

SECTION 3 – TECHNICAL SPECIFICATIONS/SCOPE OF SERVICES

The City of Fort Lauderdale (hereinafter “the City”) issues this Request for Proposal to individuals, corporations, partnerships, and other business entities authorized to do business in the State of Florida for Professional Consulting Services and implementation for a state of the art Enhanced 911 (E911) turnkey Communications Center with a focus on Next Generation 911 (NG911) standards. The center will serve as the primary hub for Law Enforcement, Fire Rescue and Emergency Medical Services with the capability of receiving, tracking status and directing emergency response and associated activities within the City. The PSAP shall have the capability of acting as a backup facility for the City’s Local Government Call Center currently located at the Public Works Administration site.

The City of Fort Lauderdale managed its own E911 PSAP and communications center until August of 2014 utilizing Intergraph Public Safety (IPS) Computer Aided Dispatch software. The City owns the licenses to that software and will restart the E911 PSAP and communication center with the IPS CAD system. IPS will provide their server and workstation requirements for proposers. Proposers will need to coordinate with IPS for all interfaces, space and furniture needs.

The turnkey project will include, but not be limited to, the communications center design layout, technology, connectivity, equipment needs, organization, staffing, training, operations and the development of Standard Operating Procedures. This turnkey system shall also include a separate “flee to” redundant PSAP facility. The pre-project requirements in consultation with the City’s Police, Fire, Human Resources and Information Technology Services Departments will include the associated costs for the Communications Center covering 1st year startup and the annual re-occurring operating expense for the project life cycle, a scope document, change management plan, issues management plan, risk management plan, communications management plan, quality assurance and testing plan, resource management plan, training plan, procurement plan, construction plan, performance management plan, etc. All plans will include but not be limited to:

- The successful proposer will research and include National Emergency Number Association (NENA) applicable guidelines.
- The successful proposer will research and include best practices and recommendations from the Association of Public Safety Communications Officials (APCO) organization applicable guidelines, and Staffing and Retention in Public Safety Communications Center.
- The successful proposer will research and include National Public Safety Telecommunications Council (NPSTC) applicable guidelines.
- The successful proposer will review and include any and all State and local laws, statutes and ordinances to ensure the local emergency services requirements and standards are adhered to.
- The successful proposer shall ensure the PSAP meets or exceeds the requirements set forth for ISO, Emergency Communications.
- The successful proposer shall also ensure the PSAP meets or exceeds all requirements set forth by the International Academies of Emergency Dispatch as an Accredited Center of Excellence.

- The successful proposer's recommendations will be based on the Federal Communications Commission Task Force on Optimal PSAP Architecture report and recommendations released in January 2016.
- The successful proposer will review and include details on liability issues on the E911 or NG911 system.
- The successful proposer will demonstrate knowledge of 911 Communications, technology and standards.
- The successful proposer will research and advise on technologies, their capabilities and approximate cost.
- The successful proposer will assess the needs of:
 - Telephony
 - Interposition communications
 - Connectivity and bandwidth
 - Automatic Number Identification (ANI)
 - Automatic Location Identification (ALI)
 - Voice logging and recording
 - Video/Voice recording
 - GIS needs
 - Radio communications based on City's current P25 technology radio system
 - Software with Computer Telephony Integration
 - Fire Rescue Management System
 - Redundant alerting system for Fire-Rescue (paging).
 - Terminals/Hardware
 - Data Center requirements
 - Amount of space required for the call center equipment and personnel through an assessment of
 - Residential population and daily transient population for a 24/7 operation.
 - Historical Call volume
 - History of special events and emergency operations which create peaks in call handling and dispatches
 - Police and Fire Rescue Department operating procedures which may dictate additional dispatchers
 - Layout, design and cost of proposed equipment to efficiently operate, including call taker, dispatcher and supervisor positions as well as data center needs and connectivity.
 - Number of staff needed, salary and benefits, hierarchical structure, and training of personnel required to staff and maintain a 24/7 PSAP center.
 - Assess all existing interfaces and databases which exchange information with the E911 Communications System and incorporate interface implementation and data migration.
 - Assess current Fire and Police applications and technology and incorporate into the plan.
 - Assess City communications structure and incorporate into the plan.
 - Assess system and hardware requirements to maintain 5 years of data available to system users before archiving. This especially applies to CAD records. Best practices should be presented for storage of voice, video, text, ANI/ALI and other records.

