Williamson County, Texas Request for Information (RFI) for Public Safety Technology Program (CAD, MDCS/AVL, RMS/FBR)

December 2008
Project No. 121608-RFI

Williamson County, Texas
Public Safety Technology Project
CAD, MDC/AVL, RMS/FBR Technology

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Williamson County (TX) Request for Information
CAD, MDC/AVL, RMS/FBR Technology
Project No.: 121608-RFI
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1 INTRODUCTION

Williamson County, Texas has undertaken a strategic initiative to improve the County's Public Safety Emergency Communications operations for both the public and first responders through the implementation of new and / or updated technologies. The first step in the process was to develop a strategic plan to serve as a foundation for directing a number of projects required to achieve this result. At its core, the strategic plan is driven by a set of goals and objectives established by the executive leadership of the Williamson County Commissioner's Court, the Sheriff of the Williamson County Sheriff Office and major public safety stakeholders.

The Williamson County Public Safety Technology Program (WCPSTP) includes information technology, command and control and other aligned elements of regional emergency response / emergency management supporting Williamson County law enforcement, fire and emergency medical dispatch services to a wide range of first responders. An element of this broad capabilities enhancement program includes this project which is designed to streamline and enhance initial receipt of an emergency caller's request for service through the implementation of a highly integrated public safety / emergency communications technology initiative. This initiative includes Computer Aided Dispatch (CAD), Mobile Digital Communications (MDC), Automatic Vehicle Location (AVL) technology and a Records Management System (RMS) for both police and fire disciplines with Field Based Reporting (FBR). Specific elements / modules of the RMS are under development.

1.1   Purpose of the RFI

The executive leadership of Williamson County, Texas is issuing this Request for Information (RFI) to vendors that provide technology solutions to public safety organizations including law enforcement, fire and emergency medical services. These solutions include, but are not limited to, Computer Aided Dispatch (CAD), Law Enforcement Records Management System (LE-RMS)[1], Fire Records Management System (FRMS), a Mobile Digital Communications System (MDCS) and Automatic Vehicle Location (AVL) capabilities.

This RFI is for a state-of-the-art CAD, MDCS, AVL and RMS with FBR capabilities (Law Enforcement and Fire/EMS). At this time, the full requirements of the RMS have not been determined. However, vendors are advised to plan for a complete RMS system (all modules) with a LAW ENFORCEMENT and a FIRE / EMS component.

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[1]   At minimum, the LE-RMS and MDCS systems will require a Field Based Reporting (FBR) module to support in-field offense report development and other commonly completed activities in the field.

1.2   Integrated System Required

Williamson County prefers an integrated solution that 1) is provided and supported by a single vendor and supports information sharing and data exchange among the CAD, RMS and MDCS systems or 2) from more than one vendor though the requirement for systems integration, information sharing and data exchange among the listed applications / systems remains paramount.

To enable as broad an audience of potential vendors as possible, and recognizing that some vendors may not provide all of the solutions / systems requested, the systems for which this RFI is let are found in the following sections:

RFI Section	Description
Section 2	General Functional Requirements Document: Computer Aided Dispatch (CAD)
Section 3	General Functional Requirements Document: Law Enforcement Records Management System (LE-RMS) with Field Based Reporting (FBR)
Section 4	General Functional Requirements Document: Fire Records Management System (FRMS)
Section 5	General Functional Requirements Document: Mobile Digital Communications System with Automatic Vehicle Location (MDCS / AVL)

1.3   Request for Information (RFI) Organization

The table below lists the organization of this Request for Information (RFI) document.

RFI Section	Description
RFI Section 1	RFI document outlining Williamson County project goals, objectives, key technical achievements and other information germane to the project.
RFI Section 2	General Functional Requirements Document: Computer Aided Dispatch (CAD) System
RFI Section 3	General Functional Requirements Document: Law Enforcement Records Management System (LE-RMS)
RFI Section 4	General Functional Requirements Document: Fire Records Management System (FRMS)
RFI Section 5	General Functional Requirements Document: Mobile Data Computing System with Automatic Vehicle Location (MDCS / AVL)
APPENDIX A	Vendor Information and Systems / Solutions: Required form to be completed by each submitting vendor

1.4   *Response By Vendor Required*

Vendors who wish to participate in the formal Request for Proposal (RFP) solicitation that will follow are asked to **provide a written response** to this RFI, along with a fully completed Appendix A (see Section 6: APPENDIX).

Finally, **facsimile submittal of a vendor's response to this RFI is NOT acceptable**. Any response submitted by other than soft-copy / electronic format is not acceptable.

1.4.1   RFI Available on Website
The complete RFI document is available on the Williamson County Purchasing Website at the following URL link:

http://www.wilco-online.org/ebids/bids.aspx

1.4.2   Vendor Registration Required
Vendors are required to register with the Williamson County Purchasing Department. There are directions and a link provided on www.wilco-online.org/ebids by which vendors may register and receive email notifications on this and other potential bid opportunities.

1.4.3   Response Due Date / Time
Response to this RFI is due no later than **2:00 PM** on the **January 30, 2009** in **soft copy** only to the email address below (see Section 1.4.4). Vendor submitted responses must be supported by Microsoft Office 2000 (or later). The vendor / respondent may also provide a version in Adobe Acrobat 7.0 (or later), but <u>must</u> provide a Microsoft Office 2000 version (or later) as an email attachment as well for ease of review and markup by the Public Safety Technology Program Evaluation Team.

1.4.4   Soft Copy Response Required
VENDOR RESPONSES TO THIS REQUEST FOR INFORMATION (RFI) MUST BE IN ELECTRONIC FORMAT (soft copy).   Responses are to be delivered in electronic form to Williamson County Purchasing Department, ebids@wilco.org.

Vendors may provide marketing material in support of their electronic response. Material that can not be delivered via electronic format (e.g., cut sheets, literature) should be shipped to the following physical address in eight (8) sets:

Williamson County
Purchasing Department
Inner Loop Annex
301 S.E. Inner Loop, Suite 106
Georgetown, Texas 78626
ATTN: Jonathan Harris, Assistant Manager

1.4.5   RFI Response Format

Except where specifically worded otherwise, the responding vendor is asked to provide a response to each item. It is preferred that respondents duplicate the items in the format issued and place a response following each item using a **RED** font.   An example is provided below:

Log on / Log Off Control
The system should allow only credentials-based functions (e.g., validated user name, password) to authorized users based on functional requirements. The system should also maintain detailed audit trail information for each activity completed by the currently logged on individual user. The system should also capture and record information (e.g., who did what and when) in the appropriate record / file type (e.g., unit history, call history).

Response:
(Vendor) supports the function as described above.

Please limit responses to no more than one (1) page per bullet or table entry unless otherwise noted.   Brevity is desired where at all possible while still providing an appropriate answer / response to the item. For each section / system, a numbered or bulleted "other" is provided as an example where the vendor may provide information they believe relevant, but which was not specifically requested. The vendor may provide as much information to "other" bullets as they believe is appropriate.

Williamson County Information Technology Services department personnel will share with vendors any file size limitations / restrictions when submitting electronic responses for this project. The information will be posted on the web site, as well as communicated to vendors participating in the two (2) scheduled conference calls for this project.

The submission of standard pre-printed brochures, marketing materials or system / user documentation in lieu of a soft copy written response will NOT suffice as an acceptable response.

1.4.6   APPENDIX A

Appendix A of this document must be completed by each vendor submitting a response to this RFI. Appendix A provides information to the Project Manager and Project Evaluation Team relative to the submitting vendor's background, company history and market focus, as well as the range of systems / solutions for which the vendor is submitting a response to this RFI. This is strictly for information and internal routing purposes and will not impact the Evaluation Team's objective review of the vendor's submission.

1.4.7   RFI Conference Call Sessions

Vendors are advised that the medium for questions regarding this RFI are two (2) scheduled conference calls. Vendors are requested to hold their questions until the conference call period begins. If, after the release of this RFI, a vendor should submit a question prior to one of the scheduled RFI conference calls, a response will not be provided directly to the submitting vendor but will be provided to all vendors during one of the scheduled conference call sessions.

If a question requires research on the part of Williamson County staff and an answer is not available by the end of the second conference call, Williamson County will post the answer on the Williamson County Purchasing website and send an email advisory to all vendors informing them of the update. Identity of vendors submitting questions will not be disclosed.

Finally, no additional questions will be entertained from vendors regarding this RFI after the second scheduled conference call.

1.4.8   Conference Call Format

Williamson County will host two (2) conference calls in support of this Public Safety Technology Program RFI. Generally, each conference call will follow the format described in the table below and on the page that follows:

CONFERENCE CALL SESSION 1		
Duration	**Activity**	**Purpose**
5 Minutes	Introduction	• Kick Off Session • Customer Roll Call / Introduction • Vendor Roll Call / Introduction
40 Minutes	Q/A Session	• Vendor Question Session re: RFI • Customer Responses to Vendor Questions
10 Minutes	Parking Lot	• Verify Parking Lot Issues • Next Conference Call Date / Time
5 Minutes	Wrap Up	• Follow Up • Set Expectations for Response to Parking Lot Items • Call wrap up / Parking lot issue verification • Assign ownership for parking lot issues to customer SMEs • Restatement of RFI Due Date

CONFERENCE CALL SESSION 2		
Duration	**Activity**	**Purpose**
5 Minutes	Introduction	• Kick Off Session • Customer Roll Call • Vendor Roll Call
40 Minutes	Q/A Session	• Customer Response to First Conference Call Parking Lot Issues • Vendor Question Session re: RFI • Customer Responses to Vendor Questions
10 Minutes	Parking Lot	• Verify New Parking Lot Issues (if any)
5 Minutes	Wrap Up	• Follow Up • Set Expectations for Response to New Parking Lot Items (if any) • Restatement of RFI Due Date • Final instructions / advice to all vendors

NOTE:

The duration of the conference call segments are estimates. Williamson County will conduct the each conference call session for as long as necessary to go through the RFI and entertain questions from vendors. In most instances, responses to vendor questions will be provided during the conference call session. In other instances, a response may require research by Williamson County subject matter experts. All questions and responses will be provided in written form as an addendum and posted to the Williamson County Purchasing Department web site. See Section 1.4.1 of this RFI for the relevant URL link.

2 PROJECT OBJECTIVES

Williamson County, Texas desires to replace its existing Computer Aided Dispatch (CAD) system and Law Enforcement Records Management System (LE-RMS) with contemporary systems that enhance public safety and service delivery capabilities of its member departments and their collective responsibilities. In addition, the County also desires to implement a robust Mobile Digital Communications System (MDCS) with Automatic Vehicle Location (AVL) technology. The MDCS "package" may also include Field Based Reporting (FBR) and other contemporary field applications (e.g., in-vehicle mapping, message switch, RMS access, CAD query).

2.1 Key Project Characteristics

The following characteristics include specific primary goals of the Williamson County Public Safety Technology Program, which will be uniformly and consistently applied to each response to this Request for Information (RFI).   The graphic below is a conceptual illustration of the interaction of the CAD, RMS and MDCS/AVL systems desired by Williamson County. This illustration is further discussed in Sections 2.1.1 through 2.1.5 that follows:

Computer Aided Dispatch
E911 Calls (Wireline and Wireless)
Non-Emergency Calls / Admin Calls
Auto Plot E911 and Non-Emergency Events
Location-linked Info
Police / Fire / EMS Incidents
Priority Driven Call State Awareness
Incident Command Support
Call Location / Field Asset Display
Dedicated CAD MIS Support
Key Performance Indicator Analysis
Display Systems Interface Support

Records Management
Relational Database Architecture
Master Indices
    Property Index
    Vehicle Index
    Weapons Index
    Persons Index
Incident Reporting
Permits / Licensing
Vehicles / Equipment
Crime Analysis / Mapping
Productivity / Workflow
    Management
Intelligence
Document Management
Identity / Criminal History
UCR Reporting
Crime Analysis / Mapping
Dedicated RMS MIS Support
Internal Communications
Internal / Field Messaging

Mobile Digital Communications
Automatic Vehicle Location (AVL)
Silent Dispatch Support
Field Status Management
Field Reporting / Virtual Office
Database Access (TCIC, NCIC, Local/Remote)
Event / Unit History
Call State Awareness
Peer Unit Status / Location
Messaging (car-to-car, car-to-division)
RMS Access / CAD Access
Local Want / Warrant / BOLO / POI Check
Critical Database Access (DOT, HazMat)

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2.1.1 Build A Strong Integrated Foundation
The first priority of the Williamson County Public Safety Technology Project is to establish a strong, integrated system that meets essential and fundamental communications and information needs of all users and, importantly, produces easily accessible and useable information that can harvested and analyzed using simple intuitive interfaces and industry standard tools and technologies. Once a firm tactical base has been established, the County may then explore and implement more complex strategies to exploit the full capabilities of the new highly integrated public safety communications and information environment.

2.1.2 High Degree of Integration
As previously stated, the County intends to implement systems for CAD, Law Enforcement RMS (LE-RMS), Fire RMS (FRMS) and a Mobile Digital Communications System with Automatic Vehicle Location technology (MDCS/AVL) that offer the highest degree of functionality consistent with the needs of its diverse user community. There is, however, an overriding desire to implement systems that interact and work well together.

2.1.3 Direct User Input and Access to Information
The County is interested in systems that enable direct providers and users of information to input useful data at the source, as well as assimilate and retrieve information necessary for meaningful communications, coordination, emergency response, investigation, analysis, and reporting purposes.

2.1.4 Reduction / Elimination of Redundant Data
One of the expected benefits of tightly integrated systems is the reduction of redundant (or duplicate) instances of common data. The optimal solution desired by the County should utilize common support files such as validation tables and geographic databases. Additionally, to the degree possible, master file information regarding persons, property, vehicles and events should be shared in order to reduce both the duplication of data and the opportunity for data discrepancies and / or data entry errors.

2.1.5 High Degree of Mobile Access
One of the best ways to distribute data entry and access to the user is to provide access to applications throughout the user's workspace including the field. Since public safety services are most often provided away from police and fire stations, application access must also be distributed to the mobile environment. To the highest degree possible, the County desires to extend system access to properly equipped vehicles and personnel through use of wireless communications and mobile equipment.

2.1.6 End-User Confidence and Acceptance
No system can be successfully implemented without a high degree of user confidence that the vendor can deliver on stated functional and technical capabilities. Additionally, the user community must believe that the systems offer needed functionality in

operationally friendly formats before they commit to the time and effort required to fully utilize any system. Consequently, the County is seeking information from interested Vendors that can provide a solution suite or an individual solution who are stable, reputable organizations with proven products; a history of delivering what was promised (when it was promised); along with a track record of superior ongoing customer support and satisfaction.

