

# GeoComm

## Portage County Wisconsin

Final Options Comparison Report and  
Implementation Plan

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Public Safety Consulting, GIS, and Software  
[www.geo-comm.com](http://www.geo-comm.com)

Main: 320.240.0040 Fax: 320.240.2389 Toll-free: 888.436.2666  
601 West St. Germain Street St. Cloud, MN 56301

# Contents

<b>Section 1:</b>	<b>Executive Summary</b> .....	<b>1-1</b>
	Overview .....	1-1
	Recommended Model .....	1-3
	Oversight and Authority .....	1-5
	Financial and Staffing Recommendations .....	1-6
	Summary .....	1-8
<b>Section 2:</b>	<b>Findings</b> .....	<b>2-1</b>
<b>Section 3:</b>	<b>Options Matrix</b> .....	<b>3-1</b>
<b>Section 4:</b>	<b>Optimum Model and Recommendations</b> .....	<b>4-1</b>
	Recommended Model for Portage County PSAP Consolidation .....	4-1
<b>Section 5:</b>	<b>Preliminary Implementation Planning</b> .....	<b>5-1</b>
	Oversight and Authority .....	5-1
	Facility.....	5-2
	9-1-1 System and Telephone .....	5-2
	Computer Aided Dispatch System.....	5-3
	Personnel Recruitment and Hiring.....	5-3
	Training .....	5-5
	Radio System.....	5-6
	Quality Assurance/Best Practices .....	5-6
	Financial.....	5-7



**Section 6: Summary.....6-1**

**Appendix A: Independent Consolidated Communications Center Facility Specifications**

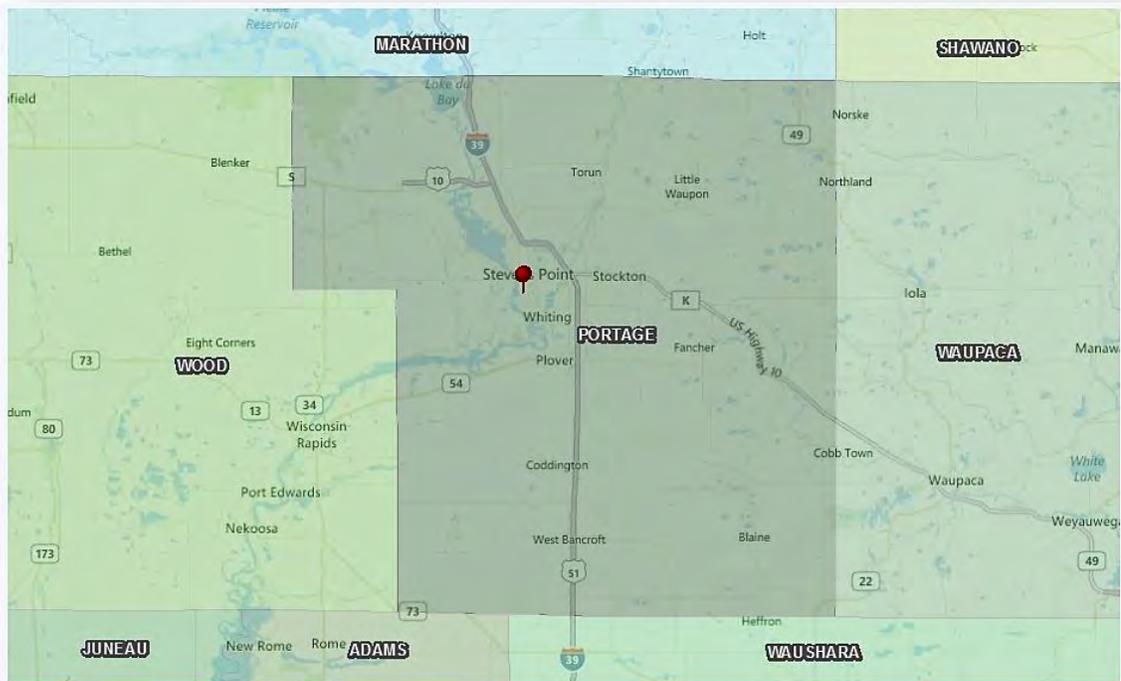
**Appendix B: Options Operating Budgets**

**Appendix C Portage County Sheriff's Office Remodel**



## Overview

In spring 2012, Geo-Comm, Inc. (GeoComm) began a partnership with the Portage County Technical Working Group. The goal of the project was to complete an analysis for the two approved options for consolidating existing Public Safety Answering Point (PSAP) operations and develop an implementation plan.



