

PSAP Grant Program Grant Ranker

View Application--171--CAD/GIS mapping software updates/improvements

Grant Period: 2010

Tier: Replacement of technically outdated wireless E-911 equipment or service to enable primary PSAP to maintain current service levels to the general public (**TECHNICALLY OUTDATED**)

Grant Program: Continuity and Consolidation **Grant Type:** Individual PSAP

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

Primary PSAP Applicants: Charles City County

Jurisdictions Served: Charles City, County of

Project Director:

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Project Description:

Total Project Cost \$150,000.00

Amount Requested: \$96,000.00

Statement of Need:

The Charles City County Public Answering Point (PSAP) is located within and is operated and managed by the Charles City County Sheriff's Office. The PSAP site/communications center is an integral part of the Sheriff's office. This center serves as the PSAP for the County of Charles City to include numerous highways (State Routes 106, 155, 156, and 5; approximately 255 miles) and rural roads (293 miles) – for a total of 548 miles of roadways. Additionally, Charles City County has approximately 4,500 addressable structures. The communication center for Charles City County primarily serves all of the county emergency service agencies including: Sheriff's office, Fire and EMS Department, Charles City Volunteer Fire and EMS Department, and the Providence Forge Rescue Squad. Charles City County PSAP also serves as a backup PSAP resource for New Kent County. The communications center currently uses PlantCML's CAD/MapStar GIS mapping system to assist dispatchers in locating addresses during an emergency call. This system was implemented in 2005 and is currently maintained by County staff and support from the Richmond Regional Planning District Commission. Several countywide GIS layers are maintained for this system, including address points and centerlines. The GIS mapping software from PlantCML uses an extremely old version of ArcGIS, called ArcView 3.2. ArcView 3.2 is no longer fully supported by ESRI since they are at version 9.3. There have been a large number of improvements from ArcView 3.2 as well as a much more user friendly interface with ArcGIS 9.X. Updating the CAD/Mapping software will greatly enhance and facilitate

interoperability across county departments by leveraging existing 911 data as well as other critical county data, enabling processes that currently are not possible with the present system, to gather, maintain, and analyze that data, thus greatly increasing accuracy, efficiency and scalability of that data. This will also lead to the first phase into changing Charles City County over to an enterprise system in the future. Due to the limited resources of the GIS section and increasing need for GIS services throughout the county, it is critical that the County's GIS system be as efficient and streamlined as possible. Using ArcGIS 9.X and eventually a enterprise GIS is the industry standard to meet that goal. What impact does this project have on operational services? The project will improve safety for county residents by enabling checks and balances and increased efficiencies in the 911 data maintenance and update process that are not possible with the current system. The project will also enable similar benefits in the county's daily business practices involving other GIS data and the exchange of data across jurisdictional boundaries. What is the consequence of not receiving funding? The system will not be used to the fullest extend possible since it is not very user friendly and there is no training available for it and it will make it harder to implement an enterprise GIS system in the future. Safety for county residents could be impeded due to inferior data that is not updated as frequently. Less time would be available for 911 data and mapping needs due to increasing pressures on the current GIS system that an Enterprise system would alleviate. Is this project included in a long-term or strategic plan? It is a goal of the GIS department in order to help provide better service, but is not part of the county's strategic plan. Local Sustainability By the wireless board allowing maintenance to be part of this grant the county will be able to maintain the updated CAD software through the grant until which time it will be required to pay for the maintenance on a yearly basis from the County's annual budget. Given the amount of time that the maintenance is covered under the grant will give the County time to work the maintenance costs into the annual budget.

