



Request for Proposal #22RFP64

# Williamson County Radio Enhancement

*February 22, 2022*

**Williamson County, Texas**

# Table of Contents

<b>A. Transmittal .....</b>	<b>1</b>
<b>B. Executive Summary.....</b>	<b>3</b>
<b>C. Proposal Affidavit .....</b>	<b>13</b>
<b>D. References .....</b>	<b>15</b>
Client References.....	16
Similar Contracts .....	24
Cancelled or Terminated Contracts .....	25
<b>E. Conflict of Interest Questionnaire .....</b>	<b>26</b>
<b>F. Proposal Submittal .....</b>	<b>28</b>
Statement of Services .....	29
Project Understanding.....	30
Scope of Work.....	30
Project Methodology .....	37
Project Team .....	41
Organizational Chart .....	43
Resumes .....	43
Pricing.....	51
<b>Appendix A: The Public Safety Ecosystem .....</b>	<b>53</b>
<b>Appendix B: MCP's Areas of Specialization .....</b>	<b>54</b>

## A. Transmittal

February 22, 2022

Johnny Grimaldo, NIGP-CPP, CPPB, CPC  
Senior Purchasing Coordinator  
Williamson County Purchasing  
Department 100 Wilco Way, Ste P101  
Georgetown, Texas 78626

Re: 22RFP64 - RFP Williamson County Radio Enhancement

Dear Mr. Grimaldo:

Mission Critical Partners, LLC (MCP) appreciates the opportunity to provide this proposal to evaluate the status of the existing paging and 800MHz trunked radio system as well as potential enhancements to the system to improve reliability and interoperability, to meet current and future communications requirements for Williamson County, Texas (County).

The MCP team serves as an independent agent with considerable experience in local government management roles and extensive experience performing public safety consulting services for state, local, and federal government entities.

As preferred, we are submitting this proposal electronically through Bonfire.

### Required Transmittal Information

Company Information	
<b>Name of Business Entity</b>	Mission Critical Partners, LLC
<b>Address of Business Entity</b>	690 Gray's Woods Blvd., Port Matilda, PA 16870 (Corporate Headquarters)
<b>Type of Business Entity</b>	Limited Liability Company
<b>Place of Incorporation</b>	Delaware

### Point of Contact

Mission Critical Partners has identified David F. Jones as the point of contact for this proposal response. His contact information follows:

David F. Jones, Sr. Vice President  
Mission Critical Partners, LLC  
502 N. Carroll Avenue, Suite 120  
Southlake, TX 76092

Cell: 864.809.9911  
Office: 817.213.6919  
Fax: 814.217.6807  
Email: [DavidJones@MissionCriticalPartners.com](mailto:DavidJones@MissionCriticalPartners.com)

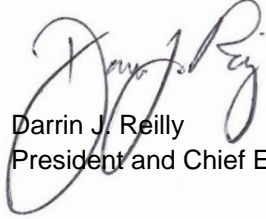
## Authorized Signatory

I am the authorized representative signing and submitting this proposal on the Company's behalf. I may be contacted at 888.862.7911 or [DarrinReilly@MissionCriticalPartners.com](mailto:DarrinReilly@MissionCriticalPartners.com).

On behalf of our entire team, we stand behind Williamson County to serve as your partner and your advocate.

Sincerely,

Mission Critical Partners, LLC

A handwritten signature in dark ink, appearing to read "Darrin J. Reilly", is written over a light gray rectangular background.

Darrin J. Reilly  
President and Chief Executive Officer



The background is a solid dark blue color. It features a pattern of light blue hexagons of various sizes, some of which are interconnected by thin lines. Scattered throughout the background are small, light blue diamond-shaped dots. The overall aesthetic is modern and geometric.

## **B. Executive Summary**

*Identify any goods and/or services that are provided beyond those specifically requested. If the Respondent is providing services and/or goods that do not meet the specific requirements of this RFP, but in the opinion of the Respondent are equivalent or superior to those specifically requested, any such differences should be noted in the Executive Summary. However, the Respondent must realize that failure to provide the goods and/or services specifically required, at the County's sole discretion, may result in disqualification of the Proposal.*

**MCP Response:**

MCP is providing the required scope of work as identified in the request for proposal requirements.

*Indicate why the Respondent believes that it is the most qualified Respondent to provide the services described in this RFP. The Successful Respondent must demonstrate extensive experience and understanding of the intent of this project. The Respondent should describe in detail the current and historical experience the Respondent and its subcontractors have that would be relevant to completing the project.*

**MCP Response:**

## At MCP, Our Mission Is Simple: To Improve Emergency Response and Justice Outcomes

We are committed to working collaboratively with you to implement successful solutions for your networks, data, and operations. More than just a consultant, we act as trusted advisors to our clients, striving to deliver value, efficiency, and fresh ideas—all while mitigating risk. We are solely focused on the public safety, justice, healthcare and critical communications sectors, and what makes us different is our holistic perspective. A leading provider of data integration, consulting, network and cybersecurity services, our vision is to transform the mission-critical communications and public-sector networks and operations into integrated ecosystems.

More importantly, we stand behind the significance of the work our clients do and how critical their missions are—not just for their organizations, but because their communities are counting on them. While we are proud to have the largest, most experienced team of specialized experts in the industry, our greatest pride comes from applying this expertise to work side by side with our clients to implement the best possible solutions—because the mission matters.

## By the Numbers



Since 2009, MCP has supported 2,200+ projects for 750+ public-sector and critical communications agencies



We serve clients in 48 states and 95% of the nation's largest metropolitan areas



Our staff consists of 150+ subject-matter experts, each with an average of 25 years of experience, dedicated to supporting our clients and their missions



We create significant project cost savings for our clients—often 15%, sometimes more

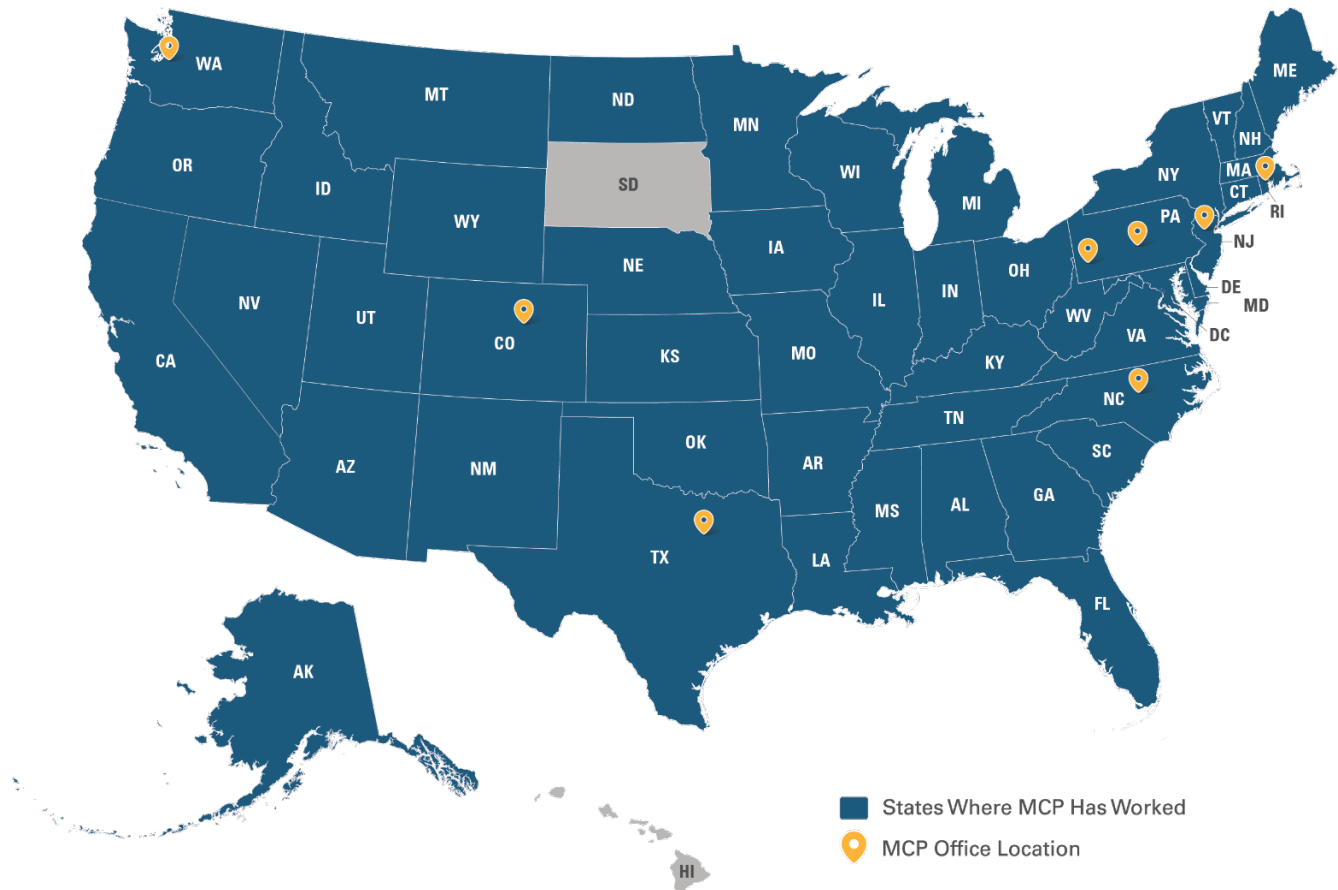


More than 90% of our clients remain with us from project to project

# Nationwide Expertise, Local Insight

## Turning Client Goals into Reality

With satellite offices, subject-matter experts, and project managers located across the country, MCP can deliver the right team, with the right experience and expertise, to every client, anywhere in the country.



## We're Committed to Putting our Clients First

Partnering with a firm that brings an independent, objective perspective to every engagement is a top priority of our clients. We stand behind our commitment to always put the fundamental interests of our clients first.

From our inception, vendor-neutrality is a value that underpins every aspect of what we do. Our goal is to determine the most favorable solution for our clients based on their unique requirements, budget, governance structure, operations, and existing technologies. We provide a holistic perspective regarding the entire mission-critical communications ecosystem, free of bias or favoritism to any specific product or service provider. Our recommendations always are based solely on the value and the benefit provided to the client.

For clients, this approach means more control and greater visibility into the systems they ultimately are responsible for operating and maintaining, and—more importantly—a successful project that improves outcomes.

Board of Directors



R. Kevin Murray




Robert Chefitz



E. Perot Bissell



Bernard Bailey



Darrin V. Reilly



Nola Joyce

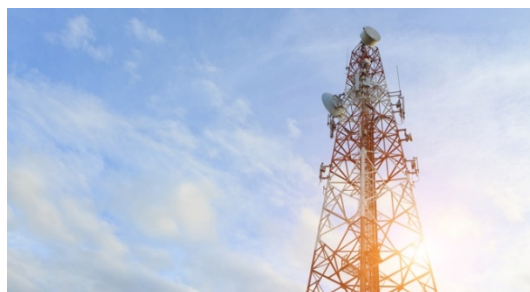


## Financial Stability

MCP is fiscally sound and well prepared to handle the financial requirements to perform the scope of work as identified in the proposal for the duration of the contract. Upon request, MCP can provide a Dun & Bradstreet's Business Information Report (DUNS: 005239265) to the County showing our financial stability in the marketplace.

MCP has the financial and technical resources to support our clients throughout this engagement during the evolving and challenging aspects of the coronavirus disease 2019 (COVID-19) that have had a significant impact on many firms across the country.

## Wireless Communications Services



Our radio experts bring an average of 25 years of experience to every project and have supported large municipal radio system implementations in ten of the top Metropolitan Statistical Areas. One hundred percent of our experts have hands-on experience using two-way radios. MCP's leadership and support for your project means that your new system will boost coverage and capacity, exceed the needs of the user community and create maximum value.

Our team approaches your project with only one task in mind—helping you achieve your goals. This is accomplished through our unique approach that determines your operational requirements and designs a radio network around your needs and budget. Many agencies face constraints because of the design and operation of their radio network. The network should serve public safety users, as well as be another tool to keep our emergency responders and communities safe. The protection of life and property begins with a single dispatch. From there, the radio system is the link that connects and delivers your response and services to your citizens. It is far too important to trust anyone other than your partner, your advocate, and your agent for innovative solutions—because the mission matters. Our professionals work tirelessly to provide the necessary guidance for our clients to evolve to a radio communications system that is capable, reliable and affordable—custom designed for their needs and budgets. Offerings include, but are not limited to, operational and technical assessments, procurement support, Federal Communications Commission (FCC) licensing, performance acceptance testing and First Responder Network Authority (FirstNet) support.

