

**MEMORANDUM  
POLICE DEPARTMENT**

**TO: Thomas Thomas, City Manager**

**SUBJECT: Firm Recommendation**

**NUMBER: 14-004**

**RE: Consulting Services Communication / Radio Upgrade 800 MHz**

**DATE: 01/27/14**

The Rock Island Police Department conducted a Request for Proposal (RFP) for consulting services to assist in the Rock Island public safety radio system upgrade. Our goal is to establish communications interoperability with surrounding Police and Fire agencies within the Rock Island / Scott County area. Currently all of Scott County, Rock Island Arsenal, Moline, East Moline, Milan and Silvis utilize the RACOM 800 MHz radio system.

Although much of the preliminary work for this project has been completed, we do not believe city staff has the time or expertise to complete the technical aspects and implementation of a project of this magnitude and cost without professional guidance. It is believed this project would be best served by hiring a consultant at an hourly rate since much of the preliminary work is already completed.

Requests for Proposal were advertised on the City's website and published in the Rock Island Argus on December 22<sup>nd</sup>, 2013 with a closing date of January 17<sup>th</sup>, 2014. The request was also sent to the following firms:

**Mazzitello Professional Services  
RCC Consultants  
Elerter & Associates**

Bids were received from the following firms:

<b>Firm</b>	<b>Consulting Rate / High Technical</b>	<b>General Consulting</b>	<b>800 MHz rebanding office work</b>	<b>Licensing</b>	<b>Travel Time</b>	<b>Travel Expenses incurred</b>
<b>Mazzitello Professional Services</b>	\$125.00	\$85.00	\$70.00	\$70.00	\$50.00	As incurred
<b>RCC Consultants</b>	\$185.00	\$160.00	\$160.00	\$160.00	\$92.50	As incurred
<b>Elerter &amp; Associates</b>	\$154.00	\$154.00	\$154.00	\$154.00	\$154.00	As incurred

After reviewing the proposals, the Police Department recommends the hiring of Mazzitello Professional Services for this study. It is expected that consulting services will be less than \$25,000.00. The work would begin upon approval of the contract and would take approximately five months to complete.

Vendor: Mazzitello Professional Services

Accounts Chargeable:

Fund:	101	General Fund
Divison:	414	Technical Services
Cost Center:	226	RICOMM
Object Class:	52305	Communication Equipment

**RECOMMENDATION:** It is recommended that the Council approve the attached proposal from Mazzitello Professional Service at a cost not to exceed \$25,000.00 and that the City Manager be authorized to sign the proposal on behalf of the City of Rock Island.

**SUBMITTED BY:** Jeffrey R. VenHuizen  
Chief of Police

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APPROVED:



Mazzitello Professional Services MPS LLC  
Michael J. Mazzitello Sr.  
N 7427 330<sup>th</sup> Street, Spring Valley, Wisconsin 54767  
715-222-4440  
mmazzitelloSr@gmail.com January 17, 2013

January 17, 2014

City of Rock Island Illinois

Mazzitello Professional Services (MPS) is pleased to present the enclosed proposal in response to City of Rock Island's Request for Proposal (RFP) for a Public Safety Communications Consultant. City of Rock Island will find a qualified partner in Mazzitello Professional Services for the project elements outlined in the county's RFP. By partnering with Mazzitello Professional Services on your radio communications planning project the county will receive objective recommendations, options, and solutions as we work with you to conduct an analysis of existing systems and develop a recommendations plan for improvements. We believe it is important for our customers to make informed decisions about their communications systems and we will partner with you through the entire review and planning process.

As a veteran in the public safety industry due to the wide ranging in time and depth of the associates that make up the resources of Mazzitello Professional Services it is our pleasure to describe our available resources to provide City of Rock Island our public safety consulting services. We offer a consulting team with unprecedented knowledge of public safety communications systems. Our associated staff members are involved in the development, design, management, and implementation of diverse public safety interoperable radio communications systems. Our experience in radio communications projects places us in an excellent position to provide the services required to complete the City of Rock Island project in a manner consistent with the city's overall goals and objectives.

As a matter of course, we are providing the following statement called for by the RFP document:

Mazzitello Professional Services does not now nor have we at any time in the past had any technical or financial relationship, development interests, or clients who might benefit financially, directly or indirectly, now or in the future, from this project. Furthermore, we do not sell, nor do we endorse any specific technology vendor, manufacturers, or commercial telecommunications services.

If you have any questions or for future correspondence, please contact Michael Mazzitello at 715-222-4440 or by e-mail at mmazzitelloSr@gmail.com. We look forward to working with City of Rock Island on this important public safety communications project.

Sincerely,  
Michael J. Mazzitello Sr.  
Owner, Principle Consultant



Michael J. Mazzitello Sr.  
N 7427 330<sup>th</sup> Street, Spring Valley, Wisconsin 54767  
715-222-4440  
mmazzitellosr@gmail.com

January 17, 2013

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## **Project Summary**

Mazzitello Professional Services (MPS) understands that City of Rock Island is seeking to update the current public safety communications system in such manner so as to improve signal coverage and interoperability with partner agencies throughout the jurisdiction area for all involved stakeholders.

To this end, the City has issued a RFP seeking professional expert assistance in devising a plan to accomplish this upgrade to the existing system.

