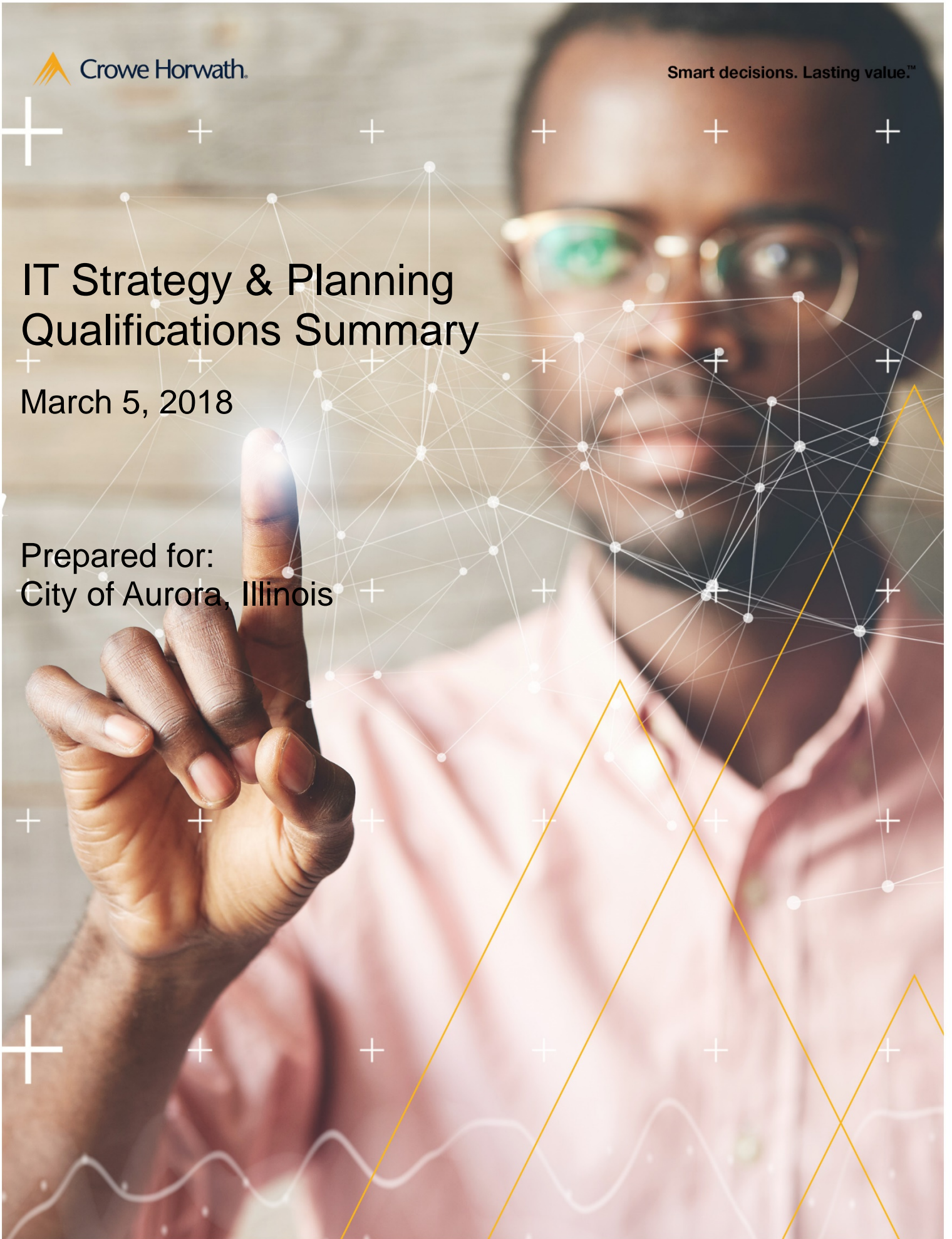


IT Strategy & Planning Qualifications Summary

March 5, 2018

Prepared for:
City of Aurora, Illinois



Qualifications and Experience

Firm Overview

Crowe Horwath: Building Lasting Value

Crowe Horwath is a public accounting, consulting, and technology firm with offices around the world, **celebrating over 75 years in business**. Connecting deep industry and specialized knowledge with innovative technology, our dedicated professionals create value for our clients with integrity and objectivity. By listening to our clients, we learn about their businesses and the unique challenges they face. We forge each relationship with the intention of delivering exceptional client service while upholding our core values and strong professional standards. We invest in tomorrow because we know smart decisions build lasting value for our clients, people, and profession.

