



DeKalb County, Indiana

Feasibility Study for Central Communications

Executive Summary

July 21, 2006



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Mr. Paul Brewer
E911 Director
DeKalb County Sheriff's Office
215 E. Eighth St.
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Dear Mr. Brewer:

We have completed our Feasibility Study for Centralized Public Safety Dispatching in DeKalb County. This report contains our findings and recommendations, including a suggested implementation plan that should enable the County to achieve its dispatch objectives in an orderly and timely manner.

We have provided an executive summary of the report below:

Study Background and Approach

DeKalb County public safety agencies serve a population of approximately 42,000 residents throughout the county's 363 square miles. Within the county, dispatch centers in the Auburn Police Department, the Garrett Police Department and the DeKalb County Sheriff's Department serve as the primary interface between E911 callers and field personnel. While dispatch services are generally reported to be effective, the desire to improve interoperability, increase operational effectiveness and reduce costs has prompted DeKalb County to consider the consolidation of the county's three dispatch centers into a Central Communications facility.

A Technical Committee comprised of representatives from public safety agencies throughout the county met in 2003 to consider the advantages and disadvantages of consolidating the dispatch centers. In April 2004 a preliminary study was completed by the Technical Committee which suggested that consolidation may be advantageous to all parties. Based on that study, it was determined that a more detailed study was needed to fully examine the consolidation alternatives available to the County.

Thayer Consulting was selected to perform the new study and work began in May 2005. After meeting with the County project team to discuss the project's goals and objectives, it was agreed that Thayer Consulting would perform an independent review of the existing dispatch centers and assess the feasibility of consolidating these three Public Safety Answering Points (PSAPs).

In May 2005, a project kick-off meeting was held. Over the next sixteen weeks, Thayer Consulting conducted more than fifty interviews, observed dispatch operations, and conducted "ride-alongs" with public safety personnel. Interviews, fact-finding and research were conducted with the various public safety agencies within the City of Auburn, the City of Garrett, the DeKalb County Sheriff's Department, other county agencies and external stakeholders (Appendix A – Project Interviews Completed) to better understand the current dispatch operations. Extensive documentation regarding existing systems and business processes was gathered and reviewed.

Next, the operational differences between the Auburn, Garrett and County dispatch centers were analyzed. A preliminary cost model was then developed to estimate the current cost of operations for each dispatch center, as well as costs for two alternatives, improved operations of the existing centers and consolidation.

Each alternative was examined to understand how it could best sustain a high level of service, safety and accountability for the County. Issues that were considered include the following:

- How would procedural differences among the various agencies be addressed?
- How would costs for consolidation be addressed?
- Which systems could be retained and which replaced?
- What issues would arise from a transition to a Central Communications facility?

Using historical data from the Sheriff's Department and the cities of Auburn and Garrett, a financial model was developed to estimate the costs associated with each of the two alternatives. After analyzing a variety of operational scenarios, specific technology and business process recommendations were developed based on the County's needs. The expected advantages and disadvantages of the two alternatives were then documented.

At appropriate points during the study, status meetings and work sessions were conducted with the project team to clarify data and validate assumptions. Finally, the results of the research and fact-finding were analyzed to develop our recommendations and a high level implementation plan. The results of each of the proceeding steps were then compiled into this report.

Organization of the Report

This report is organized into the following sections:

Section One – Project Background
Section Two – Auburn Dispatch Current Environment
Section Three – Garrett Dispatch Current Environment
Section Four – County Dispatch Current Environment
Section Five – Key Findings
Section Six – Alternatives Assessment
Section Seven – Recommendation
Section Eight – Implementation Plan
Section Nine – Benefits to DeKalb County

Summary of Key Recommendations and Implementation Plan

Based on interviews of a variety of stakeholders and input from the county technical subcommittee, we recommend that DeKalb County consolidate its three existing dispatch centers into a single Central Communications facility. This recommendation is based upon seven key decision variables: implementation speed, emergency service level, level of interoperability/state of preparedness, legislative/funding requirements, employee satisfaction, purchasing power, and five-year costs.