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Based on the RFP statements provided by the City, Mazzitello Professional Services (MPS) has a response for consideration by City of Rock Island.

As we have identified in our response to the proposal request for Radio Communications Services, Mazzitello Professional Services staff is offering professional two way voice radio and paging radio consulting services. Our “communications team” includes public safety system analysts and technology specialists that have structured our response to approach to this project from a holistic perspective. This perspective and experience in the public safety communications industry enables MPS to not only deliver the core engineering required but to also understand the appropriate underlying operational perspectives.

### **Pricing Summary:**

- Per request of the RFP as provided by the City, a rate sheet has been provided detailing the hourly fee for the work type described.

Project time lines would be clarified with City of Rock Island as the project is solidified. MPS is available to conduct this project in a timely manner to meet the City's goals.

Thank you for your consideration,

Michael J. Mazzitello Sr.

Respectfully submitted, Michael J. Mazzitello Sr. Owner, Senior Consultant

**MICHAEL J. MAZZITELLO SR.**  
**MAZZITELLO PROFESSIONAL SERVICES (MPS) LLC**  
**N 7427 330<sup>TH</sup> STREET, SPRING VALLEY WISCONSIN 54767**  
**715-222-4440**  
**E-MAIL: [MMAZZITELLOS@GMAIL.COM](mailto:MMAZZITELLOS@GMAIL.COM)**



Mazzitello Professional Services (MPS) is pleased to provide the following proposal to the City of Rock Island, Illinois. The intent of this proposal is to provide all required services related to the City "Request for Communications Consultant". We feel that our proposal provides a cost effective and technically competent approach to the process of analyzing and fulfilling the general radio communications systems needs of the City, and EMS providers. In this RFP response, the client/project owner is stated as the City. It is understood that there are other local agencies and cities that will be system participants and, as such, will also be considered as project clients.

As we have identified in our response to the proposal request for Radio Communications Services, Mazzitello Professional Services has offered professional two way and data radio consulting services to various levels of City, County, and State governmental agencies for several years and has tenured experience in public safety emergency communications. And, while our "communications team" does include system analyst and designers, we have structured our approach to these projects from a far more holistic perspective. This perspective and experience in the public safety communications industry enables MPS to not only deliver the core engineering required but to also understand the underlying operational perspectives required. We pride ourselves on the mix of perspectives we bring to these projects, and the degree to which we assist the client in developing an understanding of, and in making intelligent choices about the implementation of a wide variety of communications technologies.

From the outset, **we base our work on the premise that our clients want to make informed decisions**, and they want to be a part of understanding why a given technology or its particular application is the right or wrong technology in their environment. In some cases, this premise is flawed, and we learn that the customer merely "*wants us to do it for them and tell them when it is done and send them a bill when it is all over*". And, while we can do that, we would rather not. We would like our customers, at the end of a project for which they retained Mazzitello Professional Services, to be far more knowledgeable about the system they have purchased (or will be acquiring) and more capable to operate, maintain, expand, upgrade and gain full utility of that system for decades to come. MPS views our projects as long term valued relationships.

We are confident that the following information along with the pricing will address all areas of your request for proposal. If there are any questions about our response, or additional information requirements please contact me directly.

Respectfully submitted,

Michael J. Mazzitello Sr. Communications Consultant, Owner

## EXECUTIVE SUMMARY

### Introduction

As reflected in the Request for Proposals (RFP) for Radio Communications Services City of Rock Island is undertaking the task of moving from legacy communications facilities serving the City public safety first responders to a new system that is more in compliance with the concept of interoperability with local partner jurisdictions. The intent is to move to a replacement radio network that supports participation in the RACOM 800 MHz radio system as it is and can be, or similar technologies.

To successfully identify the issues surrounding these activities, as well as implement the changes and equipment that best fits the needs of the users, a comprehensive effort is required to review and establish the needs and expectations of all parties involved. This work is best accomplished by firms and individuals who are committed to the planning and expertise in the field of emergency and local government communications. ***The staff members of MPS constitute such a group.*** MPS is currently and has previously worked with numerous public safety agencies that face similar challenges and have accomplished these same goals with much success.

MPS is pleased to provide the following proposal to City of Rock Island, Illinois. The intent of this proposal is to provide for the most cost effective and technically sound approach for the improvement of the 9-1-1 dispatch radio systems serving public safety agencies in the City. MPS will provide a comprehensive package of services that address all of the technical and management areas of the proposed project.

### Understanding of City's Intent

MPS understands that the City desires to contract with a Public Safety Communications Consultant for the purpose of providing the professional services to meet the following objective:

**Objective:** The **primary** objectives of this project is improvement of two-way voice-communications to a higher level of standards than is achievable with the current legacy system(s) and establish communications interoperability with surrounding public safety entities. Meeting this objective will provide enhanced levels of portable and mobile radio talk-in (to the repeater) coverage based upon industry standards. The investigation will include the data collection of available existing communications technologies extant in and around the Quad Cities Region.

