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June 29, 2012

U.S. Forest Service, Contracting
Attn: Melinda Draper
Owyhee Building – MS 1100
3833 S. Development Avenue
Boise, ID 83705

Re: Request for Information (RFI) for Computer Aided Dispatch System

Dear Ms. Draper:

TriTech Software Systems is pleased to respond to the above-referenced RFI. Our response includes information on TriTech's comprehensive, high performance Computer-Aided Dispatch (CAD) system and supporting services for the USDA Fire and Aviation Management (FAM) Operations Branch.

Our public safety applications have been developed using industry standard Microsoft technology. As a result, our products provide reliable, mission-critical levels of performance, flexibility to meet the specific needs of individual agencies, and scalability to cope with increasing growth and corresponding volume requirements.

TriTech believes that successful technology projects are the culmination of equal elements of experience, quality products, careful planning, and professional services, as well as establishing a commitment to excellence with our clients from the initial proposal through project implementation. The end result is a cost-effective, low-risk, proven system that will support your dispatch operations and enhance your productivity and the service you provide.

Over the past several years, the following public safety agencies have partnered with TriTech to implement state-of-the-art systems:

- San Bernardino County Fire Department
- San Diego County Fire Department
- Seattle Fire Department
- Denver Police and Fire Departments
- Dallas and Austin Police and Fire Departments

Our experience with these diverse groups of agencies uniquely qualify TriTech to work with the Fire and Aviation Management Operations Branch. The following client can provide FAM with more information:

Charlie Knust, Communications Manager
San Diego North County Dispatch JPA/Heartland Fire
858-756-6044
cknust@sdrecc.org

9477 Waples Street, Suite 100, San Diego, California 92121
(858) 799-7000 | Fax: (858) 799-7010 | www.tritech.com

We intend to collaborate with FAM and keep your public safety program ahead of national trends. TriTech will provide FAM with a platform for growth and added functionality to take your CAD and mobile data systems into the future. Our solution will grow with FAM and the needs of your diverse operation.

TriTech provides an integrated, single-source solution that includes service, training, and ongoing maintenance. As FAM prepares to engage the latest technologies, TriTech provides a state-of-the-art solution that meets FAM's demands today, provides tools for enhanced operations tomorrow, and facilitates product upgrades in the future.

TriTech's Regional Sales Manager, Jeffrey Paré, looks forward to discussing this project in more detail and is available to respond to any technical or clarification issues:

Jeffrey Paré
Regional Sales Manager
TriTech Software Systems
9477 Waples Street
San Diego, CA 92121
530.346.8853 office
910.795.5665 mobile
jeff.pare@tritech.com

TriTech is confident that our solution meets or exceeds the overall goals stated within the RFI and plans to compete in any future CAD procurement as a Prime Solution Provider. We believe that TriTech's solid reputation as a provider of leading public safety solutions, our commitment to exemplary 24x7 customer support, and the value that TriTech places on our client relationships will greatly benefit the Fire and Aviation Management Operations Branch.

We look forward to being your partner in the success of this project.

Sincerely,

Blake Clark
Vice President and CFO

TRITECH
SOFTWARE SYSTEMS

Information for Fire and Aviation Management Operations Branch

RFI FOR COMPUTER AIDED DISPATCH SYSTEM
SN-2012-12

JUNE 29, 2012

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Section A. Introduction and Background

RFI Requirement

The Fire and Aviation Management (FAM) Operations Branch is comprised of representatives from the Department of Interior (DOI) and United States Department of Agriculture (USDA) Forest Service. FAM is responsible for providing fire protection, emergency response and stewardship on Federal land as well as areas of private and State-owned watershed lands known as State Responsibility Areas. FAM also protects land under cooperative fire protection agreements with local governments. The agencies represented by FAM currently use manual and automated systems to handle the dispatching of multiple resources to all-risk incidents. These incidents include floods, earthquakes, and large wild land fires. FAM Operations Branch is seeking information with the goal of coordinating the acquisition of a new CAD system that meets all the requirements listed elsewhere in this request for information.

The approximate number of dispatch offices potentially covered under this nation-wide coordination is 100. Each dispatch office uses the same version of a highly modified commercial off-the shelf CAD system and the local staff handles the maintenance of the geographic data that underpins the CAD System. Most of the FAM CAD customizations were made to provide the functionality needed to quickly and accurately dispatch and manage multiple resources (ie. fire engines, aircraft, dozers, crews, etc.) responding to wild land fires.

