based on what the end-user is doing at the time of the return, the end-user can select the message from the message que, or it could display in the same window. It depends on what the end-user does between the sending of the information and return of information.

3.3 The Solution functional requirements are found in Attachment A to this RFI.

4.0 INFORMATION REQUESTED

Commercial vendors who have a proven software Solution, and the ability to provide all necessary professional services, are requested to submit relevant information about their product.

4.1 Description of Solution Functionality

Respondents shall provide documentation that describes the functions supported by the Solution with a focus on the specific functional areas identified in this document. Please include a description of the integration requirements for the Solution; e.g. integration with Terminal Input / Output Windows applications, Web applications, and other native Windows applications. Existing product literature and prepared marketing materials may also be included, however this information is typically less useful than more detailed user and technical documentation.

4.2 Description of Technical Architecture for Local Server

Respondents shall provide the following information about the software and local server used to host user profiles and data. Please include, at a minimum the following items:

4.2.1 Hardware requirements;

4.2.2 Operating system/software environment;

4.2.3 Detailed network requirements and protocols;

4.2.4 Recommended database/environment(s)/storage requirements;
• Database backup;

- Operating system; and
- Future growth storage estimates for user profiles.

4.2.5 Disaster recovery plan;

4.2.6 Installation process for the system;

4.2.7 Description of access requirements;

4.2.8 Description of security and auditing features;

4.2.9 Solution architecture; and

4.2.10 Data and network security protocols.

4.3 Description of Product Support and Maintenance

Respondents shall provide information on the following:

4.3.1 Product Manuals and Software Description;

4.3.2 On-line documentation and/or help;

4.3.3 In person on-site and off-site training;

4.3.4 Training manual(s) and delivery format;

4.3.5 Ongoing delivery of updated training materials (upgrades);

4.3.6 Upgrades: Frequency, delivery and estimated downtime;

4.3.7 Helpdesk operations including staffing and hours of availability;

4.3.8 24/7 and 365 support procedures; and

4.3.9 User feedback procedures.

4.4 Estimated Costs

Respondents shall provide cost estimates for the COTS Solution. Any costs estimated for the purpose of this RFI are considered for informational purposes only, and are non-binding to either the respondent or the County.

As this document is an RFI, costs can be estimated, but only in general terms, as it applies to a typical standard COTS Solution. As this is not a

competitive solicitation, specific Department environment information cannot be made available to the vendor.

Consequently, a complete Solution cost estimate will need to be general, and take into consideration the following areas that may or may not be quantifiable:

- 4.4.1 COTS licensing model options;
- 4.4.2 Professional services (install, configure, custom application development, etc.);
- 4.4.3 Recommended hardware specifications;
- 4.4.4 Non-recurring hardware and software licensing (if applicable);
- 4.4.5 Training;
- 4.4.6 Ongoing maintenance support; and
- 4.4.7 Other miscellaneous.

Your response should include all estimated costs broken out by category based upon 3,300 devices and 9,000 deputy personnel.

4.5 Corporate Information and References

Respondents shall provide the following information:

- 4.5.1 Corporate or company name and headquarters' address;
- 4.5.2 Address and contact information of nearest corporate or company office to Downtown, Los Angeles, California;
- 4.5.3 Number of years in business and solution being used;
- 4.5.4 Names and contact information for at least five (5) public safety/law enforcement agencies (name, address, contact person, and telephone or email) that have deployed the vendor's software/system;
- 4.5.5 Size of public safety/law enforcement customer base (number and size of agencies and number of vendor solution's system users); and

- 4.5.6 High level system documentation describing existing deployment of vendor's database at customer site(s).

5.0 VENDOR RESPONSES

- 5.1 Responses and questions regarding this RFI shall include the original response plus three (3) numbered copies, and two (2) electronic copies, each on two (2) separate digital media (e.g., compact disc, USB drive, etc.), and shall be enclosed in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Vendor and bear the words "Response to RFI No 667-SH INTEGRATED VOICE RECOGNITION SYSTEM", and be addressed to:

Los Angeles County Sheriff's Department
Technology and Support Division
Office of Technology and Planning
12440 E. Imperial Hwy. 4th Floor
Norwalk, CA 90650
Attention: Anh Ly
akly@lasd.org
(562) 345-4331

- 5.2 Respondent's contact information shall include company name, address, contact person, contact person's telephone number, and contact person's email.
- 5.3 Respondents are encouraged to respond to each item in this RFI, particularly those listed in Sections 3 and 4, and Attachment A.
- 5.4 The Department encourages all potential vendors to submit a response consistent with the content and instructions provided herein.
- 5.5 **Responses to this RFI will be accepted in person, by private messenger, delivery service, or United States Postal Service (USPS) only. Responses to this RFI must be submitted to the Department at the address above by 3:00 pm (Pacific Standard Time) on January 15, 2018 (email responses will not be accepted).**
- 5.6 Not responding to this RFI will not impact your capability in the future to respond to any subsequent procurement document issued by the County on behalf of the Department.

6.0 OTHER INFORMATION

- 6.1 Responses to this RFI shall become the exclusive property of the County. Respondents should be aware that the information provided will be analyzed and may appear in various reports and/or requests, with the

exception of those parts of each submission which meet the definition of “Trade Secret” and are plainly marked as “Trade Secret” or “Proprietary”.