A sample listing of our experience follows:

Client	Assessment	Procurement	Implementation
Albemarle County, VA			✓
Arizona, State of	✓	✓	✓
Armstrong County, PA	✓	✓	✓
Augusta County, VA	✓	✓	✓
Austin, City of, TX	✓	✓	

Client	Assessment	Procurement	Implementation
Baltimore County, MD	✓	✓	✓
Baylor, Scott and White Healthcare, TX	✓		
Broward County, FL	✓	✓	✓
Butler County, PA	✓	✓	✓
Cambria County, PA	✓	✓	✓
CareFlite Medical Transport, TX	✓	✓	
Cass County, IL	✓		
Central Virginia Radio Communications Board	✓	✓	✓
Centre County, PA	✓	✓	✓
Charlotte County, VA			✓
Collin County, TX	✓	✓	✓
CPS Energy, TX	✓	✓	✓
Cumberland County, PA		✓	
Dallas County, TX	✓	✓	✓
Denton, City of, TX	✓	✓	✓
Department of Homeland Security/CSEPP	✓	✓	✓
Fayette County, GA	✓	✓	✓
Fluvanna County, VA	✓	✓	✓
Forsyth County, NC	✓	✓	
Frederick County, VA	✓	✓	
Frisco, City of, TX		✓	✓
Fulton County, PA			✓
Gallatin County, MT	✓	✓	✓
Garland, City of, TX	✓	✓	✓
Great Falls, MT	✓		
Gloucester County, NJ	✓	✓	✓
Greenville, City of, TX	✓	✓	✓
Greene County, VA	✓	✓	✓

Client	Assessment	Procurement	Implementation
Haywood County, NC		✓	
Horry County, SC	✓	✓	✓
Houston, City of, TX	✓	✓	✓
Huntingdon County, PA	✓	✓	✓
Jim Wells County, TX	✓	✓	✓
Lake County, IL	✓	✓	✓
Lawrence County, PA	✓	✓	✓
Louisa County, VA	✓	✓	✓
Madison County, KY		✓	
Madison County, VA	✓	✓	✓
Martinsville, City of, VA	✓		
Massachusetts, Commonwealth of	✓	✓	✓
Memphis, TN	✓	✓	✓
Mercer County, PA		✓	
Midland, City of	✓	✓	✓
Montgomery County, MD	✓	✓	✓
Nash County, NC	✓		
Niagara County, NY	✓		✓
Oakland County, MI	✓	✓	✓
Okaloosa County, FL	✓	✓	✓
Page County, VA	✓	✓	
Penn State Health	✓		
Pennsylvania State Police		✓	
Pennsylvania Turnpike Commission	✓	✓	
Perry County, PA	✓		
Port of Pittsburgh, PA	✓		
Pueblo County, CO	✓	✓	✓
Rock County, WI	✓		

Client	Assessment	Procurement	Implementation
Rockwall County, TX	✓	✓	✓
Shelby County, TN	✓	✓	✓
Shenandoah County, VA	✓	✓	✓
St. Louis County, MO	✓	✓	✓
St. Mary's County, MD	✓	✓	✓
Story County, IA	✓	✓	✓
Terrell, City of, TX	✓	✓	✓
Wake County, NC	✓	✓	✓

## Williamson County Experience

### Dispatch Operations and Technology Assessment (2017-2018)

Williamson County Emergency Communications (WCEC) operates a public safety answering point that provides 911 dispatch services for 22 law enforcement agencies, 12 fire departments, and Williamson County Emergency Medical Service (EMS).

In 2018, the WCEC sought an independent analysis of its organizational structure, operational functions and staffing levels, and technology systems, as well as recommendations that would enhance its operations and accommodate future growth.

MCP delivered a draft of the comprehensive operational assessment to WCEC in June 2018. The report was well received by the County and aligned with their expectations. The final report was delivered, and MCP presented the report findings and recommendations to the Williamson County Commissioners Court in August 2018. The WCEC immediately acted on the recommendations. The Commissioners County approved the funding of seven new call-taking positions in the fiscal year (FY) 2018-2019 budget. WCEC also implemented a reorganization of the management structure and began updating the training curriculum.

### Training Education Program (2019)

MCP delivered the final WCEC operations assessment in August 2018. During that assessment, MCP's review included the training program, which identified a lack of available information and documentation and organization. MCP was retained to develop, deploy and track a comprehensive adult education program in support of the initial and ongoing training and education of the WCEC.

MCP reviewed existing programs, policies, procedures and processes for curriculum development and employment. MCP also reviewed console-based initial education for call taking and radio dispatching for law enforcement, fire and EMS, radio dispatch academy, instructor/educator development and best practices.

Subsequent to MCP's operational assessment, WCEC created and filled the position of Instructional Coordinator. The position is responsible for coordinating the delivery of training to WCEC telecommunicators. The Instructional Coordinator was also tasked with implementing a new training curriculum that includes state-

mandated training, basic telecommunicator academy (classroom) courses, and practical console-based training in call-taking and radio dispatch.

## Texas Experience

MCP has supported more than 175 projects in the State of Texas (State). As a result of work within the State, MCP brings a strong understanding of local and state regulations, standards, and procedures. Listed below are clients we have served for those projects.

Texas Clients		
<ul style="list-style-type: none"> <li>• Allen, City of</li> <li>• Aransas County</li> <li>• Amarillo, City of</li> <li>• Ark-Tex Council of Governments</li> <li>• Arlington, City of</li> <li>• Austin, City of</li> <li>• Baylor Scott &amp; White Health</li> <li>• Bell County</li> <li>• Bexar Metro 9-1-1 Network District</li> <li>• Brazos County 911 District</li> <li>• Brazos Valley Council of Governments (BVCOG)</li> <li>• Burleson, City of</li> <li>• Cameron County</li> <li>• Capital Area Council of Governments (CAPCOG)</li> <li>• Central Texas Council of Governments (CTCOG)</li> <li>• Clark County Emergency Services Agency</li> <li>• Collin County</li> <li>• Commission on State Emergency Communications (CSEC)</li> <li>• Cooke County</li> <li>• CPS Energy</li> <li>• Dallas, City of</li> <li>• Deep East Texas Council of Governments (DETCOG)</li> <li>• Denco Area 9-1-1 District</li> </ul>	<ul style="list-style-type: none"> <li>• Denton, City of</li> <li>• East Harris County Emergency Services</li> <li>• East Texas Council of Governments</li> <li>• Fort Bend County</li> <li>• Fort Worth, City of</li> <li>• Garland, City of</li> <li>• Golden Crescent Planning Committee</li> <li>• Grand Prairie, City of</li> <li>• Greenville, City of</li> <li>• Harris County</li> <li>• Harris Fort Bend Emergency Services District #100</li> <li>• Hays County</li> <li>• Highland Park, City of</li> <li>• Highland Village, City of</li> <li>• Heart of Texas Council of Governments (HOTCOG)</li> <li>• Houston-Galveston Area Council (H-GAC)</li> <li>• Houston Public Works</li> <li>• Jackson County</li> <li>• Jim Wells County</li> <li>• Kaufman County</li> <li>• Klein Independent School District</li> <li>• Lake County</li> <li>• Laredo, City of</li> <li>• Leander, City of</li> </ul>	<ul style="list-style-type: none"> <li>• Liberty, City of</li> <li>• Lubbock County</li> <li>• Mesquite, City of</li> <li>• Midland, City of</li> <li>• Montgomery County</li> <li>• Montgomery County Hospital District</li> <li>• New Braunfels, City of</li> <li>• North Central Texas Emergency Communications District (NCT9 1-1)</li> <li>• North Central Texas Trauma Regional Advisory Council</li> <li>• North Texas Emergency Communications Center (NTECC)</li> <li>• North Texas Tollway Authority</li> <li>• Parker County</li> <li>• Plano, City of</li> <li>• Potter Randall County</li> <li>• Rockwall, City of</li> <li>• San Antonio, City of</li> <li>• Tarrant County</li> <li>• Taylor, City of</li> <li>• TriCOG (BVCOG/CTCOG/HOTCOG)</li> <li>• Terrell, City of</li> <li>• University of Texas, Austin</li> <li>• West Texas Regional Consortium</li> <li>• Williamson County</li> </ul>



## Texas Based Staff

MCP is proposing a team of seven subject matter experts to support this project. **Five of those experts are conveniently located in Texas**, including Chuck Rawlings, who is approximately 55 miles from where work is anticipated to be conducted.

Staff Member	Project Role	Location
David F. Jones, ENP	Client Services	Keller, TX
John Birch	Project Manager	Houston, TX
Chuck Rawlings	Senior Technology Specialist	Paige, TX
Todd Johnson, PE	Senior Technology Specialist/Texas Professional Engineer	Tomball, TX
Tim Driscoll, PMP	Technology Consultant	Joshua, TX

*Briefly state why the Respondent believes its proposed goods and/or services best meet the County's needs and RFP requirements, and the Respondent also should concisely describe any additional features, aspects, or advantages of its goods and/or services in any relevant area not covered elsewhere in its Proposal.*

### **MCP Response:**

#### **Dark Web Scan**

If desired by the County, MCP can provide a Dark Web ID scan free of cost, which detects compromised credentials in real-time on the Dark Web and notifies you immediately when these critical assets are compromised before they can be used for identity theft, data breaches, or other crime. Digital credentials such as usernames and passwords connect you and your employees to critical business applications, as well as online services. Unfortunately, criminals know this—and that's why digital credentials and Personal Identifiable Information (PII) are among the most valuable assets found on the Dark Web. This Dark Web ID scan is generated by domain, and up to 3 domains are included, with each showing up to the most recent 100 compromises.

# **C. Proposal Affidavit**

*CERTIFICATION: The undersigned certifies that the RFP and the Respondent's Proposal have been carefully reviewed and are submitted as correct and final. Respondent further certifies and agrees to furnish any and/or all goods and/or services upon which prices are extended at the price Proposal, and upon the conditions contained in the RFP.*

**MCP Response:** Yes

*NON-COLLUSION: I hereby certify that the foregoing Proposal has not been prepared in collusion with any other Respondent or other person(s) engaged in the same line of business prior to the official opening of this Proposal and that the Respondent is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities Proposal on, or to influence any person(s) to submit a Proposal.*

**MCP Response:** Yes

*COOPERATIVE PURCHASING: PROGRAM Please select Yes or No. By selecting Yes the Respondent is agreeing to offer the quoted prices to all authorized entities during the term of the County's contract. By selecting No the Respondent is stating they will not offer the quoted prices to all authorized entities. A non-affirmative Proposal will in no way have a negative impact on the County's evaluation of the Proposal.*

**MCP Response:** Yes

The background is a solid dark blue color. It features a pattern of light blue hexagons of various sizes, some of which are interconnected by thin lines. Scattered throughout the background are numerous small, light blue diamond-shaped dots. The overall aesthetic is modern and geometric.

# D. References

## Client References

Agency Name	Contact Person	Phone Number/ E-Mail Address	Service Description
<b>City of Memphis and Shelby County, TN</b>  <i>Radio Assessment, Procurement, and Implementation System Upgrade</i>	<b>Jim Harvey</b> <i>Consultant/ Technology Manager</i>	Memphis Police Department, 901.636.3700, <a href="mailto:Jim.Harvey@memp histn.gov">Jim.Harvey@memp histn.gov</a>	<ul style="list-style-type: none"> <li>Conducted and provided a comprehensive needs assessment report</li> <li>Released an RFP and received vendor proposals to procure the desired APCO P25 Phase II radio system upgrade</li> <li>Reviewed proposals and supported vendor selection</li> <li>Provided additional procurement support for the new radio system</li> <li>MCP is currently supporting the City/ County in the implementation phase of the radio system replacement.</li> </ul>
	<b>Wink Downen</b> <i>Chief Inspector/ Information Systems</i>	Shelby County Sheriff's Office, 901.222.5508, <a href="mailto:wink.downen@shel by-sheriff.org">wink.downen@shel by-sheriff.org</a>	
<b>Broward County, FL</b>  <i>Radio System Assessment, Procurement, and Implementation Upgrade</i>	<b>Brett H. Bayag</b> <i>Office of Regional Communications and Technology</i>	954.594.7774 <a href="mailto:bbayag@broward .org">bbayag@broward .org</a>	<ul style="list-style-type: none"> <li>Completed the evaluation of the radio system and documented the findings.</li> <li>Recommendations and solutions were incorporated into specifications that were used to procure the systems.</li> <li>MCP is actively supporting the implementation of the paging, fire station alerting, and P25 and microwave systems.</li> <li>The estimated value of these projects will be in excess of \$40 million, and the projects will enhance public safety communications for 1.8 million residents of the county and the 14 million tourists that visit each year.</li> </ul>
<b>Gallatin County, MT</b>  <i>Radio Assessment, Procurement, and Implementation</i>	<b>Tim Martindale</b> <i>Gallatin County 911 Director</i>	406.548.5733, <a href="mailto:Tim.Martindale@gallatin.mt.gov">Tim.Martindale@gallatin.mt.gov</a>	<ul style="list-style-type: none"> <li>Delivered a final assessment report highlighting findings and providing recommendations on paths forward.</li> <li>Provided procurement and contract negotiation support.</li> <li>With MCP's assistance, the County issued an RFP to identify a radio communications solution that meets the operational needs of all users in the county for an open standards system.</li> <li>In September 2020, MCP was retained to provide implementation support that complies with P25 digital radio standards and the ability to utilize legacy VHF conventional subscribers in the field.</li> </ul>



Agency Name	Contact Person	Phone Number/ E-Mail Address	Service Description
<b>Story County, IA</b> <i>Radio Assessment, Procurement, and Implementation Support</i>	<b>Amanda Rousch</b> <i>E911 Database Coordinator</i>	515.382.7559, <a href="mailto:aroush@storycountyia.gov">aroush@storycountyia.gov</a>	<ul style="list-style-type: none"> <li>Delivered a comprehensive radio technology and systems assessment report of the current system to the Board.</li> <li>Presented recommendations for the replacement of the radio and paging systems, with cost savings opportunities</li> <li>Supported the procurement process, including technical specifications and RFP development support; proposal compliance evaluation; and vendor negotiation and contract support</li> <li>The County issued an RFP developed by MCP to support the procurement of a P25 radio network and paging system through a fair and impartial procurement process.</li> <li>MCP is providing oversight and support throughout the implementation of the system.</li> </ul>
<b>Butler County, PA</b> <i>Radio Communications System Assessment, Procurement, and Implementation</i>	<b>Steven Bicehouse</b> <i>Director</i>	724.284.5211, <a href="mailto:Sbicehou@co.butler.pa.us">Sbicehou@co.butler.pa.us</a>	<ul style="list-style-type: none"> <li>Conducted an assessment and delivered a final report with recommendations</li> <li>Provided a functional and performance-based RFP to implement radios, backhaul, and civil construction.</li> <li>Provided system installment and deployment management of multiple vendor processes, deliverables, schedules and conflicts</li> <li>Ensured a smooth cutover to the new P25 Phase 2 radio system by communicating with and aligning all vendors, County stakeholders and field users</li> <li>Develop contractual compliance acceptance test plans for coverage and performance testing</li> <li>Created acceptance test plans for coverage and performance testing</li> <li>Executed test plans and resolved outstanding punch-list and action items</li> </ul>
<b>City of University Park and Town of Highland Park, TX</b> <i>Radio Assessment, Procurement, and Implementation</i>	<b>Paul Sandman</b> <i>Director of Public Safety - Town of Highland Park</i>	214.559.9357 <a href="mailto:psandman@hpdps.org">psandman@hpdps.org</a>	<ul style="list-style-type: none"> <li>Conducted the initial assessment report that included consideration of new systems being deployed in the area</li> <li>Provided procurement support to the Park Cities.</li> <li>Identified recommendations and options for a system capable of supporting long-term interoperability with its neighboring agencies now and in the future.</li> <li>MCP continues to provide implementation support of the new 700 MHz trunked simulcast system.</li> </ul>