The CAD systems interface with neighboring CADs for auto-aid dispatching and also interface with Resource Ordering and Status System (ROSS) in Kansas City to request resources when local resources are not adequate to mitigate a large incident. The CAD systems provide interfaces for other data collection systems as well. The FAM CAD systems are customized to collect data elements such as the time a fire is contained and controlled to meet federal reporting requirements. The CAD systems also collect data about the weather severity at the time a wild land fire started.

TriTech Response

TriTech Software Systems' sole focus is to provide our clients with the best public safety software in the industry. Our turnkey solutions are based on a proven integrated suite of applications on a single, integrated platform. With over 350 employees, we offer clients public safety expertise, technical knowledge, and exemplary customer service.

TriTech's success begins when working with clients to gain a thorough understanding of their current environment, pain points, and goals prior to a competitive procurement. This discovery process is a collaborative effort between TriTech and each client and yields valuable information that helps us enhance our public safety applications to better meet the needs of our clients.

This response includes information on TriTech CAD, a single dispatch system with standard interfaces. We look forward to learning more about FAM's operation, business processes, and interface and interoperability requirements prior to responding to a formal competitive procurement.

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Section B. System Requirements

RFI Requirement

Place an "X" in the box following each system requirement description listed; if your company's most recently deployed CAD system fully meets the requirement.

System Requirement	
1. The System should support web based technologies, such as mobile and cloud computing.	X
2. The System must support the ability to merge an instance of the database with another instance, as in the case where data is created and stored in a standalone database that then must be combined with another database to consolidate the data. Note: For example, when two dispatch centers are becoming one.	
3. The System must have disaster recovery processes that include data redundancy.	X
4. The System must have robust interoperability with established systems with the ability to share data easily and efficiently.	X
5. The System must be available (24/7) at the local dispatch center without interruption for any reason so as to maintain operational continuance at the local level at all times.	X
6. The System must support a multi-user platform with real-time access.	X
7. The System must meet all Federal and Agency requirements for security.	X
8. The System must have on-going technical and user support.	X
9. The System must be based on an interactive Graphical User Interface (GUI) environment.	X
10. The System must support real time, read-only access to data by local and remote fire managers and GACC personnel.	X
11. The System must meet the needs of an all-risk dispatch center.	X
12. The System must be scalable and flexible to accommodate individual dispatch center data, policy and business practices while complying with national agency requirements for standardized data elements and reporting requirements.	X
13. The System must be able to create an Incident from any computer via the internet.	X
14. The System must include a variety of robust mapping features that allow the dispatch center to determine the location of a potential incident quickly and easily.	X
15. The System must be able to produce standard and ad hoc reports.	X
16. The System must allow for local management to pre-determine the resource response by incident type, response area, and response level.	X
17. Daily log and entries may be retained as part of the official record of an incident.	X
18. When multiple incidents are created but should be tracked as one incident, the multiple incidents are merged, (i.e. A reported smoke incident and a reported vehicle collision, are the same incident.) When incidents are merged, all documentation and resource data is tracked in one incident.	X
19. The System must provide multiple ways to create an incident, such as using a function key or typing in an address or designating a map location through lat/long or GIS, etc.	X
20. The System maintains an incident log that records activity on an incident, such as radio communications, phone communications, dispatcher activity, notifications, etc.	X
21. The dispatcher must be able use a timer to track status, and position checks of resources. For example, if it is a law enforcement incident the timer will notify the dispatcher when a safety check is required. For aircraft, Automated Flight Following may want a verbal check back every 15 minutes to track the location in case of loss of contact.	X
22. Standard land-based geospatial data layers should be available within the System.	X
23. Response area data includes: response levels, associated Fire Danger Rating Area, response areas.	