To effectively transition dispatch operations to a Central Communications organization, we recommend the County take the following steps:

- **Communicate Strategy** - A strategy for communicating the accepted strategic plan for consolidation should be developed and communicated to the public through local media and, as needed, one or more town hall events. In conjunction with this effort, funding should be secured, a Central Communications Committee formed, a detailed project plan assembled and a target completion date identified.
- **Form Central Communications Organization** - A new entity, DeKalb County Central Communications, should be created to manage all public safety communications responsibilities within DeKalb County. As part of this process, a governance model should be developed by representatives of each of the member agencies and the first Central Communications Board should be formed.
- **Hire Director of Central Communications** - The Director of Central Communications (Director) should be hired to play a critical role in all aspects of the consolidation process to follow. The Director should be an experienced dispatch operations professional with the vision and drive to build a communications center from the ground up.
- **Develop Common Policies & Procedures** - Negotiations among member agencies should begin to create common policies and procedures that serve both the needs of the users and the public. For example, policies regarding appropriate radio communications and

conditions for a response should be determined. Internal dispatch center policies regarding personnel and operations, such as shift schedules and CAD data entry standards should also be addressed.

- **Develop Technology Plan** - A five-year technology plan should be developed to further explore the County's long-term public safety communications needs and define methods for procuring, implementing and supporting new technologies. Specifically, this plan should address voice and data communications systems, internal networks, and a wide range of software required for operation of Central Communications. As part of this plan, a detailed technology budget should be created.
- **Develop Formal Facility Plan and Acquire Site** - An architect should be hired to create a formal requirements document and develop plans for the new facility. Subsequently, the most appropriate and cost effective site should be acquired. As with each implementation step, project costs should be tracked and estimates revised as necessary.
- **Begin Construction of Facility** - Once the architectural plans are developed, funding is secured and appropriate zoning requirements are met, construction of the facility should begin. Preliminary estimates range between 10-12 months for construction of the new facility.
- **Train Telecommunicators for Central Communications** - Telecommunicators interested in joining Central Communications should receive the appropriate training in law enforcement, fire and EMS dispatch in the form of PowerPhone or APCO classes. As each system is purchased, telecommunicators should be trained in advance where appropriate.
- **Move Public Safety Communications to Project Hoosier SAFE-T** - Upon signing an agreement with the Indiana Public Safety Commission (IPSC), the necessary infrastructure and user equipment should be purchased and all County agencies should move to the 800 MHz Project Hoosier SAFE-T statewide system for voice and data communications.
- **Implement Common CAD/RMS** – Given the County's existing investment in the Spillman CAD system, as well as the general satisfaction with its functionality, the Spillman system should be implemented to support the Central Communications function. The implementation of a Spillman/IDACS interface should be expedited to ease the workload on dispatchers, and dispatchers from Garrett should be trained on the use of the system.
- **Procure Additional Integrated Systems** - Additional integrated systems for the new facility, such as the network, the phone system and the fire/security system, should be procured in preparation for installation.

- **Complete Construction of Facility and Install/Test Equipment** - At this point, all E911 and commercial telephony connections should be made and all equipment should be installed and tested.
- **Cutover to Central Communications** - Once testing is complete, each of the three PSAPs should be cutover to the new Central Communications one at a time.

Costs

The first-year cost of operations for consolidated dispatch operations is estimated to be \$9.6 million (Figure 1-1).

Consolidation of Dispatch Operations Estimated Five-year Costs

	2007	2008	2009	2010	2011
Personnel (1)	\$1,325,000	\$1,160,000	\$1,195,000	\$1,231,000	\$1,268,000
Supplies/Services (2)	238,000	351,000	362,000	373,000	385,000
Capital Expenditures (3)					
Facility Construction	2,186,000	-	-	-	-
Radio	2,720,000	-	-	-	-
CAD/RMS	726,000	-	-	-	-
Mobile Data	1,154,000	-	-	-	-
Telephone	60,000	-	-	-	-
Network	35,000	-	-	-	-
Fire/Security	15,000	-	-	-	-
911 System	295,000	-	-	-	-
Project Management	300,000	-	-	-	-
Other	46,000	48,000	50,000	52,000	54,000
Sub-total	9,100,000	1,559,000	1,607,000	1,656,000	1,707,000
Contingency (4)	546,000	156,000	161,000	166,000	171,000
Total	\$9,646,000	\$1,715,000	\$1,768,000	\$1,822,000	\$1,878,000