## City of Memphis and Shelby County, Tennessee

**Service Provided:** Radio System Upgrade

**Contact:** Jim Harvey, Consultant/Technology Manager, Memphis Police Department, 901.636.3700, [Jim.Harvey@memphistn.gov](mailto:Jim.Harvey@memphistn.gov)

**Contact:** Wink Downen, Chief Inspector/Information Systems, Shelby County Sheriff's Office, 901.222.5508, [wink.downen@shelby-sheriff.org](mailto:wink.downen@shelby-sheriff.org)

**Project Dates:** January 2015 to Present

**Challenge:** The City of Memphis and Shelby County Tennessee Government (County) jointly owned and operated an 800 MHz Motorola SmartZone 4.1 system with two 7-site Simulcast systems and one 5-channel IR (Intellirepeater) site. The County wished to upgrade to an Association of Public-Safety Communications Officials (APCO) P25 Phase II radio system. The upgrade or replacement needed to:

- Reuse any current towers or equipment possible to maximize economies to the owners
- Maximize the benefit to the users and provide growth for future use and enhancements to coverage

**Solution:** Mission Critical Partners was retained to support the radio system upgrade project. The system has a wide range of public safety and public service user groups with a wide range of operational and communications requirements needed to carry out their missions. MCP's approach to the overall project is broken down into phases outlined below:

- Needs assessment and development of recommendations
  - Conducted interviews with the system users to listen to the user groups
  - Identified and gained an understanding of the ongoing needs of each user department.
  - Completed a comprehensive needs analysis report
- Procurement support
  - Supported the release of a radio system upgrade request for proposals (RFP)
  - Evaluated proposals and a preferred vendor was selected
- Implementation and project management
  - The system is currently being implemented and is in the design phases

**Key Result:** Mission Critical Partners has completed the following tasks for Memphis/Shelby County:

- Provided a comprehensive needs assessment report
- Released an RFP and received vendor proposals to procure the desired APCO P25 Phase II radio system upgrade
- Reviewed proposals and supported vendor selection
- Provided additional procurement support for the new radio system

MCP has been contracted to assist the City of Memphis and Shelby County in the implementation phase of the radio system replacement project and is anticipated to be completed by the calendar year 2021.



## Broward County, Florida

**Service Provided:** Radio Communications System Assessment and Design

**Contact:** Brett H. Bayag, Office of Regional Communications and Technology  
954.594.7774 [bbayag@broward.org](mailto:bbayag@broward.org)

**Project Dates:** June 2015 to Present

**Challenge:** Broward County (County) owns and operates an 800 MHz, 28-channel, 10-site Motorola SmartZone 3.0 trunked radio system. The County radio system was rapidly approaching end of life. The County was seeking a consultant to provide an assessment of the current system, which included the land mobile radio (LMR) infrastructure, backhaul transport, tower sites, end users' portable and mobile radios and radio dispatch consoles. Broward County determined that its current system was supported through 2017, but with the County supporting all the public radio users either as primary and/or a backup, a solution needed to be researched and implemented before the equipment's end of life.

**Solution:** Mission Critical Partners was selected to assist Broward County with the assessment, design and procurement of public safety communications technology. The project includes the replacement of the Phase II-compliant radio system, microwave backhaul, fire station alerting system and UHF paging system. To effectively complete the assessment, technical design and user specifications, MCP and Broward County have established a strategic stakeholder communications plan that has engaged the 22-law enforcement and fire rescue agencies, in addition to multiple dispatch centers. MCP has completed coverage, dispatch and communications site analysis. The communications sites included documentation of current infrastructure and identification of modifications that will be required.

**Key Result:** Mission Critical Partners successfully completed the evaluation of the current system and documented the findings for the County. Recommendations and solutions that fit the County's needs for the future were incorporated into specifications that were utilized to procure these systems. MCP is actively supporting the implementation of the paging, fire station alerting, and P25 and microwave systems. The estimated value of these projects will be in excess of \$40 million, and the projects will enhance public safety communications for 1.8 million residents of the county and the 14 million tourists that visit each year.



## Gallatin County, Montana

**Service Provided:** Radio System Assessment, Procurement and Implementation

**Contact:** Tim Martindale, Gallatin County 911 Director, 406.548.5733,  
[Tim.Martindale@gallatin.mt.gov](mailto:Tim.Martindale@gallatin.mt.gov)

**Project Dates:** November 2016 to Present

**Challenge:** Gallatin County (County) identified the need for consultative support for the upgrade and transition of its radio system. The County has experienced higher than normal population growth over several years, a trend that is expected to continue. First responders operated on a VHF conventional system and on the State of Montana's VHF trunking systems with plans to add 800 MHz trunking capability for urban coverage.

**Solution:** Mission Critical Partners was retained by the County to conduct a review of the County's system to develop a forward-looking communications plan that incorporated a more comprehensive plan across the entire county.

The County initially sought a radio frequency (RF) consultation and engineering review for vendor support of the implementation of an 800 MHz site. The project grew into creating a multi-phase plan and engineering support for the current conventional system based on user needs and operational requirements. Upon the successful completion of the user needs document, MCP was retained to perform the procurement and implementation phases of the project. These tasks included:

### Assessment (Completed)

- Determined the user feature needs
- Provided RF consultation and engineering support for:
  - Vendor contract negotiation and support
  - Current migration and upgrade plan
- Provided RF engineering recommendations and design work for current conventional system needs

### Procurement and Contract Negotiation Support (Completed)

- Supported requirements development
- Provided procurement process support
  - Pre-proposal conference facilitation
  - Vendor tracking and vendor questions
  - Addendum and bid opening support
- Supported final vendor contract negotiation

### Implementation (In Progress)

- Project management support and system tagging
- Functional acceptance testing and coverage acceptance testing
- System cutover support
- Punchlist items/location services
- Inter-RF sub-system interface coordination with the State of Montana and the State of Idaho

**Key Result:** MCP has supported Gallatin County with the upgrade of its public safety radio system. MCP delivered a final assessment report highlighting findings and providing recommendations on paths forward. MCP was also tasked with providing procurement and contract negotiation support.

With MCP's assistance, the County issued an RFP to identify a radio communications solution that meets the operational needs of all users in the county for an open standards system. The County required that the 800 MHz aspect of the solution would comply with the Project 25 (P25) digital radio standards and the ability to utilize legacy VHF conventional subscribers in the field. In September 2020, MCP was retained to provide implementation support.



## Story County, Iowa

**Service Provided:** Radio Assessment, Procurement and Implementation Support

**Contact:** Amanda Rousch, E911 Database Coordinator, 515.382.7559,  
[aroush@storycountyiowa.gov](mailto:aroush@storycountyiowa.gov)

**Project Dates:** September 2017 to Present

**Challenge:** The Story County 911 Board (Board) identified several issues that were directly impacting its current radio communications system, including:

- Phase-out of support and parts availability for some components of the system
- System degradation in performance and reliability since narrowbanding
- Desire to see effective alternatives and recommendations to provide an efficient and cost-effective transition to a new system meeting expectations of public safety users

With a current system that was not P25 compliant and no longer supported by the manufacturer, the Board sought a professional consulting firm to recommend a path forward for transitioning to a suitable P25 system.

**Solution:** Mission Critical Partners was retained by the Board to assist Story County (County) with the replacement of the radio and paging systems. In support of the system assessment, MCP provided the following services:

- Reviewed past reports
- Conducted stakeholder and user interviews
- Evaluated frequency bands
- Assessed the existing radio system
- Evaluated user needs regarding the new system
- Assisted in reviewing the condition of the existing countywide paging system and recommendations development
- Recommendations for a new standards-based P25 system to replace the County's existing radio system to improve coverage, capacity, reliability and maintain direct interoperability within the County

**Key Result:** In December 2017, MCP delivered its final, comprehensive radio technology and systems assessment report of the current system to the Board. MCP presented recommendations for the replacement of the radio and paging systems, with cost savings opportunities that will provide improvements in areas of coverage, capacity, reliability, and backhaul capabilities, as well as subscriber radios with standards-based, public safety-grade solutions.

After delivering the report, the County requested MCP's continued support throughout the procurement process, including:

- Technical specifications and RFP development support
- Proposal compliance evaluation
- Vendor negotiation and contract support

In October 2018, the County issued an RFP developed by MCP to support the procurement of a P25 radio network and paging system through a fair and impartial procurement process. Currently, MCP is providing oversight and support throughout the implementation stage of the project.





## Butler County, Pennsylvania

**Service Provided:** Radio Communications System Assessment, Procurement and Implementation

**Contact:** Steven Bicehouse, Director, Butler County Emergency Services, 724.284.5211, [Sbicehou@co.butler.pa.us](mailto:Sbicehou@co.butler.pa.us)

**Project Dates:** March 2015 to Present

**Challenge:** Butler County (County) has an aging communications system with several key components that will reach end of life within the next five years. In addition, the County operates in the UHF T-Band, which must be vacated prior to 2022, as mandated by the Middle Class Tax Relief and Jobs Creation Act of 2012.

**Solution:** Mission Critical Partners was hired to establish a master plan to detail all requirements necessary to support a competitive procurement for the County's desired solution of a multi-county regional radio network sharing a host switch. The process included system user interviews to document current system deficiencies and user requirements. In addition, site surveys were conducted to document conditions at existing radio sites and to determine the feasibility of using them in a new system. Finally, the study included a cost and availability analysis of Part 22 frequencies that might be required to support the options identified in the high-level needs assessment.

**Key Result:** Based on recommendations made by MCP, the County proceeded to implement a P25 Phase 2 radio system. Given the impact that RF sites can have on the County's system coverage and reliability, MCP provided a functional and performance-based request for proposals (RFP) to implement radios, backhaul, and civil construction.

Upon completion of the vendor proposal evaluations, best and final offers (BAFO) and negotiations, the County selected vendor equipment for the new radio system. The total contracted cost is less than the original recommended budget identified in the needs assessment.

The County further retained MCP during implementation to:

- Provide leadership throughout the project by managing all project elements to ensure success, including the project schedule
- Ensure the project is completed on time, on task and within budget
- Provide system installment and deployment management of multiple vendor processes, deliverables, schedules and conflicts
- Ensure a smooth cutover by communicating with and aligning all vendors, County stakeholders and field users
- Develop contractual compliance acceptance test plans for coverage and performance testing
- Create acceptance test plans for coverage and performance testing
- Execute test plans and resolve outstanding punch-list and action items

Cutover to the new radio system began in early November 2019, with MCP continuing to provide implementation support



City of University Park

## City of University Park and Town of Highland Park, Texas

**Service Provided:** Radio Assessment, Procurement, and Implementation

**Contact:** Paul Sandman, Director of Public Safety - Town of Highland Park, 214.559.9357, [psandman@hpdps.org](mailto:psandman@hpdps.org)

**Project Dates:** June 2017 to Present

**Challenge:** The City of University Park and the Town of Highland Park (Park Cities) were seeking professional consulting support in exploring the development and implementation of a new land mobile radio communications system to support current and future needs. Due to the close proximity of the two communities and the high level of radio interoperability required between their public safety agencies, the Park Cities also identified the need to consider the possibility of a shared system.

**Solution:** Mission Critical Partners was selected by the Park Cities to provide a three-phase approach (assessment, procurement and implementation) to support achieving the project's objectives. MCP's support included:

### Radio Assessment

- Reviewed the existing radio infrastructure, tower sites and other existing facilities that could be possibly considered in future system configurations to help reduce system costs.
- Reviewed potential partnering opportunities available to the Park Cities by neighboring agencies such as the City of Dallas, DART, Garland, Mesquite, Rowlett, and Sachse (GMRS), and others or would it better to build their own system.

### System Procurement

- Developed a competitive RFP based upon the needs and requirements identified in the needs assessment.
- Reviewed vendor proposal evaluations, vendor selection, and contract negotiation support with the selected vendor.
- Worked with the Park Cities to develop a "system requirements" document to be provided to the incumbent system provider and will help obtain the most economical solution that meets the Park Cities' identified needs.

### System Implementation

- MCP is currently providing system implementation and system acceptance testing support. This includes:
  - Participation in the detailed design review process
  - Oversight of the system implementation
  - Working with the Park Cities to complete the final acceptance of the new system.

**Key Result:** MCP conducted the initial assessment report and provided procurement support to the Park Cities. MCP's recommendations identified options for a system capable of supporting long-term interoperability with its neighboring agencies now and in the future. The report also took into consideration new systems being deployed in the area. System aspects reviewed included radio system RF coverage, the ability for the solution to meet the interoperability requirements of the different departments, and how the system would meet the functional operating requirements of the Park Cities.

MCP continues to provide implementation support of the new 700 MHz trunked simulcast system.