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24. Dispatch (run cards) data includes: response types, incident types with incident subtypes, response types, response levels, dispatch strategy, copying and reporting dispatch strategies, dispatch action required.	X
25. Interfaces with radio console over a serial data connection to select frequencies and tones (repeaters). Dispatcher can click the [SELECT] button on the CAD screen to select dispatch frequencies and tones on the radio console screen.	
26. Provides an application administrator with the ability to add a common place name to the geographic data file with only a latitude/longitude location (location is off-road).	X
27. Provides an application administrator with the ability to configure response areas for fixed (run order) or dynamic (road network calculation) unit recommendation.	X
28. Provides a dispatcher with the ability to assign a weather-based dispatch level to response areas that have been organized into dispatch zones.	X
29. Recommends units based on the current weather conditions (dispatch level) in the response area associated with incident location. The dispatch level influences the selection of a response plan.	X
30. Calculates a bearing and distance for recommended units that travel through the air.	X
31. Provides an application administrator with the ability to assign air-to-air and air-to-ground frequencies to individual response areas.	X
32. Generates a fire number in addition to an incident number from a federal or local fire number counter as specified in the response area record associated with the incident location.	
33. Provides an application administrator with the ability to create a hazard record at a latitude/longitude location.	X
34. Alerts the dispatcher when a call is entered at a latitude/longitude associated with a hazard record.	X
35. Provides a dispatcher with the ability to set the dispatch priority of units in a fire station where there is more than one unit of the same type.	X
36. Displays an automatically-updated fire coverage window with the dispatch coverage status in green, yellow, or red.	X
37. Provides the dispatcher with the ability to assign the person responsible for completing the fire or investigation report by entering a command.	X
38. Replicates live CAD incident and unit information to a backup device.	X
39. Provides a dispatcher with the ability to select an alternate tactical and/or air to air frequency when the primary tactical frequency is in use.	X

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Section C. Technical Information

RFI Requirement

FAM requests feedback, comments and questions on the draft requirements including but not limited to the following:

1. How many staff months (project management, analysis, design, coding, documenting, and testing) and calendar months do you estimate it would take to modify your CAD system to meet all of the requirements listed above?

TriTech Response

TriTech typically provides estimates for software modifications based on hours per feature (as opposed to months); however, TriTech requires more detail and discussion with FAM to provide accurate estimates. In addition, TriTech needs to determine which requirements could be met with existing functionality and which truly require new development.

For example, Requirement 23 states, "Response area data includes: response levels, associated Fire Danger Rating Area, response areas." TriTech CAD supports response areas, response levels, and resource assignments based on the defined areas and levels. While we understand the Fire Danger Rating Areas, TriTech requires more information regarding how FAM would associate this rating with a response area and the frequency and mechanism of update. It is possible TriTech CAD meets this requirement with a fire danger layer displayed on the CAD map (similar to the map server from WFAS), unless FAM envisions hourly updates to text data associated with a response area polygon.

Based on the information provided in RFI SN-2012-12, TriTech estimates that modifications would involve 3-6 staff months. As a COTS software product, TriTech adds new features as part of our version release process. A version typically lasts 3-4 months from internal kickoff to general availability to our customers. TriTech would schedule feature modifications for FAM with one or more versions, depending on engineering development hours for the individual feature along with other existing commitments on our product roadmap. TriTech estimates 12-18 calendar months depending on when the contract is signed in relation to our product release cycle.

RFI Requirement

2. How many multi-site CAD customers does your company currently have?

TriTech Response

TriTech has two different types of multi-site customers:

Type One – Customers with a single CAD server hosting multiple communication centers; TriTech has seven client sites with this configuration.

a) City of San Antonio/Bexar County, Texas – Geographically compact coverage, the City of San Antonio hosts the CAD servers and Bexar County Sheriff, Bexar County Fire, City of Schertz Police and Fire use remote Citrix clients.

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b) Acadian Ambulance – Acadian runs a primary communication center in Lafayette, Louisiana and a secondary dispatch center in Austin, Texas using Citrix. Acadian provides EMS and non-emergency medical transport for large portions of Louisiana and Texas.

c) California Highway Patrol (CHP) – CHP is divided into four CAD hubs: Sacramento, San Francisco, Los Angeles, and Inland-Riverside County. Each hub supports 6-8 communication centers of varying sizes all using Citrix clients.

d) Division of Emergency Services (Fire and EMS) Queensland, Australia – DES runs all communication centers for the State of Queensland from a single server.

Type Two – Customers with stand-alone centers and tight CAD-to-CAD integration.