National Reputation and Global Reach

Given today's rapid globalization and increasingly competitive markets, business leaders are expressing needs we can help fulfill with our deep specialization and industry-focused audit, tax, advisory, risk, and performance services. At Crowe, we use the comprehensive knowledge we gain through a global network to offer timely, accurate, and cost-effective services no matter where your business is located. We can help sort through the complexities for U.S. companies with operations abroad and for global companies doing business in the United States.

Deep Specialization

Our vision is built on deep specialization and a "One Crowe" approach – a focus on our clients, our people, and the hallmarks of our profession: integrity, objectivity, and independence. By aligning our specialists along industry lines, we bring deeper and broader knowledge to our services. This industry specialization gives us a better view to understand your business and the unique challenges you face. You can trust us to help you with your market and business challenges because of our proven reputation and track record for credibility among key industry players, including lenders and professional organizations.

Technology-Driven Solutions

At Crowe, innovation is part of our culture. Our accomplished software development team works in conjunction with our firm's thought leaders and industry specialists to cultivate original, practical solutions that help address our clients' most pressing challenges. Connecting deep industry knowledge with innovative technology, we help clients streamline and effectively manage complex processes.

Exceptional Client Experience

Our professionals are committed to maintaining the firm's reputation for technical excellence, team effectiveness, and high-quality service. The Crowe client relationship model provides the framework for delivering exceptional service and client satisfaction while upholding the industry's strong professional ethics and standards. These high expectations are articulated in our client experience strategy. We hold ourselves accountable to the standards of superior performance by monitoring our service through feedback tools to track client satisfaction, engagement value, and timely issue resolution.

Position in the Industry: One of the Nation's Largest Public Accounting and Consulting Firms

Crowe ranks as the eighth largest U.S. public accounting and consulting firm (based on U.S. net revenue) according to the 2017 *Accounting Today Top 100 Firms* List.



Crowe's Vision Elements

Our firm leadership has defined these vision elements, which frame the efforts to be undertaken in the next three to five years to take the firm to the next level.

Our Core Ideology

Crowe's core ideology is a combination of the firm's purpose, Building Value with Values, its core values, We Care, We Share, We Invest, We Grow and its WIN3 management philosophy that balances the needs of the client, the individual and the firm. This core ideology is simple and powerful. It is at the immutable center of the firm.

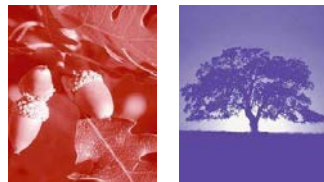


It defines our values code. In the broadest context, building is what we do and builders are what we are. We choose to build significant and lasting value for our clients and ourselves by applying integrity and demonstrating the highest levels of professionalism in everything we do. Our results are defined by and valued for their ethical standards.

Our Core Purpose



Our purpose is Building Value with Values. We choose to build as a team, and we have high expectations for the significance, creative excellence and value of what we build. We build for the benefit of our end-user clients, our communities, our professions and ourselves. The act of building, in and of itself, offers each of us great intrinsic rewards. It also gives us meaning and purpose. The way we build is with integrity at all levels.

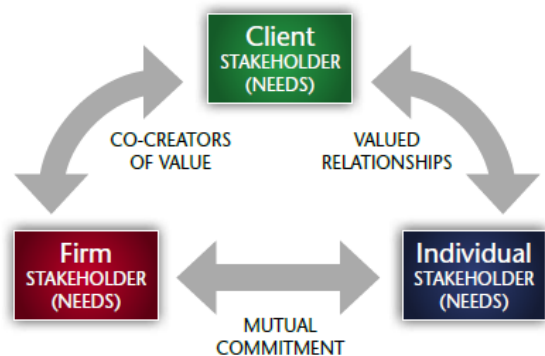


There are four core values that ground the firm:

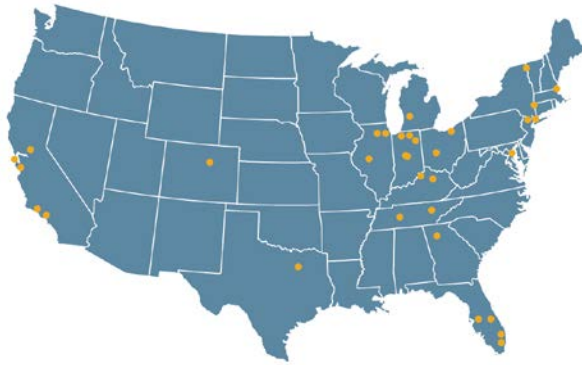
- We Care,
- We Share,
- We Invest,
- We Grow.