2.2 Executive Commitment

The County's executive leadership team is clearly committed to this project. Each executive within the County's political structure supports this public safety / emergency communications program and recognizes that it has clear and substantial benefits to the citizens of Williamson County, Texas and its first responder corps.

The County has engaged the services of a dedicated project manager with staff necessary to support the project. In addition, a team of County subject matter experts (SMEs), ranging from executive level staff to department / division level managers to public safety communications practitioners to emergency responders, has been assembled and given a charge of responsibility from the County's executive leadership. This team is responsible for the daily management, coordination, integration, and implementation activities of the various technology projects, as well as other aligned projects that are now underway (e.g., dispatch facility renovation and configuration). They have the following roles and responsibilities:

- Designated as subject matter experts (SMEs) in key areas of law enforcement / police communications, emergency response, firefighter operations and management, emergency management, field / patrol operations, investigative operations, information technology, management information systems and general administration of public safety resources.
- Overall responsibility for technology project coordination and program reporting, including advisory and consulting services support to the Williamson County Public Safety Technology committee.
- Support the program and the program / project manager by conducting research; Coordinating and participating in interdepartmental meetings and work groups; Providing staff support to the project office; and Providing strategic / tactical insight and direction to Law Enforcement and Fire / Emergency Medical issues.

2.3 Project Funding

This project is funded by Williamson County financial resources that have been / will be encumbered and dedicated to this Public Safety Technology Program.

2.4 Timeline

The current timeline for the project for the Williamson County Public Safety Technology Request for Information (RFI) is listed in the table below. Please note that should it be necessary to change this timeline, all registered vendors will be notified via email.

NOTE:
Vendors are responsible for ensuring that their contact information (e.g., sales executive name, email address, etc) listed in their registration on the Williamson County Purchasing website is current / correct. Williamson County assumes no responsibility for ensuring the accuracy of any vendor contact information (such as mailing address, phone number, email contacts, etc).

Date	Description
16 DEC 2008	Williamson County Public Safety Technology Request for Information (RFI) RFI Issued
7 JAN 2009	60 Minute Question and Answer (QA) period between Vendors and Project Team via telephone conference. All Vendors who participate in the QA period will be on the same conference call. Conference call details are as follows: Time: 1 PM Central Dial-in Number: (218) 844-8230 Access Code: 1088239 #
14 JAN 2009	60 Minute Question and Answer (QA) period between Vendors and Project Team via telephone conference. All Vendors who participate in the QA period will be on the same conference call. Conference call details are as follows: Time: 1 PM Central Dial-in Number: (218) 844-8230 Access Code: 1088239 #
30 JAN 2009 2:00 PM Central	Written RFI Responses Due - 2 PM Central Soft copy response **ONLY**

2.5   RFI Evaluation Criteria

Each vendor's response to this RFI will be evaluated using the following criteria:

RFI Evaluation Criteria	Point Value
Ability to Support Functional Requirements	5 Points
Completed Appendix A	3 Points
Quality / Completeness of Response	2 Points
TOTAL SCORE	**10 Points**

2.6   RFI Evaluation Results

Based on information provided by the vendor and validated by the RFI Evaluation Team, Williamson County may invite a small number of vendors to provide a detailed

demonstration of their product/s. Williamson County expects selected vendors to demonstrate currently available functionality / capabilities from solutions that are in use by the vendor's <u>referenced</u> customers.

2.7 Project Contact Person

The primary and sole contact for vendors in relation to this Request for Information is Bill Weaver, Williamson County Public Safety Technology Program Manager. Vendors are advised not to contact the Executive Leadership Team, Williamson County Purchasing or the Sheriff Department management staff directly. Any questions a vendor might have regarding this RFI are to be directed to Mr. Weaver at bweaver@wilco.org or 512-943-3302. Finally, vendors are asked to hold their questions until the scheduled conference call sessions.

3   RECENT ACCOMPLISHMENTS

Williamson County, like many jurisdictions that experience considerable increases in population, is undergoing tremendous growth and strategic capital projects to meet the increasing demands placed on it organizations daily. These capital improvement projects (e.g., upgrades) are cost prohibitive and cannot be accomplished simultaneously; or even in a given fiscal year. To support the vision and direction of the Williamson County Commissioner's Court, long term planning began in 2005 to improve key technology and customer service capabilities. Fiscal responsibility has been the driving force behind adherence to a methodical approach in improving the delivery of emergency communications services. Implementing new technologies will also improve further the County's customer service / emergency response capabilities.

3.1   Williamson County Communications Restructuring

Williamson County Emergency Communications (E911 Communications Center) was re-structured in September 2006. In concert with this restructuring, the Commissioner's Court mandated the following responsibilities to Williamson County Emergency Communications:

- All E9-1-1 communications and dispatching services to County agencies and other entities as defined
- Operation and management of the E9-1-1 Emergency Communications Center facility in support of the Office of Emergency Management (OEM)
- Design, planning, operations, and maintenance of the public safety radio network
- Design, planning, operations, and maintenance of the public safety information systems
- On-scene incident communications support
- Interoperability planning and support
- Communications system planning and management
- Liaison with co-operators, served agencies, external departments/entities

3.2   Completed and In Progress Projects

To meet these mandated responsibilities, over the past three (3) years Williamson County has invested tremendous resources (e.g., funding, people, organizational energy) and support for projects listed in the table below. The table lists the project and provides a status for each (effective August 2008):

Project	Status
Implementation of countywide 800 MHz digital radio system	Completed
Expansion of previous E9-1-1 Center creating a segregated "Radio Room"	Completed
Asset management of digital radio equipment and	Completed

Project	Status
replacement of analog radios with digital radio equipment countywide	
Sponsoring digital radio lease/purchase program for smaller agencies	Completed
Increasing staff levels in FY06-07	Completed
Increasing salary levels FY 06-07	Completed
Consolidated fire and EMS dispatch policies	Completed
Design, construction, and operations of a state-of-the-art mobile communications / EOC trailer	Completed
Dissolution of "CWICS" and the creation of the "RCS" Williamson County Radio Communications System	Completed
Approving funding for implementation of new systems / technologies linked to Public Safety Technology Program	Completed
Remodel of "old" E9-1-1 Center into 5 position room creating the "E9-1-1 Call Center"	In Progress
Approving funding for construction of new EOC/E9-1-1 Center	In Progress
Design and construction of new digital 800 MHz radio communications towers	In Progress
Addition of new VHF fire department alerting system for East-side departments	In Progress

Finally, the County successfully implemented a regional digital radio system that greatly improved public safety / emergency response operations support and interoperability among all Central Texas first responder organizations. The next phase in meeting the ever increasing demands for improved emergency communications and emergency response is the design and implementation of new public safety communications and command and control technologies, and is the focus of this RFI. This end-state system will be comprised of multiple systems including CAD, RMS (Law Enforcement and Fire) and MDCS/AVL. Based on available information at the time of this writing, these systems will be implemented in phases to allow for proper training, successful service delivery operations and to maintain the Department's ability to effectively respond to calls for service.

4 EXISTING OPERATIONS OVERVIEW

Williamson County, Texas is ranked in the top 5% percent of counties in Texas based on population with a 2007 estimate of 373,363 and a service area of 1,123 square miles (or 334.2 persons per square mile).

The table below compares Travis County population (ranked 5th in the state) and Williamson County population (ranked 13th in the state) data reported for the 2000 Census period, with projections for both counties for the 2010 and 2020 census period, respectively. Travis County is used as reference for three (3) key reasons:

1. The Travis County / Austin area is a key employment center in the region. Many Williamson County residents commute between their home county and the Travis County / Austin area daily.

2. Significant vehicular transportation (e.g., business and leisure) and commodities transportation routes traverse Williamson County's service areas on key interstate highways, toll roads and major arterial streets that connect Williamson County with Travis County and surrounding communities.

3. Williamson County is viewed as a major leisure destination for area residents. Dining, local attractions, major educational institutions, AAA baseball, river tours, historical sites, numerous outdoor flea markets, and a rich and diverse outdoor life attract local area residents and visitors / tourists alike to the area.

	2000 Census	2010 Census	Increase / (Decrease)	2020 Census	Increase / (Decrease)
Travis County	812,280	1,003,600	19.0%	1,208,900	17.0%
Williamson County	249,967	386,700	35.4%	577,300	33.1%

As illustrated in the table above, Williamson County is projected to have nearly twice the population increase between 2000 and 2010 than Travis County (e.g., 35.4% versus 19.0%),[2] and a nearly equal increase between 2010 and 2020 (e.g., 33.1% versus 17.1%).[3] As population increases in Williamson County, so, too, will calls for service and associated demands (e.g., crimes, quality of life issues, investigations) on Williamson County's public safety agencies.

As used in this Request for Information (RFI), the term *public safety* includes police / law enforcement (including animal control), fire, emergency medical and emergency management services entities in the incorporated and unincorporated areas of Williamson

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[2]   www.census.gov
[3]   ibid

County. Though the systems described within this RFI are most directly associated with Police / Law Enforcement and Fire / Emergency Medical, the need to interact with and support emergency management planning and response is essential to the goals and objectives of the Williamson County executive leadership team.

4.1   Williamson County and Surrounding Cities

The table below lists cities within the jurisdictional limits of Williamson County. Not all cities listed in the table are served by the Williamson County E9-1-1 Communications Center, nor will all cities listed be part of the end-state integrated public safety solution as described within this RFI. Please note that cities /communities listed in **BOLD** operate stand-alone public safety answering points:

CITIES / COMMUNITIES WITHIN WILLIAMSON COUNTY'S SERVICE AREA			
Anderson Mill	Friendship	Laneport	Serenada
Andice	**GEORGETOWN**	**LEANDER**	Siloam
Bartlett	Granger	Liberty Hill	**TAYLOR**
Beaukiss	Hare	New Corn Hill	Theon
Brushy Creek	Hoxie	Noack	Thrall
CEDAR PARK	Hutto	Rices Crossing	Walburg
Circleville	Jarrell	**ROUND ROCK**	Waterloo
Coupland	Jollyville	Sandoval	Weir
Florence	Jonah	Schwertner	White Stone

4.2   Participating / Served Agencies

The Williamson County E9-1-1 Communications Center provides call receipt and dispatch services to a broad range of recipients. The primary recipients are the citizens of the unincorporated areas of Williamson County, as well as citizens of independent incorporated entities that are provided call receipt and dispatch services by the Williamson County E911 Communications Center. Other service consumers include various County, State, and Federal agencies.

The table below lists the range of local, county, state and federal agencies that, today, are supported by the Williamson County E9-1-1 Communications Center:

AGENCIES SERVED BY WILLIAMSON COUNTY	
Williamson County Sheriff's Office	Williamson County EMS
Williamson County Constable, Precinct 1	Williamson County Constable, Precinct 2
Williamson County Constable, Precinct 3	Williamson County Constable, Precinct 4
Williamson County District Attorney	Williamson County Attorney
Williamson County Office of Emergency Management	Williamson County Hazardous Materials / Technical Rescue (HazMat / Tech)
Florence Police Department	Florence Fire Department
Georgetown Medical Assistance Team	Granger Police Department

AGENCIES SERVED BY WILLIAMSON COUNTY	
Hutto Police Department	Hutto Fire Department
Jarrell Police Department	Jarrell Fire Department
Jollyville Fire Department	Leander Fire Department
Liberty Hill Police Department	Liberty Hill Fire Department
Sam Bass Fire Department	Thrall Police Department
Weir Fire Department	Texas Department of Public Safety / Highway Patrol
Texas Department of Public Safety / Texas Rangers	Texas Alcoholic Beverage Commission
Texas Department of Parks and Wildlife	US Army Corps of Engineers
United States Marshall's Office	PHI Air Medical Services

4.3   High Level Technical Environment

The environment described below is a high-level one and should not be considered exhaustive. Additional operational and technical background information will be provided to all participating / interested vendors during the **first** scheduled Q/A conference call after the issuance of this RFI (see Sections 1.4.8 of this RFI). Finally, as this is an RFI, in the interests of equitable treatment of all potential responding vendors, a site visit by vendors to the Williamson County Sheriff Office or the Williamson County E9-1-1 Communications Center is not anticipated.

4.3.1   Desktop Environment

The County has standardized on Microsoft Windows XP for desktop and laptop operating systems. While some other versions of Windows are still in use (2000, 98, Vista), the vast majority of users are standardized on XP.

The "standard" desktop or laptop personal computer (PC) features: terminal emulation, document processing, spreadsheet development, and local database management systems. All County computers have the latest service packs that have been tested and approved by Information Technology Services. Anti-Virus software is also standard and is pushed to users through Microsoft's Active Directory.

Departments budget for their own hardware, and therefore refresh rates vary for desktops and laptops, but generally new hardware is ordered every four or five years maximum.

4.3.2   LAN / WAN Environment

The Central Data Center is located at the Williamson County Juvenile Justice Center. This is a location in a hardened building that has multiple layers of security. There is also generator power, and dedicated cooling to this data center. The Juvenile Justice Center also has multiple connection points to the County's fiber optic LAN.

All other facilities in Georgetown are tied into this facility over fiber. Other facilities around the County connect to this and other County data centers by fiber or wireless (see Section 4.3.8: Network Diagram).

4.3.3   Remote Facilities Connectivity

Remote facilities include buildings in the cities of Taylor, Round Rock, Hutto and Cedar Park. These facilities all connect over WAN wireless links using Motorola point-to-point radios.

The radio link (see Section 4.3.8: Network Diagram) shows the connection details. Generally, these facilities connect to the County's radio tower off of County Road 116 (CO CR 116).

While the rated connections are either 20 Mbps or 300 Mbps (newer connections), the actual connection speeds vary from 6MB to 50MB.

4.3.4   Public Safety Facilities Connectivity

The County's law enforcement facilities are either on the fiber LAN or connect through the point-to-point radio LAN. There are multiple paths to other facilities and the internet. The diagram in Section 4.3.8 illustrates the general scheme.

Law enforcement patrol employees connect to the County network using a cellular data connection. They access the internet with Verizon Wireless data access cards and connect into the county using remote access software from Citrix. There are approximately 104 mobile units that are Panasonic Tough Books with approximately 40 units using the new Dell XFR fully-ruggedized laptop.

Mobile Communications / EOC vehicles VPN thru satellite broadband or Sprint data access cards using Motorola ML900 ruggedized laptops.

The County's EMS stations are spread throughout the County and in various facilities, many of which are not County facilities (e.g., city fire stations). Therefore, the EMS stations generally connect to the County network with a VPN connection or Citrix access through a DSL or other connection to the internet.