Comprehensive Project Description:

Comprehensive Project Description FOCUS: GIS High priority The object for this project is to acquire an upgraded next generation CAD/mapping system which will include data analysis, data management system, and a PSAP wireless review as well as extensive training on the proposed system. Currently the County is looking at GeoComm for obtaining the upgraded next generation CAD/mapping software. The dispatch mapping system will accurately locate all 911 calls and integrate the current telephony and CAD systems. Data analysis will help identify potential problems with database synchronization between GIS, MSAG, and ALI databases. The database management system includes GIS Manager, MSAG Manager, and a Mobile Manager (GPS). Since the FY09 grant allowed for the GIS layers for addressable structures to be updated as well as a revision of the parcels the implementation time for this project should be minimal. The sustainability of this project should be greater than the existing system due to the ability of expandable applications and features. The current system is very limited. The proposed vendor has a well established integration and compatibility between both the telephony system and the CAD system. Goals and Objectives 1. Improve public safety by ensuring that the PSAP has more accurate and up to date data on addresses and other essential data for responder use. 2. Increase efficiency of PSAP operations by eliminating redundant data sets requiring maintenance and synchronization. 3. Improve public safety by minimizing the possibility of data errors leading to response delays. 4. Improve public safety by permitting the sharing of Charles City County data with other jurisdictions / agencies in a near real time environment as operational conditions demand. 5. Improve public safety by providing the ability to back up essential data and services which was heretofore cumbersome. 6. Reduce workload on PSAP and GIS staff (enabling them to focus on core functions) by permitting stakeholders to maintain their own datasets as required. 7. Improve public safety by increasing the pool of County staff conversant with GIS data and technology. 8. Commit and allocate adequate resources to maintain GIS infrastructure from both a system (network, application, and data) and strategic perspective through the establishment of a GIS steering committee. 9. Continuously provide management support to foster the diffusion of GIS to an array of end-users, thereby increasing responsiveness to citizens 10. Provide timely, accurate, and meaningful GIS Data to the entire county 11. Enable all County Departments to effectively use GIS Technology for improved services and response to citizen request 12. Convert and integrate all available data into a standard format in a centralized data store accessible to all relevant departments The measures used to determine the outcomes will be mainly time related and generation of daily/weekly/monthly reports and mapping.

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

The purposed vendor has worked on over 500 public safety projects in the last 13 years and stays on the leading edge of the needs of the public safety community. They provide state-of-the-art highly function and

easy-to-use software. The equipment (software) purchased will support future technologies with the upkeep of the maintenance agreement which updates the software as needed. The software that is being proposed is GeoLynx 9-1-1 for plotting calls, GeoLynx Stats for crime mapping/reporting/historical information, and GeoLynx Sync for automatically distributing the GIS data. The software has building modeling programs, drive time analysis, and hyperlinking capabilities which can all be used in the future as the County grows. PSAP readiness will be exponentially increased with the new software and routable road network. The CAD software will be maintained and supported in the future by including the yearly maintenance in the budget once the 5 years are up and the ESRI software can be maintained within the County budget. The purposed system is scalable and flexible for additional needs and functionality in the future.

Budget and Budget Narrative:

Total budget requested: \$74,412 + \$21,588 = \$96,000. GeoComm Proposal for 3 stations and 2 administrative licenses: \$74,412.00 The proposal includes GIS setup services, software for GeoLynx 9-1-1 dispatch GIS, GeoLynx 9-1-1 Administration, GeoLynx Stats Dispatch Analyst, GeoLynx Sync replication, training, and a custom CAD interface. The cost for the routable road center line and necessary software is a guess (actual quotes were not available at the time of the grant deadline): \$20,000 - \$22,000. Each item is associated with the necessary software to have a complete up-to-date CAD system for receiving 911 calls and processing those call in the most direct and quickest way possible to provide the necessary help to the general public. See Attachment A for details on the cost proposal from the purposed vendor.

Evaluation:

The evaluation of the project will be based on the analysis of the databases and the syncing of the databases between the GIS, MSAG and ALI systems to find all errors that have been missed from the previous project updates. The installation of the new software should meet the main goals of accurately plotting the 911 calls and having a user-friendly interface. The data management system should be measurable by showing a decreased time and effort in adding to and maintaining the GIS database. The measurements of this outcome can be seen in the different reports that can be generated on an as-needed basis. The County hopefully will also see a reduced time in the location identification and responding agency notification, thus a reduction in the overall response time to an incident.

Attachments

Charles City County VA Public Safety Software Proposal_FY10.pdf

Pricing is based on GSA Contract # GS-35F-0594S. Prices are valid for 90 days.