## Similar Contracts

Agency Name	Contact Person/Title Phone Number/E-Mail Address	Contract Numbers	Dates of Performance
<b>Bexar County TX</b>	<b>Mark Gager, CIO</b> <a href="mailto:mark.gager@bexar.org">mark.gager@bexar.org</a> 210.335.0280	<ul style="list-style-type: none"> <li>• PO #11595485 (2018)</li> <li>• PO #11605726 (2020)</li> <li>• Extension/Amendment 1 (2021)</li> </ul>	December 2018 to Present
<b>Dallas, TX</b>	<b>CJ Holt</b> , Manager, Radio Network, Communications and Information Services  214.670.797 <a href="mailto:Cj.holt@dallascityhall.com">Cj.holt@dallascityhall.com</a>	<ul style="list-style-type: none"> <li>• Contract DSV-2018-00004737</li> <li>• Contract/ Resolution 15 2046 2047 (2015)</li> <li>• Delivery Order 00000700559 (2017)</li> <li>• Delivery Order 00000758403 (2018)</li> <li>• Delivery Order 00000829240 (Council Resolution 17-1911) (2019)</li> <li>• Contact for Engineering</li> <li>• Services for P25 Radio System (2020)</li> </ul>	January 2007 to Present
<b>Washington County, PA</b>	<b>Diana Vaughan</b> , <i>Commissioner</i> 724.228.6721 <a href="mailto:lreyDL@co.washington.pa.us">lreyDL@co.washington.pa.us</a>	<ul style="list-style-type: none"> <li>• RFQ 032421 Radio Consultant – Radio Communications Consulting and Engineering Services Professional Services Agreement (2021)</li> </ul>	June 2021 to Present
<b>Forsyth County, NC</b>	<b>Wesley Hutchens</b> , Interagency Radio System Manager  Winston-Salem / Forsyth County Interagency Communications  336.703.2191 <a href="mailto:hutchewc@forsyth.cc">hutchewc@forsyth.cc</a>	<ul style="list-style-type: none"> <li>• 2020-0081-00 (2019)</li> <li>• 2020-0081-00 2019 Amendment</li> <li>• 2020-0081-00 2021 Amendment</li> <li>• 2020-0081-00 2021 Second Amendment</li> </ul>	January 2020 to Present
<b>Pueblo County, CO</b>	<b>Mark Mears</b> , <i>Emergency Services Bureau Chief</i>  719.583.6201 <a href="mailto:Mears@co.pueblo.co.us">Mears@co.pueblo.co.us</a>	<ul style="list-style-type: none"> <li>• PO 0000000270</li> <li>• PO 0000007075</li> </ul>	May 2010 to Present

## Canceled or Terminated Contracts

Entity Name and Address	Contract Description	Reason for Cancellation	Contact Information
Fort Worth Police Department 350 W Belknap Street Fort Worth, TX 76102	<ul style="list-style-type: none"> <li>Contract Number: N/A</li> <li>Description: NetPulse PSAP Network CAD Monitoring</li> <li>Award Date: September 29, 2017</li> <li>Start Date: January 1, 2020</li> <li>Operation End Date: September 2, 2020</li> <li>Contract Term: January 1, 2020, to December 31, 2020</li> <li>Canceled: July 2, 2020</li> </ul>	MCP/Client Reason: Client funding shortfall due to COVID—closed the project and removed remaining contract value from the books	Name: Michael Munday Title: IT Manager Phone: 817-392-4253 Email: <a href="mailto:michael.munday@fortworthtexas.gov">michael.munday@fortworthtexas.gov</a>
Capgemini Americar Inc. 333 Guadalupe Street, Suite 2-212, Austin, Texas, 78701	<ul style="list-style-type: none"> <li>Contract Number: N/A</li> <li>Description: CSEC Digital 9-1-1 Network Project Management &amp; Systems Integration:</li> <li>Award Date: May 8, 2017</li> <li>Start Date: May 11, 2017</li> <li>Operations End Date: April 30, 2018</li> <li>Contract term: March 1, 2017 - February 29, 2024</li> <li>Cancelled: April 30, 2018</li> </ul>	MCP/Client Reason: Priority shift—closed project removed remaining contract value from the books.	Name: Jon Samuelson Title: Senior Manager Phone: 512-796-6640 Email: <a href="mailto:jon.samuelson@capgemini.com">jon.samuelson@capgemini.com</a>
City and County of San Francisco Police Department 1235 3 <sup>rd</sup> Street San Francisco, CA 94158	<ul style="list-style-type: none"> <li>Contract Number: 1000020698</li> <li>Description: Reporting System Migration Consulting Services</li> <li>Intent to Award Date: July 31, 2020</li> <li>Start Date: January 4, 2021</li> <li>Operations End Date: May 12, 2021</li> <li>Contract term: January 4, 2021, to December 31, 2021</li> <li>Canceled: April 27, 2021</li> </ul>	MCP/Client Reason: Convenience of the City—Article 8—closed project removed remaining contract value from the books	Name: Patrick Leung Title: Chief Financial Officer Phone: 415-837-7213 Email: <a href="mailto:patrick.n.leung@sfgov.org">patrick.n.leung@sfgov.org</a>
Phoenix Police Department PO Box 330 114 West 2nd Street Phoenix, OR 97535	<ul style="list-style-type: none"> <li>Contract Number: N/A</li> <li>Description: Monitoring Services for Monitoring Servers and Network Devices</li> <li>Award Date: May 15, 2019</li> <li>Operations Start Date: July 1, 2019</li> <li>Operations End Date: August 31, 2021</li> <li>Contract term: July 1, 2019, to June 30, 2022</li> <li>Canceled: July 13, 2021</li> </ul>	MCP/Client Reason: Client funding shortfall due to the Alameda fire—closed the project and removed remaining contract value from the books	Name: Derek Bowker Contact Title: Chief Phone: 541-535-1113 Email: <a href="mailto:dbowker@pxpd.org">dbowker@pxpd.org</a>

# **E. Conflict of Interest Questionnaire**

Place Holder

# **F. Proposal Submittal**



The background of the page is a complex, abstract geometric pattern. It consists of numerous overlapping triangles of various sizes and orientations, creating a faceted, crystalline appearance. Thin, light-colored lines connect various points across the page, forming a network or web-like structure. The overall color palette is monochromatic, using shades of gray and white.

# Statement of Services

## Project Understanding

Mission Critical Partners, LLC (MCP) appreciates the opportunity to provide this proposal to evaluate the status of the existing paging and 800 megahertz (MHz) trunked radio system as well as potential enhancements to the system to improve reliability and interoperability, with the goal of meeting current and future communications requirements for Williamson County, Texas (County).

## Scope of Work

### Task 1: Project Initiation

MCP will conduct a project initiation meeting with the project team and stakeholder representatives to:

- Establish mutual acquaintance
- Clarify roles
- Review and seek alignment on the desired outcomes, deliverables and timeline

MCP's project manager (PM) will facilitate the meeting. Prior to the meeting, MCP will review documentation or materials that can be made available such as:

- Letters, surveys, and contracts
- As-built documentation
- Federal Communications Commission (FCC) documents and licenses
- Presentation materials and other items as determined

The County and MCP will use Task 1 to gain a mutual understanding of your future vision.

MCP has assumed the project initiation meeting and on-site data collection will be combined into a single trip.

### Task 2: Data Collection

- Collect and Review Existing Systems Documentation
- Conduct Onsite Meetings and Interviews to Assess Needs,
- Visit all County Radio Sites and Collect Data.

To understand the County's operational needs, MCP will assess the current system equipment and technology using its proprietary assessment tool —Model for Advancing Public Safety<sup>SM</sup> (MAPS<sup>®</sup>) methodology, which is based on a variety of mature, broadly accepted public safety and information technology (IT) standards, formalized accreditation programs, and industry best practices.

An MCP subject-matter expert (SME) will travel to meet with relevant personnel as identified prior to the trip to:

#### MAPS Support

- Walk through the MAPS process
- Evaluate the status of each site
- Produce an assessment report regarding the status of the various system components

#### Initiation Meeting Review

- Project and task milestones
- Schedules and deliverables
- Project budget
- System technology
- Emerging technologies (e.g. FirstNet)

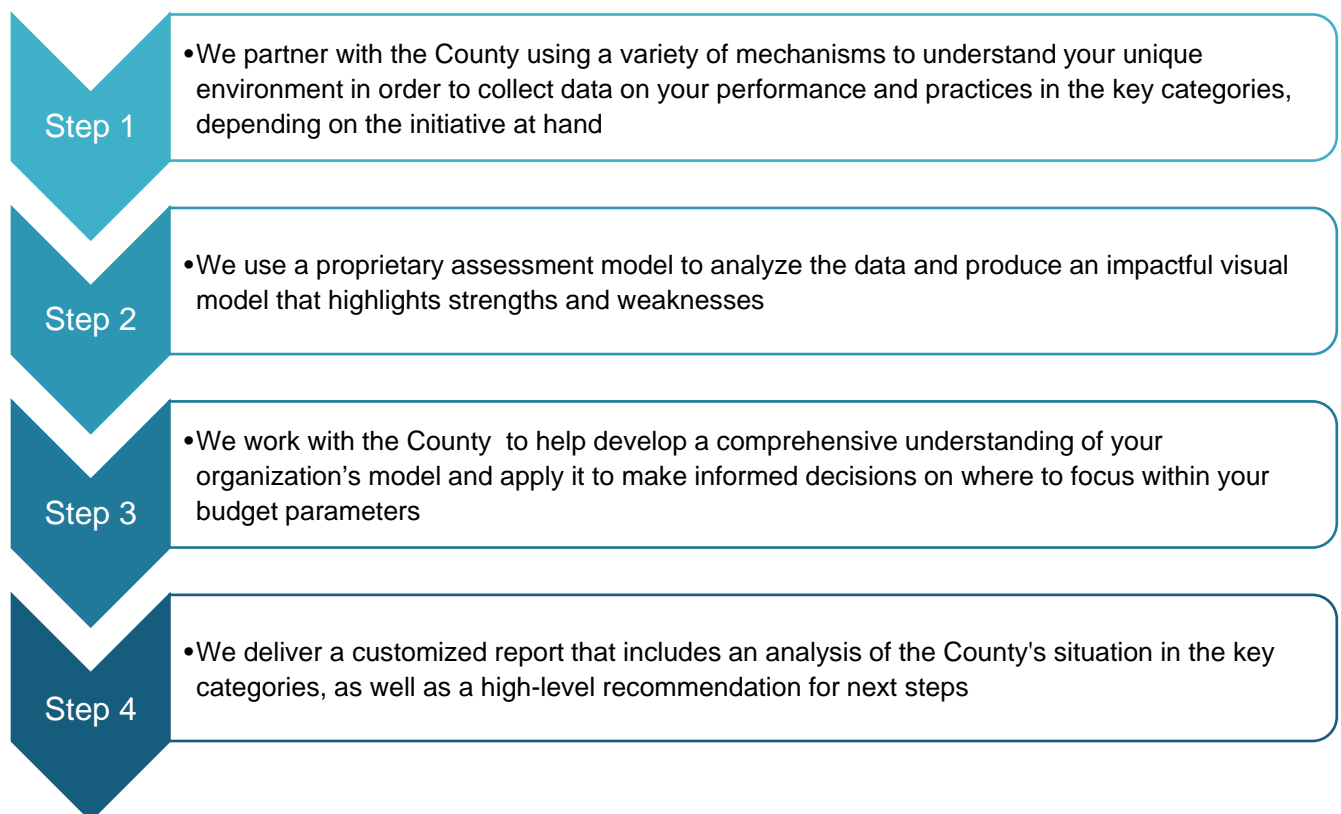
MAPS is designed to help public safety agencies to:

- Redefine risk as an opportunity and migrate their operations closer to the “ideal” state
  - The “ideal” state is defined as public-safety-grade
- Assess an organization, specific system or initiative holistically
- Ensure that the plan fulfills the County’s present needs while preparing to successfully achieve future requirements

*The risk in today’s public safety system is abundant. But it’s also a world full of opportunity. MCP will help Williamson County highlight the risk areas and convert them into opportunity.*

### How MAPS Works

The MAPS methodology provides clients with an intuitive plan that effectively translates complexity into one customized, impactful visual that will help chart a course to accomplish their goals. Using a proprietary assessment model, MCP analyzes an agency’s current situation in key overarching categories, or levels, required to achieve a “best-in-class (i.e., public-safety-grade) operation.



A score is assigned to each category based upon all the information collected during the assessment.

The MCP assessment output allows the County to:

- View a graphic representation of the most significant risk areas in your system(s)
- Make the most informed decisions possible regarding what areas to address, working within your budgetary parameters

The closer a category is rated to the center of the graph, the higher the risk it represents to the overall system.

We understand the “ideal” state is difficult to attain for many agencies for budgetary reasons.

The figure below provides a sample depiction of a MAPS-generated system benchmark:

### Primary Areas of Concern

Coverage

Capacity

Reliability

Interoperability

Maintenance

Lifecycle

Subscribers

Data Capability

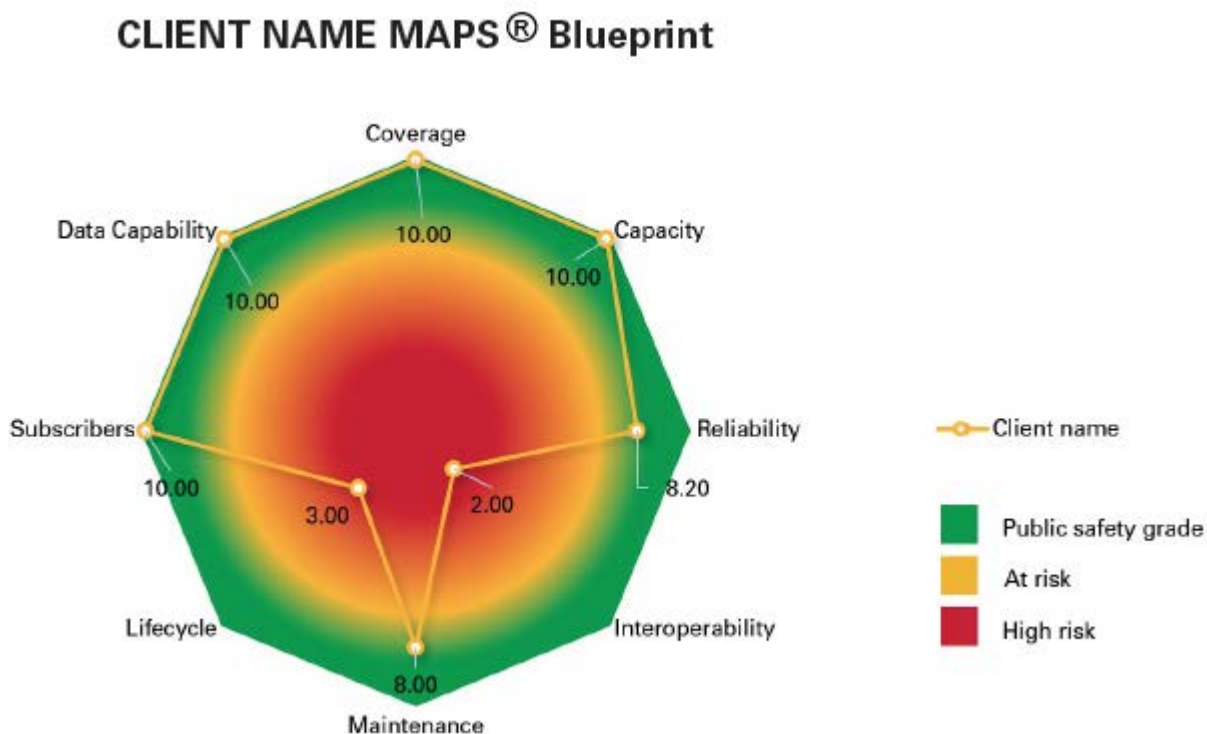


Figure 1 Sample MAPS Diagram for an Existing Network

Task 2 is designed to help the County:

- Work toward the emergency communications ecosystem of today and tomorrow in an accelerated fashion
- Measure the effectiveness of the County's systems and operations and focus on the most critical aspects

To gain a full understanding of the County's issues, problem areas and unmet needs regarding the current system, MCP will conduct interviews with stakeholders and focus groups with the County's assistance.