4.3.5   Operating Systems / Standards

The County has standardized on Microsoft Windows XP for desktop and laptop operating systems. While some other versions of Windows are still in use (2000, 98, Vista), the vast majority of users are standardized on XP.

The servers maintained by the County are standardized on Windows Server 2003. In the near future the new standard may change to Windows Server 2008, depending on vendor options.

4.3.6   Hardware Standards

Generally, the County has standardized on Dell hardware for desktops, laptops and servers. There are exceptions, but the County's helpdesk staff is most familiar with Dell and is certified to work on Dell equipment.

4.3.7   Switched / Routed Network

Each building on the LAN network has its own server and is on a subnet. This enables each building to "survive" a disconnection from the network. There are redundant paths to the next hop for all LAN locations except: Tax Office, JP 4, and the Lott Center. All of the routers for the LAN and the WAN are manufactured by Cisco and operate at speeds of 1 Gbps or 100 Mbps.

4.3.8   Network Diagram

The following graphic represents the major facilities and LAN/WAN connections. Facilities that connect through the Internet (DSL/VPN clients) are not shown. This includes all of the remote EMS stations in the County.
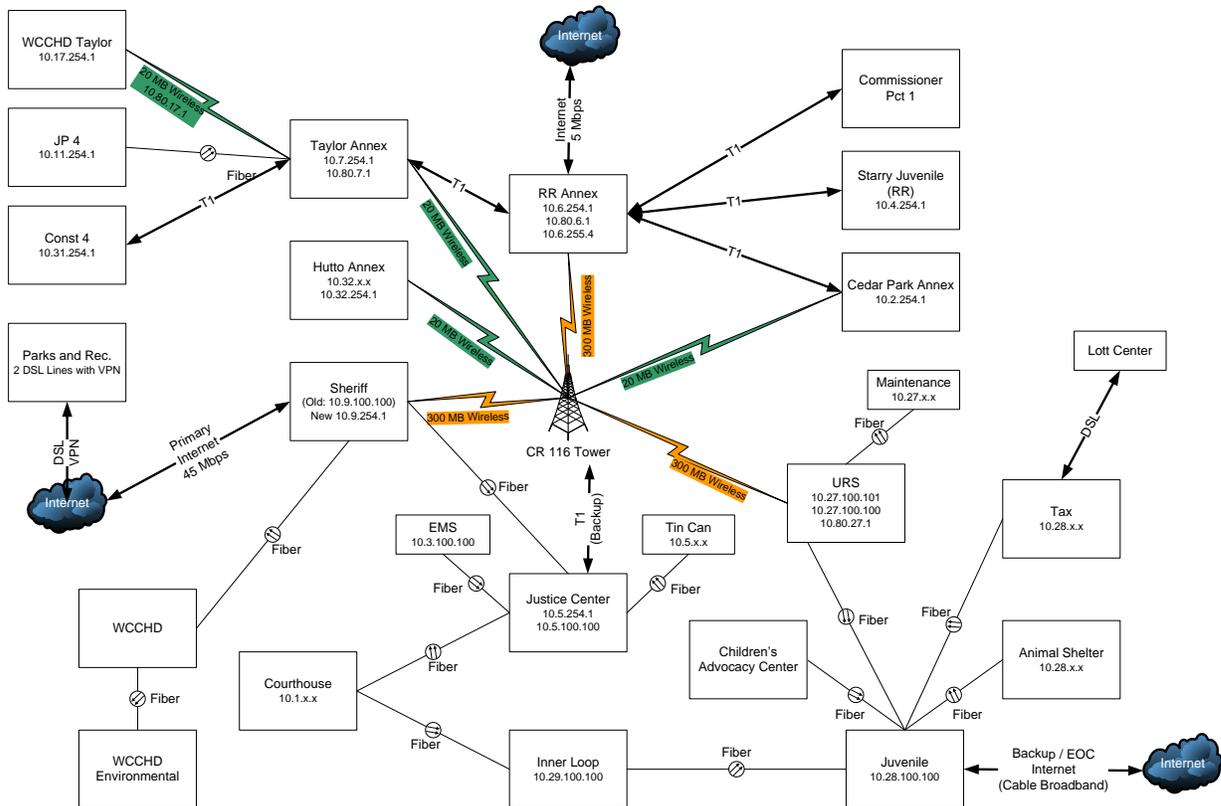
4.3.9   Data File Structures

The existing CAD system utilizes data from a SQL 2005 with a schema and procedures from Tyler Technologies. The existing RMS system for the Sheriff Office is also from Tyler Technologies and utilizes a Pick data file format.

The CAD system does not support user selected analysis. All CAD data are transferred to the RMS when a call for service is closed and does not support an MIS module. The database format that drives the RMS system, Pick, was released in 1973. It is not a relational database, but rather a "Multi-Value" database. Most files have multiple keys and multiple record types.

Data entry standards (e.g., street name spelling) are not supported by the CAD system resulting in multiple record entries.   The nature of these existing file structures complicates both rapid and ad hoc data analysis.

4.3.10 Geo-File Database

Williamson County maintains a robust central Geographic Information System (GIS). The County's GIS is currently maintained in a SQL Server 2005 RDBMS on a Windows 2003 Server. The SQL database is accessed through middleware from Environmental Systems Research Institute (ESRI). The County currently utilizes ESRI's Spatial Database Engine (ArcSDE) version 9.3. The database is approximately 600GB in size. In addition, several file servers contain another 2-3 terabytes of data (e.g. geodatabases, shapefiles, raster data, photos, LiDAR).

Client GIS software includes ArcGIS Server, ArcINFO, ArcEditor, ArcView, ArcGIS 3D Analyst, ArcPad, ArcGIS Network Analyst, (all from ESRI) and custom in-house web-based GeoCortex applications. Aerial photo software from Pictometry is also used across the County for access to photos and GIS data.

The County's GIS database includes major datasets such as aerial photos, street centerlines, and address locations stored at an accuracy level of plus or minus 5 feet projected in state plane coordinates. The street centerlines and addresses are estimated to cover 100% of the County's service / dispatch area. The GIS contains 198,092 (as of December 1, 2008) address points. The accuracy of the addresses and roads GIS database is over 99.97%.

The County streets dataset is currently adapting a new data model that will be fully routable based on the requirements of ESRI software for path finding (shortest path algorithm).   Currently four (4) cities in Williamson County update and maintain their own GIS data including street centerlines and address points that are sent to the County on a monthly basis. The four cities include Round Rock, Georgetown, Leander, and Cedar Park. The County works closely with these cities to normalize attributes, set data model standards and exchange data in a way that is easy and seamless. In some cases, the County has also assisted with data migration and mass updates of city data.

While the most critical user of GIS data is the public safety community, the County GIS staff provides maps, data, and services for all departments in the County. Many of the functions of County Government relate to geographic locations. Some examples of the uses of GIS around the County are:

- Public Safety events - crimes, accidents, fires, citations
- Unified Road Systems – subdivisions and road work.
- Road Bond projects – tracking projects and progress
- Attorney's Office – prosecution aids
- Parks and Recreation – mapping parks and projects
- Auditor's Office – capital asset tracking (roads, bridges, etc)

Consequently, the County is transitioning from the use of GIS as a paper map-production tool to a model where GIS is part of the fundamental framework within which the County does business and is integral to the day-to-day systems of operation.

4.3.11 Existing CAD System Architecture

The table below provides high-level information on the existing CAD system. Note that the CAD system has been in operation for greater than 10 years. The County desires to make available data from the existing CAD system to users in the new CAD environment. The County is open to suggestions / approaches as to how this desire might be realized.

Computer Aided Dispatch (CAD)	
Vendor	Tyler Technologies / TSG
Years in Operation	10 + years
Current Software Version / Revision	2.80.001342
Operating System	Server 2003
Database Format	SQL 2005
Volume of stored data in bytes	4.22 GB

4.3.12 Existing RMS System Architecture

The table below provides high-level information on the existing RMS system. Note that the RMS system has been in operation for greater than 20 years. The County desires to make available data from the existing RMS system to users in the new RMS environment. The County is open to suggestions / approaches as to how this desire might be realized.

Records Management System (RMS)	
Vendor	Tyler Technologies / TSG
Years in Operation	20

Records Management System (RMS)	
Current Software Version / Revision	5L, v5.2
Operating System	UNIX
Database Format	Picks
Volume of stored data in bytes	323 GB

4.3.13 E911 Communications Center Position Equipment

At present, each position in the E911 Communications Center is equipped with the following applications / systems:

1. Computer Aided Dispatch (CAD) monitors
   o   Call taking functions
   o   Radio dispatching functions
2. Enhanced 9-1-1 CTI and GIS / Mapping (provided by CAPCOG 911)
3. Nortel Networks 24 line deskset with an additional 24-line add-on / expansion module. Ten (10) positions have the ability to receive and process E911 calls[4]. Another five (5) positions are equipped with the above described telephone desksets.
4. Records Management System (Able Term) access
5. INFORAD (paging application)
6. OMNIXX (TLETS interface)
7. Radio Console (Motorola)
8. Assorted desktop / PC applications software

4.4   Call Taking Operations

In the present first responder environment, the Williamson County E9-1-1 Communications Center[5] answers all E9-1-1 and non-emergency calls delivered to its Public Safety Answering Point (PSAP) using the following equipment. The operational environment described below is a high-level one and not all inclusive. Additional operational background information will be provided during the scheduled Q/A conference calls after the issuance of this RFI.

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[4]   The Plant/CML (PALLAS) E911 telephony equipment connects to a Plant/CML provided / maintained Nortel Networks BCM400 IP telephony switch. There is a limitation of 12 positions that can be supported with E911 CTI functionality (e.g., ANI/ALI).

[5]   The existing E9-1-1 Communications / Dispatch Center will be relocated to a new emergency communications / emergency management operations center in approximately two to three years. The existing Center will be retrofitted with equipment and capabilities to serve as an alternate / back-up site to the relocated PSAP as well as a contingency back-up site for the new Emergency Management Operations Center.

Equipment	Description
Plant/CML E9-1-1 Computer Telephony Integration (CTI)	The Plant/CML system passes available ANI/ALI information to the CAD system which inserts the data in a dedicated "text window." The receiving call taker must verify that data in the CAD text window and Plant/CML CTI are congruent. The call taker then "accepts" the data transfer and may insert ANI/ALI data into the CAD call for service template.
Tyler Technologies - TSG Computer Aided Dispatch (CAD) System	A Windows GUI application on a stand-alone flat panel monitor; Data are segregated in various Windows based on content / purpose; All functions / commands are executed via mouse / keyboard control. No command line is supported.
Plant/CML Integrated Mapping Application	The mapping application supports only E9-1-1 wireline and wireless (Phase I and II) call location plotting. Aside from ALI spill to CAD, there is no integration with this application and any other applications / systems.

4.4.1   Police Response Event

If the emergency call requires a police response from a Williamson County controlled resource, the receiving call taker will collect information from the caller, manually research the location's discipline sector / beat, complete a dispatch request (e.g., call sheet) in the CAD system, manually indicate the responsible discipline/s (e.g., Police, Fire, Emergency Medical, Wrecker) and send the completed dispatch request to a designated area and / or discipline-specific dispatcher for assignment.

The preferred solution would employ an integrated and intelligent process that automatically 1) validates geographic information related to the call's location e.g., city / community 2) assists the call taker in identifying potential first responder safety concerns, 3) determining appropriate discipline response areas / zones and, 4) overall, streamlining and improving the call for service dispatch initiation process. The implementation of various tool sets, databases, system interfaces, information sharing / data exchange capabilities, enhanced visual mapping capabilities (other than E9-1-1 calls) and contemporary public safety / emergency response capabilities is of key importance to the desired end-state solution.

4.4.2   Emergency Medical Response Event

If the emergency call is for an emergency medical situation / event, the receiving call taker utilizes Medical Priority, Inc's [Medical Priority Consultants, (801) 363-9127)] Emergency Medical Dispatch (EMD) protocol "flip chart" guide (hard copy). This guide includes guidance on both pre-arrival instructions and patient treatment protocols.

Should the receiving call taker utilize the referenced EMD protocol, he / she will not document the responses and subsequent event classification protocols derived from the exchange with the caller. To do so in today's environment would consume too much time and only serve to delay response to the event.

The preferred solution for EMD, in particular, is an integrated EMD protocol as part of the CAD system (e.g., Pro Q/A). The protocol would be activated by the call taker as needed and, through protocol driven interaction / prompts, the emergency medical event would be "built", the system would recommend an appropriate dispatch priority and event type – along with pre-arrival protocol information, and a complete audit trail of the question / response interaction between the call taker and the calling party would be generated and made part of the original dispatch record.

4.4.3 Fire Response Event

If the emergency call is for a fire-related event, the receiving call taker must reference a manual log / ledger and printed map books to determine the appropriate agency to dispatch, as well as determine – via manual means - if any hazardous material is stored at the to-be-dispatched location.

The preferred solution would employ an integrated and intelligent process that automatically 1) validates geographic information related to the call's location (e.g., city / community 2) assists the call taker in identifying potential first responder safety concerns, 3) automatically determines appropriate discipline response areas / zones and, 4) overall, streamlining and improving the call for service dispatch initiation process. The implementation of various tool sets, databases, system interfaces, information sharing / data exchange capabilities, enhanced visual mapping capabilities (other than E9-1-1 calls) and contemporary public safety / emergency response capabilities is of key importance to the desired end-state solution.

4.4.4 External Jurisdiction Event

If the emergency call is in a service area other than that to which the Williamson County E9-1-1 Communications Center provides service (e.g., another jurisdiction), the receiving E9-1-1 call taker will utilize the Plant/CML CTI equipment and engage in a three-party no-hold conference (assuming the call is received over a 9-1-1 line). During the E9-1-1 conference, the receiving call taker and the caller are in continuous communication. Once the "responsible agency" answers the E9-1-1 conference / transfer, the Williamson County call taker will provide a brief summary of the event to the "responsible agency" call taker and back-out of the call (e.g., hang-up).

The preferred solution would utilize an automated process whereby the call taker would generate a call for service using the new system's call for service template and assign an event code and priority to the event. The system would have sufficient intelligence to allow a transfer or "export" of the event to the external jurisdiction's CAD system by methods / procedures to be proposed and demonstrated / simulated by the vendor and

evaluated by the Williamson County Evaluation Team. The County prefers a solution that does not require multiple system-to-system interfaces. Please note that this function would be used for non-emergency events (e.g., transport request) after relevant information has been collected and evaluated by the Williamson County call taker.