TriTech has a large number of customers that use CAD-to-CAD interfaces to communicate with other centers; however, there are three sites with exemplary operational and technical integration:

a) Ministry of Health, Ontario, Canada – MOH has 19 CAD installations across the province. Sites are interconnected using TriTech's seamless CAD-to-CAD interface. This seamless interface allows one communication center to hand off units and incidents to another as a unit moves across the province or an incident is moved to a different center's jurisdiction.

b) El Paso Teller Colorado 9-1-1 Authority – El Paso Teller has 10 communication centers interconnected with our Advanced CAD-to-CAD interface. This interface allows communication centers to share units (and AVL for units). In addition, centers can share incidents, but the incident is "worked" in each communication center and data automatically updates between participating centers.

c) Pinellas County, Florida and City of Clearwater – Pinellas County Sheriff's Office and Clearwater Police Department are stand-alone communication centers. Agency's share Crime Scene Investigation units and use TriTech's Advanced CAD-to-CAD interface to track units and their assigned incidents.

TriTech envisions two different operational choices for the FAM implementation:

Option One – FAM hosts a CAD server farm at a single location and uses Citrix or Clear Cube technologies for each ancillary communication center. This configuration provides FAM with a single database for data collection and operations. In addition, this methodology greatly simplifies RFI Requirement #2, when two dispatch centers are merged. A consolidated server approach would also allow resources from one center to easily assist another (fulfilling RFI Requirement #1 for cloud computing capability). FAM could host the server cloud at a commercial data center with the appropriate security and capabilities.

A single server location or cloud computing solution complicates the ability for each center to continue working in a completely stand-alone mode with severed communications to the data center. This functionality can be achieved by implementing hot standby servers at each communications center, but when the communication is restored, merging a split brain CAD

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requires technical intervention. Currently, TriTech's 2-5 year roadmap contains plans to develop features enabling isolation and automatic remerge.

Option Two – Each FAM communication center hosts its own CAD servers. FAM can implement CAD-to-CAD interfaces where incidents need to cross centers or assets are operationally transferred or shared between agencies.

RFI Requirement

3. How many physical servers are required to run your full CAD system with ROSS and other interfaces including testing and training instances of the system?

TriTech Response

TriTech supports VMware at our client sites. Using VMware, FAM can host an instance of TriTech CAD on 1-3 servers, depending on the actual number of interfaces at the site and the sizing of the system (e.g., number of CAD users, incident volumes, number of units, etc.)

RFI Requirement

4. What is your company's estimated annual revenue from CAD system sales, consulting services, and maintenance fees?

TriTech Response

TriTech Software Systems' sole business is the development, delivery, and support of a family of Public Safety software products. Although TriTech does not track revenue by software product, TriTech's CAD system sales represents the largest element in our financial model. Gross revenues for all products and services in 2011 were $53,859,500. As one of the largest public safety companies, TriTech has enjoyed a steady pattern of growth which is expected to continue.

RFI Requirement

5. How many procurements for a CAD project exceeding $2 million has your company responded to in the 24 months just prior to the release of this RFI?

TriTech Response

In the past 24 months, TriTech has responded to 22 procurements for CAD projects that exceeded $2 million.

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RFI Requirement

6. What is the probability 0 – 10 (10 being the highest) that your company would participate in a best value Request For Proposal process for the CAD described above where all requirements must be met in order to qualify?

TriTech Response

TriTech estimates the probability of participating in a competitive procurement at 8-9 based on several undefined requirements included in RFI SN-2012-12. TriTech has identified four items from Section B. System Requirements that require additional detail in order to provide a definitive response. Following a thorough discovery process, TriTech will supply more detailed responses and pricing.

RFI Requirement

7. What is your estimated cost to provide a CAD system that would meet all of the requirements listed in this request for information?

TriTech Response

The following estimates include TriTech's CAD/Mobile solution for a single dispatch center. The TriTech CAD solution assumes the agency has the necessary hardware, network, and mobile communications infrastructure to support the solution. This estimate also includes interfaces to ROSS, the local state dispatch system, Rip and Run with station alerting, ANI/ALI, and alphanumeric paging. TriTech assumes that the US Department of Forestry will supply the GIS data in an ESRI file. TriTech requires more information regarding four items in Section B. System Requirements; estimates for these items are no included in this budgetary quote.

The budgetary estimate for this response is $1,285,000.

Pricing Assumptions

In an effort to comply with the RFI requirements, TriTech has reviewed the FAM's stated licensing requirements and included license fees for the following TriTech software products based upon the quantities defined below:

TriTech Software	# of Licenses
TriTech CAD Server Software (1 dispatch center)	1 server
Dispatcher/Call Taker Software License	6 positions
TriTech Browser - Standard Site License	1
TriTech CAD Test Server Software License	1
TriTech CAD Training Server Software License	1
Test or Training - User Software License	2
TriTech Mobile Server License	1
TriTech Mobile Base Client (1000 concurrent)	100
Remote Disaster Recovery - Server Software License	1

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All prerequisite computer hardware, system software, peripherals, network components, etc., not included in the proposed pricing, will be provided by the FAM according to TriTech's recommended standards and according to the agreed to Statement of Work and Project Schedule.