The interviews are scheduled the same week as the project initiation meeting to realize cost efficiencies for the County and are designed to capture an understanding of the following:

Data Collection
<ul style="list-style-type: none"> <li>• System concerns perceived by users</li> <li>• Locations where system coverage capacity is perceived as limited or unavailable</li> <li>• Issues regarding talkgroup and talk paths</li> <li>• Field unit quality levels, features, and accessories</li> <li>• System management and maintenance requirements and capabilities</li> <li>• Interoperability requirements and issues</li> <li>• Other data-collection elements as determined at project initiation</li> </ul>

### Site Visits

MCP will conduct site visits at the following locations:

Site	Location
1. Prime	1058 Rabbit Hill Road Georgetown
2. Cedar Park	1900 Cougar Country Drive Cedar Park
3. Liberty Hill	5251-A County Road 200 Liberty Hill
4. Thrall	7800 County Road 424 Thrall
5. Florence	1000 Fm 970 Florence
6. High Country	2899 High Country Blvd Round Rock
7. Tower Rd	2141 Tower Rd Liberty Hill
8. Granger	5690 Cr 327 Granger
9. Taylor	108 Old Coupland Rd Taylor
10. Cedar Park South	1302 Fire Ln Cedar Park
11. Back Up	151 Carlson Cove Georgetown
12. Lime Creek	11689 Lime Creek Rd Austin

To assist MCP in this endeavor, the County will:

- On the day(s) of the site visits, arrange for access to each site compound and appropriate shelters.
- Provide a list of stakeholder agencies to be interviewed

- Representation of system users who can articulate communications needs and requirements
  - Contact information for each agency
- Schedule the stakeholder interviews
  - Secure an appropriate venue
  - Disseminate the meeting invitations

*MCP controls the meeting flow and uses proven facilitation principles to help stakeholders clarify where they stand today and where they want to go. We begin clearly with the meeting's purpose and desired outcomes, helping participants gain understanding, achieve strategic alignment and, if necessary, reach consensus. From the time the invitation and agenda are issued, to the start of the meeting, stakeholders understand their role and level of involvement.*

Interviews with additional stakeholders may take place if deemed necessary by the MCP/County team.

### *Task 3: Perform Coverage Analysis*

- Enhanced County 800 MHz Simulcast Radio System
- County Ultra-High Frequency (UHF) Paging
- Very-High Frequency (VHF)/UHF Conventional Radio System

To characterize the County's coverage levels within the existing system's footprint, MCP will take the data collected and produce propagation maps using our radio frequency (RF)-planning software to determine mobile and portable on-street and portable in-building coverage.

The coverage models will take into consideration varying geographical topology and environmental factors such as foliage and building density.

For the County to fully understand the limits of the existing system and to establish a coverage baseline, MCP will use the collected data and coverage modeling to:

- Identify gap areas confirmed by system representatives as required coverage areas
- Perform further coverage modeling to develop a conceptual system design, as needed, to:
  - Recommend system configuration changes to exceed coverage provided by the existing system
  - Enhance coverage in those areas identified by emergency responders as lacking
- Compare current system configuration and coverage to the actual coverage
  - Provide reasons for any differences
- Identify steps to be taken to bring the system performance up to the desired levels

## Frequency Analysis for Determining System Capacity

*Radio spectrum is a critical component of any wireless system and is a limited resource, often influencing decisions regarding radio technologies because of the availability of suitable channels.*

The number of channels available in the County's system determines the system's amount of capacity.

Prior to decisions being made, a radio spectrum review will be completed to ensure that sufficient channels exist to support upgrade or enhancement recommendations. MCP will:

### Frequency Analysis and System Capacity Support

- Review current FCC licenses and spectrum used or licensed to the County and/or its agencies
- Research additional spectrum availability in currently used and/or potential frequency bands
- Evaluate loading based on user feedback regarding:
  - Current channel configuration
  - System usage statistics from the existing system to the extent possible
  - Industry standards that address the number of users on each channel
- Assess current system loading based on system usage statistics
- Evaluate the potential impact of increased capacity using Erlang C calculations
  - Based on the number of active system users during the busy hour

This analysis will provide the information required to make recommendations regarding the potential need for additional channels to support effective communications for the County's users.

### Task 4: Develop Recommendations and Projected Costs

- Enhanced County 800 MHz and UHF Paging
- VHF/UHF Conventional Radio Systems

The evaluated system data and operational and performance requirements identified by stakeholders will be incorporated into MCP's final analysis, and radio needs assessment report, which will include:

### Report Components

- Documentation of the current functional, operational, and performance
  - Coverage
  - Capacity
  - Reliability
  - Interoperability
- Conceptual design of the proposed system



Report Components	
<ul style="list-style-type: none"> <li>– Coverage provided by the design or architecture</li> <li>– Proposed site connectivity recommendations</li> <li>– Potential coverage analysis maps (for both mobiles and portables)</li> </ul>	<ul style="list-style-type: none"> <li>• Number and location of radio sites including: <ul style="list-style-type: none"> <li>– Potential site recommendations for equipment placement</li> <li>– Ability to address identified user requirements and projected costs</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Estimated construction/implementation cost analysis</li> </ul>

Based on this documented understanding of needs and priorities, MCP will develop a conceptual design change or upgrade for the County's consideration that would address these needs.

### *Task 5: Draft and Final Reports*

- Submit Draft Report
- Review Report with the County
- Submit Final Recommendation Report and Incorporate Changes

MCP will compile all data collected into a final report, following the development process in the table below:

Table 1: Final Report Process

Item	Description
<b>Draft Report</b>	<ul style="list-style-type: none"> <li>• Compile and review the draft report</li> <li>• Answer questions and clarify recommendations and findings</li> </ul>
<b>Final Report</b>	<ul style="list-style-type: none"> <li>• Provide a draft report to the County for feedback</li> <li>• Incorporate the County's changes or clarifications into the report</li> <li>• Provide the final version of the report</li> </ul>
<b>Presentation</b>	<ul style="list-style-type: none"> <li>• Make one presentation to the County</li> <li>• Address any final questions or clarifications</li> <li>• Discuss steps for adopting system improvements or upgrade recommendations</li> </ul>

The final report will provide a baseline of the current radio system and recommendations for future action.

## Project Methodology

The Project Management Institute (PMI) framework has been used to develop our response for meeting your needs as defined in your solicitation.

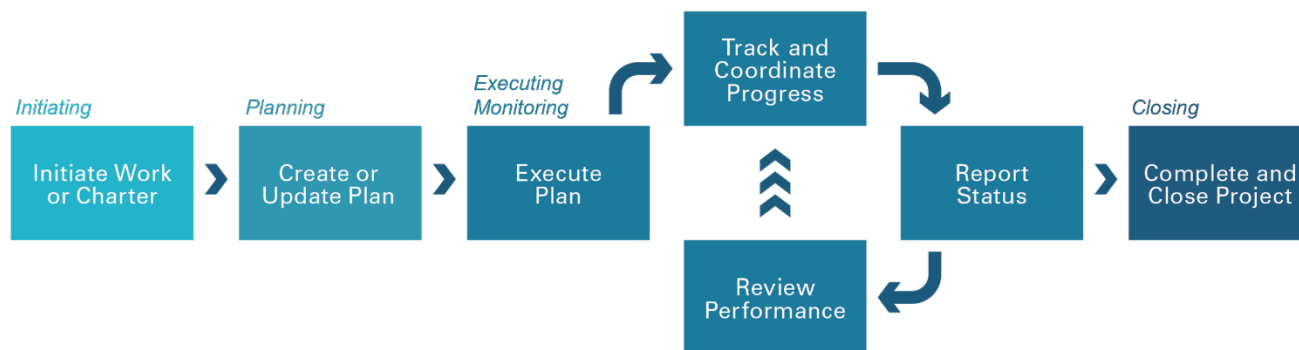


Figure 2: PMI Framework

This industry standard is used by the PM to promote a successful outcome and alignment with the stakeholder expectations through the project lifecycle.

The PMI framework breaks the lifecycle down into four stages: Initiating, Planning, Executing/Monitoring, and Closing. These stages are illustrated in the above graphic.

### *Initiating and Planning*

Upon project initiation, or kickoff, MCP will verify needs and expected outcomes to confirm scope, approach, and timing. After initiating the project and working closely with your team, MCP will develop a customized approach for your agency and stakeholders that drives the project from planning through completion. Depending on project complexity, this approach will be documented in a project work plan; a shorter, smaller plan may be developed based on the accepted scope of work. This scope/work plan will be submitted and reviewed for the County's/ approval prior to project execution. Subsections may include:

- Risk identification and response plan
- Communications plan for status and progress
- Resource needs and allocation plan
- Deliverable acceptance plan

### *Executing and Monitoring*

MCP will execute the scope/work plan as documented and update you on progress, performance, and concerns if any. We will conduct routine project reviews to validate plan alignment for client satisfaction and quality management. The project reviews will focus on:

- Scope (including requirements and quality control)
- Schedule (including planned vs. actual)
- Budget (including planned vs. actual)
- Deliverable and artifact reviews
- Ongoing risk reduction

- Ongoing issue resolution
- Readiness and transition for changes

These reviews and regular project updates will directly impact our continued execution, helping us mitigate potential risks and increase efficiency/performance.

This approach to execution and monitoring results in an opportunity for overall greater success.

## Closing

As the project ends, we will coordinate with your team to ensure agreed-upon deliverables have been submitted and accepted, and that you are ready to take your next step post-project. We also will maintain contact as desired through a designated point of contact if additional services are requested or available in the future.

Additionally, MCP practices two exercises as a form of self-check:

- Internally, we conduct a “Lessons Learned” to revisit and gauge our own performance and project outcomes, giving MCP an opportunity to continuously improve as we continue providing services based on internal observations.
- Externally, we perform “Client Satisfaction Outreach,” which involves directly asking our clients post-closeout to evaluate our performance and their satisfaction. We use this information to reflect on how our clients perceive our work and consider opportunities for improvement we may not have noticed otherwise.

## Tools

In alignment with the complexity of the project, MCP will manage and track project resources, assignments, and costs and will maintain the schedule using a combination of manual and automated industry-recognized tools.

Deltek VantagePoint	Egnyte	Microsoft Project	Online Communications
<ul style="list-style-type: none"> <li>• Integrated, enterprise planning tool</li> <li>• Creates and resource-loads a project plan</li> <li>• Assists with continuity between tasks and tracks project financials</li> </ul>	<ul style="list-style-type: none"> <li>• Secure, cloud-based file-sharing platform</li> <li>• Allows centralized file access based on stakeholder needs</li> </ul>	<ul style="list-style-type: none"> <li>• PMI-based dashboard outlining all project processes</li> <li>• Tailored to meet the goals of individual projects</li> </ul>	<ul style="list-style-type: none"> <li>• Video and instant messaging tool</li> <li>• Improves communication and technology compatibility</li> <li>• Allows access to Platforms including Microsoft Teams, GoToMeeting and Zoom</li> </ul>

Figure 3: MCP's Project Management Tools

Using these tools, the PM will be able to:

- Support efficient use of staff and subject-matter expert resources
- Mitigate against staff being assigned more hours in each period than could be reasonably applied
- Monitor and compare hours planned or needed to complete a task against the hours assigned

This allows the PM to assign time and tasks in a balanced and reasonable fashion to identify pending shortfalls and rebalance staff assignments to accommodate and address the potential shortfall, if needed, and communicate changes in regular project meetings to align with your requirements and expectations.

### *Communications During Limited Travel*

At MCP, we understand on-site meetings, observations, and inspections are important to the accuracy of an assessment or implemented solution—our project approach seeks to provide sufficient time and personnel for on-site deployment as you prefer.

Acknowledging the current health and safety environment the country is facing, as well as the likelihood of your active COVID-19 safety protocols for employees, we have built this project in a hybrid model.

This updated approach assumes that on-site interaction will be limited and supplements the project with remote activities, where warranted, in the best interest of the project. However, if all parties agree in-person interaction is not advisable, you can trust MCP has the experience, capabilities, and technology to successfully complete the work in its entirety remotely.