4.4.5   Conversion to Two-Stage Environment

The present E9-1-1 Communications Center configuration calls for a single stage dispatch environment. For clarity, single stage is defined as a single individual receives and dispatches calls for service as conditions / circumstances warrant. This single stage environment is being reconfigured to a traditional two-stage / division of labor to improve customer service and meet increasing demands both in call receipt processing and dispatch and command and control services.

Facility renovation and console reconfiguration efforts are currently underway and will be completed by the time any new equipment and / or services associated to this Public Safety Technology Project are installed. When complete, this reorganization of customer service / emergency response delivery will support a maximum of five (5) dedicated E9-1-1 call-takers to operate autonomously from radio dispatch positions in a separate room bringing the total possible number of on-duty work station personnel in the newly reconfigured and equipped E9-1-1 Communications Center to fifteen (15).

4.4.6   "All Hazards" Approach Discontinued

The E9-1-1 Communications Center trained its communications personnel using an "All Hazards/Disciplines" approach. This approach required personnel to dispatch law enforcement, fire, and EMS with equal success. This practice is changing. There are simply too many field units and protocols, call volume is too high and continues to grow, and the severity of calls has increased to the point where this practice is no longer tenable. Hence, the E911 Communications Center is quickly migrating to specialization: Each dispatcher being extensively trained in one discipline (e.g., Law Enforcement dispatching) versus all three. This allows personnel to be a specialist in one chosen area.

Based on the above information, vendor responses to this RFI should take into account two (2) key issues:

- *First, the communications environment will employ a division of labor where call taking functions and dispatching functions are divided among two (2) distinct work groups; and*
- *Second, calls for service will be routed to distinct and specialized radio dispatch positions (e.g., law enforcement, fire, EMS), with the potential to send a single call for service to all three (3) disciplines and a supervisor's position. In addition, calls for service may also be routed to specific dispatch positions based on geographical considerations, regardless of the type of event being dispatched (e.g., combined services municipal channel, tactical channel, Incident Command System channel).*

4.5   Radio Dispatch Operations

The existing CAD system (TSG) is a windows-based application. All functions must be completed using a desktop mouse and keyboard. No command line is available. Once a call is closed, the complete call record is transferred to the RMS system and is unavailable to CAD. Performance / metrics regarding call taking and radio dispatching efficacy, unit activity and other communications / response centric metrics are unavailable to Communications Center personnel from the existing CAD system.

4.5.1   Pending / Active Calls for Service
Pending calls for service, available resources and active unit status information are displayed in multiple windows in a rigid / fixed format. Displayed data cannot be sorted by column headers (e. g., call priority, status, unit number).

4.5.2   Call for Service Display
Pending and active calls for service are displayed in a linear listing format that does not support logical grouping of calls by priority / urgency for review by the dispatcher.

4.5.3   Call Prioritization
The existing CAD system does not support the dispatcher in managing critical / high priority assignments by presenting the next most urgent call for consideration / assignment.

4.5.4   Resource Recommendation
Resource decisions are made heuristically by the dispatcher. The existing system does not recommend to the dispatcher for assignment an area / sector resource based on geographic proximity, general location, discipline or required skill set.

4.5.5   Resource Status Display
The existing system inter-mingles available resources (those that are not on an assignment) with unavailable resources (those that are unavailable for various reasons e.g., assignment, court, etc).

4.5.6   CAD User Audit Trail
The user must log on to the CAD system as a "resource" to allow the user to perform any function available from the system. This is the only mechanism available to the CAD system to capture user audit trail information while performing call taker and / or radio dispatch tasks.

4.5.7   Internal Communications
Position-to-position communications, as well as administrative communications between a supervisor and a subordinate, are supported using a common office productivity application (e.g., Outlook). The existing system does not support messaging between and among Communications Center positions.

4.5.8   System Alert Messaging

Though the existing system supports "alerts" messaging services, the system co-mingles "technical / system" messages with potential field safety conditions that have been met or exceeded (e.g., high-risk event timer). The existing system assimilates ALL messages for ANY position / discipline in the Center and presents **ALL** messages to **ALL** positions. The ability to sort a message by type (e.g., system message as opposed to field safety message), discipline or priority is not supported.

4.5.9   Assignment Process

Most dispatch functions require a two-step process whereby the user will select a function (e.g., arrive unit), the system will respond with a text box / window in which data is entered (e.g., unit number) and the user selects OK, followed by another text box where additional data are entered (e.g., status change, disposition) and the user selects OK.

4.5.10   Previous Event / Call Research

If the user must research a previous (and closed) call, the user must toggle out of CAD, log-on to the (AbleTerm) RMS application, select a function from a "green screen" menu (or list of menus) and perform the query. The same process applies if the user must page a resource. The user must toggle out of CAD, access the INFORAD Paging application and complete a page. None of the existing support applications are integrated with the CAD application, nor is an audit trail within CAD for each of the sample functions listed above created within CAD for record-keeping purposes.

4.5.11   TLETS / TCIC / NCIC Access

To access TLETS / TCIC / NCIC (via OMNIXX), the user must – again - toggle out of CAD, log-on to TLETS, perform the needed query and retrieve any return/s. If the information from the return must be incorporated into a call record (or unit history file) the user must copy (*Control C*) the relevant information in the TLETS Response and paste (*Control V*) the copied information into the appropriate record / file.

4.5.12   Annotating Call for Service / Unit History

Finally, call comments, details, and other information related to a call (e.g., copied information, notes, comments, and response details) are each time-coded at the point of entry / execution though the various time epics and associated narrative / detail are not segmented / separated. All text information, including but not limited to, call detail narrative information, time code stamps and pasted text, is formatted as wrapped text in a block format.

4.6   County Emergency Medical Services System

The Williamson County Emergency Medical Services department utilizes emsCharts for its electronic patient care reporting (ePCR) field application. All data are captured at the field level and uploaded to a hosted web application. The table below provides additional information on this application:

Electronic Patient Care Reporting (ePCR) System	
Vendor	emsCharts
Years in Operation	4 Months
Current Software Version / Revision	2.5 (Mobile Client)
Operating System	Windows XP
Database Format	SQL Express 2005
Volume of Stored Data	60 MB (approximate)

4.7 Offense Report Development - Laptop

The table below illustrates high-level business process information for developing and submitting a police offense / incident report pursuant to an assigned call for service or on view activity using the existing (interim) field based reporting (FBR) application (e.g., ruggedized laptop):

Step	Activity	Description
1	Create Dispatch Record	Call for service created by call taker and routed to a dispatch position for assignment
2	Assign Resource	Assign police resource to event
3	Resource Enroute	Resource responds to event; Status changed by assigning dispatcher
4	Resource Arrives	Resource arrives at event location; Status changed by monitoring dispatcher
5	Conduct Investigation	Resource conducts investigation; Collects relevant information from training / experience
6	Access RMS System	Resource accesses RMS system from field using VPN or Citrix connection
7	Document Investigation Results	Resource develops offense report consistent with findings from investigation; No system driven assistance is provided / available (e.g., crime / event specific tips / reminders)
8	Complete Report	Resource submits report to RMS for supervisor review / approval; Report complete except for persons, vehicle and property information; RMS does not support supervisor notification of report ready for review
9	Close Call	Resource closes assigned event with disposition reflective of action taken; Status changed by monitoring dispatcher
10	Hard Copy	Resource prints and submits hardcopy of completed report to supervisor for review
11	Supervisor Review	Supervisor reviews submitted report; Approves / Rejects as appropriate; Report ready for Staff Review (Records Division)
12	Image Hard Copy	Records Division staff scans hard copy of report into

Step	Activity	Description
		digital image system
13	Staff Review	Records Division clerk reviews report; Updates report with persons, property and vehicle info; Clerk may correct certain report characteristics; Codes report for UCR state reporting
14	Update Daily Spreadsheet	Records Division clerk creates and / or updates daily events EXCEL spreadsheet for distribution within WCSO
15	Send Email	Records Division clerk sends email with embedded table to WCSO defined internal distribution list with summary of previous day's offense reports for review / assignment; Distribution list includes investigations (persons and property), narcotics and accident / traffic

4.8   Offense Report Development – Paper

The table below illustrates high-level business process information for developing and submitting a police offense / incident report by way of a paper based offense report form. Note that once the paper report arrives in Records Division, the business processes used to complete the transaction into the system are similar, with the exception of the time delay of receiving the original paper work and the Records Division clerk's additional labor of transcribing the officer's investigation details into the RMS system.

Step	Activity	Description
1	Create Dispatch Record	Call for service created by call taker and routed to a dispatch position for assignment
2	Assign Resource	Assign police resource to event
3	Resource Enroute	Resource responds to event; Status changed by assigning dispatcher
4	Resource Arrives	Resource arrives at event location; Status changed by monitoring dispatcher
5	Conduct Investigation	Resource conducts investigation; Collects relevant information
6	Document Investigation Results	Develop offense report consistent with findings from investigation
7	Complete Report	Submit report for supervisor review / approval; Report complete except for persons, vehicle and property information entered into RMS system
8	Close Call	Resource closes assigned event with disposition reflective of action taken; Status changed by monitoring dispatcher
9	Supervisor Review	Review submitted report; Approve / Reject as appropriate; Ready for Staff Review (Records)
10	Place in Bin	Place approved report in RECORDS BIN for routing to Records Division

Step	Activity	Description
11	Route to Records	Patrol routes completed / approved report/s to Records Division
12	Image Hard Copy	Records clerk scans hard copy of report into digital imaging system for eventual attachment to offense report
13	Transcribe / Code Report	Records Division clerk reviews report; Updates report with persons, property and vehicle info; Codes report for UCR state reporting
14	Update Daily UCR Spreadsheet	Records Division clerk updates daily events EXCEL spreadsheet for distribution within WCSO
15	Send Email	Records Division clerk sends email with embedded table to defined internal distribution list with summary of previous day's offense reports for review / assignment; Distribution list includes investigations (persons and property), narcotics and accident / traffic

4.9   Internal Communications / Distribution

The existing RMS system does not support automated notification of "divisions-of-interest" of open or closed cases. Instead, several ad hoc workaround processes have been developed and implemented by the Sheriff's Office (SO) to ensure key touch points within the SO have visibility into ongoing cases and case information. This includes utilizing OUTLOOK productivity suite tools and EXCEL databases as an interim business process, as well as using simple post it notes and paper file folders. The existing RMS system does not support field-directed notification, nor does it support priority "flagging" of an event / investigation for follow up, executive review or other out-of-scope action.

4.10   Executive Briefing Report

The existing CAD system and the existing RMS system do not support the development of an executive briefing document listing– in summary form and detailed back-up – the previous day's major events-of-interest. Though a briefing report is "possible", the current technical and functional environment makes its production a significant and time consuming endeavor.

The Sheriff of the Williamson County Sheriff Office has a clear desire to have both the CAD and RMS systems provide his office with a summary of major events over the previous 24 hour period at the beginning of each business day. The existing systems do not support this function.

Vendors are requested to provide a response to this section and limit such response to no more than three (3) pages. If the vendor's product supports this capability, the vendor is asked to supply a sample of their system's executive briefing document or similar automated report. The vendor may redact certain identifying characteristics from the provided sample (e.g., agency / customer name).

4.11   COMPSTAT Support

One of the key "vision" drivers of the executive leadership is to develop and implement systems that share information and, importantly, allow the harvesting of information for critical review and analysis.   This key management tool is often referred to as *COMPSTAT* or Computer Statistics[6].   The intent is to make available to all levels of public safety within Williamson County a comprehensive set of technologies and tools that can harvest, analyze and visually display a vast range of crime and community problems by discipline, event, crime, geography, time of day, day of week and a multitude of other variables. The existing core systems (CAD and RMS) are incapable of providing this level of support.

Vendors are requested to provide a response to this section and limit such response to no more than three (3) pages.   Vendors are encouraged to provide complete contact information for any current public safety customer utilizing their systems to support *COMPSTAT* functionality as described above.

4.12   Ad Hoc Database Development

Williamson County Sheriff Office (WCSO) business units and the E911 Communications Center, for example, develop and maintain a range of databases by which to capture / record information of interest that is not supported by the existing systems and / or to monitor the progress of activities, work products or other initiatives. As such, there are a number of databases in existence that would not be practical or advisable to merge due to variances in the data format / structure even within similar work units. This practice is very much typical of business units whose needs are not being properly supported by the primary system (e.g., RMS) and whose staff must opportunistically develop ad hoc / workaround solutions to fill the gap.   This is a systemic technical issue and not a management or personnel one.

It is the intent of Williamson County to support business intelligence (BI) activities using widely available, industry standard solutions on the market today[7].   Vendors are encouraged to provide a response to this section regarding the ability of their solutions to support business intelligence.

4.13   Investigative Case Management

The table below illustrates high-level business process information used in the existing RMS system to notify appropriate WCSO divisions (e.g., Investigations, Narcotics, Traffic) of the previous day's investigations and assign detectives for follow-up activities. Existing Investigative Case Management activities begin with the receipt of an email from the Records Division with an attachment (e.g., summary spreadsheet) of the

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[6]   COMMSTAT has also been used in the literature to describe similar activity / functionality.

[7]   Business intelligence (BI) is defined as applications and technologies for gathering, storing, analyzing, and providing access to data to help users make better decisions (e.g., decision support).

previous 24-hour period's open and closed cases (as defined by internal WCSO business processes):

Step	Activity	Description
1	Receive Daily Summary email	Records Division clerk completes and sends email with embedded table to defined distribution list of open and closed cases for previous 24 hour period
2	Management Review	Investigative division manager / supervisor reviews previous day's open / closed cases
3	Assign Investigator	Investigative division supervisor assigns an individual investigator to open / closed case by updating embedded table spreadsheet with assigned investigator's shield number / name
4	Send Email Assignment	Investigative division supervisor forwards / sends email with additional case assignments to investigators within his / her purview (e.g., Persons versus Property)
5	Receive Email Assignment	Assigned investigator reviews email assignment and selects from the list those cases that have been assigned to him / her
6	Update RMS	Assigning investigative supervisor updates RMS system with case assignment details for each case that he/she has assigned to investigators within the work unit (e.g., who assigned, when)
7	Case Tracking	The existing RMS system does not support automated case management; Case tracking managed manually; Supervisor must remind self by way of various ad hoc methods to routinely review status of each investigator's assigned cases to determine case status, resource requirements, etc (e.g., every 5 days)
8	Case Status Query	Investigative supervisor must perform individual query for each open case assigned to each investigator to determine status of assigned caseload
9	Investigator Performance Review	Investigative supervisor monitors and manually tabulates investigator performance (e.g., weekly, monthly, quarterly)

4.14   UCR / DPS Reporting

The table below illustrates high-level Records Division business process information for developing and submitting a federal and state required Uniform Crime Report (UCR):

Step	Activity	Description
1	Compile Daily UCR Data	Develop manual spreadsheet of UCR specific information for (eventual) submission to the Texas Department of Public Safety's Crime Records Division
2	Compile / Categorize UCR Data	Develop manual spreadsheet listing Part I and Part II crimes as defined by the FBI; Perform daily updates to report
3	Compile Summary Report	Using collected UCR information, compile required summary and detailed report/s for submission to TX-DPS (as required)
4	Submit Monthly UCR Report	Print, validate and mail hardcopy of monthly UCR report/s to TX-DPS (as required)
5	Compile Quarterly, Semi-Annual and Annual UCR Report	Using collected daily and monthly UCR information, compile applicable period-specific UCR reports (e.g., quarter, semi-annual)

4.15   Want / Warrant Information

All warrants persons are entered into the existing Williamson County Sheriff Office records management system. There is no interface between the existing CAD system and the existing RMS system. The dispatcher must toggle out of CAD, log-into RMS, select a query from a menu, and enter data related to the query.