Our Management Philosophy

WIN³ is the philosophy that Crowe management has chosen as its guide. This philosophy defines the manner in which the firm will function on a daily basis. While there is no universally "right" philosophy, the WIN³ philosophy is seen as the most effective and efficient means to attain our vision of a firm with strong integrity. The WIN³ management philosophy defines success as having a thorough understanding and being responsive to the needs of the client, the individual and the firm. It submits that the best management decisions at all levels will be made when the benefits to all three of these stakeholders are maximized. In the short term, it is expected that one or more stakeholders' needs may take precedence, but over the longer term, success is defined as exceeding the expectations of all three stakeholders in satisfying their needs. Neither the client's, the individual's nor the firm's needs are more important based on their inherent nature. There is no hierarchy among the needs of these three.



Office Locations



- California | Los Angeles (2), Orange County, Sacramento, San Francisco, San Jose
- Colorado | Denver
- Connecticut | Hartford
- District of Columbia | Washington D.C.
- Florida | Fort Lauderdale, Lakeland, Miami, Tampa
- Georgia | Atlanta
- **Illinois | Chicago, Oak Brook, Springfield**
- Indiana | Elkhart, Ft Wayne, Indianapolis (2), South Bend
- Kentucky | Lexington (2), Louisville
- Massachusetts | Boston
- Michigan | Grand Rapids
- Missouri | St. Louis
- New Jersey | Livingston
- New York | New York
- Ohio | Cleveland, Columbus
- Tennessee | Knoxville, Nashville
- Texas | Dallas
- Vermont | Burlington

Crowe is a limited liability partnership which employs more than 3,500 people throughout the United States. **Headquartered in Chicago, Crowe has over 750 professionals working in Illinois (Chicago, Oak Brook and Springfield).** A survey published by Great Place to Work and Fortune in May 2017 cited Crowe as the fifth best company to work for in Chicago. Additionally, Crowe was named one of the Best Places to Work in Illinois, 2017, and is on Fortune's "Best Companies to Work For" nationally for 2018.



The Firm's core services include audit, advisory, performance, risk and tax services complemented by industry specialization. Individuals within each business unit drive service delivery and growth within Crowe's specified industries. By aligning our specialists along industry lines, we bring deeper and broader knowledge to our services. This integrated approach combines a variety of disciplines to add value and help clients gain confidence in their financial reporting. The firm's core services include:

- Audit
- Advisory
- Performance
- Risk
- Tax

Industry specialization is the primary go-to-market strategy for the firm, relying on teams of individuals contained within the business units to drive service delivery and growth within key industries.

- Banking
- Financial Services
- Government
- Higher Education
- Not-for-Profit
- Restaurant and Retail
- Technology, Media, and Communications
- Construction and Real Estate
- Food and Commodities
- Healthcare
- Manufacturing and Distribution
- Private Equity
- Retail Dealership

Crowe's Performance Services

Crowe's performance consulting services focus on maximizing an organization's performance, while recognizing that one size definitely does not fit all. The challenges and improvement opportunities vary widely from one industry to another, and no single solution or universal approach is well-suited for every situation. Our Performance Services has the following key focus industries:

- Government
- Banking
- Healthcare
- Private Equity
- Manufacturing & Distribution

In addition to offering respected industry thought leadership in practice areas such as revenue enhancement and operational improvement, Crowe's performance consulting team members are widely recognized for their in-depth expertise and understanding of sophisticated process frameworks and enabling technologies, along with their commitment to delivering measurable results that help clients build business value.

Above all, Crowe performance consulting team members are frequently singled out by satisfied clients for their high professional standards, industry expertise, innovative technology solutions, and responsive, hands-on approach to client service.

Crowe's Performance Services for Government

Crowe has been consulting government organizations for over fifty years. In the midst of declining revenue and funding, overburdened government leaders face formidable challenges to deliver superior service while meeting greater public demand, heightened expectations, and increasingly complex regulations. The City's own set of challenges is no different.