The two study PSAPs include:

- Portage County Sheriff's Office PSAP
- Stevens Point PSAP

## Methodology

Goals and criteria were set forth by the Technical Working Group by which GeoComm was asked to evaluate each of two preset options for consolidation.

The two consolidation operations to be considered were specified in the Request for Proposal as follows:

1. Consolidating dispatching services within the existing Sheriff's Office Dispatch Center
2. Consolidating dispatching services within a newly created, separate, civilian department of the county.



There were 23 goals and criteria established by the Technical Working Group as the fundamental evaluation factors for each option. GeoComm's examination of each option and variation were compared to the following criteria/goals:

- a. Compliance with any and all applicable statutes, regulations, and ordinances.
- b. Minimize start-up costs for both the county and the city.
- c. Minimize ongoing operational costs for both the county and the city.
- d. Maintaining adequate staffing 24/7/365, and compliance with staffing best practices.
- e. Utilizing a common or interoperable record management system.
- f. Utilizing a common or interoperable computer aided dispatch system.
- g. Utilizing a common or interoperable mobile data computer system, including not only law enforcement, but fire and EMS as well.
- h. Maintain an adequate and robust supervision of the Dispatch Center 24/7/365.
- i. Ensuring the Dispatch Center has adequate hardware and infrastructure to operate.
- j. Maximize all opportunities to ensure officer and responder safety, and protect sensitive and/or confidential information.
- k. Ensure maximum service to all stakeholders, proportioned to their demand on the system.
- l. Reasonably integrate the newest and most sustainable technology available.
- m. Utilization of standardized/universal dispatching procedures across the county.
- n. Ensure adequate and physically secure facilities for the new Dispatch Center, accessible to authorized personnel 24/7/365.
- o. Ensure an adequate and robust management structure to support the Dispatch Center.
- p. Ensure ready access to a trained pool of personnel who can temporarily act as dispatchers in an emergency.
- q. Ensure the ability for law enforcement supervisors and managers to initiate and conduct direct command and control operations for significant events directly in the Dispatch Center.
- r. Ensure the greatest cost effective capability for redundant dispatching functions in case of an emergency which disables, or requires the abandonment of the Dispatch Center.
- s. Integrate operations and procedures to ensure needed dispatching of resources across jurisdictional boundaries.
- t. Maximize efficiency in dispatch workflow.
- u. Maintain the support for both county and city administrative functions currently provided to each entity by the existing dispatch centers to the maximum extent possible.
- v. Maintain an adequate number of radio channels or talk-groups to conduct all necessary operations and support all applicable disciplines.
- w. Maintain access to intrinsic resources, including physical equipment, financial resources, or human support services, needed to support routine or emergency dispatching functions.



During Phase I the Technical Working Group completed an in-depth analysis of various options or models for the structure and configuration of 9-1-1 for Portage County. Utilizing that work as a baseline, GeoComm has completed this study and provides the recommendations contained in this report.

As GeoComm conducted analysis and assessment of the current environment and evaluated each option or model of consolidation, developed findings and a matrix comparing the options, the project team carefully considered each goal and criteria in order for an Optimum Service Model to emerge that most closely aligns with the goals and criteria set forth by the Portage County Technical Working Group.

### Recommended Model

The recommended model for Portage County is Option 1 where dispatching services are consolidated within the existing Sheriff's Office. After our analysis, GeoComm chose this option due to its advantages both operationally and financially for Portage County.

Option 2, an independent organization of the county, would likely require the acquisition of a new facility or remodeling of existing county or city facilities to house an independent, civilian PSAP. The costs of an appropriate PSAP facility will cost significantly more than Option 1. The facility cost for this option is an estimated \$1,301,030 (Appendix A). In addition, the costs for creating a new governmental entity will include development of a brand and purchasing of requisite branded items such as uniforms, establishing a full management structure and providing human resources and support function financial support. This leads to the possibility of duplication of services for similar functions such as personnel management. One of the greatest costs for this option will likely be the additional support staff needed. The estimated budget is \$3,785,873 (Appendix B), which is a difference of \$1,421,188 between the two options.

GeoComm believes that a Portage County Consolidated PSAP within the Sheriff's Office with appropriate oversight would allow for operational and technical benefits as well. Some examples include:

- Improved staff coverage and flexibility, based on primary yet dynamic re-assignment
  - In a consolidated PSAP, the staff has primary duty assignments but also must be ready to shift into an alternate role based on the emerging dynamics related to call volume, incident behavior, emergency response parameters, and safety.
  - The alternate assignment may be short lived or related to a specific task; however, seldom is public safety communication professional staff allowed to decline participating in another call/duty because they have an active, primary assignment.
- Improved PSAP supervision, management, and quality assurance.