The City requires maintenance agreements for software and equipment support to be offered over five years.

The City desires a phased approach to the turnkey E911 Communications Center:

Phase I is project definition and project plan development. The successful proposer shall identify and document detailed planning, requirements and layout considering operational resiliency, security, business continuity, and redundant/back-up communications/back-up power.

They will document the cost/benefit analysis details (Capital and Operational), initial and recurring. The project plan shall include but not be limited to Communications Center logical and physical design, equipment needs, staffing needs, job descriptions, hierarchical structure, pay scale and benefit package recommendations, training, and certification requirements. . An equipment list including quantities, manufacturers and prices will be developed for review by the City. To ensure longevity and value the latest models of technology components shall be proposed. The implementation methods and procedures at an overview level will be outlined for enactment of Phase II Implementation and Phase III turnkey managed services.

The project plan including technologies recommended and staff proposed shall be validated by City personnel. Validation is an essential step to ensure all associated risks and/or challenges are addressed for proof of concept. The proposer shall present for approval a comprehensive performance management plan that includes sections with benchmarks for systems, call management, dispatch management, quality of customer service, training management, staffing management (vacancies, complaints, discipline, leave, overtime, etc.), financial management (budget performance, overtime, equipment and fiscal needs, etc.). The City shall establish a performance compliance system to assist the contractor in attaining performance goals. The system shall include written notifications, written warnings, financial penalties, and ultimately contract termination.

Successful performance bonus consideration:

Phase II, implementation of the project plan. The successful proposer shall act as the prime contractor to supply and install the E911 or NG911 system components approved by the City, including but not limited to hardware, software, cabling and complete system management. Staff hiring, training and scheduling in accordance with City established hiring practices and rules. The implementation project plan must include high-level milestones and timeline. . A rigorous Acceptance Test plan will be developed by the proposer and presented to the City for approval. The plan will test all functional areas of the system for agreed upon performance levels, reliability and where appropriate redundancy/recovery failover. The proposer shall be responsible for all costs associated with replacing failed, under sized or underperforming components.

Proposers shall coordinate with Intergraph Public Safety's project point of contact for hardware requirements to ensure system availability via a redundancy or fault tolerant server design. Continuous availability shall be designed into the system by considering server hardware, the computer network, electrical service, Uninterruptable Power Supply, Air Conditioning, and other components that impact system availability.

Phase III, managed services turnkey solution. The City approved comprehensive performance management plan goes into effect. The contractor shall bring the entire Communications Center online online at a previously agreed upon date and time with the transfer of 911 emergency calls and non-emergency call from the County to the City. At the end of the one

year Phase III managed solution operation the City shall evaluate performance benchmark levels for acceptance. At the discretion of the City managed services could continue for a defined period or, the operations staff, all documentation, maintenance agreements and other responsibilities of the Communications Center will be fully transferred to the City.

Support

The City requires seven (7) days per week, twenty-four (24) hour per day, three hundred sixty five (365) days per year, two (2) hour (maximum) response time for hardware and software support services. Proposers must propose hardware and software support services for maintenance under the original warranty and propose extended maintenance services. The City desires extended hardware maintenance for a minimum of five (5) years, in one (1) year increments beyond the one (1) year warranty period. The services must include but are not limited to the following issues.