Crowe government specialists have been conducting and implementing operational and strategic initiatives to help government entities manage budgetary, statutory, and stakeholder pressures by:

- Evaluating and improving organizational culture, structures, roles, and policies to enhance service levels, transparency and accountability This includes operational processes as well as technology processes.
- Redesigning business processes to define results-oriented, quantifiable operational improvements
- Managing organizational change to prepare for new programs, initiatives and technology
- Assisting with business and technology procurement efforts
- Analyzing economic incentive studies to assess the impact of development initiatives.

Relevant Experience in IT Strategy & Planning

Crowe has been providing technology consulting services for over 30 years, with extensive experience conducting technology needs assessments in both public sector and private sector. **We have conducted and developed more than 15 Assessments and IT Strategic Plans in the last five years and more than 60 total Assessments, Strategic Plans and Selection Studies since 2001.**

Our IT advisory consulting practice offers a wide range of products and services. Our IT advisory focus areas include:

- Information systems strategic planning
- Needs assessment
- System selection
- Program management
- Business process re-engineering
- ERP system implementation and optimization
- Systems integration
- Document management design and development
- Custom/web development
- Information security and information technology audit

Presented below is a subset of IT strategy and planning projects specific to public sector clients and in recent years. This is sample only. Not we have not included summaries of other technology-related work already completed with City of Aurora, IL.

- **California Department of Corrections and Rehabilitation - IT Security Assessment:** The California Department of Corrections and Rehabilitation (CDCR) hired Crowe to conduct an information security controls assessment to determine the existence, functionality, correctness, completeness, and effectiveness of CDCR's information systems security controls to ensure that it maintains security over its information and complies with all applicable State and Federal information security laws and regulations. Crowe performed the controls assessment against critical applications and their associated infrastructure components using an assessment methodology that aligns with the NIST Special Publication 800-53R4 (SP800-53R4) framework. Additionally, Crowe assessed current information security policies to determine either gaps or lack of policies that ensure compliance with SP-800-53R4.
- **Cook County Clerk of the Circuit Court - Court Case Management System (CMS) Technology Needs Analysis:** Crowe developed a comprehensive Technology Needs Analysis for the Cook County (IL) Clerk of the Circuit Court, including detailed requirements for a modernized Court Case Management System. This was used in an RFP that Crowe assisted in developing that eventually selected a CMS vendor. Crowe assessed IT functions across the entire organization (including its many court sites and offices across the County), in order to complete an assessment that accurately incorporated current and future IT and process needs.
- **State of New Jersey Economic Development Authority - Technology Business Process Reengineering, IT Strategy Consulting, and CRM/Loan Management Systems Implementation Project:** Comprehensive business process analysis, redesign, and development of technology strategy to replace disparate dated mainframe systems with modern cloud technology. Implementing Microsoft Dynamics CRM and Loan Module (EnABLE™ software) system to modernize the Authority and replace dated legacy technologies and manual processes. Includes comprehensive business process reengineering and other IT consulting, as well as integration to back-end systems, data

conversion, business intelligence reporting tools, and implementation of a new Human Resources module in Microsoft Dynamics Great Plains.