MPS will support the City of Rock Island in its decision processes to determine the type of technology to procure and implementation of the same as noted below:

- **Infrastructure Design:** Provide system design recommendations based upon information garnered in a discovery process.
- **Proposal:** Consultant will produce a formal recommendation that will include, but not be limited to, the following topics:
  - General system requirements
  - Conditions to proposers (including responsibilities, warranties and documentation requirements)
  - Radio coverage requirements

- Review of existing dispatch center infrastructure that will support the new radio system
  - A general schematic diagram of the infrastructure configuration, displaying sites, PSAPs, structures, backhaul, and functions at each location.
  - Operational requirements
  - Hardware and equipment requirement/recommendations
  - Grounding and protection requirements/recommendations
  - System budget for procurement
  - System operation budget ongoing
  - System warranty recommendation
- **Provide assistance** during technology/vendor selection process, including responding in writing to vendor questions during the technology selection process and from the committee during the evaluation process.
  - **Project Management** services, including the following:
    - Oversight and monitoring of equipment purchase and installation, assist in contract negotiations
    - Assist in fleet map development
    - Assist in training objectives for dispatch and users
    - Conduct acceptance testing

**Phase 1: Study of the current system, preliminary future system design, and budget & concept development**

MPS will conduct a thorough evaluation of the existing radio system usage and reasoning for its existence, and deployment, with end result analysis reflecting the replacement systems requirements to meet the existing communication strategy, and position any new procurement and operations for new features and capabilities. We propose to conduct a thorough evaluation of the environment and options available to maximize the ability of units of the City to inter-communicate (inter-operate) with other units of the City government or with those of other units of government in the greater City of Rock Island/Quad Cities area.

- During this process we propose to develop computer based radio signal propagation models to support assessment and analysis of the existing and proposed systems components. This will allow the City to assess the ability of a given base transmitter to talk out and be heard by field radios as well as field radios to talk to each other's and back into the base from throughout the jurisdiction.
- Prepare signal coverage models that will give a prediction estimation of the expected performance of any alternatives possible as enhancements to the existing system.
- We propose to develop a recommended new system design along with budgetary costing estimates for the design. This recommendation will be a part of a comprehensive "Radio Communications Plan" report, which will flow from this work.

- We propose to survey existing equipment sites for their compliance with FCC rules regarding RF power emission warnings, and other factors. .
- We will review and update current documentation on anticipated system needs for all City departments as well as EMS providers.

**Phase 2: Investigation of candidate technologies that will meet the intention to develop the optimal interoperable operations capability of the City of Rock Island**

MPS would engage in the professional services required for the preparation of required procurement documents (Request for Bid, Request for Proposal, or Request for Information), their publication, receipt, compliance review, vendor interviews, system award and contract negotiation. For a project such as the one envisioned here a full RFP may not be required as the solution at hand may be for one that exists currently in the area. Thus if the project is a sole source solution, then MPS will provide in depth support of the City's affiliation with a sole source provider.

In addition, MPS proposes to provide project management services including coordination of installation and the oversight of the final system acceptance testing.

- Technical and administrative support will be provided throughout the bidding process/solution negotiations both on-site and from our main office.
- Following bid/request for sole source solution submittal we would conduct an objective analysis of the vendor's proposals, apply evaluation criteria approved by the City and provide an award recommendation to the appropriate officials.
- Once the award has been made, MPS will assist with contract negotiations, conduct monthly project meetings and supervise the inspection of all installed systems elements.
- Finally, we propose to assist the City and stakeholder cities/agencies with final systems acceptance via the development and application of an objective acceptance test plan designed to ensure conformity to the RFP/Contract requirements.

## DESCRIPTION OF WORK PROGRAM AND SCOPE OF SERVICES

MPS proposes to provide consulting and engineering services in the traditional design/build type format, which involves a preliminary planning phase followed by a design phase and culminating with the building phase of the project. Generally speaking the initial planning phase consumes approximately 25% to 40% of the total allotted time as goals and objectives are formulated, existing system analyzed and evaluated, and specific operational requirements are identified. The time line for completion of such a project is difficult to state with any certainty, but it is normal for such a project to take from 9 to 18 months, depending on available funding, regulatory process and requirements (FCC Licensing, local building permits if needed), and vendor delivery and services schedules.

The following information will endeavor to provide the City with a detailed understanding of the precise process being proposed and will include a description of the anticipated deliverables for each work area. The responses are linked to the RFP sections as numbered.

**8.1 Summary Report:** Consultant will provide a summary report on the current system technology and operations riding on the current radio systems. This will form the base line for understanding by potential radio system vendor(s) to formulate a replacement system.

MPS believes that in order to effectively be able to determine goals for system operations as the City has outlined in their RFP, we must first complete the assessment of the existing equipment and systems. A propagation analysis of the existing systems will be developed to use as a reference during discussions concerning the determination of goals for system design of the new RACOM system.

In addition, MPS personnel will conduct a physical assessment of the existing communications system and sites. This assessment will include all public safety dispatch centers, base stations, tower sites, and other connecting facilities. However, no actual testing of equipment will be attempted.

Deliverable: **Preliminary Status Report** - Following the "Kick-off"/technical presentation meeting, and site reviews MPS will issue a preliminary systems status report complete with a general discussion of the combined system design aspirations identified via the initial discovery tasks.

**8.2** Provide for interaction between the City of Rock Island, participating local agencies in the Quad Cities, and potential vendors(s) to develop best practice system technology requirements for eventual use in a final product (materials and services) system procurement.