The Warrants Division of the SO is responsible for entering, maintaining and validating all warrant information. Approximately 26,000 warrants are currently in the database. The database within the AbleTerm system (existing RMS) does not support the ability to conduct ad hoc multi-variable search reports such as "all Class A warrants for white males living in zip code 12345". If such a report was required, the Warrants Division manager must contact TSG, the RMS provider, and request a one-time special report be run.

It is the desire of the County to be able to query RMS-resident want / warrant information directly from the CAD system including local RMS databases, CAD-resident BOLO files, TCIC / NCIC and other applicable state and national databases.

It is also the desire of the County to be able to conduct ad hoc multi-variable sorts of the want / warrant database and export results in variable formats (e.g., Excel, ASCII). Such sort queries should be limited only by the number of fixed data fields that represent the complete warrant record including person information and vehicle information linked to a wanted person / individual.

4.16   Crime Analysis

Williamson County crime analysis activity, as a business process, is managed by using various ad hoc components (e.g., mass market street atlas, RMS data, metal pins / paper tags) to develop a crime pattern display or simple pin map, for example. The existing

RMS system does not support contemporary and / or technology supported crime analysis as is commonly defined. Once data are collected, validated and analyzed, the crime analyst will consult with the manager of Investigations to determine most appropriate action plan and / or communications plan.

The existing RMS system does not support distribution of crime pattern alerts or other advisory information to divisions-of-interest (e.g., Patrol, Narcotics). All action and / or advisory information (e.g., bulletins) are developed external to the RMS system using Microsoft Office suite of products (e.g., WORD, PowerPoint).

4.17 Williamson County Metrics and Other Information

4.17.1 Tracked Events
The table below lists total number of tracked events reported on various activities for fiscal year 2006, 2007 and data collected through April 15, 2008:

Activity	FY 05-06	FY 06-07	FY 07- April 15, 2008
Radio	557,896	647,714	330,324
911 Calls	60,693	65,797	42,542
911 Hang-Up	7,568	9,345	4,657
Non-emergency Calls	180,000	240,000	159,000
Total Tracked Events	806,157	962,856	536,523
911 Wireline Calls	54%	38%	29%
911 Wireless Calls	46%	62%	71%
Avg. Events/Hour	92.03	109.92	122.49

4.17.2 Calls for Service
The table below lists calls for service and population information for 2000, 2007, 2010 (projection) and 2020 (projection):

	2000	2007	2010	2020
Population	249,967[8]	373,363[9]	386,700	577,300
Calls for Service / Tracked Events	644,915	962,856	997,686.00	1,489,434.00

4.17.3 Population Comparisons / Projections
The table below lists Travis County and Williamson County population data reported for the 2000 Census period, with projections for both counties for 2010 and 2020. Population

[8]   Source: www.census.gov
[9]   Ibid

growth continues to be a serious issue and must be considered when planning daily and future operations. The Capitol Area Council of Governments (CAPCOG) maintains census data and population projections for Williamson County. The most recent data is illustrated below:

County	2000 Census	2010 Census	Increase / (Decrease)	2020 Census	Increase / (Decrease)
Travis County	812,280	1,003,600	23.6%	1,208,900	20.5%
Williamson County	249,967	386,700	54.7%	577,300	49.3%

4.17.4 Service Area / Population Density

The table below lists Williamson County's current service area in square miles, the projected population for 2010, a projected population density per square mile for 2010, the 2020 projected population, and a projected population density for that same time period. The intent of the table is to provide vendors with insight into Williamson County growth in population and anticipated calls for service demands:

County	Square Miles	2010 Projected Population	Population Per Square Mile	2020 Projected Population	Projected Population Per Square Mile
Williamson County	1,123	386,700	344.3	577,300	514.1

4.18   Communications Center Staffing / Configuration

The table below lists various operational characteristics related to existing staffing and configuration of the E9-1-1 Communications Center:

Activity	Response / Description
Current shift configuration	6AM to 6PM and 6PM to 6AM
Number of shifts	4 – 12-hour rotations
Authorized Staffing[10]	
Dispatcher	25
Dispatcher II	4
Communications Training Officers	8
Lieutenant	4
Captain	4
Administrative Assistant	1
Operations Manager	1 – Approved / FY-2009 Budget
CAD Manager	1 – Approved / FY-2009 Budget

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[10]   Additional staff available as needed for emergencies and scheduled events

Professional Standards	
Quality Assurance Coordinator	1
Training Coordinator	1
Training Lieutenant	1

4.19 Preferred Solution Minimum Capabilities

Based on the information listed in Sections 4.15.2 and 4.15.3, vendor responses to this RFI should:

1. Indicate that their system can support a served population base of **650,000**;
2. Indicate that their system can support **750,000** calls for service (e.g., emergency and non-emergency calls) with a year over year increase of 10% over the next ten (10) years; and
3. Based on preliminary projections regarding MDCS use, the vendor must indicate that their system can support an **1,000,000** transactions generated by field personnel by way of their in-vehicle MDC unit.[11]

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[11]   For the purposes of mobile digital communications, a transaction is defined as 1) a query and the subsequent return to the user of information related to that query, or 2) a command (arrived on scene) and the subsequent acknowledgment and completion of the command.

5   SCOPE OF PROJECT

This section of the Request for Information (RFI) provides high-level information on the systems and associated capabilities desired by Williamson County in support of this Public Safety Technology Project.

5.1   Computer Aided Dispatch

The desired solution should be capable of supporting incident intake, location validation, resource recommendations, dispatching, unit status, and management reporting for Law Enforcement and Fire / EMS, and, at minimum, provides the following functions and features. Additionally, Vendors should highlight and describe functions and features provided by their basic packages that are not described below and which may be a differentiator / enhancement over other vendor solutions:

a. Support dedicated as well as combined call taker and radio dispatcher configurations (e.g., single- and two-stage dispatching).

b. Support, at minimum, four (4) discrete system access levels: Call Taker, Dispatcher, Supervisor and System Administrator.

c. Support multiple agencies (e.g., Police, Fire, EMS), with the ability to support other resources that customarily operate within the Williamson County service area (e.g., state resources, precincts constable staff).

d. Any incidents that require resources from multiple agencies, regardless of entry point, should be routed to the appropriate dispatch position/s associated to each of the responsible agencies, depending on the incident location and type of incident.

e. Support the ability for a user to override a system defined position routing and instruct the CAD system to route the call for service to a different / alternate position including positions in the Communications Center, the Mobile Command Center (if activated) and any mobile tactical command post with remote CAD support.

f. Support multiple windows. Standard Windows-type functionality is desired for all CAD applications (e.g., dialog boxes, point-and-click, and drag-and-drop). Switching from one window to another should not affect any information entered in any displayed / active window.

g. Make extensive use of table driven parameters, allowing easy modification by the system administrator without vendor provided programmer/technical support. These modifications should be able to be made while the system is active without any negative impact on CAD operations.

h. Support a library of utility programs to maintain the CAD system's resources, configuration, and data files. These utility programs should be accessed through menus or similar operation and controlled through credentials based security. Integrated "help" functionality for these configuration routines is highly desired.

i. Any information displayed on a CAD workstation should be capable of being printed on a designated shared printer, a locally attached printer, or "routed" (sent) to other network connected workstations, positions or printers at any time.

j. Backup of the CAD files and user data should be capable of being accomplished without taking CAD out of service, and with minimal impact on CAD operations. Vendors should explain the backup methodology used and the degree of automation, as well as the anticipated duration of a routine backup.

k. Make use of programmable function keys for all frequent operations, in addition to the windows standard functionality (dialog boxes, etc.), to reduce the number of required keystrokes; Explain the operation of all function keys provided, the maximum number of function keys available and the degree to which the application supports point-and-click device functionality.

l. Support a command line[12] mode. Although standard windows options such as drag-and-drop, pop-up menus, drop-down menus, etc., and function keys provide access to system functions, advanced users should be provided with an alternative command line mode in which all or most system functions (e.g., initiate a new incident, update unit statuses, initiate a traffic stop, query TLETS/NLETS) are accessible.; Vendors should list the set of system functions accessible via the command line mode

m. Menus or drop down dialog boxes may be provided to select the various functions that are available in the CAD application. Comprehensive security should control what functions are available to each user.

n. Both individual and group messaging is desired. Message delivery capabilities must be provided for delivery to individual users / workstations and distribution lists. All messages should be logged.

o. Support a training component (e.g., tutorial) that allows new personnel to be trained on the system without impacting the production "live" environment, or stored data; Vendors should explain how this functionality is provided and if their system incorporates the ability to create "training scripts" for CAD simulations.

p. Allow the retrieval of any incident and/or data element on-line for at least a 365-day period.

q. Include a rich palette of commands, functions, queries and other protocols that can be used to support, among others, dispatch assignment, status change / update, field activity timers, internal CAD database access, external FRMS / LE-RMS database access, bi-directional communications with MDCS equipped field units, silent dispatch, resource management and other functions common to contemporary public safety communications, command, control and coordination (C4) environments.

r. Allow the delayed entry of incidents (e.g., catch-up), with a capability of entering actual time, not current computer time, into all time fields; Information subsequent to the entry of the original incident should include the date, time, and ID of the person entering the information.

s. Support the ability of accessing TLETS / NLETS / NCIC via the CAD computer and performing all authorized TLETS / NCIC functions; Each position in the E9-1-1 Communications Center (e.g., call taker, radio dispatcher, supervisor) should have access to TLETS / NLETS / NCIC via their individual position/s.

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[12]   Command line mode is typically composed of a data entry field in which a command verb (e.g., traffic stop) is followed by appropriate parameters (e.g., street location, unit, etc.).

t. Support the ability to access TLETS / NLETS / NCIC via remote CAD positions (e.g., combined call taker/dispatcher positions) in the Mobile Communications Center / EOC and the designated Tactical Command Post, as well as perform other functions / queries to the primary CAD system and other network connected public safety system (e.g., RMS, MDC).

u. Support the ability to log in the appropriate record area (e.g., call for service, daily unit history file) all TLETS / NLETS / NCIC inquiries, as well as incorporate in the appropriate record area (e.g., call for service, daily unit history file) any applicable returns that may be received pursuant to the query.

v. It is desired that the CAD system should automatically send a query to TLETS / NCIC and the proposed LE-RMS for registration and wants and warrants checks from the LE-RMS system when a license plate and/or person's name is entered. Access to TLETS / NCIC functionality must be controlled by sufficient credentials based security with a complete, detailed and searchable audit trail record.

w. Provide for automated logging and retrieval of all criminal history inquiries and responses consistent with State and NCIC regulations and policies. Criminal history inquiry access must be restricted by appropriate credentials based security.

x. Interface to a paging and alerting system common in fire event responses, as well as support so called "rip and run" print capabilities in fire stations.[13]

y. Interface to a TEXT-to-VOICE conversion program that "announces" a fire event in a fire station (OPTIONAL).

z. Integrate EMD, EFD, and EPD protocols in the call taker environment with complete audit trail development in response to MPDS Q/A format.

aa. Interface to a Mobile Digital Communications System (MDCS) with Automatic Vehicle Location (AVL) capability.

In addition to the above high-level requirements, the County desires a system that can support the following. We believe that, with few exceptions, the following functional list is self-explanatory. Any vendor that does not understand what is being listed here should raise the issue on one of the two (2) Question / Answer conference calls scheduled for this project (See Section 2.4 Timeline):

5.1.1   Personnel Scheduling Module

This CAD system should support a personnel / scheduling module and provide for the maintenance of current employees' information. This should include personal data, original hire date, all promotion dates, various contact phone numbers (e.g., pager, home, mobile, and office), training information, special skills (such as trainer, quality assurance), complete employment history, current assignment, etc and a virtually unlimited ability to annotate an individual's personnel file with comments, observations, evaluations, etc. In addition, the CAD personnel / scheduling module should support the ability to develop shift deployment plans for a range of production (e.g., call taker, dispatcher and supervisor) and support (e.g., trainer, quality assurance) positions, and provide for the scheduling of personnel in 8, 10, and /

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[13]   INFORAD currently used as a stand-alone paging application.

or 12 hour shift rotations. Data elements considered essential to this communications center personnel / scheduling module include the following:

PERSONNEL / SCEHDULING MODULE ELEMENTS		
Employee's ID / badge number	Last name	Suffix (e.g., Jr., Sr.)
First name	Middle name or initial	Sex
Race	Social security number	Hire date
Date of birth	Home Address	Home telephone number
Business telephone number	Emergency contact name and relationship	Emergency contact telephone number
Emergency contact comments	Length of service	Assigned department/division (retain previous assignments info)
Date of current assignment	Training officer ID	Training officer name
Training officer hire date	Employee status (e.g., active, retired, suspended, etc.)	Special skills - up to 15 (e.g., language skills, signing)
Training information (e.g., certifications, re-certification requirement date)	Supervisor	Five (5) additional optional fields

The system should support the ability to generate a list of personnel who are nearing their re-certification dates and a reminder message / e-mail notifying affected individuals and their supervisors. Such messages should be appended to the affected party's internal communications center personnel file, and captured / recorded in the system audit trail.

5.1.2 Log on / Log Off Control
The system should allow only credentials-based functions (e.g., validated user name, password) to authorized users based on functional requirements. The system should also maintain detailed audit trail information for each activity completed by the currently logged on individual user. The system should also capture and record information (e.g., who did what and when) in the appropriate record / file type (e.g., unit history, call history).