- **Lake County, Illinois – Integrated Case Management System Technology Strategy and Procurement Assistance:** Crowe recently completed a court case management system RFP review for Lake County Illinois justice agencies. The team conducted justice agency IT needs assessments relating a county-wide integrated court case management system. Crowe reviewed and refreshed the County's RFP and detailed requirements and assisted in its development for release to the CMS vendor community. Crowe worked collaboratively with the County justice stakeholders to transform its future state IT environment with an integrated CMS to replace disparate agency systems in place today, and better leveraging data exchange technologies. This project included helping the County stakeholders define their business objectives, and define strategy that aligns with their agency goals and realistic resources.
- **City of Indianapolis/Marion County (ISA) – Technology Strategic Plan:** Crowe worked with ISA to develop a technology strategic plan that included a prioritization of goals related to organizational improvement, financial management and infrastructure development. This project began with a comprehensive review of stakeholder needs, including more than 60 interviews and focus groups. Crowe then translated key themes from the business perspective into a series of 12 strategic and 15 operational goals for the agency. These goals were mapped to a high level three-year timeline based on criticality, level of estimated benefit and availability of resources. The strategic plan was adopted by the governing body and the Chief Information Officer is currently using the plan as the framework for measuring agency performance on a quarterly basis.
- **Chicago Department of Transportation – Technology Strategic Plan:** The Chicago Department of Transportation (CDOT) engaged Crowe to review their current project/work order technology and processes, and provide a strategic plan with short-term and long-term recommendations. Crowe worked with CDOT to review their current project/work order technology and processes, performed a technology assessment, provided best practices and developed a strategic plan with both short and long-term recommendations. As a part of the overall strategic plan, Crowe led the process mapping and documentation for the project/work order tracking processes. The process mapping involved running facilitated sessions with business users across the various divisions involved in the processes, and developing process documentation and business narratives.
- **Indiana Department of Homeland Security (IDHS):** Crowe has worked extensively with the Indiana Department of Homeland Security on a number of engagements that intersect business and technology planning and preparedness. These experiences demonstrate Crowe's ability to work with large complex organizations with many stakeholders to produce targeted plans and strategies. The following list includes our more recent work with IDHS.
 - **Statewide Information Sharing Strategic Plan & Implementation:** Crowe worked with the Indiana Department of Homeland Security and 20 other state, local and federal agencies to develop a statewide strategy for information sharing. The initiative, called Indiana Data Exchange (IDEx), was a statewide, multi-jurisdictional initiative with the goal of securely integrating law enforcement, justice, emergency management, homeland security, intelligence/fusion, health and social services information throughout the State of Indiana utilizing national data sharing standards. Crowe worked with the agencies to develop a strategy, by defining a vision and mission for the effort, as well as guiding principles.
 - Crowe then performed an assessment of the current information sharing environment to identify gaps and needs. Next, the data sharing gaps and needs were prioritized, which was followed by business process modeling sessions. After the analysis was complete, Crowe developed the statewide information sharing strategic plan that included the approach to implement a statewide data sharing effort.
 - After the plan was complete, Crowe then worked with the stakeholders to design, architect and build the foundational information sharing solution.

- **Emergency Operations Center (EOC) Feasibility Study and Plan:** Crowe worked with the Department and eight additional state and local level agencies to prepare a feasibility study and plan for a co-located emergency operations center to support agency-specific needs. Through this effort, Crowe facilitated agency-specific and cross-agency meetings to document requirements and worked with an architectural firm to determine potential needs for a co-located facility. Crowe also researched potential options and sites for a co-located EOC, and worked with the stakeholders to prioritize and select a top option. Through this effort, Crowe utilized its strategic planning, tactical planning and integration skills.
- **Interoperable Communications Strategy and Roadmap:** Crowe worked with IDHS and the Integrated Public Safety Commission to develop a strategy and roadmap for the upgrade of the current system to a P25 system.
- **State Fuel Needs Study, Plan and Exercise:** Crowe worked with the State of Indiana to develop Indiana's fuel needs study in accordance with its statewide Energy Assurance Plan. Led team in research, development of best practices, interviews of over 15 agencies across public, private, and nonprofit sectors, and development of findings including disaster related vulnerabilities and new recommendations to strengthen Indiana's Energy Assurance program as it pertains to fuel (petroleum, natural gas, coal, nuclear, and renewables). Coordinated and successfully led the multi-stakeholder agency tabletop exercise.
- **Development of Statewide District TIC Plans and Review District Governance Structures:** Crowe, working with our teaming partner from Beering Enterprise, Inc., completed a project to develop district TIC plans related to Interoperable Emergency Communications Grant Program funding provided to the State of Indiana. The project is briefly described below:
 - Conducted an assessment of all interoperable communications governance structures for each homeland security district.
 - Collected required information from over 92 counties to include in the creation of ten Regional TICPs for the State of Indiana. This includes a UASI around the Indianapolis area.
 - Enhanced the TICP template to include all statewide communication assets and policies in a Base Plan allowing regional TICPs to be stand-alone appendices.
 - Documented capabilities for districts that share communication capabilities with bordering states
 - Documented the POCs and technical information for regional communications assets including COM-Vans, Amateur Radio Frequencies and Contacts, as well as, inter-district and interstate communications and MOUs.
- **IDHS State Agency Strategic Plan:** Crowe documented business functions and processes for each of the agency's six divisions and evaluated the relative priority for process enhancements based in part on industry best practices. Crowe created the agency strategic plan, including implementation recommendations, and facilitated the annual leadership retreat for the agency.
- **Statewide Communication Assets and Entering them into CASM:** Crowe completed a project related to the collection and update of public safety communications assets for the inclusion in the Communications Assets Survey and Mapping (CASM) tool, working with our teaming partner from Beering Enterprises, Inc. This project included:
 - Creation of a current-state CASM Data analysis report to assess the completeness of definitions for agencies, radio systems, mutual aid channels, gateways, radio caches, and dispatch centers within CASM.
 - Establish a process to ensure data integrity post-project completion including recommendations related to allowed users of the CASM tool, execution of webinars to train users on CASM, and a naming convention strategy for the entire state.