Interviews will be conducted with representatives of each of the departments currently using communications equipment (i.e.: Police Departments, Fire Departments, Sheriff's Office, EMS, and any other possible agencies). These

meetings will further define their individual communications problems and needs that will need to be met on any new system.

Once the system design goals have been set and the current systems are analyzed, MPS will develop the Systems Design requirements based upon previous site visits, discussions with local officials, and the in-depth analysis of existing communications systems.

These design requirements will include but not necessarily be limited to:

- current channel loading,
- future mobile and portable coverage expectations,
- available and required spectrum,
- physical facilities requirements,
- future expansion, and
- Systems governance.

These design requirements will address the areas of two-way radio, mobile data, radio paging, facilities design, uninterrupted operations and connectivity, and emergency operations center requirements.

Deliverable: **Systems Requirements and Expectations** - Flowing from all of the previous work, MPS will then document and present to all interested parties the systems design requirements and operational expectations. It is assumed that this report and the associated meeting will allow all interested agencies to debate the proffered requirements in such a manner so as to ensure a thorough understanding of the technical, operational, financial, and political ramifications of each element.

**8.3** Provide overview justification and presentation(s) to City Council as required.

Immediately following the acceptance of the basic systems requirements and the identification of suggested sites, MPS will begin costing out the various elements for budgetary purposes. Documentation will be developed for basic systems elements for City wide mobile coverage, portable coverage outside of building and for in building portable coverage. In addition optional elements such as encryption, mobile data and automatic vehicle tracking will be addressed. Costs will be identified for all basic and optional elements in a "line-item" fashion to allow for cost sharing as appropriate.

MPS will meet with all interested parties to discuss the reports as generated and to further refine the various identified design options. These design options will be further consolidated into various systems design statements. The design statements will be arrived at via the consensus of all agency officials with operations and fiscal responsibilities within the context of the radio program.

General project goals will be developed that will include long-range goals and budgetary cost objectives. Furthermore, the existing project schedule will be further enhanced to reflect the precise design parameters agreed upon via the goal setting process. Following this goal setting process, MPS will further breakdown the goals into manageable tasks and set the preliminary items into motion.

Deliverable: **Time Line Chart** – Once the tasks have been identified, MPS will produce a project time line chart which identifies goals, objectives, tasks, and deadlines. This new schedule will be forwarded to the City for review and/or modification as indicated and ultimate approval.

Deliverable: **Basic Design with Costing** - This report will be an enhancement to the previously submitted basic system requirement document and will include detailed pricing for all elements.

**8.4** Provide onsite support of the installation process and cutover tasks to make the system ready for use/cutover, and for support of tasks necessary to support the City agencies staff training.

**1. Contract Supervision**

MPS proposes to provide on-going oversight to the project throughout its staging, installation, implementation and acceptance phases. This will ensure the adherence to the contracts systems design requirements on a progressive basis. Generally, monthly implementation meetings are held at the customer's site with all interested parties, consulting engineers and vendors present. At these monthly meetings schedules are assessed, change orders (if any) are reviewed, and construction draws are authorized as per contractual documentation. Additional meetings can be included with a negotiated cost per trip.

Deliverable: **Monthly Meetings. (may be on site or phone conference call)**

**2. Supervision of Contractors Installation and Testing**

MPS will act as installation supervisors as the various systems equipment elements are delivered, installed and optimized. The installation review activities will coincide with the monthly meetings described above.

Deliverable = **As needed Inspections.**

**3. Test and Accept System**

MPS will require that a system Acceptance Test Plan (ATP) will be developed in cooperation with the selected vendor and incorporated into the procurement contract documents. This ATP is designed to allow the City to apply various objective criteria to the final testing process thus ensuring that the installed system operates in accordance with the original conceptual intent and the detailed technical specifications. It also allows the City to conduct the final technical testing prior to actual contract signing thus providing the City with a high degree of technical leverage.

MPS will make inspections of the ongoing installations at minimum during the scheduled meetings. As required by the RFP, MPS will be present while the system acceptance test plan is being conducted. As part of the ATP MPS will, along with appropriate City personnel, make a final inspection of the system installation.

Deliverable: **Acceptance Test Plan** - Incorporated into the procurement contract, final testing performance report.

## QUALIFICATIONS AND EXPERIENCE OF MAZZITELLO PROFESSIONAL SERVICES, LLC.

### **A. Experience with similar systems and projects.**

MPS is a full-service public safety communications-consulting firm. Our staff has been involved in numerous similar projects throughout the Midwest. Of most relevance to the current Statement of Qualifications are several recent projects:

### **B. Staff Resources –**

Michael Mazzitello, MPS Principal Consultant – Owner is the individual that would perform the bulk of the necessary work in office, on site at City offices, and on site during project. Michael is a past volunteer for Ramsey City and Washington County, MN Communications consultant and technician. He is an FCC licensed and NEI trained communications engineer and technician. Previous work products are systems implemented for Motorola™ Communications & Electronics, being a specialist in Public Safety and Utility Systems/Networks in the Midwest USA. Michael installed and optimized MN's first Motorola CentraCom™ II CRT Radio Dispatch Console System.

Michael was the principal system architect in designing, project coordination, and managing of the Northern States Power Company's eight (8) site, ten (10) channel, Simulcast Motorola Smartnet™ system in Minneapolis. From concept to day-to-day maintenance Michael had involvement at all levels of project activities.