Cost Proposal Summary

GIS Setup Services	\$2,395.90
GeoLynx 9-1-1 Dispatch GIS	\$28,900.54
GeoLynx 9-1-1 Admin	\$7,821.30
GeoLynx Stats Dispatch Analyst Extension Software	\$9,966.10
GeoLynx Sync Interoperable Replication and Propagation	<u>\$12,072.20</u>

Cost Proposal Total: \$61,156.04

Notes: This fee includes all travel and associated costs and should be considered firm.

Software support services shall commence 90 days after software installation and continue for one year.

Optional Proposed Items

Optional Custom CAD Interface	<u>\$13,256.00</u>
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Optional Proposed Items Total: \$13,256.00



Itemized Pricing

GIS Services			
Description	Hours	Hourly Rate	Total Price
Map Data, 9-1-1 Database, and MSAG Analysis	22	\$63.05	\$1,387.10
GIS Setup Services	16	\$63.05	\$1,008.80
GIS Services Total:			\$2,395.90

GeoLynx 9-1-1 Dispatch GIS			
Description	Qty	Price/Unit	Total Price
GeoLynx 9-1-1 Software License(s)	3	\$4,350.00	\$13,050.00
Installation			\$2,775.54
Training			\$1,330.00
Annual Software Support and Maintenance (Year One)	3	\$783.00	\$2,349.00
Annual Software Support and Maintenance (Year Two)	3	\$783.00	\$2,349.00
Annual Software Support and Maintenance (Year Three)	3	\$783.00	\$2,349.00
Annual Software Support and Maintenance (Year Four)	3	\$783.00	\$2,349.00
Annual Software Support and Maintenance (Year Five)	3	\$783.00	\$2,349.00
GeoLynx 9-1-1 Total:			\$28,900.54
<p>Notes: GeoLynx 9-1-1 is a single use license. One license is needed per workstation. GeoLynx 9-1-1 workstations must meet the minimum GeoLynx 9-1-1 hardware requirements as outlined in this proposal. GeoLynx 9-1-1 operation requires a computer act as the system server. The customer is responsible to provide this system server.</p>			



GeoLynx 9-1-1 Admin			
Description	Qty	Price/Unit	Total Price
GeoLynx 9-1-1 Admin Software License(s)	2	\$1,735.65	\$3,471.30
Installation			No Charge
Training			No Charge
Annual Software Support and Maintenance (Year One)	2	\$435.00	\$870.00
Annual Software Support and Maintenance (Year Two)	2	\$435.00	\$870.00
Annual Software Support and Maintenance (Year Three)	2	\$435.00	\$870.00
Annual Software Support and Maintenance (Year Four)	2	\$435.00	\$870.00
Annual Software Support and Maintenance (Year Five)	2	\$435.00	\$870.00
GeoLynx 9-1-1 Admin Total:			\$7,821.30
Note: GeoLynx 9-1-1 Admin does not plot 9-1-1 calls or CAD incidents.			

GeoLynx Stats Dispatch Analyst Extension			
Description	Qty	Price/Unit	Total Price
GeoLynx Stats Software License(s)	1	\$4,350.00	\$4,350.00
Installation			\$368.60
Training			\$1,330.00
Annual Software Support and Maintenance (Year One)	1	\$783.50	\$783.50
Annual Software Support and Maintenance (Year Two)	1	\$783.50	\$783.50
Annual Software Support and Maintenance (Year Three)	1	\$783.50	\$783.50
Annual Software Support and Maintenance (Year Four)	1	\$783.50	\$783.50
Annual Software Support and Maintenance (Year Five)	1	\$783.50	\$783.50
GeoLynx Stats Total:			\$9,966.10
<p>Notes: GeoLynx Stats is an add-on module to GeoLynx 9-1-1. A license of GeoLynx 9-1-1 or GeoLynx 9-1-1 Admin is required to run GeoLynx Stats. GeoComm understands GeoLynx Stats will reside on proposed licenses of GeoLynx 9-1-1 Admin. GeoComm has provided pricing for GeoLynx 9-1-1 Admin.</p> <p>GeoLynx Stats is a single use license. One license is needed per workstation.</p> <p>GeoLynx Stats requires CAD incident or RMS data available via database, preferably a SQL view, for real-time display. GeoLynx Stats can also access and plot incident data from an Access database table if available. It is the customer's responsibility to ensure this data is available. Please see Section 2 (data specs) of this proposal for more information.</p> <p>The above installation and training prices for GeoLynx Stats reflect price if it is facilitated at the same time as the GeoLynx 9-1-1 installation and training. Price will increase if purchased and installed at a later date.</p>			