- Contacts and Location of Certified Service Provider. The proposer must provide in the proposal the company name, address, telephone number, email and other relevant information of the proposed certified maintenance service provider. The service provider must provide a list of no less than two technical staff experienced in the maintenance of the proposed technology capable of a two hour response time. All technical staff shall have proper credentials including background checks and fingerprinting. Names, titles, and contact telephone numbers (during normal and after hours) must be provided for supervisors responsible for the City's maintenance functions.
- Help Desk Services. The proposer must describe in the proposal the Help Desk services available by telephone to hardware and software support technicians and system users. The City desires 7x24x365 availability of Help Desk services but may consider other alternatives. The availability of Help Desk service is especially critical during the first year of operation, but desired throughout the life of the system.
- The proposal must include the proposed methods for problem notification (such as 24 hour available hot line support, remote diagnostics, etc.).
- The Proposer must provide a written statement in the proposal declaring the length of time they, or the manufacturer(s), will remain committed to supporting the proposed hardware solution with parts, modules, boards, equipment, upgrades, and the software solution with patches, maintenance, upgrades, and modifications required for maintaining and/or expanding the system.
- The Proposer must describe in the proposal the proposed support response time. E.g. how long after notification before remedial action is taken. The description must include clarifications for weekends, holidays, 24-hour service, etc.
- The Proposer must describe in the proposal the method(s) proposed for problem escalation. E.g. how long after notification before the problem escalates to larger support resource commitments, and then for function limiting problems, to the incurring of liquidated damages.
- The Proposer should specify the methods to be used to update the software of the system at the City's site for both remedial updates and functional enhancement updates.
- The Proposer must provide the full cost of the support proposed for both hardware and software.
- The Proposer is required to describe in the proposal any resources expected of the City to maintain all 911 PSAP hardware and/or software.
- The Proposer is required to provide in the proposal a list of any test or diagnostic equipment required to maintain the hardware, including the cost of the equipment which the City needs to procure. The City may purchase the equipment as part of the system or exercise its option to obtain the equipment through other sources.

- The Proposer must describe in the proposal the impact anticipated on operational and technical support employees during routine or warranty preventive and corrective maintenance procedures. It is recognized that the Proposer cannot anticipate every situation; however, a reasonable discussion on routine repair procedures is required.

Staffing requirements

The successful proposer will recommend the number of positions necessary to perform the Call Center duties on a 24/7/365 schedule. . The staffing level recommended shall ensure that Fire-Rescue has a minimum of two (2) dispatchers monitoring radio channels and transmissions (main channel and/or tactical channels) at all times. In addition, the successful proposer shall recommend position titles and job descriptions including training and certification requirements, and the hierarchical structure and pay scale(s) for continuous operations in collaboration with the City's Human Resources Department.

The proposer shall discuss in detail their staff hiring and retention plan. Staff retention in a stressful environment has been problematic in the past and the successful proposers hiring and retention strategies will be considered in the RFP award.

Equipment Warranties

All warranties must be submitted as part of the proposal. The Proposer must warrant that all work done and all materials furnished by it or by its subcontractor(s) or representative(s) as a part of or in conjunction with the E911 Communications System and the work, specifically including but not limited to hardware, software, implementation, and documentation, must be of good workmanship and quality, free from all defects in design, content, workmanship, or materials for a period of at least one year from the date of final system acceptance.

The Proposer (or manufacturer) must expressly warrant that all items supplied under the contract are new, free from defects in design, materials, and workmanship.

The Proposer may provide a price for extending the standard hardware and/or software warranty period, as desired. If such a price is provided, a written explanation of the services and/or materials covered under the extension, major items or components not covered, the duration of the extended period, and the cost of the extended warranty must be included.

Documentation

The Proposer of the selected equipment must provide the City with an electronic version and a minimum of two (2) sets paper version in booklet form of all available system(s) documentation.

Examples of desired documentation are:

- Complete technical and maintenance information and documentation to support the system and support outlined in the final contract.
- Database structure diagram.
- Operations instructions, including backup, recovery, and maintenance procedures.
- User's manuals, to include the basic system, network, and any controller sub-systems.
- Any other documentation the Proposer considers applicable to the administration and use of the system under contract.
- Operating system manuals.
- Any additional documentation as may be requested by the City that is applicable to the proposed system.
- CAD Interface manual, if available.
- 911 phone system manual.
- Fire RMS manuals.

Maintenance training and documentation is required. The training provided shall specifically

cover, any maintenance and / or administrative training which are required by the City to support the intelligent work station, the server and network, all hardware, software and ancillary equipment, and all other equipment associated with the proposed system:

- Detailed explanation of system design.
- Detailed explanation of data base structure.
- Detailed explanation of communication network structure.
- Detailed instructions on modifying and/or adding new programs.
- Detailed instructions on modifying and/or adding data base tables and data elements.
- Detailed explanation of Program-to-Program interfaces.
- Applicable mathematical models and algorithms.
- Detailed explanations of operational, backup, recovery, and restart procedures.
- Diagnostics.
- Detailed instructions on hardware repair.