MCP engages a variety of platforms, including but not limited to GoToMeeting, Zoom, Microsoft Teams and Egnyte, to meet your needs. Through these platforms, project teams can establish break-out rooms, conduct remote tours, and facilitate interactive interviews, focus groups and digital whiteboards to work problems in real-time. Additionally, we leverage online data-discovery tools and secure repositories.

With this approach, MCP will be able to follow current local, state, and federal requirements necessary to keep your staff and our employees protected, all while building trust and instilling confidence that we will deliver on our commitments.

### *Quality Assurance and Quality Control*

Our PM is responsible for the quality assurance and quality control (QA/QC) process for deliverables, including scheduling, formal delivery, and follow-up to meet your expectations.

Table 2: MCP's QA/QC Process

Stage	Description
<b>Peer Review</b>	<ul style="list-style-type: none"><li>• Validate content (this is reviewed by select project team members and other SMEs relative to the content)</li><li>• Align the deliverable with the project's scope of work</li><li>• Leverage industry standards and best practices, the depth of knowledge of the reviewers and information obtained from other similar projects</li></ul>
<b>Peer Review Edits</b>	<ul style="list-style-type: none"><li>• Validate the comments received via peer review</li><li>• Incorporate applicable changes into the deliverable</li></ul>
<b>/Quality Assurance</b>	<ul style="list-style-type: none"><li>• Comprehensive deliverable review is conducted by MCP staff with industry knowledge and experience, as well as specific expertise in editorial content review</li><li>• The objective of QA is to validate that:</li></ul>

Stage	Description
	<ul style="list-style-type: none"> <li>- Deliverable is comprehensive and thorough</li> <li>- Deliverable meets defined acceptance criteria</li> <li>- Text, tables, and graphics are accurate</li> <li>- Text flows logically and is grammatically correct</li> </ul>
<b>Quality Control</b>	<ul style="list-style-type: none"> <li>• Once QA edits have been reviewed by the PM and incorporated, the deliverable moves into the final stage: QC</li> <li>• During QC, document support specialists further scrutinize the deliverable to validate that: <ul style="list-style-type: none"> <li>- The deliverable is accurate and consistent regarding usage and content flow</li> <li>- The appearance of the deliverable aligns with MCP and client standards</li> </ul> </li> </ul>

Deliverables are vetted thoroughly prior to delivery. In the event a deliverable does not meet your expectations, MCP will meet with you to review any identified deficiencies, then document and, more importantly, correct them to your satisfaction, to the extent they do not contradict or violate established rules, regulations, statutes, standards, or a combination thereof.

# Project Team

With more than 150 staff members, MCP's specialized professionals are integral members of our team:

MCP's Specialized Professionals	
<ul style="list-style-type: none"><li>• Licensed FCC experts</li><li>• Project Management Professionals (PMPs)</li><li>• Professional Engineers (PEs)</li></ul>	<ul style="list-style-type: none"><li>• Emergency Number Professionals (ENPs)</li><li>• Technology, forensic, and policy specialists</li><li>• Former public safety managers</li></ul>

MCP will support this project with 100% internal staff to protect the County from the risk of 1099 staff or subcontractors that could delay project initiation, delivery or create contractual issues over responsibilities. MCP has identified in the figure below the key team members from our staff that we plan to assign to this important project.



## Organizational Chart

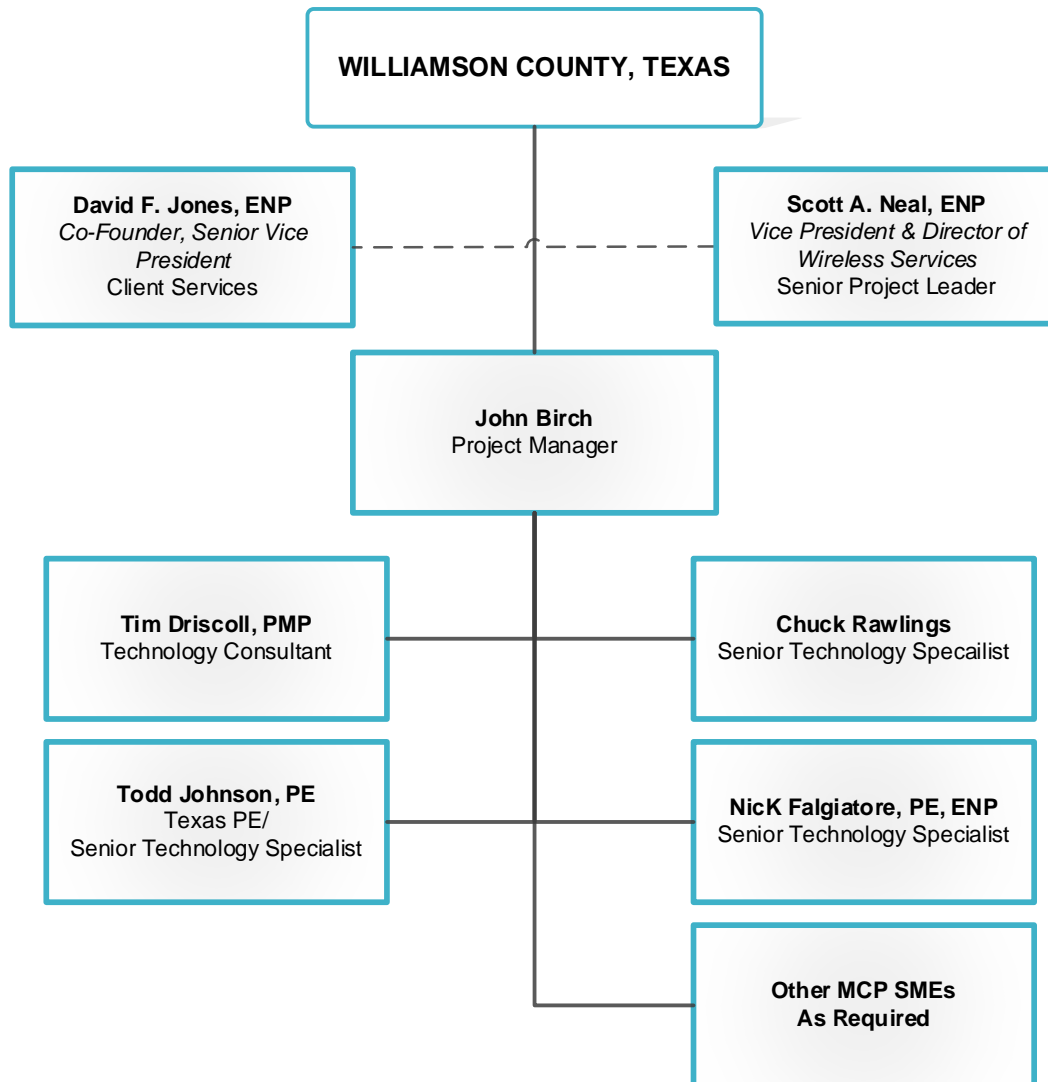


Figure 4: Project Team

Each team member brings a unique skill set and depth of experience. Additional resources and subject-matter experts are also available, as we are a full-service firm focused on all aspects of public safety communications

## Resumes

Resumes highlighting our qualifications and experience are included on the following pages.

## David F. Jones, ENP

Co-Founder, Senior Vice President, Director of Strategic Accounts, Mission Critical Partners

David provides executive-level consultative services and expertise on matters related to NG911, government affairs, public policy, and legislation. He is an internationally known subject matter expert on 911, NG911, and emergency services. He has advocated for emergency services-related issues throughout North America, as well as in Asia, South America, and Europe. While serving as president of NENA, he testified before the United States Senate Commerce Committee on issues pertaining to 911 and next-generation telecommunications networks. David was among the first in the nation to be certified as an ENP and has more than 25 years of experience in the public sector, having administered, directed, managed, and operated emergency service agencies and 911 departments. Areas of specialization include:

- Client management, ensuring client expectations are met for success
- Program management support and executive-level consultative services

### Representative Experience

#### *State/Regional Experience*

- Arizona—FirstNet-related support, NG911 planning and implementation, executive-level support
- Association of Central Oklahoma Governments (ACOG)—NG911 design, acquisition and deployment
- California—Leadership development/NG911 training
- Colorado—911 Resource Center NG911 system review
- Kansas—NG911 support
- Michigan—Public safety broadband
- Minnesota—Statewide 911 implementation, technology support, procurement support
- Nebraska—Public Safety Commission NG911 study, professional general consulting
- New Mexico—NG911 Planning and Implementation support
- Oklahoma—NG911 support
- Tennessee—Emergency Communications Board Technology consulting
- Texas—Commission on State Emergency Communications (CSEC)—ESInet facilitation
- North Central Texas Council of Governments (NCTCOG)—911 master planning, executive mentoring, GIS assessment, NG911 implementation and PSAP feasibility study
- Lower Rio Grande Valley Development Council, TX—NG911 migration support

#### *City/County Experience*

- Horry County, SC—911, NG911 and radio support
- Shelby County, TN—911 District
  - Memphis Police Department—CAD consulting automatic vehicle location (AVL) procurement assistance, and radio procurement
- Charleston County, SC—Public safety system review and ESInet
- Calhoun and Talladega Counties, AL—Radio system governance and related legislation
- Tarrant County, TX—911 District customer premise equipment (CPE) review and implementation and Regional Interoperability Communications Committee (RICC) study
- Dallas, TX—NG911 System Planning/911 CPE replacement
- San Francisco, CA—911 system replacement
- Spartanburg County, SC—Director, Emergency Services – 911, Emergency Management Agency, Fire Marshal, and Emergency Services Training Academy



### Industry Experience

37 years

### Education

B.A., Political Science,  
Wichita State University,  
KS

### Certifications

Emergency Number  
Professional (ENP)

### Associations

National Emergency  
Number Association  
(NENA)

NENA, President, 2005-  
2006; Executive Board,  
2001-2007

Association of Public-  
Safety Communications  
Officials (APCO)

Industry Council for  
Emergency Response  
Technologies (iCERT)  
Executive and Policy  
Committee

### Awards

“Order of the Palmetto,” by  
South Carolina Governor,  
October 2005. Highest  
civilian award in the State  
for “efforts to improve  
emergency services and  
communications”

## Scott A. Neal, ENP

Vice President & Director of Wireless Services, Mission Critical Partners

Scott brings more than three decades of emergency communications experience to MCP. Scott retired after completing a 28-year career with the Pennsylvania State Police (PSP), where he served 25 years in the field up through the rank of Captain and spent his final three years as a Major in charge of the Bureau of Communications and Information Services. In that capacity, he was responsible for the operation and maintenance of the Pennsylvania Statewide Radio Network (PA-STARNet) and the administration of the Commonwealth Law Enforcement Assistance Network (CLEAN) and also led the effort to procure the first ever records management system for PSP. Scott also served as the governor-appointed single point of contact for the Commonwealth of Pennsylvania for the planning efforts of the FirstNet's Nationwide Public Safety Broadband Network (NPSBN) from 2012–2015.

Since joining MCP in 2015, he has served as client manager as well as project manager on multiple projects and was the lead consultant supporting multiple states in the planning effort for the NPSBN. He currently leads a team of more than 20 professional consultants who specialize in supporting our clients' mission-critical wireless networks.

### Representative Experience

#### State/Regional Experience

- Nationwide Public Safety Broadband Network Planning (NPSBN) activities—Served as Project Lead
  - Arizona
  - Michigan
  - Missouri
  - New Hampshire
  - New Jersey
  - Pennsylvania
- Arizona—FirstNet consulting services
  - Data collection/analysis, education and outreach, and conduct of band 14 technology exercise for the planning of the NPSBN
  - Project manager for the development and delivery of an RFP to explore potential public/private partnerships in a FirstNet “opt-out” scenario
- Arizona—Statewide broadband strategic planning, microwave network planning and design; Statewide Radio Request for Information
- Arizona—Northern Microwave Loop upgrade
- Massachusetts—Statewide LMR system (CoMIRS) assessment, conceptual design, RFP development and implementation support for the Massachusetts State Police
- New Hampshire—Radio System assessment, upgrade and RFP development
- Southeastern Pennsylvania Regional Task Force (SEPA-RTF) Automatic License Plate Reader (ALPR) implementation and services—Provided assistance with the CJIS security policies

#### City/County Experience

- Memphis/Shelby County, TN—Radio system assessment and RFP development
- Northumberland County, PA—Radio system upgrade
  - Oversaw the implementation of a countywide P25, trunked VHF radio network
- Gallatin County, MT—Radio system upgrade support

#### Additional Experience

- Performed operation and maintenance of PA-STARNet digital trunked 800 MHz public safety radio system, operating on the OpenSky platform on 1,100 radio sites
- Led the planning effort to transition the PA-STARNet from the current platform to a hybrid VHF/800 MHz P25 Phase II



### Industry Experience

34 years

### Education

107th Administrative Officers' Course (AOC) of the Southern Police Institute, University of Louisville, Kentucky

### Certifications

Emergency Number Professional (ENP)

Incident Command Training (ICS 100/200/300/400/500/700/800)

### Associations

National Emergency Number Association (NENA)

Association of Public-Safety Communications Officials (APCO)

International Association of Chiefs of Police (IACP)

Pennsylvania Chiefs of Police Association

Fraternal Order of Police (FOP)

## John Birch

Client Manager, Mission Critical Partners

John works with state and local public safety agencies on land mobile radio, microwave and supervisory control and data acquisition (SCADA) system upgrades and replacement projects. He performs needs assessments and develops conceptual system designs and budgetary cost estimates for communications systems improvement and replacement. John defines system requirements and specifications for RFPs. He evaluates proposals and assists clients in vendor contract negotiations for system procurement. In addition, he provides system implementation oversight, including site inspections and system performance verification and cutover planning.