In later career assignments Michael designed and engineered, along with providing project supervision for major wide area public utility voice, data, power grid load management and meter reading, and fiber/Microwave point-to-point link networks for Northern States Power Company, covering five (5) states.

Design engineering and project supervision/vendor coordination of bi-directional amplifications systems in office buildings, coal fired plants/tunnels and nuclear power plant facilities, as well as local government installations in Minnesota.

In the provided resume, Michal has accumulated a long list of public safety projects large and small all with successful conclusions for the clients and stakeholder agencies.

In such a project additional staff resources can be called upon to assist, if needed at the time of additional resource allocations that individual(s) information will be provided.

### **D. Clients' Contact**

For the purpose of this proposal the City's project contact will be Mr. Michael Mazzitello.

### **F. Resume on the following pages**

## **Michael Mazzitello, Sr.**

### **Communications Consultant**

Michael is a Federal Communications Commission (FCC) licensed and Northwestern Electronics Institute (NEI) trained radio communications specialist and technician with a 34 year history in radio communications. He has been involved in the successful design and implementation of interoperable radio systems ranging from small city wide systems, to large regional projects across the Midwest.

Michael's project success is attributed to his knowledge of public safety radio systems and Utility Industry systems. His involvement in past public safety projects ranges from analyzing existing radio communication networks in various states of their life cycles, to providing upgrade or system replacement recommendations, and by facilitating procurement and installation consulting for the radio communication systems. His experience includes planning efforts for the Mid-American Regional Council (MARC) eight-county region, and installing and optimizing Minnesota's first Motorola CentraCom II CRT Radio Dispatch Console System. Michael was also heavily involved in the Kansas City areas Regional Area Multi-Band Integrated System (RAMBIS) system design and RFP creation.

As a long time public safety consultant, Michael is well known throughout the State of Minnesota for his participation in regional radio boards throughout the state, his involvement with the Department of Electronic Communications, and for his contributions in the state's Allied Radio Matrix for Emergency Response (ARMER) program, where he provided consulting services for the state's 800 MHz Interoperable Statewide build-out. Michael's ARMER experience includes representing individual counties at the Metro Emergency Services Board and the Minnesota State Radio Board Operations and Technical Committee for their possible inclusion into the ARMER program.

Michael's experience in consulting and public safety includes:

- Land mobile communications systems and equipment
- Conventional and trunked radio system design and implementation of VHF (155 MHz), UHF (450 MHz), and 700/800 MHz
- Microwave point-to-point to multipoint microwave networks
- Experienced in the design and implementation of systems for area and City/County wide public safety applications including:
  - Wide area voice radio coverage and propagation
  - Wide area specialized volunteer fire paging systems
  - Radio control console systems design and implementation
  - Multi-jurisdictional dispatch operations and personnel management
- Analysis and implementation of state-of-the-art land mobile communications and products
- Emergency communications dispatch volunteer in the Ramsey and Washington County, Minnesota Emergency Preparedness operations
- Business continuation/disaster recovery applications

**Michael J. Mazzitello Sr**  
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**Cell 715-222-4440**  
[\*\*mmazzitellosr@gmail.com\*\*](mailto:mmazzitellosr@gmail.com)

### **Professional Experience**

#### **Mazzitello Professional Services LLC** Spring Valley, Wisconsin

- Communications Consultant, Field Civil Work, Legacy System Analysis, System Design Development, Project Management-oversight

#### **Federal Engineering**

Fairfax, Virginia

- Communications Consultant, Field Civil Work, Project Management-oversight

#### **GeoComm**

St. Cloud, Minnesota

- Communications Consultant, Project Management

#### **IBM**

Minneapolis, Minnesota

- Communications System Networks –Wireless-Engineer Consultant-wireless networks remote SCADA, Microwave, Project Management
- Nuclear Power Plant wireless systems

#### **Northern States Power Company/Xcel Energy Minneapolis Minnesota ,**

- Wireless Network System Engineer, Project Management, Land Mobile Radio Systems-wireless networks Nuclear Power Plant wireless systems, SCADA, Microwave

## Utility Market

- Northern States Power Company, Minnesota, Wisconsin, North Dakota, South Dakota
  - Trunked Radio System Implementation Twin Cities
  - Trunked Radio System Implementation- Prairie Island Nuclear Plant
  - Trunked Radio System Implementation-Monticello Nuclear Plant-Sherco Coal Plant
  - Conventional VHF, UHF Land Mobile
  - Subscriber unit programming
  - Analog and Digital Microwave Implementations
  - SCADA, Wireless Power Distribution systems Transmission, Distribution Automation, Meter Reading
  - Trunked System Management

Past involvement in the Utility Industry- Motorola Trunked Users Group Executive Committees  
Specialty in site development, communications tower/shelter procurement and implementations – ALL Markets -