System maintenance and/or administrative training and documentation shall be included as part of the response. The Proposer shall describe the scope, duration, and location of the proposed training.

Software/Operating System Training and Documentation. The training and documentation provided shall specifically cover, but not be limited to, software for the intelligent workstations, the servers and networks, all ancillary equipment, and all other hardware and software associated with the proposed system. The course material must be presented in depth. A quick functional overview of the system is required in addition to the detailed material. The training provided shall specifically cover, but not be limited to, the following topics:

- Operating System basics – point, mouse, click, etc.
- Detailed explanation and instructions on adding or modifying functions.
- Detailed explanation and instructions for performing diagnostics on the operation system as well as addressing performance issues.
- Identify and provide cost for any performance tools that would assist in supporting the system (hardware and software).

Interviews

Prior to the determination of the RFP award, the City reserves the right to interview any or all firms under consideration. If notified and scheduled for an interview, Firms must be prepared to meet with the City evaluation committee to discuss their experience, abilities, proposal, methodology, or any aspect of their potential activity of this project. Failure to participate in any scheduled interview may be grounds for disqualification.

Technical

Broward County is responsible for implementing and funding the countywide E911 telephone communications network and standards to meet or exceed those directed in the State E911 Plan. The successful proposer shall coordinate the design and implementation of the City's E911 telephone communications network with the county's 911 Administer to allow for a seamless transition of E911 services. The proposed telephone solution shall include an E911 infrastructure and related equipment/service providers to ensure that the system performs smoothly, reliably, efficiently and cost effectively in concert with statewide emergency communication objectives. The proposed solution shall include sufficient network to handle both wireline and wireless calls adequately during any busy hour. The proposed solution shall ensure the maintenance and functionality of the City's E911 system on a 24/7 basis. Equipment maintenance and repair shall be in accordance with the State E911 standards.

As part of this communications evaluation, the 911 trunk line connectivity shall be examined to determine if a fiber path or a copper path would provide more appropriate service. The County is utilizing the Positron Viper 911 call handling system. The City requires seamless and fully integrated interconnection to that network. Provisions shall be included to permit the 911 calls to roll over to another dispatch center should an equipment failure or other incident impact the Center's ability to answer calls. Likewise, should the partner dispatch center need to roll their calls the City dispatch center shall be able to accept their traffic without limitations. The partner dispatch center has not been identified by the City and the proposer shall include an evaluation of suitable partners for the City to work with.

Computer Communications Network

An independent data network will be required for the public safety radio system consoles. This network shall not utilize, nor be connected to, any other network's router or switch infrastructure. Criminal Justice Information Systems (CJIS) data and City data networks shall comply with CJIS and Federal Bureau of Investigation (FBI) security requirements. The proposer shall investigate these requirements and provide a network design to accommodate all of the relevant requirements.

The successful proposer shall evaluate various methodologies for the transport of the data between existing City facilities and the new E911 Communications Center. These methodologies include leased circuits from a telephone company, dark fiber lease, dark fiber installed by the City, and microwave radio connectivity. Feasibility, cost analysis, security and reliability factors shall be detailed in the evaluation process for each option. Redundancy is a requirement for the radio console network.

In 2014, the City successfully transitioned from a legacy Nortel network phone system to VoIP technology.

To address an aging radio communications infrastructure, the City is converting to an APCO Project 25 (P25) 800 MHz Trunked System. The system infrastructure is provided by Motorola Solutions.

The City does not currently own any radio control consoles intended for use in the dispatch center. Consoles will need to be evaluated as a part of the proposal project.

The City owns and operates an analog 800 MHz Motorola SmartZone Simulcast Trunked 13-channel, 4 site Radio Communications System with an overlay APCO P25 800 MHz Motorola Trunked Linear Simulcast system with 12-channels at 3 sites. The City's analog 800 MHz Motorola SmartZone Radio System is integrated into the Broward County Regional Public Safety Radio Network through Motorola's SmartZone Technology via the Smart-X platform. The City's P25 800 MHz Motorola Trunked Linear Simulcast System is currently independent of the Broward County Regional Public Safety Radio Network.