- Results in improved risk management mitigation as supervisors are able to react to questions or issues, interpret policy, provide direction, and monitor employee performance.
- Improved coordination of response to citizens' calls for service, management of public expectations, and open communication processes.
- Improved responder safety through increased staff resources and monitoring of emergency radio help-button activations.
- Developed and managed common protocols, policies, and effective procedures that support objective, measureable performance by staff.
- Redundant communication paths to the Portage County Consolidated PSAP radio system to improve the reliability of dispatch communications.
- Enhanced resource management, data, and voice interoperability.
- The professionally managed Portage County Consolidated PSAP supports and leads the county's 9-1-1 efforts to create positive peer relationships in support of shared technology, alternate forms of interoperability, effective incident command, and resource management.
- Improved efficiency of call processing and work flows.
- Eliminate unnecessary duplicate costs.
- Decelerate long-term cost increases associated with staffing and technology.
- Ability to fund center utilizing an equitable model approved by governing body.

It is GeoComm's recommendation that strategic and significant changes to the structure and operational approach in the county is the best approach to resolving the technical and operational issues and provide the highest level of service to the residents of Portage County.

The goals and criteria focus on the needs of the community and quality of service for the citizens and the emergency responders. They are not about, and should not be about, an individual PSAP, government, or person. Decision-making in a service-oriented environment is committed to directing the PSAP to the most effective and efficient operations. A commitment to the established goals and criteria results in an effective strategic direction. It is that goal that GeoComm pursued when determining appropriate structures for improved emergency communications for Portage County.

GeoComm understands that the findings and recommendations contained in this report may not please each of the participants in the study. It is anticipated that some stakeholders may believe the recommendations are less than desirable from an individual or personal perspective. However, the greater good of improved service to the public at large and to the emergency responders was the charge of the Portage County Technical Working Group to GeoComm, and we believe that to be true to that mission, it was necessary for an unbiased approach to solutions for the county.



By using the goals and criteria that seek improved public service, an independent evaluation was possible, and an Optimum Service Model developed that incorporates the Portage County stated goals and criteria to the highest degree possible.

## Oversight and Authority

One of the most significant issues facing any community considering consolidation of PSAPs is the question of oversight and authority. In the recommended option, the Portage County Consolidated PSAP will be a division of the Sheriff's Department organization. However, while the PSAP falls within the Sheriff's Department organization, it is important that communities that are dispatched by the PSAP have input into the operation. GeoComm also understands that there are many different approaches to oversight and authority and that ultimately it is up to the stakeholders of Portage County to decide what structure is acceptable for the recommended consolidated PSAP.

The formation of a single PSAP serving Portage County would require the establishment of an oversight structure for the purposes of collaboration on budget, cost-sharing, policy, procedures, and response protocols.

GeoComm recommends the establishment of an Emergency Services Policy Board, chaired by the Sheriff, to provide guidance and oversight to 9-1-1 emergency services within Portage County. Membership could include the current Dispatch Management Group and should be representative of all participating communities. The EMS Medical Director should be appointed to this committee as well as stakeholder representatives of law enforcement, fire and Emergency Medical Services.

The current Dispatch Advisory Group would be a subcommittee of the Policy Board and GeoComm recommends for them to serve as the transition committee and be assigned responsibility to carry out the GeoComm preliminary implementation recommendations in Section 5. In this role, the Dispatch Advisory Group would be the first tier of analysis and discussion on issues affecting staffing, operations, technology and policy. Significant policy, finance, and operational issues would then be brought to the Policy Board with final decision-making authority.

The Emergency Services Policy Board should establish other operational and technical subcommittees, as necessary, which will provide guidance, collaboration, and input to response protocols, key equipment decisions and other operational aspects of the PSAP. These committees could be developed to serve in an ad hoc manner and for a defined time period and mission.





Regardless of the final oversight and authority structure, the mission should be to guide Portage County through the development of system-wide response protocols which serve to enhance the efficiency of public safety responses to the citizens of Portage County. The efficiencies that are realized through consolidated PSAP operations are even more enhanced when the overall public safety response system is configured for optimum response based on well-defined response protocols.

GeoComm recommends the appointment of a civilian, full-time PSAP manager to oversee the operation of the PSAP and to serve as a liaison to the Policy Board and Dispatch Advisory Group and other ad hoc committees. The day-to-day operations of the consolidated PSAP including hiring, training, and scheduling of personnel, management of operational activities and managing technological issues and equipment are sufficient to warrant a full-time, dedicated position for a PSAP manager.