## Highlighted Large, Most Recent Projects

**Scott County Iowa** – Michael provided to Scott County Iowa a comprehensive review of the current state of technology for the public safety system network that is dependent on for the County first responder public safety communications. Scott County operates their public safety communications on the RACOM EDACS radio network. A major part of this effort was the site inspection of the RACOM technology as implemented at the RACOM Iowa network site in Marshalltown, and a review of the existing sites in the Scott County area. Careful attention was directed to the current state of implementation of the legacy (analog) technology, and an in-depth review of the migration plan that RACOM and Harris Corporation (manufacturer of the RACOM system technology) are committing to for the local upgrade to support P25 operations. The County had come to use this system as a part of the development of the Scott County combined PSAP operations several years ago. At that time the County and partner agencies procured a new fleet of mobiles, portables, and PSAP support equipment that allows operation on the current analog RACOM system, as well as for eventual P25 migration. Michael provided professional services to Scott County Iowa to provide a review and recommendation as to current status of the existing radio system, and provide some insight as to alternatives. Scott County Iowa developed a new PSAP facility as a result of a consolidation effort in 2008. As a part of that project Scott County joined the RACOM State of Iowa-wide radio system network. In 2012 sufficient time had elapsed that it was prudent to ascertain the current technology status of the RACOM system, and to review costs associated with the RACOM system. Alternative communications technologies extant locally in Iowa and Illinois (StarCom) were reviewed that would emulate the services and coverage enjoyed in the RACOM system. Budgetary issues, current and future technology advancement potential and regional initiatives were investigated. Given the close proximity location of the County to the State of Illinois Motorola

## Motorola Communications & Electronics

St. Paul, Minnesota

- Lead Systems Field Systems Technologist Project Management, and Technician -, Public Safety and Utility Land Mobile Radio Systems- wireless networks, SCADA, Microwave

## Soo Line Railroad

- Radio Technician and Field Engineer

## Capitol Electronics

St. Paul, Minnesota

- Project Management, Systems Installer--, Public Safety and Utility Land Mobile Radio Systems- wireless networks

## Education

### Northwestern Electronics Institute

Minneapolis, Minnesota

- A.A. Electronics Degree

### Motorola Technical Training Programs

## Technical Experience

- 700/800 MHz Trunked Systems
- VHF and UHF Conventional Radio Systems –Simulcast and non-simulcast
- Frequency Research and Acquisition
- Mobile Data Systems
- Computer Aided Dispatch
- Records Management Systems
- Wireless Communications
- E9-1-1 Implementation
- Conventional and Trunked Radio Systems
- APCO Project 25
- Radio Paging
- Interoperable Two-way Radio Systems
- Microwave Radio Systems and Network Design
- Harris Microwave

StarCom system, there was plenty of reason to shop around for the best opportunity for Scott County. A report was developed and provided to Scott County for their use in making policy decisions. Michael also participated in the original PSAP development project in a supporting role to the Director at the time, Mr. Brian Hitchcock. The supporting project was the development of the PSAP main communications monopole structure and integration of the tower and supporting facilities in the new PSAP brick and mortar project.

*Harris EDACS*

**Lake County Indiana** – Michael is the principal consultant providing project Design, RFP management, Implementation management services for technology and on the ground civil work development of the 700 MHz multi-site simulcast system. This is part of a large PSAP consolidation project. This system is under RFP process at this time. This system is expected to support approximately 4,500 subscriber radios. Michael is assisting the client in all matters related in such a large project from the political strategies to on the ground civil work materials and services for site development. Included is the on the ground supervision of the prime contractor in technology and new site development, and assist the client with technical support in the project general activities. *Harris Simulcast VHF P25 and simulcast analog paging*

**City of Council Bluffs and Pottawattamie County, Iowa** – In the creation of the Omaha Regional Interoperability project, Michael provided project management and procurement management services to the City of Council Bluffs and Pottawattamie County throughout the acquisition of their 10-channel, 7-site, and P25 trunked radio system. The system included 1,000 subscriber radios and high speed data option (HPD), MOSCAD monitoring, two MCC7500 console installations and the provision of a 150 Mbit 8-site IP based microwave network. Michael assisted the client in preparing a competitive RFP for the total acquisition of the proposed radio system elements including three new tower sites and interaction with five-site owners for lease locations. *Motorola ASTRO*

**Boone County, Iowa** – Boone County in Central Iowa developed a project that was twofold. First the need to meet the Federal Communications Commission narrow-band updates, and secondly improvements to the system for capacity and coverage. Michael was the project consultant of record to do the initial needs assessment and provide a report of suggestions and strategies that the County could follow. As a follow up to the needs report a procurement process was developed and completed, ending up with a new system that is expected to meet the County goals. The system is a County owned network.

**Dane County Wisconsin** – Michael provided project management services and on the ground civil work development of the VHF multi-site simulcast system. This system is a Harris P25 trunked radio system. This system expected to support approximately 2,500 subscriber radios. Michael assisted the client in the on the ground supervision of the prime contractor in site development, and assist the client with technical support in the project general activities. *Harris P25*

- Alcatel Microwave
- Nortel Microwave

### **Memberships and Certifications**

- APCO
- FCC License PG1612516
- Amateur Call N0WHP

### **Clearances**

- Maintained a security clearance for nuclear power plants in Minnesota

### **Professional and Civic Societies**

- Past elected office City of Lake St. Croix Beach Minnesota
- Past Technical officer Ramsey County Emergency Services
- Past member Washington County Minnesota Emergency Services

### **Software Proficiencies**

- Microsoft Word
- Microsoft Excel
- Microsoft Visio
- Radio Soft Signal Propagation study tools
- FCC ULS
- CAPRAD Coordination Software
- FAA Study tools