Standard Station Alert/Printing (Rip and Run) Interface License. Interface automatically alerts stations when units are dispatched. This interface will also print (optionally configured in the station alerting vendor's system) the incident information at the time of alert. Vendors supported are Zetron and Locution (the single interface does both alerting and printing).

All TriTech products and services required to complete the project will be delivered according to an agreed to Statement of Work and Project Schedule.

TriTech's proposed budgetary pricing includes modifications to the TriTech products necessary to support the proposed interfaces, but does not include modifications that might be required to the existing and/or agency-supplied products that are not included in the proposed pricing.

All third-party interfaces are based on the current vendors and/or third party systems as defined in the LASD's RFI. Should any of the vendors (including model numbers, or release numbers) or third party systems change, the scope and price of the related interface(s) may change accordingly.

Select custom development deliverables are marked with Rough Order of Magnitude (ROM) prices. These prices are estimates based upon limited information regarding the final functional/technical requirements for each. These ROM prices are subject to change once more definitive requirements information becomes available, documented, and agreed to by both parties.

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Section D. Additional Information

RFI Requirement

1. Provide any additional information not requested above but which you deem important and relevant to this RFI.

TriTech Response

TriTech's solution is based upon an integrated suite of easily upgradable and scalable COTS application modules developed by TriTech and operate using key industry standard hardware specifications. These components allow for quick response to FAM's needs and minimize the risk of hardware and software obsolescence.

The following key points outline the benefits and differentiators to consider when reviewing the recommended TriTech solution for FAM:

- **Value:** TriTech offers FAM a proven Tier 1 platform that has been profoundly successful in California and in centers around the world. The value of TriTech's experience extends to proven products and all corporate services including training, project management, and client services.
- **Flexibility:** TriTech Software Systems will give FAM the flexibility to build the optimum solution. TriTech fully understands FAM's need to integrate new technology with the existing environment and solutions deployed throughout the department. With our open, extensible, and proven Application Programming Interface (API) technology, we can tightly integrate future solutions into the TriTech environment.
- **Implementation Methodology:** With our Project Management Institute-focused approach, TriTech Software Systems has successfully completed every project implementation in its 19-year history of providing public safety solutions. This methodology assures projects are on time, on budget, and within scope. This process also identifies risks up front and places the burden of the build process on our industry experts and minimizes FAM staff time.
- **Support:** TriTech not only provides a breadth of integrated products but also the depth of technology and extensibility that ensures the FAM system operates at peak performance for years to come. TriTech's innovative Black Box technology allows our technical staff to quickly identify and rapidly resolve issues. The TriTech CAD application is highly flexible and packaged with a programmer's tool kit and supporting documentation to allow clients to develop integrated third-party applications that operate seamlessly with the core system. The result is a total cost of ownership considerably less than competitive offerings, and an open architecture that grows with the demands of FAM.
- **Current Technologies:** The TriTech solutions are built using the most advanced technology in the industry. TriTech has more than 19 years of experience deploying mission-critical Windows applications and more than 11 years on SQL Server. The recommended TriTech applications provide a fully redundant solution based upon the Microsoft client/server architecture. The TriTech CAD multi-tiered client, server, and distributed processing architecture provide optimal flexibility to serve the most complex agencies in the world. TriTech's standards use ESRI technology for GIS and include the TriTech CAD mapping display, in-vehicle mapping, and routing, which recommends the unit's quickest path.