- 6.2 The County shall not, in any way, be liable or responsible for the disclosure of any such record, or any parts thereof, if disclosure is required or permitted under California Public Records Act or otherwise by law. A blanket statement of confidentiality or the marking of each page of the submission as confidential shall not be deemed sufficient notice of exception. Respondents must specifically label only those provisions of the submission which are “Trade Secrets” or “Proprietary” in nature.
- 6.3 Demonstrations: All respondents to this RFI may be invited by the Department to conduct a demonstration and provide additional information regarding their product(s). The demonstration is intended for information gathering purposes only. Such demonstration should not exceed two (2) hours in length. The date(s), length, and times will be coordinated between the Respondent and the contact person identified in Section 5.1 above.
- 6.4 Zero-Cost 180-day Pilot: After the demonstrations, the Department may invite all respondents to this RFI to provide a 180-day pilot of their product(s). The Pilot will be used to demonstrate the feasibility of issuing a subsequent Request for Proposals to procure such a Solution for the Department’s patrol operations. The pilot will be coordinated by the Department’s Chief Information Officer or designee for the Communications and Fleet Management Bureau. Respondents will be required to install and provide some basic configurations of not less than twelve instances of their product(s) into the Department’s patrol systems. The specifics and limitations offered with the pilot installation will be coordinated between the Respondent and the contact person identified in Section 5.1 above.
- 6.5 The Department will review the responses to this RFI, which may subsequently lead to further research and analysis. **This is a request for information ONLY**; this is not a solicitation. Information received in response to this RFI may be used in the preparation of a Request for Proposals (RFP), an Invitation for Bids (IFB), or other County method for solicitation of services. Respondents to this RFI will be notified by the County of a future solicitation.

* * * * *

Attachment A

FUNCTIONAL REQUIREMENTS CHECKLIST

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
1.	Software must be able to integrate with our proprietary PCMSS software developed by Northrop Grumman (NG) running under Microsoft Windows			
2.	The software must be compatible on the NG CAD platform currently in use			
3.	<p>The ability to use voice commands to trigger application events in native Terminal Input / Output Windows applications, Web applications, and other native Windows applications. Application events should include, but not be limited to:</p> <ul style="list-style-type: none"> • Key strokes • Mouse clicks • Cursor movement • Voice dictation • Text-to-Speech (TTS) 			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
	• Other physical interactions			
4.	Microsoft Active Directory integration for user authentication			
5.	Lightweight storage footprint (less than 4 gigabytes)			
6.	Integration with Panasonic CF-31 and 120 Getac V110 rugged laptops with Windows 10 - 64bit Enterprise Long Term Service Branch Operating System, at a minimum			
7.	Compatability and ongoing support for and work with future versions of Windows Operating Systems			
8.	Hands-free microphones with background noise cancellation technology to address vehicle background noise including, but not limited to, mobile/vehicle radio broadcasting and wind noise with windows fully rolled down			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
9.	Manual activation of system to begin listening for commands. System shall not be continuously active to monitor and/or record the environmental surroundings for a trigger word such as an Amazon Echo or Google Home device			
10.	User-specific voice learning and training services based upon an acoustic model that achieves high dictation accuracy for users with accents			
11.	Local update system via a private network without internet access via Microsoft System Center Configuration Manager (SCCM) on commercial and private cellular networks			
12.	Role based user permissions			
13.	Unlimited licenses or a centralized license management solution to easily redistribute licenses amongst staff			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
14.	No data, information, or conversations shall be collected or saved in the system or database			
15.	Software must have a full vocabulary of law enforcement slangs, terms and verbiage including makes and models of vehicles, profanities or other verbiage which may need to be documented in reports, while also providing this in real time locally (not server based) and with accurate recognition of commands and dictation			
16.	Software must have understanding, identifying and translation of law enforcement and military phonetic alphabets while running license plates in the PCMSS platform			
17.	Software must have compatibility to trigger specific functionality in the PCMSS platform which provides the ability to build			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
	custom voice commands to interact with applications, including the use of Text to Speech (TTS) to read back results, and using advanced scripting and API to create automated workflows			
18.	Ability to read text in PCMSS modules with punctuation and ability to make simple rules so that the software recognizes and reads certain text as they are intended to be read by a law enforcement user (e.g. "C-4" Code 4 / "T4" Ten 4)			
19.	Ability to adjust speech playback speed			
20.	Ability to recognize and configure web and email addresses, street addresses, abbreviations, dates, units of measures, currency abbreviations, phone numbers, prices, times, common abbreviations, different numeric settings			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
21.	Ability for system administrators to add or modify vocabulary or fields and deploy custom commands to end-users without user interaction			
22.	Ability to format punctuation from dictation into reports or written responses such as specific spacing after a period in a sentence, adding commas for punctuation, capitalization and other common grammatical punctuation			
23.	Ability to export custom words to XML format to capture their properties such as custom spacing and capitalization			
24.	Ability to transcribe input audio files into text files in multiple formats			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
25.	Ability to import or export lists of words, phrases or full vocabularies to add to the existing vocabulary and be able to share these vocabularies with other users and devices			
26.	Ability to translate speech into PDF and/or Microsoft Word documents as well as other clipboards or text fields within the PCMSS			
27.	Ability to import or export custom commands in the Command Browser			
28.	Ability to create custom commands including variable fields in the body of auto-texts where the user can later type or dictate a specific value and include variables in the command names			
29.	Ability to create and import or export commands to automate tasks such as Macro Recorder, Step-by-Step, and VBA-style			

	Functional Requirement	Meets requirement	Customization required	Please describe functionality
	Advanced Scripting and organize commands in tailor-made groups			
30.	Security features for custom commands such as protected commands and be able to obtain recognition log file for rich objective usage data			
31.	Ability to interact with Microsoft Active Directory for user authentication and Microsoft SCCM for application updates and fixes			