5.1.3 Position-Specific Functional Tutorial
The County is interested in exploring training solutions that do not require the physical relocation of the trainee from the dispatch environment.
- Please indicate if your system supports the ability to construct a script based tutorial for a typical call taker configuration and a typical radio dispatcher configuration based strictly on the vendor's user manual.
- Please indicate if this tutorial system is activated, the duration (in minutes) of a typical training session for a call taker and a radio dispatcher, what performance measures are available to track mastery of certain position-specific functions (e.g.,

passed new event generation, **failed** special location information flag section) and any other activity / response metrics available for capture and archive.

5.1.4   Call Taking Functions
- Incident Creation
    - New event
    - Previous event information (Please indicate if your system manages this function and links the previous event information to a new event)
- E9-1-1 Interface
    - Auto populate E9-1-1 location information
    - Auto-plot location on TMD after location validation
    - Support WPH1 and WPH2 location processing
    - Support landline E911 location processing
    - **OPTIONAL**: Please explain if your CAD system supports automatically inserting the original ALI record as text into the body of a call for service. At this time, the information of interest includes subscriber name, telephone number, address, and pilot number
- E9-1-1 Database Error Report
    - **OPTIONAL**: Please explain if your CAD system supports the ability to route a copy of an "advisory" call for service to the Williamson County 911 Addressing unit (a Williamson County GIS business unit) if the Plant/CML E911 CTI equipment ALI return indicates a *NO RECORD FOUND* response.
- Non- Emergency Call for Service
    - Validate location after manual entry
    - Auto-plot location on TMD after location validation
- Location Validation / Geofile Lookups
    - Commonplace Names
    - Alias Street Names
    - Intersections
    - Mile Markers & Other Freeway / Highway Location information
    - Phase I and Phase II Data From Wireless / Cellular E9-1-1 Calls
    - E911 landline calls for service
    - Manually entered locations / common place names (e.g., 123 Main Street, Inner Loop Annex - ILA)
- Advisory Information (e.g., street closures, hospital drive-by status)
- Standard Operating Procedures (SOPs) via local system access
- Integrated Emergency Medical, Fire, and Police Protocols (e.g., Pro Q/A
- Location or Caller specific data
    - Special information / premise notes by specific address
    - Special information by specific telephone number
    - Appending / Attaching data (e.g., drawings, TO DO lists, floor plans, text)
    - Other information as may be required

The vendor is asked to explain what additional information may be appended to an address or a telephone number
  - o Support user defined sunset dates for entered data
  - o Alert system administrator or supervisor of notification of locations with pending sunset dates (e.g., 30-days prior to expiration)
- Hazardous Locations
- Urgent / High Priority Incidents
  - o Please indicate if your system supports sending a partially completed call for service for immediate dispatch and allows any authorized user to append information to the event as it is being responded to by field response units
- All Hands Notification
  - o Please explain the degree to which your system supports the ability to notify customer designated positions of a high priority event (e.g., Officer Shooting)
- Interruption of Incident Intake for More Urgent Incidents
  - o Please comment on your system's ability to save a partially completed call and initiate a new, more urgent call for service.
  - o Please indicate what measures / notifications from the CAD system are available to ensure a previously saved / unfinished call is completed by the "saving" user
- Incident Routing
  - o Auto route to discipline/s by event type
  - o Auto route copy of event in defined service area to another position (e.g. Command Center, Tactical Channel)
  - o Override default routing of call for service to a different / alternate position
- Incident Priority
  - o The County prefers a virtually unlimited set of priorities to support its dispatch management plan
- Duplicate Event Detection
  - o Please comment on how your system detects a potential duplicate event
  - o Please comment on how your system merges / appends a potential duplicate event with an active call for service
- Adding Information to Existing Event
- Adding Information to Dispatched Event
- Adding Information to Closed Event
- Alternative Service Delivery (e.g., Expediter Unit, TeleServe)
  - o Please indicate the degree to which your system supports routing and delivery of low priority calls for service to an alternative service delivery unit (e.g., insurance reports)
- Incident Number Generation
  - o Call for service number

      o Case / Incident number
- Transfer Event to Other Agency / Discipline (Internal)
- CAD-to-CAD Transfer (External)
  - Please indicate the options available from your system to support a CAD-to-CAD transfer of an event, keeping in mind that the County prefers not to support multiple system interfaces
- Non-Dispatched "Advised" Incidents (e.g., CYA call, E911 database errors)
- General Information Files (e.g., phone number data, procedural information, employee contact information, HazMat database, location based TO DO lists, event based TO DO lists)
- Request for Extra Patrols (e.g., Create event within CAD but send request to an area substation for Desk Sergeant assignment)
- Contingency Operations
  - Please explain the system/s and procedures used to support call taking functions if the CAD system is unavailable (e.g., major system failure)

5.1.5   Dispatch Functions
- Receiving New Incidents / Events
- Selecting Pending Incidents
  - System presented events based on priority
  - User selected events
- Dispatch Screen
  - Please indicate or illustrate how the dispatch screen is configured
- Location advisory information flag (e.g., special location information)
  - Please indicate if your system alerts the dispatcher of location linked information and how your system reports / records if the dispatcher reviewed the information prior to assignment of the call.
- Prior call for service history
  - Please indicate if your system may automatically check previous / prior call for service history on a select set of customer defined events (e.g., family disturbance), or via a command / function at the request of a discipline / area dispatcher
- Duplicate event detection
- Previous event detection
  - Please indicate if your system may support user defined system-wide values (e.g., previous 12 hour period)
  - Please indicate if your system indicates to the dispatcher of the presence of a previous event detected at a location of a call for service
- Emergency location contacts
  - Please indicate if your system supports key holder database information and how the information may be accessed (e.g., call number, location name, location address)
- Alarm permit database interface

- o Please indicate if your system determines if a location has a permit for an alarm (e.g., permit number, physical address, business name)
- Incident type advisory or procedural information
    - o Please indicate if your system supports the ability to attach "advisory" details, specific procedures and such to a location
    - o Please indicate if your system alerts the dispatcher that such information is available
    - o Please indicate if your system tracks whether or not a dispatcher accessed information attached to a location in response to a call for service
- Unit Recommendation (e.g., Police, Fire, EMS)
    - o Geographic Reference
    - o By AVL Calculation
    - o Out of Sector
    - o Resource Depletion
    - o Matching Event to Resources
    - o Fire Alarm Response Level
    - o Responder skill set
- Stacking / Holding Calls
    - o Please explain if your system supports "stacking" more than one call for service to a single resource at a time
    - o Please explain if your system supports "holding" a call for service for a specific resource
- Dispatching Units
    - o Verbal Dispatch
    - o Silent Dispatch
    - o Multiple Unit Dispatch
    - o Multi-discipline Dispatch
    - o Designation of primary unit (how managed / noted) **OPTIONAL**
- Arriving Units
    - o Dispatch and arrive unit in single action
    - o Arrive multiple units on a single event
    - o Back-dating unit arrival time (how managed / noted)
    - o Alert dispatcher to arrival overdue status
- Dispatch / Arrive Unit Simultaneously
    - o Please indicate if your system supports the ability to simultaneously dispatch and arrive a unit on a call for service
- Preempting Units
    - o Please indicate if your system supports preempting a previously assigned unit from one call and assigning the unit to another
    - o Please explain the steps / procedures the dispatcher must use to complete a successful preemption / reassignment activity
- Incident and Unit Status Maintenance
- System Status Management

- o Please indicate if your system supports fire / EMS resource management and automated system status management (SSM)
- Unit Staffing Complement
  - o Please indicate if your system determines the staffing complement of a resource (e.g., 1 versus 2 officer unit, supervisor)
- Unit Status Indicators
  - o Please indicate if your system supports unit status indicators either by colors, icons or other methods
- Incident Command System (ICS) **OPTIONAL**

   The preferred solution would support common ICS terminology and command states to both identify and capture ICS response to and management of an event. These include organizational functions, resource descriptions, incident facilities and position titles. An example of a typical ICS scenario is provided below:

   Unit 6301 is assigned to an event as a first responder. The event becomes significant enough to activate an ICS response. The CAD system should have sufficient tools / commands at its disposal to support the following:

   - *Activate an ICS response on command,*
   - *Trigger automated notification of a defined set of personnel and positions of the activation of ICS (optional)*
   - *Designate an assigned resource as the Incident Commander*
   - *Plot the location of the designated Incident Commander on a tactical map display*
   - *Designate a fixed location or mobile asset as a Command Post*
   - *Display the Command Post location on a tactical map display*
   - *Display ICS resources and command functions on a tactical display map; and*
   - *Track - and archive for post-event review – all users actions / requests made by ICS response teams and / or resources to the event.*

- Unit Status / Activity Timers
  - o Please list those activities to which a timer can be associated
- Unit Status / Activity Timers – Secondary Check-Backs
  - o Please indicate if your system supports secondary check-backs with units whose initial activity timer has expired and acknowledged by the dispatcher
- Updating Unit Status
  - o Please indicate if your system alerts the dispatcher that, for example, a dispatched unit has yet to "arrive" on a call for service
  - o Please explain what actions the dispatcher must take to update a unit's status in response to a call for service
- On-View / Self Initiated Events

- o Please explain what actions the dispatcher must take to complete a self initiated activity
- o Please indicate if a dispatcher may obtain an incident number resulting from a self initiated activity
- Miscellaneous Comments
  - o Please indicate if a dispatcher might add comments to a call for service record (e.g., no units available / broadcasted call) or a unit history record (e.g., unit enroute from other side of county)
- Appending Information
  - o Please indicate if a dispatcher might append / attach a database query response to a call for service record or a unit history record (e.g., stolen vehicle return)
- Updating Incidents
  - o Pending incident update notification
  - o Active incident update notification
- Viewing / Reviewing Incidents
  - o Please indicate if a dispatcher might view or review an incident, regardless of its current status (pending, dispatched, closed)
- Adding Responding Resources – Police
  - o Please indicate the maximum number of units that can be assigned to a single event
  - o Please indicate the maximum number of units that can be assigned at the same time to a single event
  - o Please indicate if your system can support GROUP or TASK FORCE assignments to single event (e.g., ICS4 = 5 predefined resources)
- Adding Responding Resources – Fire Alarm Levels
  - o Partial or complete response
- Dispatching Remaining Resources for Alarm Levels
- Exchanging Units
  - o Active unit with Inactive Unit
  - o Active unit with Active Unit
- Incident Completion (e.g., disposition codes)
  - o Link disposition code to required activity (e.g., offense report required)
  - o Link disposition code to appropriate or policy driven disposition
- Transfer Event Information to RMS
  - o At Initial Event Entry
  - o At Point of Closure / Disposition
- Event / Call for Service Closure
  - o Please indicate if your system ensures that prior to a call for service or field activity being closed, a disposition must have been recorded by an assigned resource
  - o Please identify if your system support matching / linking disposition codes to events / call for service types
- Closed Incident Processing

- o Disposition codes / classes
- o Adding information to closed event
- o Reopening previously closed event
    - Technical limitations
    - Time limitations
- Pending Incidents
  - o Sorted by priority
  - o Sorted by event type
  - o Sorted by discipline
- Unit Status
  - o Police status types
  - o Fire status types
  - o EMS status types
  - o ICS status types
- Active Incident Status
  - o Dispatched / Duration
  - o Enroute / Duration
  - o Arrive / Duration
  - o Transport / Duration
- Duty Roster and Shift Changes
  - o Staff Scheduling Module
  - o Substation patrol administration
  - o Non-patrol administration (e.g., investigations, crisis intervention)
  - o Shift / Group Log On (by area / discipline dispatcher)
  - o Resource Information (e.g., employee, vehicle, roof number)
- Incident / Event History
  - o Each time stamp and activity combination (e.g., 11:23:01 6301 DISPATCHED, At gas pumps) must be associated with each other and displayed as a string of text with a hard stop for each entry
- Unit History
  - o Each time stamp and activity combination (e.g., 11:23:01 6301 TRAFFIC 303 W 8th Street ABC123.TX, Red Ford F150 Pick Up) must be associated with each other and displayed as a string of text with a hard stop for each entry
- Field Initiated Events
  - o Please indicate if your system allows a field initiated event without assigning a call for service number (e.g., motorist assistance)
  - o Please indicate if your system supports assigning a case number to a field initiated event (e.g., Traffic stop with DWI arrest)
- Database Inquiries
  - o DL check
  - o Name check
  - o Property check
  - o Vehicle check

- o Other common queries
- Pending Incident Queue
  - o Pending Incident Display / Sorting
  - o Pending Incident Timers
- Transferring Units/Resources to Another Position / Discipline
  - o Transferring Resources - Internal
  - o Transferring Resources – External
  - o Temporary assignment (e.g., on view activity in another dispatch area)
- Transferring Dispatch Position Responsibilities (Internal)
- Merging Multiple Dispatch Positions
  - o Please indicate if your system supports merging two positions into one, as well as indicate any limitations on the number of positions that might be merged into one
- Unit Relocation / Move-up Model (e.g., Fire)
- Unit Staging Reminders (e.g., EMS)
  - o Support for model driven predictive staging support
- Unique Recommendations / Dispatch Requirements
  - o Location Specific Response Protocols (e.g., number of first responders, location approach, cautions / advisories)
  - o Event Driven Response TO DO List
  - o Auto-notification to predefined call up list (e.g., pager, Blackberry, message to position / terminal ID)
- Communications Supervision
  - o Monitoring Call Taker Operations by Position
  - o Monitoring Radio Dispatch Operations by Position and / or Discipline
  - o Major Event / Activity Relocation (e.g., Tactical Channel)
  - o Sharing Event Information with Mobile / Remote Positions

5.1.6 <u>Tactical Map Display (TMD)</u>
- Geographic Information System (GIS)
- Spatial Analysis
- Boundaries (e.g., police, fire, EMS service areas, precinct, wrecker, city limits, county limits)
- Boundary Layers Viewable on Demand
- Point Locations
- Landmarks
- Fire hydrants
- Iconic symbols (Please explain your solution's ability to use to indicate events, status, locations, temporary road closures and other relevant criteria)

5.1.7 <u>Management Information System (MIS) and Reporting</u>
- Standardized MIS Reports
  - o Please provide a list of standard reports available from a base CAD MIS package and sample output for a few (3-4) reports
- Performance Measures

- o Please indicate if your system supports reporting on default and / or user-defined KPI
- Automated Daily / Shift Activity Cards (e.g., end of shift work card for any authorized user)
- Support output control (e.g., screen, screen printing, printer, export in Excel, ASCII)

5.1.8 Transaction Log / Audit Trail

- All transactions by any user, including MDC equipped units, made to the CAD system must be logged (e.g., license query, name check, CAD database query)

5.1.9 Tow / Wrecker Rotation List

- Towed / Impounded Vehicle Log
- Emergency Call-Out System (Optional)
- EMS Ambulance Transfer Wrecker Rotation
- Motorcycle Wrecker Rotation

5.1.10 Contact Management Database

- Topically sorted contact information (e.g., name, address, telephone numbers) such as hospitals, day care centers, substations, emergency rooms, cities, counties, state agencies, departments, divisions)

5.1.11 CAD Interface to Telephone System (Optional)

- The intent is to provide the radio dispatcher with a direct link from the Contact Management Database (see above) to the desktop telephone system (Nortel Networks 24-line deskset with 24 line add-on / expansion module connected to Plant/CML's PALLAS solution using Nortel Networks BCM400 telephone system). The intent is not to offer full call control ability (e.g., hold, conference, transfer, etc), but to go "off-hook", place a call by pressing a button on the CAD screen, complete a conversation and hang-up (either manually or via CAD).