**Stearns County Minnesota** – Michael provided system analysis, new paging system designs, and project management services for the reconfiguring of microwave connectivity and paging. The legacy VHF paging system was a multi-site non simulcast system. The County needed better coverage and site connectivity. This system is a Motorola transmitter, Harris simulcast controlled network. Stearns is a very large Minnesota County, with a varying terrain profile. The County is now covered very well for signal coverage and has an accelerated rate of paging on the air given that single key strokes now are only what are needed to cover the County versus many site selection key strokes to activate all of the transmitter sites. Michael assisted the client in the on the ground supervision of the prime contractor in site development, and assist the client with technical support in the project general activities.  
*VHF Simulcast*

**Brown County - Green Bay Wisconsin** – Brown County embarked on a P25 project as a part of the narrow banding mandate from the FCC. To facilitate better interoperability between internal agencies and neighboring entities Trunked radio over conventional radio was selected. The Standard of P25 was chosen using 700 or 800 MHz as the best frequency band. In this project Michael was assigned the preliminary design task, developing the layout of the sites based on coverage requirements and interconnect technology specifications. The system is set for cutover in late 2012. *Motorola ASTRO*

**Wright County –Sherburne County Minnesota** – Michael provided project management services and on the ground civil work development of the ARMER multi-site simulcast system. This system is a Motorola 800 MHz P25 trunked radio system. This system expected to support approximately 2,500 subscriber radios. Michael provided system design consultation in a cooperative effort with Sherburne County, and the ARMER technical staff in MnDOT. He assisted the client in the development of the implementation plan, subscriber selection, talk group fleet development, and general assistance to the implementation project manager in Motorola and Wright County. *Motorola ASTRO*

**City of St. Cloud Minnesota** – Michael provided project Turn-Key project management over the design and implementation of the prominent City of St. Cloud expansion of the Minnesota ARMER system. This was the first big implementation of the ARMER system outside of the Metro Twin Cities. Involved with this project was the development of the interface of the City School district/City fiber optic system with new licensed and unlicensed microwave links. The development of the new City water tank to be the prime site location called in the need of such structures, building codes, and foresight for expandable communications facilities and structures. This system started out as a single site analog, and morphed into a three site digital P25 system going from 5 channels to 10 channels. This system set the pace for the rollout of the Stearns County system, and other local counties.  
*Motorola ASTRO*

**City of Omaha and Douglas County , Illinois** – In creating the Omaha Regional Interoperability project, Michael provided project management services to Douglas County and the City of Omaha throughout the acquisition of their 20-channel, 7-site, NSPAC (821 MHz), P25 trunked radio system. The system included 2,500 subscriber radios and high speed data option, plus MOSCAD monitoring. Michael prepared a competitive RFP for the total acquisition of the proposed radio system. *Motorola ASTRO*

**Washington County, Nebraska** – In 2003, Michael participated in a conducted a Needs Assessment and Options Analysis for Washington County. In follow-up to our previous recommendations, Michael provided the County with implementation services for the build-out of, and merger with, the City of Omaha and Douglas County P25 trunked radio system, and the system serving 14 counties in eastern Illinois. Michael also assisted the County in applying for and receiving a USDHS grant for the construction of the three-site, five-channel addition. *Motorola ASTRO*

**St. Clair County, Illinois** -The P25 Digital trunked radio system project was a bellwether for the next generation of communications in Illinois. Michael was lead technical design engineer/consultant for the scope of the project and for the development of the RFP specifications. This system that was installed was a state-of-the-art 700/800 Megahertz (MHz) digital trunked radio system. It included ten tower sites located throughout the County. The initial infrastructure was designed to support approximately 500 end-users with the potential to accommodate up to 1600 end-users and likely ore as the system proved its capabilities. . The purpose of this system is to allow for effective interoperable communications between County employees both within and between departments. The system will allow for radio communications with the Illinois State Police as well as any other state or local entity that is part of the [STARCOM21](#) system. *Motorola ASTRO*

**Anoka County, Minnesota** – Anoka County is a Twin Cities Metro County of 300,000 residences. The County was in need of expanding their radio system coverage and developing a participation plan for their involvement with the ARMER network expansion. Michael assisted in expanding Anoka County into the state's local subnet of the basic ARMER system. He oversaw the build-out of the ARMER subnet upgrade, the acquisition of microwave and console systems, and new VHF simulcast fire paging. To complete the project, Michael facilitated negotiations for the addition to the existing P25 region wide trunked radio system from Motorola. *Motorola ASTRO*

References:

REFERENCE: Dave Donovan Interim Director of 911 Communications at Scott County Iowa, Davenport; 563-340-1060 or via e-mail at [david.donovan@scottcountyiowa.com](mailto:david.donovan@scottcountyiowa.com)

REFERENCE: Brian Hitchcock Executive Director of 911 Communications Lake County Indiana, former Director at Scott County Iowa, Davenport; 219-755-3414 or via e-mail at [hitchbr@lakecountyin.org](mailto:hitchbr@lakecountyin.org)

REFERENCE: Dave Morlan, Emergency Management Coordinator, Boone County Iowa, Boone Iowa; (515) 433-4926 Office or via e-mail at [davem@boonecounty.iowa.gov](mailto:davem@boonecounty.iowa.gov)