## Financial and Staffing Recommendations

GeoComm realizes that it is a local decision on how the PSAP is funded and recommends establishment of a fair and equitable cost-sharing model. In order for any potential consolidation to be successful, an equitable cost-sharing methodology must exist.

GeoComm recommends that the Dispatch Advisory Group establish a fair and equitable cost-sharing model based on political demographics and/or workload indicators. There are a number of cost-sharing formulas that could support the consolidated PSAP such as percentages based on:

- Population
- 9-1-1 Call Volume
- Events Dispatched



■ **Assessed Valuation**

In the recommended option, GeoComm suggests that the percentage of total calls for service be the factor for an equitable cost-sharing methodology. Each participating agency should contribute financially to the overall cost of the operation. The amount of the financial contribution should equal the agency’s impact on the operation. For example, an agency responsible for 15 percent of total workload should contribute 15 percent of the total cost of the operation. 2010 call volume data for each community should be used to determine the initial cost-share percentages and this amount should be adjusted annually to account for call volume fluctuations.

In addition, GeoComm’s assessment of the revenue and expense requirements of the recommended model reveals that initially costs will be higher than the currently separated costs due to a number of important factors:

1. Current staffing levels at both PSAPs are below a level that GeoComm could recommend based on current call load and field response activity.
2. Facility improvements are needed at both PSAPs.
3. Equipment improvements are needed at both PSAPs.
4. Training, supervision, and management structure improvements are needed at both PSAPs.

For this reason, GeoComm urges Portage County and the City of Stevens Point to place a higher priority on evaluating the service improvements than attempting to justify cost savings over current operations. This is best accomplished with an understanding that the current operation is sub-baseline.

It should also be noted that there are many implementation planning decisions that must be made in the transition process. These implementation decisions will result in costs or cost savings that may be greater or less than projected. The duplication of technology, facility, and staff that exists today with the two PSAPs is apparent and at the very least, a simple combined operation would be more efficient than the two independent PSAPs.

The recommended staffing for the Portage County Consolidated includes:

Staffing	Portage County Consolidated PSAP
PSAP Manager	1
Shift Supervisor/Lead	5
Call Taker/Dispatcher	20
<b>Total</b>	<b>26</b>



The budget for a consolidated PSAP within the current Portage County Sheriff's Office operation is projected in the following chart.

<b>Portage County Consolidated PSAP within the Sheriff's Office Operation Operating Budget</b>	
Manager Salaries	\$ 70,000
Supervisor/Lead Salaries	\$ 230,000
Dispatcher/Call Taker Salaries	\$ 880,000
Overtime	\$ 50,000
Payroll Expense (includes social security, workers compensation, and FICA hospital tax)	\$ 110,700
Benefits	\$ 425,580
Communications Tower Rent/Maintenance	\$ 37,405
Telephone/Teletype	\$ 10,000
Wireline/Wireless 9-1-1	\$ 15,000
Travel/Training Expense	\$ 13,000
Radio Console Maintenance	\$ 10,000
Repairs and Maintenance	\$ 10,000
Telephones	\$ 26,000
VPN software	\$ 17,000
CAD Procurement and Five Year Maintenance	\$ 460,000
<b>Total Operational Budget</b>	<b>\$2,364,685</b>

Further information about the financial analysis and recommendations and staffing is detailed within Section 4 of the report.

## Summary

GeoComm is most appreciative of the cooperation we received from the Portage County and Stevens Point PSAPs. It is evident that the agencies involved believe in high-quality service; the stakeholders and staff were willing to meet with GeoComm and discuss opportunities for improving 9-1-1 service in Portage County.

The challenges that the county will face when embarking on and implementing a consolidated PSAP may at first seem daunting. Some of the challenges will be easier to overcome than others. Mitigating or resolving the challenges will continue to advance the county toward the ultimate goal of improved service and efficiency of operations.



GeoComm encourages Portage County to adopt the Optimum Service Model recommendation in its efforts to achieve the goals and criteria set forth by the Technical Working Group in Phase I.



## Findings

### Unnecessarily Complex PSAP Structure

GeoComm finds that under the current structure of Public Safety Answering Points (PSAPs) within Portage County there is unnecessarily complex operational and technical issues caused by the current design.

There are three interrelated components which include the Portage County PSAP, the Stevens Point PSAP, and the Portage County Emergency Management Office.

