

PSAP Grant Program Grant Ranker

View Application--165--Acquisition of I/Incident Analyst Software

Grant Period: 2010

Tier: Broaden or increase the delivery of wireless E-911 equipment or services beyond established minimum functional standards (**BROADEN**)

Grant Program: Enhancement **Grant Type:** Individual PSAP

Priority: GIS: low priority (refer to GIS-related Grant Request Prioritization Matrix for a description of GIS projects that would have a low funding priority) (**GIS LOW PRIORITY**)

Primary PSAP Applicants: Richmond Police Communications

Jurisdictions Served: Richmond, City of

Project Director:

William Smith

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Project Description:

Total Project Cost \$89,446.00

Amount Requested: \$89,446.00

Statement of Need:

On September 11, 2007 the City of Richmond, VA implemented a new Computer Aided Dispatching (CAD) software for emergency services. The new software was purchased from Intergraph Corporation and is known as I/CAD. I/CAD replaced our 25 year old legacy system that our staff had become dependent on. The new software provides our communication center with the tools to field emergency and non-emergency calls, create and update incidents and manage critical resources through real-time interaction of crucial data. Our CAD resources, combined with real-time, historical and local search capabilities, ensure our communication officers have timely and accurate information available when making urgent decisions. In addition to the new CAD system, the city also upgraded the current mobility software with Intergraph's mobile solution, suitably named I/Mobile. The mobile solution extends the city's CAD and Records Management System (RMS) into the field. By using wireless technology, I/Mobile allows emergency personnel to input information and have a controlled interaction with the CAD system. The mobile solution enables emergency personnel to perform background checks and update their location and availability status. This reduces the amount of routine radio traffic, allowing communication officers to concentrate on managing critical incidents. With the inception of these two new critical software systems, all emergency vehicles were also equipped with Global Positioning Devices (GPS.) These devices allow communication officers to track and monitor where emergency personnel are. These devices also allow I/CAD to

recommend units based on that unit's proximity to an event. The CAD and RMS record vital emergency call information such as time, location and unit response. This data can be used for analysis purposes. The city has identified a need to analyze this data to a larger extent. Our current workflow has become excessively cumbersome and time extensive. The current workflow also does not yield the results in a presentable format and many questions remain unanswered with the report that is generated. I/Incident Analyst will eliminate the guess work and provide the city with the tools it needs to further analyze CAD data to improve emergency response. I/Incident Analyst is an add-on component to the GeoMedia platform which provides an intuitive user friendly environment for analyzing incident locations. Most incidents have an inherent geographic component. Understanding incidents and their location will allow decision makers to better target areas for tactical response, more effectively deploy resources and assess the results of their actions. I/Incident Analyst can leverage all the power of the GeoMedia platform to incorporate spatial and tabular data from multiple sources, perform many kinds of spatial analysis and produce high quality plots and maps for briefings, public meetings, etc. The City faces a budget shortfall for FY 2009, which will likely be met through such extreme measures as a reduction in personnel and service costs expenditures during the fiscal year. It is predictable that these budget shortfalls will also have an impact for FY 2010. As a result, the City cannot implement this project without the benefit of financial assistance. Despite the budget shortfall, the city must provide emergency services to nearly 200,000 citizens. Call volume for emergency services remain at an all time high for the Richmond PSAP. Richmond yielded more than 850,000 emergency calls last year, second in call volume for the state of Virginia. As funding decreases and call volume increases, monetary pressure is applied to all facets of operations at the city's PSAP. Funding for this project will allow the city to better utilize its resources during these difficult financial times. Upon completion of this project, the City of Richmond will achieve a greater efficiency on response plans and times as well as projecting and analyzing crime trends. Since the distribution of incidents across geography is not random, the ability to delineate these areas of abnormal frequency is essential to optimizing resources. I/Incident Analyst can pinpoint those areas, using spatial analysis and digital mapping to leverage geospatial data captured in CAD. Understanding incidents and their locations will allow decision makers to better target areas for tactical response, more effectively deploy resources to improve response, and assess the results of their actions. This project is part of the city of Richmond's long-term commitment to improve emergency response capability through strategic assessment, tactical assessment, target profiling, pattern analysis and risk analysis. The purchase of I/CAD calltaker and dispatching software as well as upgrading mobile software in response vehicles has demonstrated the city's commitment to improve response capabilities by using the latest technologies available. I/Incident Analyst will better leverage the data within CAD and apply it to the latest mapping technologies. Data gathered will be analyzed and used to update response plans as well as delineate areas of abnormal frequency. Understanding where incidents occur and comparing locations with other factors such as, time, relative location to other geographic features and offense statistics help define problem areas. Studying these problem areas will allow policy makers to effectively deploy resources to improve response. If grant funding is not approved for this project the city will be unable to purchase the software. The city is facing a budget shortfall and as the economy continues to decline it is unlikely the city will be able to obtain funding to accomplish the goals set out in this project. Although there are no additional funding sources earmarked for this project, the city will be responsible for the purchase of any additional licenses, as well as software maintenance beyond the five year period outlined in the grant guidelines. The grant funding will enable the city to purchase, implement and configure the software to our specifications. The funding will also provide the necessary training to the personnel who will be administering the software as well as a select set of end users. As use of the software expands the city will be responsible for purchasing additional licenses, if necessary. The city will also be responsible for the maintenance funding after the five year period has expired.