### Representative Experience

#### City/County Experience

- Houston-Galveston Area Council (H-GAC), TX—Lead consultant for 13-county Regional Interoperable Communications Plan (RICP) and Gap Analysis
- Dallas County, TX—Lead consultant for radio tower and R56 grounding project for new Dallas County 911 dispatch center and ICC 500 storm shelter
- Montgomery County Hospital District (MCHD), TX—Lead consultant in support of numerous radio communication system projects
  - Led the development, purchase and implementation of a new ten-hop MPLS microwave network
  - Supported the upgrade of Enhanced Digital Access Communications System (EDACS) to a six-site, P25 Phase 2, trunked simulcast system
  - Led the development, purchase and implementation of six new MCHD-owned radio towers within Montgomery County
- Montgomery County Volunteer Fire Department, TX—Lead consultant for the planning, design, procurement and implementation of a new five-site, VHF simulcast, land-mobile radio system for 44 volunteer fire departments and the Woodlands Fire Department
- City of Houston, TX—Needs assessment, planning, procurement and implementation of a citywide P25 Phase 2 time division multiple access (TDMA), 48-site simulcast 700/800 MHz trunked radio system

#### Additional Experience

- Port of Houston, TX—Lead consultant for radio communications system project to evaluate the Port's radio system expansion options to cover multiple locations
  - Conducted user needs assessment, evaluated the existing system and developed conceptual system design alternatives, budgetary costs and coverage analyses for the various options
- Cy-Fair Volunteer Fire Department (CFVFD), TX—Lead consultant for start-to-finish radio system planning, procurement and implementation of new 700 MHz, P25 simulcast trunked radio system
  - Worked with CFVFD and emergency services district (ESD) #9 to complete Phase 1 needs assessment, conceptual system design options and corresponding budgetary cost estimates for new P25 trunked radio system
  - Developed new radio system, dispatch console system and microwave backhaul system technical and functional specifications for an RFP
  - Supported proposal evaluation, system implementation and acceptance testing

#### Industry Experience

36 years

## Timothy John Driscoll, PMP

Client Manager, Mission Critical Partners

Tim is responsible for assisting clients in developing and implementing wireless voice and data communication systems. His experience in the development, implementation and maintenance of more than forty-five 800 MHz trunked radio systems has provided him the skills to complete all projects while exceeding client expectations.

Tim has been responsible for evaluating radio system coverage, capacity and the general state of radio systems used primarily in the public safety arena of operations. He has evaluated and developed improvements of large bi-directional amplifier (BDA) systems such as those used in nuclear power plants and large manufacturing facilities. Tim has worked with many clients in developing radio shop staffing, service provision evaluations, and radio service and equipment repair tracking systems.

### Representative Experience

#### City/County Experience

- Cities of Garland and Mesquite, TX
  - Developed, procured and implemented a shared four-city, nine-sites, P25 Phase 2 time-division multiple access (TDMA) trunked radio system with 4,000 radio users
  - Supported needs assessment, development of system alternatives and cost estimates and development of a competitive RFP
  - Evaluated proposals from vendors and assisted the cities' team in vendor selection, contract negotiations and system implementation
  - Evaluated the cities' radio service center and made recommendations for staffing, test equipment and process modifications for servicing the new system internally
- Collin County, TX
  - Implemented shared multi-city, nine-site, P25 Phase 2 TDMA trunked radio system with 2,000 radio users
  - Performed site inspections and provided oversight of punch list resolution
  - Developed and implemented a communication center supporting operations and numerous outside agencies throughout the County
- City of Midland, TX
  - Evaluated two competitive 800 MHz, five-site, simulcast P25 Phase 2 TDMA trunked radio system proposals for replacement of an 800 MHz enhanced digital access communication system (EDACS) trunked radio system
  - Supported vendor oral presentations and best and final offers; worked closely with the proposal evaluation committee to finalize the evaluation process
- North Central Texas Council of Governments (NCTCOG), TX
  - Developed and procured radio interoperability solutions for numerous public safety agencies within the 16-county NCTCOG territory
- Highland Park and University Park, TX (Park Cities)
  - Performed a radio system needs assessment for both Park Cities
  - Modified vendor proposal to meet needs identified in Phase 1
  - Assisted in the development of Interlocal Agreements with the switch owner and between each of the Park Cities
  - Orchestrated implementation of a 700 MHz, three-site simulcast system that included three dispatch sites; provided implementation oversight and participated in system acceptance testing



### Industry Experience

35 years

### Education

B.S., Electrical Engineering, Kennedy-Western University, WY

Associate Degree in Electrical Engineering, National Institute of Technology

### Certifications

Project Management Professional (PMP)



# Charles Rawlings

## Senior Technology Specialist, Mission Critical Partners

Charles utilizes his extensive experience to ensure that secure, seamless communications, vital in both day-to-day operations and potential emergencies, are completed and functional. In addition, he has performed calculations for VHF/UHF shots and conducted electromagnetic emissions surveys and R56 audits. Charles has also directed the installation of infrastructure equipment and optimized performance and integration. His well-rounded skills enable him to achieve project success and delight his clients.

### Representative Experience

#### *Land Mobile Radio Engineer Experience*

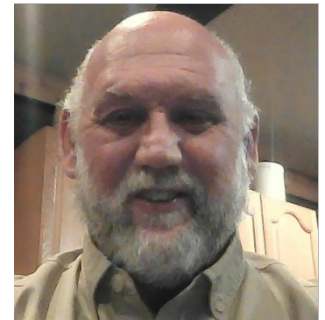
- Spearheaded planning, administration and maintenance of LMR life support system for U.S. Embassy and surrounding consulates
- Delivered unparalleled life safety support by designing an award-winning communications system recognized by the U.S. Department of State and adopted worldwide, integrated LMR into a Big Voice Early Warning system that extended the coverage to personnel and aircraft outside of the U.S. Embassy Compound in Kabul, Afghanistan
- Orchestrated cutover of newly licensed frequencies through full replacement of outdated LMR infrastructure, strengthened communications security by engineering over-the-air rekeying (OTAR) system, overcame extraordinary RF interference challenges due to lack of effective regulation by leveraging expertise in RF spectrum analysis and adapting quickly to frequency spectrum changes

#### *Senior Land Mobile Radio Engineer Experience*

- Directed radio communication and electronic countermeasures operations in Iraq as C4I-CIED product lead
- Oversaw team of 26 personnel charged with maintaining and repairing more than 20K radios, communications jammers, base stations, antennas and LMR infrastructure
- Led installation and upgrades of electronic countermeasure equipment at fixed and mobile sites
- Provided RF spectrum management and built new LMR systems in six different Office of Security Cooperation-Iraq (OSC-I) bases and migrated all OSC-I bases throughout Iraq from UHF to VHF
- Contributed to the safe withdrawal of U.S. military forces from Iraq on short notice by maintaining reliable communications, intelligence and counter-IED solutions throughout the massive transition

#### *Senior Communications Specialist Experience*

- Conducted technical analysis of the statement of work (SOW), designed end-to-end communications system, managed procurement process for IT and communications (ITC) system components, installed and optimized repeaters, base stations, antenna systems and subscriber equipment, installed end-to-end local-area network (LAN) infrastructure including cabling, routers, servers, switches and hubs
- Lead Exploitation Officer, Mobile Security and Communications—Orchestrated high-threat mobile security operations in a hostile environment, planned and executed daily missions, developed signal operating instructions (SOIs), acted as a tactical communications specialist, conducted document, media and cellular exploitation activities, utilized and maintained wide range of digital intelligence collection devices, leveraged Falcon View, Google Earth and other satellite imagery solutions



### Industry Experience

20 years

### Education

B.S., Electronic Engineering Technology, Montana Institute of Technology, University of Montana

### Certifications

Top Secret/Sensitive Compartmentalized Information Clearance

Ordinary Secret Clearance

## Todd B. Johnson, PE

Senior Technology Specialist, Mission Critical Partners

Todd is a licensed Professional Engineer and brings years of experience in public safety wireless communications. He has been responsible for supporting clients from the assessment of their needs through the design and installation of complex customized systems. Todd has provided team leadership, managing multiple teams to ensure the success of projects and services for clients.

### Representative Experience

#### State/City/County Experience

- Missouri—Statewide P25 VHF trunking system site expansion, coverage modeling, in-house network monitoring and vendor management for maintenance activities
- Gallatin County, MT—RF consulting and engineering support on a dual-band, trunking system
- City of Memphis and Shelby County, TN—Public safety radio system and push-to-talk over cellular (PTToC) procurement and implementation
- City of Philadelphia—Review of 20.19 upgrade plan, NICE upgrade, Public Safety Dispatch consolidation and participation in the public safety communications strategy
- Broward County, FL—Technical support for assessment and planning for implementation for P25 trunked radio system
- Fayette County, GA—Engineering lead on the assessment and selection of vendor, including review of the radio system, microwave, consoles, push-to-talk (PTT) and interoperability segments of the county's selection
- Wake County, NC—Radio system replacement and PTToC review
- Pasquotank County, NC—Radio dispatch backup center
- Horry County, SC—Radio and paging system replacement
- Wayne County, PA—Technical support for broadband network planning
- Story County, IA—Review of the radio system, microwave, consoles, PTT and interoperability segments of the county's selection; lead on radio assessment and vendor selection
- City of Houston, TX—Assistant Director
  - Management of a P25 radio system for Police, Fire, EMS and Public Works; lead on the transition from conventional analog to Digital P25 Phase 2; roadmap development for regional radio system and conversion of Public Works from traditional LMR to ESChat's PTToC

#### Additional Experience

- Utility Team Leader
  - Reliant Energy (Centerpoint)—Replacement dispatch center
  - Entex Gas (Centerpoint Gas)—Data solution
  - Cleco (Statewide utility in Louisiana)—Statewide trunking and data solution
  - Progressive Energy—Statewide trunking and data solution for multiple states
  - Entergy—Multistate, multizone trunking solution
  - San Antonio Water System—Citywide radio system
  - Austin Electric—Citywide radio system (migrated subsequently to Greater Austin/Travis Regional Radio System [GATTRS])
- Rebanding Experience
  - Assistant Director for City of Houston during rebanding process



### Industry Experience

34 years

#### Education

MBA, Business  
Administration, Louisiana  
State University

B.S., Electrical  
Engineering, University of  
Houston, Texas

#### Licenses and Certifications

Professional Engineer  
(PE), California, Georgia,  
Iowa and Texas

Amateur Radio Operator  
KG5HNJ



## Nicholas Falgiatore, PE, ENP

Senior Technology Specialist, Mission Critical Partners

Nick is a professional engineer and wireless specialist who has served more than 50 public safety clients ranging in size from small municipalities to state agencies. His experience encompasses all aspects of public safety communications systems implementation, such as needs assessment studies, system procurements and system implementation engineering support. Nick has supported P25 Phase I and Phase II system implementations from multiple equipment vendors. He is at the forefront of public safety broadband, providing contributions to expert panels and publications on the topic. His expertise includes radio systems design, system acceptance testing, FCC licensing, propagation modeling, interoperability planning, data gathering, P25 subscriber certification, coverage testing and site assessments.

### Areas of Specialization

- Recommend radio system technologies; perform assessments of radio systems and develop conceptual trunked and conventional system designs and cost estimates
- Develop radio system specifications, conduct competitive procurements, and provide support through the implementation of radio and wireless systems
- Develop/update strategic statewide and tactical interoperability communications plans
- Perform propagation studies to model radio system coverage and interference
- Develop radio system VHF, UHF, and 700/800 MHz frequency plans

### Representative Experience

#### Federal Experience

- U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA)—Chemical Stockpile Emergency Preparedness Program (CSEPP)—Radio systems needs assessments and coverage modeling

#### State/Regional Experience

- Missouri—Statewide P25 VHF trunking system implementation, FirstNet support in data collection, outreach and education, consultation and the Statewide Communication Interoperability Plan (SCIP) update
- Michigan—National Public Safety Broadband Network (NPSBN) planning activities
- Southeastern Pennsylvania Regional Task Force (SEPA-RTF)—Regional Inter-RF Sub-System Interface (ISSI) and interoperability assessment
- Northern Virginia Emergency Response System (National Capital Region)—ISSI assessment

#### City/County Experience

- Broward County, FL—Radio system needs assessment, procurement, implementation and FCC licensing
- Okaloosa County, FL—Radio system analysis and procurement for P25 Phase II system
- Lawrence County, PA—Radio system needs assessment, FCC licensing procurement and implementation for P25 Phase II system
- Montgomery County, PA—Radio system needs assessment, procurement and FCC licensing support for 30-site P25 Phase II system
- Butler County, PA—Radio system needs assessment, procurement and implementation for P25 Phase II system
- Southwest Florida International Airport—RF system interference analysis and antenna design



### Industry Experience

14 years

### Education

M.S., Electrical Engineering, B.S., Electrical Engineering, Univ. of Central Florida

### Licenses/ Certifications

Professional Engineer, Florida, Tennessee, North Carolina

Emergency Number Professional (ENP)

### Associations

National Emergency Number Association (NENA)

Association of Public-Safety Communications Officials (APCO)

### Awards

2020 IWCE Leader of the Year finalist. Showcases outstanding leadership in critical communications

2017 IWCE Young Professionals Awards list. Showcases leaders in the communications technology industry

The background is a grayscale abstract composition. It features a series of horizontal, slightly blurred lines of varying thicknesses that create a sense of depth and movement. In the lower portion of the image, there are prominent, smooth, curved lines that sweep across the frame, resembling a stylized landscape or a close-up of a textured surface. The overall effect is modern and minimalist.

# Pricing

Professional services outlined in the above scope of work will be provided for a **fixed fee of \$29,847**, including expenses.

The fee is fully loaded, meaning that expenses are included in the above total amount; MCP will not be submitting expenses for reimbursement to the County. MCP is responsible for all costs related to travel, housing, transportation, communication devices, and computer equipment if/when needed to complete this project as outlined in the scope.

Any additional services contracted in subsequent years will be performed at MCP's then-current fee schedule. Prior to initiating any such additional work, MCP would require a formal letter of authorization from Williamson County.

An invoice shall be submitted each month and include the percentage of work completed relevant to the fee and shall be reviewed and paid within 30 days of receipt.

Based on the current MCP understanding of what is to be accomplished, the pricing identified above represents an estimate of the work anticipated for the project to be successful. MCP's priority is for this project to be successful for Williamson County.