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- **Interoperability**. TriTech has extensive experience with CAD-to-CAD integration with more than 150 TriTech CAD systems deployed worldwide. TriTech has implemented not only TriTech CAD to TriTech CAD interfaces, but also integrations with 12 different third-party CAD vendors. TriTech has a proven record of regional interoperability unmatched by any other public safety software vendor. This is demonstrated at agencies like the Ministry of Health, covering the entire province of Ontario, Canada with 19 fully independent communication centers interlinked to serve a jurisdiction of 415,000 square miles. This project, awarded the Corporate Chief Information Officer's (CCIO) Award of Excellence, is the largest dispatch setup of this type in the world. Other successes include El Paso/Teller Counties, Colorado with 9 sites across 11 agencies, and San Diego Fire/Rescue interoperating with multiple agencies in the northern San Diego County region for mission-critical fire and EMS interoperability, as demonstrated during the San Diego fires.
- **Customer Service:** TriTech provides 24x7 customer service and support from our offices in San Diego, California. Our support department is fully staffed 12 hours per day during West Coast business hours and on call after hours. TriTech software is constantly evolving and FAM will benefit from new development as new features and fixes are released in accordance with our annual support agreement. A TriTech technician will advise and supervise FAM personnel during the upgrade process to ensure minimal downtime.

TriTech CAD

The core software application within our suite of products is TriTech's CAD, a multi-agency, multi-jurisdictional application that is highly configurable and flexible and allows FAM to configure the system to meet specific business needs and workflows. TriTech CAD leverages Microsoft SQL Server to create a comprehensive data management platform that meets the high demands of TriTech CAD transaction processing and data management. TriTech personnel create the initial tables and code files, alleviating FAM of this intensive and time-consuming work.

TriTech CAD provides FAM with specific command line codes and function key assignments. TriTech CAD delivers mission-critical information to the field with little or no dispatcher interaction. Placing data at the fingertips of responders in a more effective manner provides increased safety to field personnel and improved response times.

TriTech CAD is GIS-centric and uses native ESRI data to ensure fast, accurate, visual unit routing and incident response time. The dispatch map displays the current position of each AVL-equipped unit, hazards, premise locations, and other layers. Unit position is updated continuously and allows dispatch staff to quickly generate turn-by-turn routing instructions. The TriTech CAD GIS system is a powerful search engine using extensive address search routines that have been field tested in communities with some of the most complicated addressing schemes in the world.

TriTech CAD is easily upgradeable and facilitates product enhancements for years to come.

The TriTech CAD integrated solution for FAM consists of the following components:

- TriTech CAD Dispatch software (server and client licenses)

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- TriTech CAD GEO-integrated ESRI-based mapping software
- TriTech Message Switch Manager monitors interface status and provides failover for interfaces
- TriTech CAD Testing Server
- TriTech CAD Training System
- Third-party software including Microsoft Windows Server and Microsoft SQL Server
- Multi-agency support for multiple fire departments and ambulance operations
- TriTech recommends the use of Stratus fault tolerant servers which provide 99.999% continuous availability through certified Stratus ftServer technology, and eliminate complicated cluster deployment through integrated processing capabilities built into each system. Stratus ftServers have been recommended, but are not mandatory for both the production TriTech CAD and the TriTech Mobile.
- Backup Hot Standby Server
- TriTech Mobile Data
- Visual Fire Records Management System

Incident Entry and Dispatching

TriTech CAD provides a highly-configurable incident entry form for 9-1-1 and non-emergency incidents that speeds call entry using a tightly coupled 9-1-1 interface. The form is populated automatically with caller location and number data and automatically verified against FAM's streets database. Drop down menus standardize data entry and allow users to quickly select incident and caller types. The system automatically allocates the incident to the appropriate dispatcher for the area or level of service. The call entry form is configurable by the system administrator to allow each agency to control the fields, appearance, tab order and mandatory fields. Standard operating procedures may automatically prompt the call taker for a special response and call triage instructions can be linked to any problem type.

Images may be attached to an incident during call taking and may include building floor plans, fire pre-plans, CCTV, hazardous materials, and other location-specific information. Hazard and caution notes will automatically appear on an incident by area, address or common place location. All data entered by the call taker and supplemental information generated automatically by the system will be automatically transferred to the field providers on their mobile data computers without user intervention.

The TriTech CAD user experience consists of queues and working windows that may be arranged in a variety of ways to ensure fast, effective dispatch – with configuration options for each user. The visual display, designed to give users a quick look at the operating environment, is broken into three main information windows: the Pending Queue, the Active Incidents Queue, and the Unit Status Queue. The TriTech CAD incident and status queues are color coded by priority and status. Users can action incidents and units by right clicking on the item or using the mouse or command line.

The system is designed to dispatch the most appropriate units to each incident depending upon the call type and jurisdiction. Recommendations may be made based upon a unit's resource type, capabilities, personnel skills, status and location. Once a unit is assigned, field users can

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update status in real time form the mobile data computer. System functions are readily accessible via an icon toolbar, from the command line, or using the right-click mouse menu. From here, the user may duplicate and cancel calls, reassign units, begin and end shifts, open the maps, view unit and call activity, view unit information, make dispatcher notes and page units with call information, as well as many other functions.