- Collection of updated POCs, agency addresses, 24/7 asset phone numbers, and technical data for all public safety communication assets from over 2,700 public safety agencies in the State of Indiana to be entered and linked in the CASM tool.
- **City of South Bend – IT Outsourcing Planning:** Crowe created an RFP document for the outsourcing of the City's IT function. In doing so, Crowe determined IT and business requirements across all City departments, documented IT services currently provided and those needed, inventoried the current IT architecture, developed vendor evaluation criteria, determined vendor scoring criteria and developed the request for proposal document. Additionally, we evaluated and selected vendors to create a short list of likely qualified vendors, led the bidders' conference, facilitated the evaluation of RFP responses, led vendor oral presentations, led vendor reference checks, created cost comparison analysis models, and facilitated the selection of recommended solution
- **Lake County (Indiana) Recorder's Office – IT Assessment:** Crowe reviewed the current infrastructure, applications and information technology practices of the Lake County Indiana Recorder. We conducted business planning to determine overall business needs and document technology requirements and effectiveness. We then developed a strategic information technology plan that provided a comprehensive understanding of the current environment and outlined the recommended changes needed to support the current and future business needs.
- **Town of Zionsville, Indiana – IT Assessment and Roadmap:** The Town engaged Crowe to develop an IT Needs Assessment. The Crowe team assessed, inventoried and analyzed the IT assets for all Town departments, which included Administration, Fire, Police, Streets, Waste Water and Park. The assessment covered network, server infrastructure, telephone communications, interoperable radio communications, enterprise software, computer/desktop hardware and desktop software. The final deliverable included over 40 recommendations in 7 categories to enhance IT for the Town, to build off of the Town's current successes in the IT arena. The result was a plan for the Town Council to utilize to help determine where future IT investments could be made.
- **Indiana Economic Development Corporation – IT Roadmap:** The Indiana Economic Development Corporation (IEDC) is the State of Indiana's lead economic development agency. Crowe was initially engaged by the IEDC to conduct a systems roadmap to evaluate the IEDC's current state (systems) as well as their short and long term desires and priorities and the technology platforms that would be required to meet their future objectives. As part of this process, we met with all the various departments within IEDC to determine what systems are used and understand what processes were in place in order to have a clear picture of the current state. IEDC's current state consisted of multiple (4+) disparate data tracking systems, fifty (50+) spreadsheets, lack of shared common data across various departments and multiple Microsoft Office based documents used to track and manage grants and their performance. As part of the roadmap process Crowe presented various commercial-off-the-shelf (COTS) systems that could be leveraged as the application platform to base IEDC's new system. Ultimately, the IEDC chose Microsoft Dynamics™ CRM as their technology platform. The competitive price, usability, natural integration with Microsoft Office and Outlook and ability to easily expand and grow with the IEDC's changing business were key factors in their decision to select the Microsoft Dynamics™ CRM product.
- **City of Chicago – Web Technology:** Crowe designed and built several websites for the City of Chicago, including the award-winning Explore Chicago tourism website (the former explorechicago.org), named "Best Destination Website" in 2010 by the Travel Journalists Association, and the City's government website (www.cityofchicago.org), named a 2010 Digital Cities "Best of the Web" Finalist. Both sites were designed and built to integrate with other sites, and coordinate multiple City departments onto one platform. Crowe worked with the City to index and inventory its various sub/micro-sites, content, and services into a flexible and real time service catalog utilizing structured content and custom built service information around service-oriented architecture. The team interviewed individuals across the City departments, developed a competitive analysis and conducted focus groups with residents and businesses in Chicago. Crowe followed the Illinois Information

Technology Accessibility Act (ITAA) Standards when developing the site, conducted “writing for the web” training to help the City prepare their content for the new site, and trained over 100 content authors across the departments on the new content entry tool.

- **Franklin County (OH) Children Services – IT Strategic Planning, Business Process Reengineering**