5.1.12 Transaction Log

- The intent is to log all entries and modifications within the system to an audit trail database. Elements captured should include, but not be limited to, the date and time the action was completed, the type of action, the identification number of the person performing the action, the workstation on which the transaction occurred, and the content of the action (i.e., what was modified or entered). The transaction log should include any errors returned to the operator when unsuccessfully trying to execute a command or modification.

5.1.13 Interface to Jumbo-Tron / Video-Wall Display Systems

5.1.14 Other Systems Integration / Interface

- Please indicate other systems to which the vendor's system/s has integrated / interfaced and the benefits derived from it.

5.1.15 Mobile Command Center Support (Optional)

The intent is to:

- Enable the MCC to be used a first-line command center with full CAD system functionality dedicated to a single event or series of events in a defined geographic area; and
- Enable the MCC to function as an interim E911 Center should the primary E911 Center become unavailable.

5.1.16 Field Tactical Command Post Support (Optional)

The intent is to:

- Enable the Field Tactical Command Post to function as a communications, command, control and coordination (C4) point for events of interest (e.g., SWAT event, parade).

5.1.17 Administrative Position / Terminal

Used by headquarters, substations, fire stations, storefronts and other positions to enter / modify duty rosters, update databases as may be required, perform credentials-based queries including, but not limited to, TCIC / NCIC / NLETS, unit / officer activity information, and other authorized functions. All transactions from any administrative position must be logged.

5.1.18 Emergency Call-Out

The County is exploring the implementation of an emergency telephone notification (ETN) system[14]. In concert with this new acquisition, the County desires the following functionality:

- Identify a geographic area on a Communications Center supervisor's tactical map display (TMP)
- Collect encircled area telephone numbers
- Export the affected area's collected telephone numbers to a database
- Enable the emergency telephone notification system to automatically dial all collected phone numbers within the selected geographic area and play a pre-recorded message (e.g., evacuation notice).

5.1.19 Other

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[14]   See NENA Operations Standards Document 56-003 Minimum Standards for Emergency Telephone Notification Systems for additional information / functionality on emergency telephone notification systems.

5.2   Mobile Digital Communications Systems (MDCS)

Providing public safety personnel deployed in the field with access to national, state, and local databases and other relevant Police, Fire, Emergency Medical, Hazardous Materials, and Emergency Management databases, real-time messaging, office automation, and other routine daily functions is commonplace today.   Advances in mobile computing devices and wireless communication have resulted in the development of cost-effective solutions to infield mobile communications access.   Although similar in scope, the requirements for Fire / EMS and Police / Sheriff Department differ. Sections 5.2.1, 5.2.2, and 5.2.3 that follow describe high level business requirements for each major discipline:

5.2.1   Sheriff Office / Police Department
The goal of the mobile digital communications system (MDCS) for the Sheriff Office / Police Department is to provide officers / deputies with a functional and up-to-date (virtual) office in the field. This will enable police officers to complete functions in the field that are normally only available to them in the office / station and to access databases containing the cumulative knowledge of policing activity and investigative and intelligence information.   The system will automatically track the location of Law Enforcement assets via the Automated Vehicle Locator (AVL) System, and enable personnel responding to calls for service to update their status using digital communications rather than voice / RF communications.   By way of the MDCS, officers would have direct access to relevant local and host databases and perform office automation functions and other computer-based tasks as required.   Police officers will become more independent, able to perform these functions by themselves in the field without relying on dispatch personnel or technical, clerical or secretarial assistance. [15]

5.2.2   Fire Department
The goal of implementing the MDCS in the Fire Services discipline is to leverage efficiencies of Fire personnel by extending specific computing and communications capabilities into the field. The system will use wireless communications technology to communicate with the E9-1-1 Communications Center and localized and centralized databases as required.   The system will automatically track the location of Fire Department apparatus via the Automated Vehicle Locator (AVL) System, and enable personnel responding to fire calls for service to update their status using digital communications rather than voice / RF communications. Field personnel will be able to enter information into computerized forms directly in the field (e.g., action report). Since the data would be entered virtually in real-time, it would be more accurate, more current, and able to be more quickly disseminated to other Department personnel (e.g., emergency management, incident operations center).

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[15]   Some studies have suggested that approximately 80% of a field officer's radio communications with their dispatcher can be supported by an MDCS thereby substantially reducing the amount of "routine" radio traffic on patrol channels and increasing emergency access to available radio spectrum.

As with the Police Department, the same management reports and tools as described above should be available.

5.2.3 Emergency Medical Services

The goal of implementing the MDCS in the Emergency Medical Services discipline is to leverage efficiencies of field personnel by extending specific computer and patient-care capabilities into the field. The system will automatically track the location of EMS resources via the Automated Vehicle Locator (AVL) System, and enable personnel responding to emergency medical calls for service to update their status using digital communications rather than voice / RF communications. The end-state solution would employ various templates and forms by which EMS personnel would capture call for service information and incorporate patient and patient-care information, as well as virtually eliminate manually uploading patient and call for service information to a host computer system. EMS personnel should have access to up-to-date medical data by way of locally stored data in addition to wireless communications capabilities with area hospitals and emergency rooms.

5.2.4 Functional Requirements

The preferred MDCS should have the ability to support the following functional requirements:
a. Windows Functionality. Use of cut / copy / paste, keyboard functions, custom toolbars / macro support, along with Windows-style GUI should be supported. Mobile and portable client software user screens should support drop down menu pick lists for all fields that support a predefined set of user entries. Data should be capable of being imported or exported from other applications such as Microsoft Word or Excel.
b. The new MDCS should validate entered data. The system should not allow the input of incorrect data (e.g., out of range date). The MDCS should include edit rules to assist in the capture of accurate data.
c. Field office automation. Provide typical office PC functionality in the mobile unit. Capabilities typically include:
    1. Word processing.
    2. Spreadsheet.
    3. Contact management (telephone lists, e-mail addresses, etc.).
    4. Calendar / scheduling.
    5. Calculator.
    6. Notes.
    7. E-mail access (Internal departmental email only).
d. Field reference materials. The MDCS should provide reference document access to field personnel. Typical field reference materials include:
    1. Policy manuals (SOPs)
    2. General Orders / Rules Manual
    3. State and local statutes
    4. Preplans
    5. Maps
    6. Treatment protocols / guidelines

e. A common user interface methodology should be supported across different user interface screens. Each functional screen should have, to the greatest extent possible, the same look and feel as the other functional screens provided.

f. The MDCS should have in-vehicle mapping, showing unit location and call location. The in-vehicle mapping application should have the ability to support route planning, identify local points-of-interest (e.g., hospitals, clinics, fire stations) and other map based reference information.

g. The client application should run continuously even when operating other applications in order to facilitate real-time wireless data network monitoring. The client application should be able to be selected by a function key / pointing device when operating in any other mode.

h. All audible alerts should allow for unique configurable sounds for each functional module and type of alert. All audible alerts should be able to be muted and subsequently restored as needed.

i. The client application should provide a visible and audible indication upon message receipt. All visual indications should include a counter showing the number of messages that have not been viewed (e.g., in queue counter). Message receipt should be associated with an audible alert, which is sounded upon receipt of each message.

j. The MDCS system should have the ability to display pending calls for service in user-defined (e.g., supervisor) or system default (e.g., beat officer) areas. Any subsequent returns should be accessible by clicking on a hot link (for example) which results in displaying all relevant call details for the selected call.

k. The MDCS system should support the ability for a user to make annotations to any pending, active or closed call for service.

l. All messages received should have a method whereby the operator can determine the time and date associated with message reception.

m. All messages sent and received should be individually viewable and able to be saved or deleted on an individual basis at the client level. All messages regardless of type should be able to be deleted as a group.

n. Any messages sent over an interface or link will clearly indicate success or failure to the operator. If an interface or link goes down, a notice should be provided to the operator showing that the link or interface is down.

o. The client application should be designed to operate in a reduced light condition that allows information to be readable but does not illuminate the user of the vehicle.

p. Mobile and portable mobile data system functionality should be provided. Enable field units to prepare / access incident reports, premise inspections, etc., on hand-held portable devices.

q. Graphics capable. Provide a mechanism for transmitting and receiving images via the mobile data system. The system should be designed to support the capture and transport of images such as DL photos, mugshots, fingerprints, property photographs, etc.

r. The MDCS should be designed to support a range of common mobile (in vehicle) printers.

s. The MDCS should support text-based searches of user data local to the MDC.

t. Automatic Vehicle Location (AVL). Integrated GPS AVL must provide highly accurate positional data for all field units. Transmitted data will include vehicle-tracking information for multiple purposes (e,g,, officer safety, field supervision, maintenance).

u. Field supervisors should have the ability to view – via the AVL system - where their subordinate units are located, as well as determine individual status and status duration.

v. The MDCS system should provide field supervisors with a mechanism to determine by individual officer the following sample list of performance criteria:

- The number of reports due (e.g., accident, offense / original, offense / supplement)
- The number of calls for service run
- Number of field contacts / field interviews made
- The number of tickets issued / traffic arrests made
- The number of Class C Misdemeanor arrests made / citations issued
- The number of Class B and A Misdemeanor and Felony arrests made

w. Patrol officers should have the ability to view – view the AVL system – the status and location of units within a common area (e.g., beat or district).

x. Supervisors should have the ability to view – via the AVL system - the status and current location of any patrol unit within his / her respective department.

y. Patrol officers should have the ability to view their current individual unit activity / unit history, as well as view their previous individual unit activity / unit history information for the previous 30 calendar days.

z. The MDCS application should support the ability of a field supervisor to set a timer (in minutes) on an individual unit and be alerted by the MDCS system when that time value has been met or exceeded.

aa. The system should be capable of reading magnetic stripe driver's licenses and automatically parsing and posting relevant information into a user defined form or template.

bb. Maintain the ability to print from the vehicle to a remote printer at Headquarters or at an area police substation, fire station or storefront.

cc. The system should support a portable personal digital assistance (PDA) type of device for undercover, bicycle, mounted patrol, or other non-vehicle based users.

dd. Ruggedized laptops (e.g., Panasonic Tough Book) and non-ruggedized laptops will be provided and installed by the Williamson County Information Technology Services (ITS) department.

ee. Vehicle mounting hardware will be provided and installed by the Williamson County Information Technology Services (ITS) department.

ff. The application should support multiple modems concurrently such that a wireless LAN card and a public network could be accessed from the unit.

gg. The system should provide an emergency button function that will automatically send the unit identification and location information (e.g., X-Y coordinate) along with a high priority message indicating that immediate assistance is needed. This message should be configurable to be sent to the area dispatcher and all units or specific units in a given geographical area.

hh. The data exchanged over the air and stored on the MDC must satisfy Department of Justice (DOJ) security requirements, including a minimum of 128-bit end-to-end encryption.

ii. All applications should require the use of credentials based security (e.g., user ID and password) to gain access to the application.

jj. User privileges and system access should be controlled from the host server, and should be enabled or disabled based on the user's needs and / or status (e.g., suspended, temporary assignment requiring greater access).

kk. The database for all mobile data information must be ODBC compliant.

ll. While a Windows GUI is desired, a command line should also be provided in the application for quick and direct access to commands, functions, or other frequently used information (e,g., messaging, license query, status change, disposition)

5.2.5   Other

5.3 LAW ENFORCEMENT RECORDS MANAGEMENT SYSTEM (LE-RMS)

5.3.1 General Requirements

The Law Enforcement Records Management System (LE-RMS) should support the Williamson County Sheriff Office and should be a comprehensive relational database storage and retrieval system operating under an open systems environment, and preferably using a Graphical User Interface (GUI). The LE-RMS should be structured to operate in an interactive mode so that LE-RMS users are able to interact with the computer in a real-time mode, and transactions that add to or change the database are applied as they are committed.

Most of the interaction between the user and the computer should be via pre-formatted, fill-in-the-blank type data entry and inquiry screen layouts. In cases where pre-printed forms are required to record information for subsequent submission to authorities (e.g., Texas Department of Public Safety), the LE-RMS screen formats and data input fields should match those contained on the forms. Reports entered in the office or in the field should be pre-coded for UCR processing. CAD incident and unit activity information should also be available within or through the LE-RMS. When LE-RMS users retrieve information, they should be able to do so easily without regard to the subsystem/s involved.

The LE-RMS must be fully integrated with the other systems being proposed through this RFI including: Fire Records Management System (FRMS), Computer Aided Dispatch (CAD), and Mobile Data Computing System with Automatic Vehicle Location (MDCS / AVL). Of particular concern to the County are the specified interfaces for the Fire and Police records management systems.

Two of the main goals of this RFI and overall program initiative are to eliminate redundant data entry and to enable the seamless sharing of public safety data between the County and other local government agencies, the State of Texas, and the federal government. Vendors should fully explain how their systems will / can accomplish these goals.

5.3.2 LE-RMS COTS Application Preferred

It is the intention of the County to purchase a highly configurable "off-the-shelf" or basic LE-RMS software functionality, requiring the minimum amount of modifications / customizations necessary in order to support key functions and interfaces. However, to ensure that the Vendor's software meets a minimum set of functional requirements, this section specifies the minimum functions desired by the County in a LE-RMS software package.

If a Vendor must tailor their LE-RMS solution to fit the preferred requirements of the Williamson County SO, it must be accomplished through adjustments to configuration tables, screen presentation formats, field definitions and other customer-approved acceptable means. In instances where customization would be required, the vendor is asked to indicate such. **Customization to program code is clearly viewed as undesirable.**

With the exception of certain supervisory functions, it is expected that all functions will be available to all workstations, provided the user / operator has been assigned the proper security authorization (e.g., access rights). However, for convenience, the functions shown in the following sections are listed under the primary user of the function.