Integrated GIS Provides Visual Unit Routing

TriTech CAD is tightly coupled with TriTech's on-screen mapping system. Common dispatch functions are easily performed from TriTech CAD or the map. The mapping system provides routing-based unit recommendations that utilize street database including road closures to ensure fast, accurate, visual unit routing and the shortest possible response times.

The dispatch map display shows the current position of each AVL-equipped unit, hazards, premise locations, and hydrants. Unit positions are updated continually and the system allows the dispatch staff to quickly generate turn-by-turn routing instructions with a few simple mouse clicks.

The TriTech CAD mapping system is a powerful search engine with extensive address search routines that have been field tested in communities with some of the most complicated addressing schemes in the world.

Hazards/Cautions/Alerts

The TriTech CAD Caution Note Utility allows the management of warnings and hazards for addresses, common place locations, streets, block ranges and geographic areas. These can also vary by agency in a multi-agency environment. Caution Notes are attached to premises that advise users of special information regarding the location. When a user enters a premise into the call taking screen that has a caution note attached, the caution note icon will illuminate and the caution notes will be added to the Comments/Notes field of the incident. Caution notes may be color coded by priority to alert the dispatcher of a critical situation.

The TriTech CAD is Phase II compliant. Call takers and dispatchers are able to view the location of wireless callers and request updates as they change their position throughout the call taking process. An important aspect of the TriTech solution is the tight integration with your enterprise GIS data. TriTech provides tools that will allow for seamless updates to the CAD, Mobile and RMS products without having to restart or synchronize databases.

TriTech Mobile

TriTech's mobile data solution extends the power of information to vehicle laptop computers through sophisticated, integrated mapping components and wireless communications. TriTech Mobile provides:

- Seamless integration with CAD for voiceless dispatch
- Integrated mapping with in-vehicle navigation and GPS
- Extensive messaging with photo transfer capability
- Network connections for secure wireless updates
- Real-time incident updates
- Initial dispatch and automatic field-level incident updates

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- Active and pending incident queues
- Unit status queue
- Integrated messaging:
    - TriTech CAD to TriTech Mobile
    - TriTech Mobile to TriTech CAD
    - TriTech Mobile to TriTech Mobile
    - TriTech Mobile to TriTech Browser
- Field-initiated Incident creation
- View and incidents:
    - Automatic records checks for traffic stops
    - Self-assign and dispatch
    - Incident and Unit Queries
    - Look up active or prior incidents
    - Research unit activity
    - Access premise history, hazmat, and cautions

TriTech Mobile architecture is based on .NET/XML technology to provide a highly maintainable configuration as well as open and extensible integration to multiple, disparate systems. The secure, wireless solution operates on a variety of wireless platforms, and provides FIPS 140-2 compliant access to mission-critical information in the field. Fire and Police field units can make on-scene decisions that enhance personal safety and improve operational efficiency through secure, real-time access to CAD and other public and proprietary databases.

TriTech Browser

The TriTech Browser provides remote users a secure, thin-client administrative and operational view of the organization. The software works in tandem with TriTech CAD on a Microsoft Windows platform using a Web browser such as Internet Explorer. With TriTech Browser, users can query data through a local or wide area network (LAN/WAN), as well as a dial-up or wireless connection, dedicated circuit, or over the intranet/Internet, receiving near real-time access to active and pending incidents, unit statuses, rostering, and messaging.

RFI Requirement

2. Provide any lessons learned from other similar projects.

TriTech Response

The best documentation of "lessons learned" can be found in the policies, procedures, and methods of TriTech's professional project management services. TriTech's project management practices have been routinely refined and updated with nearly twenty years of successful system deployments serving over 2,000 public safety agencies worldwide.