REFERENCE: Chief Deputy John Reynolds, Sheriff's Office, Communications Pottawattamie County Iowa, Council Bluffs; (712) 328-5739 Office or via e-mail at [jreynolds@pottcosheriff.com](mailto:jreynolds@pottcosheriff.com)

REFERENCE: John Dejung, Dane County Wisconsin 911 Director. 608-267-2507 or via [dejung@countyofdane.com](mailto:dejung@countyofdane.com)

REFERENCE: Phil Brazelton, Captain, Communications Division, Washington County Sheriff's Office, Washington County Illinois, 402-426-6866 or via e-mail at [capt.brazelton@washcosheriff.org](mailto:capt.brazelton@washcosheriff.org)

REFERENCE: John Lemen, RF Systems Analyst, Public Safety Communications, Office of the Chief Information Officer (OCIO) Illinois, 402-471-0745 or via e-mail at [John.Lemen@Illinois.gov](mailto:John.Lemen@Illinois.gov)

REFERENCE: Bill Swing, Director of 911 Communications Wright County Minnesota, Buffalo; 763-682-7316 or via e-mail at [bill.swing@co.wright.mn.us](mailto:bill.swing@co.wright.mn.us)

REFERENCE: Micah Myers Current Director of IT Communications City of St. Cloud Minnesota; 320-309-0027 or via e-mail at [Micah.Myers@ci.stcloud.mn.us](mailto:Micah.Myers@ci.stcloud.mn.us)

REFERENCE: Tom Hannon, Past Director of IT Communications City of St. Cloud Minnesota; 320-309-9531 or via e-mail at [thannon@charter.net](mailto:thannon@charter.net)

REFERENCE: Roger Laurence, Radio Communications Manager, Hennepin County Minnesota. 612-596-1920 or via [roger.laurance@co.hennepin.mn.us](mailto:roger.laurance@co.hennepin.mn.us)

REFERENCE: Paul Linnee Former City of Minneapolis 911 Director, Currently of Emergency Communications Strategies, P.A. 612-869-6164 or via e-mail at [paull911@aol.com](mailto:paull911@aol.com)

REFERENCE: John Lampkin, Brown County Wisconsin 911 Communications; 920-391-7404 or via e-mail at [Lampkin\\_CJ@co.brown.wi.us](mailto:Lampkin_CJ@co.brown.wi.us)

REFERENCE: Sgt. Todd Roelfsema 911 Communications, Lyon County, Marshall Minnesota; 507-537-7666 or via e-mail at [ToddRoelfsema@co.lyon.mn.us](mailto:ToddRoelfsema@co.lyon.mn.us)

REFERENCE: **John Tonding** State of Minnesota ARMER Central Minnesota & Metro ARMER RIC Consultant, 763-587-8234 or via e-mail at [John.Tonding@state.mn.us](mailto:John.Tonding@state.mn.us)

REFERENCE: **Jay Sikkink**, IT Director, Crown Wing County Minnesota. (Former IT Director and Radio System manager, Stearns County Minnesota) 218-824-1106 or via [Jay.Sikkink@crowwing.us](mailto:Jay.Sikkink@crowwing.us)

REFERENCE: **Ron Obermueller**, Manager Network Engineering, Xcel energy, Minneapolis Minnesota. 612-330-2876 or via [ronald.d.obermueller@xcelenergy.com](mailto:ronald.d.obermueller@xcelenergy.com)

## PRICING

January 17, 2014

Wayne L. Sharer  
911 Public Safety Communications Supervisor  
Freedom of Information Officer  
City of Rock Island  
316 16th Street  
Rock Island, IL 61201  
309-732-2510

RE: Pricing for “**City of Rock Island Communications System Upgrade-Consulting Services**” RFP.

To Whom It May Concern:

Mazzitello Professional Services (“MPS”) Inc. is a Wisconsin LLC with corporate offices located at N 7427 330<sup>th</sup> Street, Spring Valley Wisconsin, 54767.

We trust that the technical proposal, the following pricing and additional information will address all areas of your Request For Proposal and stand ready to formally present this proposal at your convenience.

### CONSULTING RATES

<b>Consulting Rate - High Technical Radio Signal Propagation Analysis, Detailed system Drawings, RFP creation, detailed PSAP Design/collaboration with architects/building engineers</b>	<b>\$125. Per hour</b>
<b>General Consulting – Meeting facilitations, Project Management meetings, Vendor Coordination Site Inspections, Data Collection,</b>	<b>\$85. Per hour</b>
<b>800 MHz rebanding office work</b>	<b>\$70. Per hour</b>
<b>Licensing - Office Work (plus regulatory fees)</b>	<b>\$70. Per hour</b>
<b>Travel time rates to and from client project area, meetings at vendor sites, and out of normal jurisdictional area meetings</b>	<b>\$50. Per hour</b>
<b>Travel expenses incurred (mileage, car rental, tickets for carriage, lodging, meals, incidentals), to and from project jurisdictional area and any vendor or regulatory meeting locations.</b>	<b>\$ As incurred</b>

Typical billing occurs monthly, net 30 days

Respectfully,

Michael J. Mazzitello Sr.  
Mazzitello Professional Services, MPS LLC  
N 7427 330<sup>th</sup> Street, Spring Valley Wisconsin 54767  
715-222-4440  
[mmazzitellosr@gmail.com](mailto:mmazzitellosr@gmail.com)