5.3.3   General LE-RMS Functions

The following functions generally apply to all records management modules:

a. The software should produce an audit trail of all transactions on the system. This audit trail should log the operator ID, workstation ID, date and time of the transactions, the transaction type (e.g., edit a field) and the transaction results (data field results after edits are completed).

b. The software design should make extensive use of table driven parameters, allowing easy modification by the system administrator without the requirement for vendor provided technical support. It should be possible to complete these modifications when the system is active without degrading performance to the system.

c. The system should allow the system administrator to create additional databases, data fields, and graphical user interface (GUI) formats.

d. The system should provide authorized users with the ability to search virtually all data in / on the system. Search results should be displayed as a list of all records matching the search criteria. The capability should exist to select a specific record from the list and view, print or route to an authorized position / printer.

e. The system should support the ability to develop and maintain a detailed transaction log associated with any incident / event on file in the system. This includes, but is not limited to, successful and unsuccessful attempts, identification of users accessing reports / investigations, identification of positions / terminals and printers used, what the user did or attempted to do (e.g., view, modify, print, and any other action).

f. In order to ensure data integrity and maximize search capabilities, each data field within the LE-RMS should be validated against predefined tables. The system administrator should be able to add, modify, or delete records in the data validation tables. An interactive, easy-to-use tool should be included in the system for maintaining the validation tables.

g. The system should support a minimum of six (6) blank data fields for each module / screen that will allow the County to track data on an ad hoc basis. Each field should be a minimum of fifteen (15) alphanumeric characters and provide a means for data validation or defined selection criteria.

h. The system should provide the ability to link multiple incident / offense reports to an incident by way of a master incident number.

i. The system should provide for the ability to allow a user (e.g., field officer) to route a copy of an offense report to a division/s-of-concern as he / she sees fit.

j. The system should include investigative case management support and include user-set and / or pre-defined values (in days) to check on active / open cases in various states (e.g., pending, open, charges filed, seizure notification).

k. The system should support the ability to notify a designated person / division-of-interest (e.g., investigator, investigative supervisor) when an open case is supplemented as well as provide a link to the recently submitted supplement.

l. For narcotics cases in particular:
   - The system should support the ability to define a "program code" based on the type and quantity of narcotics involved in the case.
   - The system should support ensuring that, prior to closing a case, any open / pending actions related to the case have been satisfied (e.g., vehicle seizure, evidence destruction, seizure of funds).

m. The system should provide the ability to link a single master incident / offense report to multiple CAD incident / event numbers.

n. The system should support a crime / event analysis capability and plot user-defined events on a desktop mapping application (e.g., electronic pin map, cluster analysis).

o. Address validation – all address and location data entry fields will be validated against the system's geofile. Validated addresses / locations will be assigned an X-Y coordinate value.

p. The LE-RMS should be capable of exchanging information with the FRMS, CAD system, the MDCS and the Texas Law Enforcement Telecommunications System (TLETS). Additional interfaces may be required and will be addressed later by the County.

q. Geofile – the LE-RMS should use the same geofile as the FRMS and CAD systems. It will be acceptable to have a copy of the geofile resident on one or more servers, but it will be a copy and not a separate version. The LE-RMS system should not have a separate, uniquely maintained geofile.

r. The system should provide the ability to hide certain fields based on security and status of the case (e.g., limit case detail review to small set of investigators or specialists by discipline, for example, all Robbery Detectives).

s. The system must comply with any Department of Justice Security requirements.

5.3.4   Primary LE-RMS Modules

The LE-RMS should contain the following modules, at a minimum:

a. Police incident management and reporting
b. Accident management and reporting
c. Arrest and booking
d. Automobile impound tracking
e. Criminal investigations and case management
f. Narcotics investigations and case management
g. Criminal intelligence
h. Crime analysis
i. Field interviews
j. Gang activity tracking (e.g., group name, membership, associations)
k. Inventory tracking
l. Licensing, permits, and registrations
m. Mandated report processing
n. Pawned property

o.   Personnel and training
p.   Property and evidence
q.   Wants and Warrants
r.   Citations
s.   Internal Affairs
t.   Special Operations
u.   Civil Process

The Civil process module should support the following high-level civil process business functions:

- User definable database
- Update and create records "on the fly" during process entry
- Generate a control sheet for all civil process paperwork to be served
- Print control sheets separately or in a batch
- Track service date and time and generate Affidavit of Service forms
- Maintain billing and collection efforts
- Generate invoices and balance statement separately or in a batch
- Generate tabular reports and graphs
- Export data for deeper analysis (e.g., Excel, ASCII)

5.3.5   Other

5.4   Fire Records Management System (FRMS)

5.4.1   General Requirements

The desired FRMS solution should be capable of supporting report development, report supplement, forms development and completion, local / on board database access, wireless communications with local, regional and national databases and other functions common to a contemporary firefighter, arson investigator and firefighter supervisor. Additionally, vendors / respondents should highlight and describe functions and features provided by their basic packages that are not described below.

5.4.2   General FRMS Functions

The following required generally apply to all records management modules:

a.   The system should produce an audit trail of all transactions on the system. This audit trail should log the operator ID, workstation ID, date and time of the transactions, the transaction type (e.g., edit a field) and the transaction results (data field results after edits are completed).

b.   The system design should make extensive use of table driven parameters, allowing easy modification by the system administrator without the requirement for programmer support. It should be possible to complete these modifications when the system is active.

c.   The system should allow the system administrator to create additional databases, data fields, and graphical user interface formats.

d.   The system should provide authorized users with the ability to search virtually all data on the system. The search results should be displayed as a list of all records matching the search criteria. The capability should exist to select a specific record from the list.

e.   In order to ensure data integrity and maximize search capabilities, each data field within the FRMS should be validated against predefined tables. The system administrator should be able to add, modify, or delete records in the data validation tables. An interactive, easy-to-use tool should be included in the system for maintaining the validation tables.

f.   The system should provide a minimum of four blank data fields for each module / screen that should allow the County to track data on an ad hoc basis. Each field should be a minimum of 15 alphanumeric characters and provide a means for data validation. Vendors should explain how their system provides this type of functionality and any limitations it may have.

g.   Storage of radio traffic with incident record – The County desires to have audio files of the radio transmissions or telephone conversations for an incident attached to the incident record for selected incidents.

h.   Plume modeling results – The system should be able to attach the results of CAMEO or ALOHA plume modeling systems to incident records.

i.   The system should provide the ability to link multiple reports to a common incident through the same incident number.

j.   Address validation – All address and location data entry fields should be validated against the system's geofile. Validated addresses / locations should be assigned an X-Y coordinate value.

k. The FRMS should be capable of exchanging information with the LE-RMS, CAD system, MDCS system and other interfaces, if any. Vendors should explain what other systems their FRMS can interface to.

l. Geofile – The FRMS should use the same geofile as the LE-RMS and CAD systems. It should be acceptable to have a copy of the geofile resident on one or more servers, but it should be a copy and not a separate version. The FRMS system should not have a separate, uniquely maintained geofile.

5.4.3   FRMS Application System Functions

It is the intention of the County to purchase a highly configurable "off-the-shelf" or basic Fire Records Management System (FRMS) system functionality, requiring the minimum amount of modifications necessary in order to support necessary functions and interfaces. However, to ensure that the Vendor's system meets a minimum set of requirements, this section specifies the minimum functions that should be supported by the FRMS system.

If the Vendor should need to tailor the FRMS to fit the requirements, it should be accomplished through either minor customization of the FRMS system or, preferably, through adjustments to configuration tables, screen presentation formats, and field definitions.

With the exception of certain supervisory functions, it is expected that all functions should be available to all workstations, provided the operator has been assigned the proper security authorization. However, for convenience, the functions shown in the following subsections are listed under the primary user of the function.

5.4.4   Primary FRMS Modules

The Fire RMS (FRMS) should contain the following modules, at a minimum:

a. Fire incident management and reporting (NFIRS)
b. Fire investigations
c. Pre-fire planning (Visio drawing support)
d. Inventory
e. Fire prevention
f. Personnel and training
g. Alarms
h. SCBA maintenance
i. Equipment maintenance
j. Shift Scheduling
k. Emergency Medical Services (EMS) Run Reports
l. Inventory Subsystem
   - Uniforms / clothing.
   - Turn-out gear.
   - SCBA equipment.
   - Boots.
   - Radio equipment.
   - Firefighting tools and equipment.

- Pharmaceuticals and other EMS expendables.

m. Personnel Subsystem
n. Training Subsystem
o. Fire Inspection and Prevention System (FIPS)
p. Investigations
q. Personnel Scheduling – Fire Department
r. Fleet Management System (Optional)
s. Fleet Inventory Management / Database
t. Licensing, Permits, and Registrations
u. Equipment Maintenance Subsystem
v. Document Management

5.4.5 Other

6 APPENDIX A – Vendor Information – Part 1 of 2

NO.	Category	RFI Response Item
1	Company Information	Your company's history. Please limit response to this item to no more than five (5) pages.
2	Company Information	Your customer base and the business sectors currently supported (e.g., local government, public, federal). In particular, list five (5) major clients where your solution is implemented, along with a brief description of the solutions in use. Please limit response to this item to no more than five (5) pages.
3	Company Information	Your company's standing in the area of providing public safety software. Please limit your response to this item to no more than two (2) pages.
4	Company Information	The percentage of your company's resources and efforts that are dedicated to supporting each of the disciplines listed below:
Percentage of Company Resources		• _____% Police / Law Enforcement
		• _____% Fire
		• _____% Emergency Medical Services
		• _____% Emergency Management
5	Company Information	Your company's reputation for stability. Please limit your response to this item to no more than five (5) pages.
Percentage of Company Revenue		Please provide the percentage of company revenue derived from private sector, government organizations, federal sector and public safety / emergency response.
		• _____% Private Sector
		• _____% Government Organizations
		• _____% Federal Sector
		• _____% Public Safety / Emergency Response
6	Company Information	The reputation for stability of each business partner / alliance solution provider involved in the project (if any). Please limit your response to this item to no more than two (2) pages for each business partner / solution alliance provider.
7	Company Information	Provide information on how each application and associated modules (as appropriate) are licensed, added and implemented. Please limit your response to this item to no more than five (5) pages.
8	Application Recency	The solution/s proposed must be in service since 2007 and satisfactorily used to support multi-agency, multi-discipline, and multi-jurisdictional environments by at least three (3) clients for greater than one (1) year. Please list complete

NO.	Category	RFI Response Item
		contact information (e.g., agency name, complete address, contact name, telephone number and email address) for each of the three (3) clients that meet this criterion.
9	Call Processing	The vendor's solution must currently support in excess of **750,000** calls for service (emergency and non-emergency calls) on an annual basis, exclusive of requests that do not result in the initiation of a dispatch or other request.
10	Call Processing	The vendor's solution should demonstrate the ability to support a base emergency and non-emergency call for service load of **750,000** calls on an annual basis, with a year over year increase of 15% per year for the next ten (10) years.
11	Original Product	The solution/s should be an original product directly produced by the company. Vendors whose product is provided by / through a third party must clearly indicate such in their response.
12	Multiple Agency Support	The solution/s must currently support or be capable of supporting multi-discipline organizations, including but not limited to police, fire and / or emergency medical services.
13	Reference Account Information	The respondent should provide the following information for at least three (3) reference accounts meeting the above call volume criteria. Please limit your response to one (1) page per reference.
		• Reference 1
		• Reference 2
		• Reference 3
14	Reference Account Service Information	For each reference account listed in the previous section, the respondent must provide the date (month and year) the product/s was installed and the current transaction / call for service volume per year supported for the most recent calendar year. Please indicate the calendar year for which data to this section is provided.
15	System Integration	The respondent must identify if their solution has integrated with another client owned / managed system other than their own (e.g., Company A system interfaced to another Company B system). Please limit your response to this section to no more than five (5) pages.
16	Implementation	This project calls for three (3) major systems impacting the call receipt, dispatching, service delivery and investigative functions of the Williamson County Emergency Communications Center and the various subscriber agencies to which it provides service. Realizing that CAD, LE-RMS, FRMS, and MDCS/AVL solutions may be implemented, the vendor is asked to provide a suggested order of solution implementation for this project.

APPENDIX A –Systems / Solutions – Part 2 of 2

In this section, the vendor is asked to provide information relative to the number of solutions for which they are providing a response. **A RESPONSE TO EACH ELEMENT IS REQUIRED**. For example: If only one (1) system is being offered (e.g., CAD), please list "**NOT APPLICABLE**" in the other section/s that do not apply and for which no information is being provided.

Computer Aided Dispatch (CAD) System	
Vendor	
Original Product Name	
Developed By	
Years in Service	
Number of Customers Supported	
Current Version / Revision	
List Modules Supported (e.g., Remote CAD)	
Operating System	
Database Format	
Legacy CAD Data Conversion Approach/s; ROM Cost Estimate/s	
Capacity / Throughput	Offered solution must support population base of **650,000**, with a call for service load of **750,000** emergency and non-emergency events per year
Provide the time required in months to implement a system from contract signing through system cutover	

Law Enforcement Records Management System (LE-RMS)	
Vendor	
Original Product Name	
Developed By	
Years in Service	
Number of Customers Supported	
Current Version / Revision	
List Modules Supported	
Operating System	
Database Format	
Legacy RMS Data Conversion Approach/s; ROM Cost Estimate/s	
Provide the time required in months to implement a system from contract signing through system cutover	

Fire Records Management System (FRMS)	
Vendor	
Original Product Name	
Developed By	
Years in Service	
Number of Customers Supported	
Current Version / Revision	
List Modules Supported	
Operating System	
Database Format	
Provide the time required in months to implement a system from contract signing through system cutover	

Mobile Digital Communications System (MDCS)	
Vendor	
Original Product Name	
Developed By	
Years in Service	
Number of Customers Supported	
Current Version / Revision	
Operating System	
Database Format	
Integrated AVL	
In-Vehicle Mapping	
Capacity / Throughput	Offered solution must support **1,000,000** field transactions per year; A transaction is defined as 1) a user query and the subsequent response to that query to the user or 2) a user command and the subsequent result of that command (e.g., change status)
Provide the time required in months to implement a system from contract signing through system cutover	

Automatic Vehicle Location (AVL) System	
Not all mobile assets will be equipped with MDCS/AVL. Some assets require only AVL. The vendor is asked to propose their solution to support AVL only in 150 mobile assets.	**Solution / Approach**