




June 5, 2019

To: Mayor Jerry L. Demings
and the Board of County Commissioners

From:  Carrie Mathes, Manager, Procurement Division

Contact: Annette Rodgers, 911 Coordinator, Information Systems and Services Division
407-836-5304

Subject: Approval of Purchase Order M96752, Purchase of Software and Licensing for the 9-1-1 Information Management System (9IMS)

ACTION REQUESTED:

Approval of Purchase Order M96752, Purchase of Software and Licensing for the 9-1-1 Information Management System (9IMS), with Essential Management Solutions LLC, in the amount of \$405,998.

PROCUREMENT:

The purpose is to provide 9IMS product and services to assist Orange County 911 Administration with identifying and correcting discrepancies in 911 calls made by the citizens and visitors of Orange County.

FUNDING:

Funding is available in account 1054-031-0297-6438

APPROVALS:

The Information Systems and Services Division concurs with this recommendation.

REMARKS:

Essential Management Solutions, LLC (ESM) is the sole proprietary source for the equipment and service required. This was verified by advertising a statement to confirm ESM is the sole source. Software licensing is valid for 12 months from system installation. The price was determined to be fair and reasonable by staff when compared to prior purchases by Hillsborough County.

There are hundreds of cell towers and 10 Public Safety Answering Points (PSAPs) or 911 centers in Orange County. This product works with the County's 911 Viper system and all 911 calls received from wireline, wireless, and Voice over Internet Protocol (VoIP) telephones.

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Last year, Orange County PSAPs answered 1,336,478 calls for service of which 83% were wireless. An analysis of the MIS data revealed an increase in routing discrepancies. As a result of this purchase, we will be able to identify all of Orange County tower locations and the wireless service provider for each cell sector so that we can notify the correct provider to resolve system problems. In addition to wireless, the purchase will also provide alerts of any wireline addressing discrepancies for residential and business callers.

Wireless Drive Testing will collect test data and include making test 911 calls to each PSAP to determine if wireless 911 calls route to the correct location. The 9IMS product will interface with both the County's Viper call answering equipment and the 911 Master Street Address Guide to automatically alert 911 Administration of system anomalies.

In November 2018, the Orange County Information System and Services 911 Administration unit attained an assessment of the 911 databases as required by National Emergency Number Association (NENA) Information Document for Synchronizing Geographic Information System databases with MSAG & ALI, NENA 71-50. NENA recommends a minimum match rate of 98%. The assessment was performed by GeoComm, a public safety GIS Company. Results showed a match rate of 90%.

Florida Statute 365.171 - Section 8.8.17 of the Florida State 911 Plan requires "County 911 coordinators to develop and maintain a wireless testing program to continually verify system operation and reinforce call answering procedures. Individual provider technologies should be tested to determine expectations and performance. It is recommended that these tests should include various locations throughout the county and should include outside, inside and mobile testing. Reoccurring testing should be conducted to assess changes in the system. Wireless service providers should be notified of any malfunctions or deficiencies in the call processing."

This data enhancement is needed to migrate to next generation network methodologies such as geo-spatial call routing. Next Generation 911 which means a secure, IP-based, open standards system that is capable of processing all types of emergency calls, including voice, text, data, and multimedia information and will support data, video, and other communications needs. Instead of wireless 911 call-routing to a PSAP based on the cell tower sector, it would now route to the correct PSAP based on the location of the caller.