### *Pricing Assumptions*

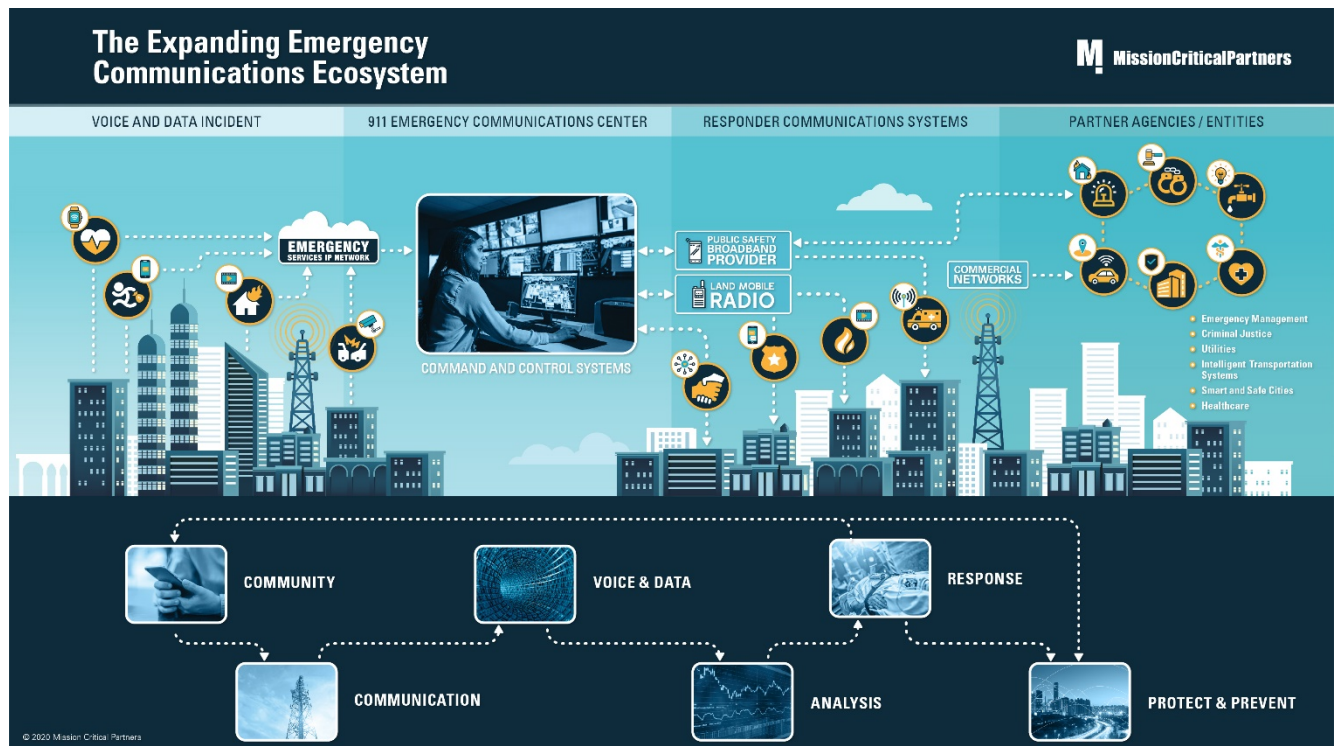
- MCP assumes the County will provide a contact list of stakeholder representatives for data collection, and the County will secure an appropriate venue for stakeholder meeting(s)
- Up to three revision cycles to the report will be supported at no additional cost.
- MCP's proposal assumes no retainage is being withheld.
- The fees and rates contained herein shall remain valid for 90 days from the submission due date of this proposal.
- MCP's professional fees do not include structural analyses, soil boring (geo-technical) analyses, environmental impact studies, path analyses, or land survey fees.
- Electrical, mechanical, structural, civil, or other design engineering services not specifically indicated in this proposal have not been proposed.
- MCP agrees to negotiate mutually acceptable terms and conditions after award.

# Appendix A: The Public Safety Ecosystem

Since 911's inception in 1968, public safety officials have continued to leverage technology advancements to make emergency response even more efficient and effective. The counterbalance is these advancements occurred in distinct silos that developed within the emergency communications ecosystem (enhanced 911 service, digital land mobile radio networks, and computer-aided dispatch systems).

Today, we stand on the precipice of another technology transformation like the advent of 911 service. As public safety moves through this transformation over the next several years and beyond, it is critical that the agencies begin thinking of the ecosystem as a holistic network, i.e., a network of networks.

The new public safety ecosystem will interconnect on many levels to enable the smooth flow of critical and relevant data to provide emergency responders with the best information to perform their duties.



MCP can provide the public safety, criminal justice, data integration, network and information technology services required to help agencies start thinking of the ecosystem as a single entity, taking into consideration how each piece will interconnect and interact with the others. With MCP's support, agencies will transition from siloed communication environments to realizing significant improvements in emergency-response outcomes.



## Appendix B: MCP's Areas of Specialization

Mission Critical Partners is a comprehensive professional services firm rather than an organization with a single focus or specialization. Our areas of specialization are driven by subject matter experts in each of their respective fields – in other words, our specialization is in all areas of public safety – from operations to technology.

Our planning, design, and implementation services span all aspects of mission-critical communications.

### Executive Consulting Services



MCP partners with clients to develop customized technical and operational solutions for public safety communications—because the mission matters.

Our staff has extensive experience serving in public sector and public safety management roles. We draw on our real-world experience when advocating for our clients. Through first-hand experience, we have earned the reputation for being accountable, prudent, persistent, progressive and reliable problem solvers and innovators.

We provide services that are initiated at a strategic level. An integral part of our executive-level consulting is providing master planning services. Our team of policy specialists collaborates with clients to create comprehensive plans that help direct decision-making in the public safety sector. When developing a strategic plan, MCP incorporates master planning, organizational structuring, hiring assistance, fiscal planning, operations and technology and policy solutions.

We first seek to gather insights into our client's unique organization. We then apply these insights with our deep industry experience to formulate a strategy designed to serve as a guide to our client's future. We focus on combining a comprehensive yet tactical approach that addresses every element of the client's sphere of influence. Our team directs its collective energy on understanding the full scope of the client's responsibilities and objectives. We uncover the unique challenges that stand in the way of achieving success. Our goal is to mitigate those challenges by leveraging policy, technology, fiscal and human assets to develop a sustainable solution.

Our clients are responsible for delivering reliable service 24 hours a day, seven days a week to emergency responders and the public while operating with limited resources. In recognition of the need to achieve more with less, we aim to put the client in a position to do more with more. This means structuring organizations, programs and projects for available grant funding through policy development, technology and appropriate fiscal planning.

## Network 911 Services



Our professionals have extensive experience with planning, designing, procuring, negotiating and implementing all Next Generation 911 (NG911) call delivery and processing elements. The public safety answering point (PSAP) environment continually will evolve with new technologies, processes and expectations. MCP's goal is to help our clients implement resilient, effective and future-focused solutions that enhance emergency response and result in better outcomes for public safety—because the mission matters.

The MCP approach considers funding models, system lifecycle analysis, objectives, incident processing, network resources and governance opportunities to establish a thorough understanding of a client's unique PSAP environment.

Our NG911 experts have extensive experience with incident processing in the PSAP, as well as incident dispatch and data management. MCP can develop a comprehensive master plan for the agency or region and a conceptual design for NG911 deployment. The master plan assesses all options and ensures timely deployment by incrementally upgrading technology and recommending policy, funding and governance modifications. Our offerings include, but are not limited to, master planning and design and procurement support for a wide variety of communications networks, including Internet Protocol (IP)-based networks, such as Emergency Services IP Networks (ESInets).

## Operations and Facilities Services



When everything you do is considered mission-critical, you require reliable systems to meet the demands of your always-on operation. Our planning, designing and integration services improve the return on your technology investments, while delivering project success. And our project management expertise helps you complete your initiatives on time and on budget.

MCP is passionate about creating environments, processes and systems that enable our clients to experience greater success. We do this by bringing innovative ideas to every project with the end goal of improving your operations. Our applications expertise spans all aspects of public safety communications including emergency services studies, computer-aided dispatch (CAD), logging, records management systems (RMS), geographic information systems (GIS), mobile data and more. We believe that the way in which these applications combine with other systems and your agency's unique organization is fundamental to success. Our specialized team of experts work shoulder to shoulder with our clients to align requirements with their goals to implement the best possible solution.

Our operations and facilities services include operations consulting; technology procurement and implementation; shared services and consolidation; strategic and executive-level consulting; facility planning services; and professional development and mentoring.

## Shared Services and Consolidation



In today's market, everyone is asking, "How can we do more with less?" Communications centers are impacted by this question as budgets become tighter, technology matures, operational demands become more complex and training needs increase. Many are finding that consolidation is a solution to consider. The MCP team has extensive experience with consolidation efforts in past public-sector roles and as consultants.

We recognize that elected and public safety leaders strive to provide the most effective and efficient emergency response system possible. Ultimately, the delivery of quality life-safety services is the achievable objective. We develop a collaborative approach with our clients to assess the opportunity for operational and administrative efficiencies through potential consolidation, colocation or organizational change. Our professionals use an impartial and even-handed approach that has a proven track record of success.

Today's economic realities require a thorough program analysis to define a future path to economizing, while effectively delivering service. Appropriately applied, consolidation or colocation can achieve operational efficiencies through systemic interoperability via staffing, scheduling, technology, training and reduction in system's costs.

We appreciate the necessary balance required of seemingly competing objectives with operations, organizational, technology, fiscal, human resources and governance issues. The variables and constraints associated with each are carefully weighed to develop an approach with a lasting solution. MCP is sensitive to the sense of ownership and loyalty each community and agency has with a local communications center. We honor the history of service while providing an independent view of how the community is best served by advancing to the future. To ensure a comprehensive, yet smooth, transition, we provide migration assistance and help address the challenges inherent in combining organization, facility, technology and operational resources.

## Facility and Technology Design and Integration

MCP is well-versed about the requirements of mission-critical facility architectural and engineering design and we are highly qualified to manage the many complexities that arise with each building project. We also apply our understanding of all elements of the facility construction—including site selection and development, and implementation of electrical, mechanical, structural, security and other technology systems—to coordinate systems installation, acceptance, training and operational transition.

The focus of every project is to optimize the functional use of the space for operational integrity. We work closely with the client to develop technology solutions, migration schedules and a forward-looking operations floor layout that scales as each client's needs grow. Our team has a profound passion for results, an indefatigable work ethic, and a proven record of success; we utilize industry-leading intellectual capital to provide highly responsive, customized, solutions and strategies for our clients.



## Network and IT Support Services



We help our clients increase the reliability of their network and IT environment long after implementation. Our holistic IT and network support solution helps our clients realize significant IT cost-savings, while remaining confident that their systems are running at peak performance, protected by unplanned network outages.

Clients partner with us so that they can focus on the strategic aspects of managing their public safety operations while we provide expanded continuity, capacity, and capability. We provide solutions that achieve our clients' goals, not their vendors, by applying a technology-independent approach.

With MCP's help maintaining their network environment, our clients have greater confidence that their IT infrastructure and related systems are running smoothly. Our objective is to help our clients drive a greater return from their maintenance investments while reducing their operating expenses. We provide a broad portfolio of assessment, monitoring, and support solutions that improve network reliability and provide agencies with a greater pulse on their IP network and IT enterprise.

IT Network and Support Solutions	Network Management and Monitoring Solutions	Cybersecurity Solutions	Additional Offerings
Mission-Critical NetInform®  NetInform Discover discovery and reporting  NetInform Assessment enterprise IT network	Mission-Critical NetPulse®  NetPulse Essential 24x7 network management  NetPulse Advanced 24x7 network monitoring	NetInform Secure security assessments  NetPulse Secure security monitoring	On-request services  IT helpdesk services  Integrated vendor support services

These support solutions can provide a holistic, end-to-end view into an agency's entire network and supporting infrastructure with support available for the following networks and applications:

- CAD Systems
- Call-Handling Equipment (CHE)
- RMS
- Microwave and Fiber Optic Backhaul Systems
- ESInets
- Telephony
- 911 and Administrative Networks
- Environmental Site Networks

## Data Integration Services

In the courts, justice and public safety arena, the business environment includes vendors, suppliers, partners, community, private organizations, and various government agencies. MCP's Data Integration Services team specializes in the planning and implementation of complex data exchange and integration projects for the criminal justice market. Our successes include integration initiatives that span all major entities within the criminal justice community, including:

- Law Enforcement
- Courts
- State Bureaus of Investigation
- Social Services
- Prosecution
- Probation
- Human and Health Services
- Department of Motor Vehicles
- Public Defenders
- Adult/Juvenile Corrections
- Child Support

We've made it our business to help you facilitate, integrate, and improve your ability to work together—by focusing on workflow integration—to achieve real-time accessibility to information that is relevant to the business environment. This event-triggered information sharing has the benefit of reducing paper dependencies, cutting costs and uncovering innovative revenue opportunities that exist in your ecosystem.

MCP has implemented large-scale, multi-year workflow integration projects at the state, county and local level. The benefit to our clients is that our full range of system integration capabilities is augmented with real-world experiences, proven methodologies, industry standards, and best practices that are demonstrated in the breadth, depth, and realism of our strategic planning and implementation efforts.

Our court, justice, and public safety capabilities include, but are not limited to:

Services
<ul style="list-style-type: none"> <li>• Strategic Planning and Governance</li> <li>• Analysis</li> <li>• Exchange Architecture</li> <li>• Integration</li> <li>• Project Management</li> <li>• National Standards</li> <li>• Product Solutions</li> </ul>

MCP uses national standards, modeling tools, and open technologies day in and day out, including:

- Justice Information Exchange Model (JIEM)
- Service-Oriented Architecture (SOA) and Global Reference Architecture (GRA)
- Web Services Standards
- eXtensible Markup Language (XML) Standards and National Information Exchange Model (NIEM)