Comprehensive Project Description:

The goal of this project is for the successful implementation, configuration and training of I/Incident Analyst software. Under the scope of work, Intergraph will work directly with the city or Richmond to insure a smooth implementation of the software. The expected goal will be met by meeting a number of set objectives as outlined below. Implementation: Product Deliverables: The following Intergraph products will be provided for implementation. 1. I/Incident Analyst with GeoMedia and GeoMedia Grid CC 2. GeoMedia WebMap Documentation Deliverables: During the course of the project, Intergraph will develop and deliver the pre-implementation questionnaire, project plans and standard COTS user training documentation. Project Initiation: A project kick-off conference call will be held after the SOW has been executed. Intergraph Tasks: 1. Review the Statement of Work to answer any outstanding questions and verify all

aspects of the project approach. 2. Review and adjust the schedule as needed and mutually agreed upon. 3. As per the project kick-off conference call, Intergraph will provide meeting minutes and action items that affect project schedule, resources, design or equipment. Richmond Tasks: 1. As part of the project kick-off conference call, review the SOW and work with Intergraph to verify all aspects of the project approach. 2. Provide project manager and any other resources that are recommended by the city and Intergraph project manager. Completion Criteria: This task will be considered complete when the conference call has taken place and the meeting minutes have been delivered to the city. Installation: The following activities will take place during the course of installation of the system. Verify that the system requirements have been met. Install the software and test I/Incident Analyst (with GeoMedia and GeoMedia Grid) and GeoMedia WebMap products in conjunction with the Intergraph CAD systems. Intergraph Tasks: 1. Provide end user training manuals for all products purchased by the city. 2. Travel to the city of Richmond to install and conduct informal testing of the application. Richmond Tasks: 1. Confirm all hardware and software specifications have been met in accordance with minimum hardware specifications. 2. The city will assign a subject matter expert (SME) to assist and witness informal testing activities. 3. After completing system testing, the city shall either accept or deny the services. (The city will state in writing, within 5 working days, the reason the services are unacceptable). Completion Criteria: This task will be considered complete upon the submittal of the standard system, product documentation and the software being installed on the city's premises and verified by the product manager. The implementation shall be considered accepted with either written authorization by the city or once the system is placed in production for operational purposes. Training: Training will be conducted for city staff who will be administering the application as well as a subset of end user personnel. Courses will include the following: I/Incident Analyst Configuration and Administration: This course is presented to personnel responsible for the administration and support of the I/Incident Analyst application. The course familiarizes administrative personnel with the installation, maintenance, support and customization of the I/Incident Analyst product, plus the maintenance of the various data used by the system. This class is a 5 day session conducted on site by Intergraph personnel. Major Topics: Installation and setup of I/Incident Analyst Establishing data source connections Setting up client workstations Customization/Extensibility to meet city's reporting/mapping needs Creating Map, chart, spreadsheet and report outputs I/Incident Analyst User Training: I/Incident Analyst offers the ability to conduct incident mapping and management analysis, providing a map that describes where incidents have increased or decreased, rather than providing bland tabular data that is often difficult to filter through and use for accurate decision making. This course is designed for the analyst or administrator to make them familiar with the use of the I/Incident Analyst application. It will provide an overview of the GeoMedia application which I/Incident Analyst will use as its foundation and progress through the creation of queries and various map output options. Major Topics: Overview of the GeoMedia application (Concepts and Foundations) 1. GeoWorkspaces 2. Connections 3. Warehouses I/Incident Analyst Commands 1. Incident Query 2. Pin Mapping 3. Incident Count Mapping 4. Repeat Incident Mapping 5. Boundary Mapping 6. Grid Boundary Mapping 7. Journey to Incident Mapping 8. Hotspot Mapping 9. Change over time and Temporal Reporting Map Outputs Tabular data input GeoMedia WebMap Configuration and Administration: This course will be presented to personnel responsible for the administration and support of the GeoMedia WebMap application in conjunction with I/Incident Analyst. The course familiarizes administrative personnel with the installation, maintenance and support of the GeoMedia WebMap product, plus the maintenance of the I/Incident Analyst data used by the system. An overview of report/map creation and output options will be provided to allow the administrative personnel to test the application in preparation for end-user training. Upon completion of this class, support personnel will be able to train end-users on how to use the resulting Incident Analyst web site. Major Topics: Installation and Setup of GeoMedia WebMap Configuring the Incident Analyst Web Site oGeoWorkspaces Management oGeoMedia WebMap Publisher To fully complete the Training objectives the city and the vendor shall perform the following tasks. Intergraph Tasks: 1. Provide a complete set of printed training materials per student. 2. Provide sufficient copies of the documentation supplied by Intergraph to support all students in the training classes. 3. Provide digital copies of training documentation. Richmond Tasks: 1. The city will be responsible for providing a sufficient training area with Internet access. 2. The city will be responsible for providing suitable workstations for training purposes. Completion Criteria: This objective will be considered complete when the scheduled training has been completed. Project Closure: This objective involves the city of Richmond and Intergraph project managers to agree that all items (equipment, licenses and services) purchased under the SOW have been delivered as proposed. At this point in the project, all tasks will have been completed, any defects identified in use of the system will have been corrected and all payment