There are four areas of a project that commonly have the greatest risk and, as such, carry a higher cost burden. The better these tasks are defined in the RFP, the more comfortable the vendors will be in offering the lowest possible price. The four typically high-risk deployment responsibilities include:

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- Interfaces, when the functional or technical details and/or a commitment of support by another vendor are not clearly documented
- Data conversion, when the exact source, format, quality and/or compatibility are not clearly documented
- GIS source data, when the data is being contributed from multiple sources, the quality of the data is not stated, or there is no assurance that all critical reference layers exist (reporting areas, response zones, etc.)
- Client staff, when there is no assurance that the client's project manager will have the authority to independently represent the client on basic project issues; when the client interface is a committee as opposed to an individual; and/or when there is no guarantee that adequate support staff committed to the success of the project will be made available to the client project manager

Vendors must include reasonable contingencies in their pricing to absorb any expenses incurred to mitigate the perceived risks of a project. Projects that require the vendor to bear a high degree of risk with little or no understanding of the risk are more expensive for the client. Greater clarity in an RFP means less risk to the vendor and lower cost for the client.

An RFP process typically verifies that the vendor is qualified to hold up their end of the partnership to complete a complex project. To secure the most favorable pricing, it is to the client's advantage to provide sufficient information to demonstrate that the client's staff is equally capable and committed to ensuring that the project is completed successfully and on time.

Selecting a vendor that FAM will be doing business with for the next seven to ten years (or longer) has as much to do with the character and integrity of the vendor as it does with the product minutiae that many evaluations focus on. While this part of an evaluation is often overlooked and frequently considered too subjective to evaluate, it is too important to ignore. FAM should consider that they will be working not only with the selected vendor's software, but also with that vendor's management and employees. FAM should perform adequate due diligence and give suitable weight during the evaluation to how well a vendor's staff works with their clients.

To ensure FAM's procurement results in the selection of a reliable and trustworthy vendor that will make a good long-term partner, TriTech recommends that FAM consider requiring five years of hardware and software support in the initial purchase. At minimum, FAM should solicit the five-year cost for purposes of evaluating the proposals. This will limit the ability of a prospective vendor to "low-ball" the initial bid and impose higher support fees in subsequent years to make up for their initial investment to win the business.

Another beneficial option is to provide an opportunity for those vendors still under consideration after evaluations to provide a best-and-final offer. Vendors typically learn new information about the needs and operations of prospective clients during the proposal and evaluation processes. A best-and-final offer will allow vendors to provide pricing that more accurately reflects the needs of the client, and the final price is almost always favorable to the client.

FAM should also set and maintain reasonable expectations. It is unlikely that a new system will do everything and in exactly the same way as the current system. There will be changes, and some level of adjustment will be required. Many times, these changes introduce expanded

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capabilities and better utilization of newer technologies, but FAM should ensure that users are properly prepared to adopt new technologies.

RFI Requirement

3. Ongoing annual maintenance and technical support.

TriTech Response

TriTech Software Systems launched a National Support Center in 2011 to strengthen its service and support for customers. By establishing a centralized National Support Center, TriTech's knowledgeable, cross-trained staff can handle peak periods and serve as a backup to product line support teams that ensure day-in and day-out uninterrupted support. The center monitors customer support metrics across product lines to respond quickly to customer needs.

Support for the TriTech software begins at Go Live. Support for CAD is provided on a 24 x 7 basis, 365 days per year. The support team operates a call center (800-line) and provides first and second line support, diagnosis, and resolution of issues. The team functions as the focal point for managing critical issues, trouble-shooting common problems, and investigating client technical concerns.

Customer support issues are initiated and managed through a single process and documented in an issue tracking system. TriTech conducts a triage of the problem and resolves issues through our standard support process. Reported software errors are responded to and corrected based on the priority nature of the issue: critical, urgent, high, medium or low priority. Clients have remote access to the issue tracking system via secure web pages to view the status of any open issues they have reported. Critical and urgent priority issues should always be reported via telephone to ensure the appropriate response level.

Support is provided in accordance with the TriTech Software Support Agreement, an annual agreement that clients must renew each year. Enhancements and corrections to TriTech software are provided to all clients that are currently on active support. The TriTech software is a single version software, meaning that all of TriTech's clients are either current on, or in process of updating to, the most current production version of the TriTech software.

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Section E. RFI Response Format and Content

RFI Requirement

In addition to the items listed above, Offerors must include a cover page to their response that identifies the following:

1. Company name.

2. Company mailing address.

3. Point of contact information (One person's name, telephone number and e-mail address).

4. References (name and phone number) of individual/company where your CAD system has been implemented.

5. Indicate if you are considering competing in the CAD procurement as either a Prime Solution Provider or System Integrator (prime or sub-contractor)

TriTech Response

TriTech's response includes the requested cover page and contains the required elements.

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