- (1) Wages and benefits paid by all three agencies for dispatch services in 2007 and Central Communications in 2008. Assumes Director of Central Communications works full-time in 2007. Assumes annual increases of 3% for salaries and 5% for medical benefits from 2004 to 2007 and 3% increases for total costs and each year after 2008. Assumes 64 hours of paid
- (2) Cost for supplies and services for all three agencies for dispatch services in 2007 and central dispatch agency in 2008 and beyond. Assumes annual increases of 3% from 2004 to 2007 and each year thereafter.
- (3) 2007 capital expenditures include high cost estimates for facility development/construction, move to SAFE-T radio system, as well as purchase of mobile data, AVL and other upgrades. Assumes other capital expenditures of \$46,000 for Central Communications in 2008, with 3% increases each year thereafter.
- (4) 6% of Personnel, Supplies/Services and Capital Expenditures costs assumed for unexpected costs in 2007, 10% each year

Figure 1-1

Benefits to DeKalb County

We believe that DeKalb County will receive significant benefits by implementing the recommendations of this Central Communications Feasibility Study:

- **Interoperability between public safety agencies will increase** – The integration of the dispatch function and utilization of common systems for voice and data communications has the potential to significantly improve interoperability. For example, voice interoperability will be streamlined with a single voice communications system utilizing standardized radio templates, eliminating the need for communications to be relayed through dispatch centers. Data interoperability will improve with a common data system which permits the sharing of time-sensitive information among all public safety agencies during incidents.
- **Public safety service levels will likely improve** – With increased day-to-day coordination among first responders and the elimination of E911 call transfers within the county, public safety response times should improve.
- **DeKalb County will achieve a higher state of preparedness** – With the integration of countywide technology systems and increased inter-agency collaboration, DeKalb County will achieve a higher state of preparedness for major events.
- **More opportunities for mutual aid, planning and crime analysis will exist** – As members of a regional operation, each agency will have enhanced opportunities for regional information sharing and communications. These opportunities include a shared records management system for all agencies, automatic aid response within CAD, and a users group to address long-range planning for communications.
- **The Central Communications model provides an organizational structure which facilitates proactive management of the dispatch function** – As an independent organization focused solely on dispatch operations, Central Communications will have the ability to manage its human and financial resources more effectively. This can be accomplished by providing an administrative focus for managers, a dedicated budget, standardized rules and procedures, executive level collaboration, a clear chain of command and a career path for employees.
- **Employee satisfaction and retention should improve** – Civilian telecommunicators in public safety organizations often have the perception that they are less important than law enforcement officers or firefighters. Consolidating dispatching under an independent organization will signal the County's commitment to public safety communications which should lead to greater telecommunicator satisfaction and trainee retention.
- **Future benefits may be gained in sharing procurement, implementation and maintenance costs for public safety systems** – Each agency will also enjoy the benefits of increased leverage in purchasing systems/services and controlling maintenance costs. As a

regional agency serving more than 40,000 citizens, Central Communications will have the opportunity to negotiate better prices for equipment, service and maintenance.

- **Long-term costs may be lower** – While the one-time capital costs for centralizing communications are significant, the annual costs for operating a centralized operation may be lower than the costs of continuing to operate three separate dispatch facilities.

In summary, we believe that by combining the County's existing three public safety dispatch centers into a Central Communications organization, DeKalb County should realize significant increases in operating capabilities, improve interoperability and provide cost effective and responsible improvements in dispatching throughout the County.

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We wish to express our appreciation for the excellent cooperation we received during our study and for the opportunity to provide management consulting services to DeKalb County.

Very truly yours,

Thayer Consulting