milestones will have been met. Intergraph Tasks: 1.Review with the city of Richmond project manager the overall state of the project. This review will verify that all tasks have been completed as outlined in the SOW and that all products have been delivered and are operational. 2.Upon Completion of all objectives, Intergraph will close the project. Richmond Tasks: 1.Verify that the products and services contracted for have been delivered and will ensure the payment of any and all outstanding project payment milestones. Completion Criteria: This objective will be considered complete upon verification by the Intergraph and City of Richmond project managers that all items purchased under the SOW have been delivered.

How will the equipment purchased will support future technologies for PSAP readiness?:

The desire to purchase I/Incident Analyst software demonstrates the city of Richmond's progressive philosophy towards improving PSAP readiness. The purchase of the software is the first step in pursuing our goals of improving our PSAP readiness and decreasing response times for our emergency personnel. The analysis capabilities is where our organization will see an enormous upgrade in current workflows. The software will allow decision makers to analyze specific incident information in a spatial environment and make recommendations to improve response capabilities based on the data analyzed. I/Incident Analyst is a robust software that is capable of integrating data from multiple sources and identifying spatial patterns. The software allows the user flexibility to connect to multiple data sources such as text files, Excel files and other ODBC compliant databases. These capabilities will allow our organization to collect data in many different formats, thus making it a 'one stop shop' for CAD specific analysis.

Budget and Budget Narrative:

The budget and budget narrative is itemized in an amendment to this grant application.

Evaluation:

Our project will follow the IT industry's well established project management methodologies. Successful implementation will be defined in terms of project milestones and final project deliverables. We have identified the following categories of our project, each of which will deliver on the following milestones: There are two main components to this project that can be measured to ensure that the project objectives have been successfully achieved. Installation and Configuration: 1.Project Management Plan & Schedule 2.Project Kick-off 3.Requirements Definition 4.Meeting Agendas and Notes 5.System Architecture and Design 6.Acceptance Testing 7.User Sign-off Training 1.Training Plan & Schedule 2.Requirements Definition 3.Training Materials 4.Completion of Training 5.User Sign-off Evaluation data will be collected throughout the project as specific milestones are achieved. In particular, the data sources will include those milestone elements from our project management methodologies: 1.Regular Project Status Reports 2.Project Check-lists 3.Project Meeting Agendas & Notes 4.Acceptance Test Plans 5.User Sign-Off Documents. As part of the overall project, a Project Management Document (Plan and Schedule) will be developed that incorporates each stage of the project, and provides an audit trail associated with the final outcomes, final project metrics and achievement of specific project deliverables.

Attachments

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| Budget Narrative.xls |

**City of Richmond Wireless E-911 Grant Program
Budget Narrative**

| Incident Analyst Products and Services | | US\$ | US\$ | US\$ | US\$ | |
|---|--|---------------------------------------|-----------|-----------------|------------------------|-------------------------|
| Item Description | Purpose | Qty | Unit Cost | Total Cost | Yearly Software Maint. | Estimated 5 Year Maint. |
| GeoMedia WebMap - Small | Provides GeoMedia geospatial technology as a fully-scalable server solution in the form of web services or interactive web sites including enterprise data access, sophisticated geospatial analysis and map generation. | 1 | \$10,600 | \$10,600 | \$1,860 | \$9,300 |
| I/Incident Analyst with Geomedia and Geomedia Grid CC | Provides an intuitive user-friendly environment for analyzing incident locations. | 2 | \$10,282 | \$20,564 | \$3,864 | \$19,320 |
| Incident Analyst Implementation | Install and configure Incident Analyst software. Conduct Training for system administrator(s) - I/Incident Analyst Configuration and Administration (IPST6001) | 1 | \$11,927 | \$11,927 | | |
| Geomedia Installation and Training | Install, configure and test GeoMedia software. Conduct Training for system administrator(s) GeoMedia WebMap Configuration and Administration (IPST6003) | 1 | \$9,023 | \$9,023 | | |
| I/Incident Analyst User Training (IPST6002) | 3 days on-site training on how to conduct incident mapping and management analysis. | 1 | \$8,700 | \$8,700 | | |
| Shipping and Insurance | | 1 | \$12 | \$12 | | |
| Projected Total | | | | \$60,826 | | \$28,620 |
| | | Projected Grand Total | | | \$89,446 | |
| | | (Including 5 year maint. cost) | | | | |