Broward County is in the process of upgrading its 28-channel, 10 site Radio System to P25 technology. The vendor for this system has not been chosen at this date. The City utilizes the County's system for wide-area communications and a backup radio system. In addition, the City and County's municipalities have interoperability via radio system talk groups and the dispatch console network.

The City utilizes a Zetron Alerting System for alerting its Fire Rescue personnel. The system utilizes a radio frequency infrastructure to control the system. The City has two base station sites for redundancy.

Broward County is in the process of installing a new Motorola Premier One Computer-Aided Dispatch (CAD) system. The City will require that full bi-directional interoperability exist between the City's CAD and the County's CAD for purposes of preventing call transfer, and ability to "Flee-to" other facility and maintain CAD operations. Records Management System (RMS) access into the City's CAD shall be controlled from the City. The City may choose to permit the County to have read only access. (TBD) Existing records in the County CAD RMS shall be imported into the City's CAD RMS database to permit the City to have full access to their records and data.

Data Center

Proposers shall include data center requirements as a part of their response including but not limited to

- Room size
- Power and Backup Power
- Surge and lightning protection
- ventilation, and air conditioning (HVAC)
- Fire Suppression
- Security

Location

The City is currently seeking a Category 5 building to house the E911 Communications. Currently, there are three options under consideration:

- 1) Rebuild the old dispatch center at the Police Department building
- 2) Lease a building near the City's EOC at Fire Station 53
- 3) Remodel Fire Station 53 to accommodate the dispatch center

Statistics

City of Fort Lauderdale

- 2012 Population, 168,000
- 2015 Population, 176,013
- Tourist and Business estimates 50% increase in daytime population.
- 36 Square Miles
- City Emergency Services include Fire, Police and Emergency Medical Services
- 2015 Police emergency responses 204,000
- 2015 Fire-Rescue responses 55,000

SECTION 5 - EVALUATION AND AWARD

5.1 Evaluation Procedure

5.1.1 Bid Tabulations/Intent to Award

Notice of Intent to Award Contract/Bid, resulting from the City's Formal solicitation process, requiring City Commission action, may be found at http://www.fortlauderdale.gov/purchasing/notices_of_intent.htm. Tabulations of receipt of those parties responding to a formal solicitation may be found at <http://www.fortlauderdale.gov/purchasing/bidresults.htm>, or any interested party may call the Procurement Office at 954-828-5933.

5.1.2 Evaluation of proposals will be conducted by an Evaluation Committee, consisting of a minimum of three members of City Staff, or other persons selected by the City Manager or designee. All committee members must be present at scheduled evaluation meetings. Proposals shall be evaluated based upon the information and references contained in the responses as submitted.

5.1.3 The Committee may short list no less than three (3) Proposals, assuming that three proposals have been received, that it deems best satisfy the weighted criteria set forth herein. The committee may then conduct interviews and/or require oral presentations from the short listed Proposers. The Evaluation Committee shall then re-score and re-rank the short listed firms in accordance with the weighted criteria.

5.1.4 The City may require visits to the Proposer's facilities to inspect record keeping procedures, staff, facilities and equipment as part of the evaluation process.

5.1.5 The final ranking and the Evaluation Committee's recommendation may then be reported to the City Manager for consideration of contract award.

5.2 Evaluation Criteria

5.2.1 The City uses a mathematical formula to determine the scoring for each individual responsive and responsible firm based on the weighted criteria stated herein. Each evaluation committee member will rank each firm by criteria, giving their first ranked firm as number 1, the second ranked firm a number 2, and so on. The City shall average the ranking for each criterion, for all evaluation committee members, and then multiply that average ranking by the weighted criteria identified herein. The lowest average final ranking score will determine the recommendation by the evaluation committee to the City Manager.

5.2.2 Weighted Criteria

<u>ABILITY TO MEET OBJECTIVES</u>	
Project Approach	5

Staff Hiring and Retention Plan	20
Experience/Past Performance of the proposer as well as the principals who will be working on the project	20
References	15
Financial Stability	5
Compatibility with existing systems/technologies	10
Proposed timeline for turnkey solution	5
Cost	20

Total Score 100