GeoLynx Sync Interoperable Replication and Propagation			
Description	Qty	Price/Unit	Total Price
GeoLynx Sync Server Software License	1	\$3,480.00	\$3,480.00
GeoLynx Sync Client Software License(s)	5	\$217.50	\$1,087.50
Installation			\$737.20
Training			\$1,330.00
Annual GeoLynx Sync Server Software Support and Maintenance (Year One)	1	\$870.00	\$870.00
Annual GeoLynx Sync Server Software Support and Maintenance (Year Two)	1	\$870.00	\$870.00
Annual GeoLynx Sync Server Software Support and Maintenance (Year Three)	1	\$870.00	\$870.00
Annual GeoLynx Sync Server Software Support and Maintenance (Year Four)	1	\$870.00	\$870.00
Annual GeoLynx Sync Server Software Support and Maintenance (Year Five)	1	\$870.00	\$870.00
Annual GeoLynx Sync Client Software Support and Maintenance (Year One)	5	\$43.50	\$217.50
Annual GeoLynx Sync Client Software Support and Maintenance (Year Two)	5	\$43.50	\$217.50
Annual GeoLynx Sync Client Software Support and Maintenance (Year Three)	5	\$43.50	\$217.50
Annual GeoLynx Sync Client Software Support and Maintenance (Year Four)	5	\$43.50	\$217.50
Annual GeoLynx Sync Client Software Support and Maintenance (Year Five)	5	\$43.50	\$217.50
GeoLynx Sync Total:			\$12,072.20
<p>Notes: A license of GeoLynx 9-1-1 Admin is required to run GeoLynx Sync. GeoComm understands GeoLynx Sync will reside on a proposed license of GeoLynx 9-1-1 or GeoLynx 9-1-1 Admin. GeoComm has provided pricing for both.</p> <p>One license of GeoLynx Sync Client is required for each license of GeoLynx 9-1-1, GeoLynx 9-1-1 Admin, and GeoLynx Stats.</p> <p>The above installation and training prices for GeoLynx Sync reflect price if it is facilitated at the same time as the GeoLynx 9-1-1 installation and training. Price will increase if purchased and installed at a later date.</p>			



Optional Custom CAD Interface Development			
Description	Qty	Price/Unit	Total Price
Custom CAD Interface Development	1		\$4,350.00
On-site Installation and Configuration			\$3,686.00
Annual Custom CAD Interface Support and Maintenance (Year One)			\$1,044.00
Annual Custom CAD Interface Support and Maintenance (Year Two)			\$1,044.00
Annual Custom CAD Interface Support and Maintenance (Year Three)			\$1,044.00
Annual Custom CAD Interface Support and Maintenance (Year Four)			\$1,044.00
Annual Custom CAD Interface Support and Maintenance (Year Five)			\$1,044.00
Custom CAD Interface Development Total:			\$13,256.00
<p>Notes: Installation pricing includes two days of on-site installation and configuration.</p> <p>Maintenance or improvements for the custom interface will be performed on a time and materials basis with a \$125 per hour development charge.</p> <p>GeoComm has worked with numerous CAD, CPE, and RMS software vendors to create interfaces between their CAD, CPE, and RMS systems and the GeoLynx 9-1-1 Dispatch GIS System. On average, an interface takes roughly 60 to 80 hours to complete. GeoComm will work with you and the appropriate vendors to analyze the requirements and create an estimate for the required interface, depending upon how the other vendors anticipate the use of GeoComm's open API. There may be additional costs from other vendors for their interface work or access to their CAD, CPE, RMS, or crime analysis data.</p>			