There are technical issues with the 9-1-1 network, which include the sharing of “one” controller where both centers answer 9-1-1 wireless simultaneously and the current lack of technical ability to share vital public safety information that was shared previously. GeoComm was advised that Stevens Point does have the capability to view old records but cannot add anything additional or have the interoperability function they had when both system operated on an AS400 system. Both of these issues are made more complex by the involvement of the Emergency Management Office as a third entity responsible for the oversight and maintenance of the 9-1-1 network and the repository for critical management information systems which is not currently functioning as designed. Because of this disjointed, complex system, the level of service provided by both PSAPs is negatively affected. Through consolidation of the three separate entities’ duties related to call taking and dispatching procedures, 9-1-1 and radio system maintenance and information management system resources, there will be less complex issues as all critical infrastructure will be managed by a single entity.

### Equipment Age and Other Technological Concerns

There are major equipment systems that need to be evaluated and reviewed prior to consolidation. This includes the Computer Aided Dispatch (CAD)/Records Management System (RMS), radio electronics, 9-1-1 system, logging recorder, MIS, and the workstation furniture that houses all required equipment.

- The existing county CAD/RMS system should move seamlessly into a consolidated center as long as the individual software modules specifically designed for each type of agency are utilized.
- The existing 9-1-1 equipment was initially installed in 1998 with an upgrade in 2008 it is currently scheduled for replacement in 2013.
- The Motorola Gold Elite radio consoles are reportedly 18 years old. GeoComm was informed that a special group has been designated to review and develop a future upgrade to the current system to include appropriate future channel capability for all agencies.
- The current recording systems space capability will need to be evaluated to ensure enough channels are available to record all activity at a consolidated site.
- Currently Power MIS 3.0 is being utilized for data collection. However, the MIS statistics for 2011/2012 were not readily available for this study without additional costs to obtain the data from



Intrado. The Positron equipment is not covered under a current maintenance contract and is dealt with on a time and material basis.

- Workstation furniture will need replacement for the consolidated PSAP.

### **Disparate CAD Systems**

GeoComm noted there is no interoperability between the two CAD systems used by each PSAP. An integrated, full featured CAD system is a necessity in a consolidated communications center with the volume of activity anticipated for all participating agencies. Combining all agency users, units, and jurisdictional response policies into one interoperable system configuration is recommended. In a consolidated PSAP model, a multi-jurisdictional, multi-agency CAD system is essential to handle call taking, dispatching functions, and correct tracking of all resources for all user agencies. The CAD system must be capable of handling the unique dispatch requirements for sheriff, police, fire, and Emergency Medical Services (EMS) operational protocols utilizing individual software modules specifically designed for each type of agency. Since time is of the essence, the CAD must accurately provide a date and time stamp on each activity. Properly designed CAD systems increase the accuracy and reliability of the public safety dispatch process and reduce call processing time.

Combining all agency users into one system will require some financial commitments, professional commitments to an effective holistic approach to providing emergency services, and a robust system configuration. In addition, the CAD system must interface back into all of the users RMS, mobile data, mapping, and Emergency Medical Dispatch (EMD) to include National Crime Information Center (NCIC) access interface with RMS and CAD. The system must be optimized for rapid response and system reliability.

### **Network Routing Issues with Diversity and Redundancy**

The opportunity to discuss and observe 9-1-1 operations with both PSAPs provided valuable information. Both agencies have worked to maintain adequate services. There is still ample opportunity to improve the level of understanding of network standards, network best practices, and operational alternatives. The recognition of updated practices and standards will support improved emergency routing procedures to include redundancy and diversity for their current 9-1-1 network which are subject to disruption from both man made and weather related events.

The common interpretation of redundancy is that the minimal installation of two trunks per exchange is intended to provide adequate connectivity between the local serving office and the PSAP. This interpretation fails to acknowledge that if these two paths, which each allow one active call, are in the same trench, conduit, or pipe from the origin to the termination (diversity) of the PSAP, then they both are vulnerable to a single service interruption because there may not be geographic diversity of the routing path. This is especially true in rural or suburban exchange area.



In most cases, there is a lack of available exchange services in these areas, and it is cost prohibitive for the telephone service provider and/or the PSAP to provide a true diverse network.

In emergency communications, both redundancy (duplication) and diversity (separation) are important elements. The Network Reliability and Interoperability Council (NRIC) has as its stated mission “Partner with the Federal Communications Commission, the communications industry and public safety to facilitate enhancement of emergency communications networks, homeland security, and best practices across the burgeoning telecommunications industry.” NRIC reinforced the importance of both redundancy and diversity in BP 7-7-0580, “Network Operators and Public Safety Authorities should apply redundancy and diversity (e.g., concepts set for the in Best Practices 0566, 0573) where feasible, to other network links considered vital to a community’s ability to respond to emergencies.”

Additional education on conditional routing plans by the PSAP might be an opportunity to improve network understanding. The need to fully define the internal PSAP processes for causing alternate routing to take place should be clearly outlined within local Standard Operating Procedures (SOPs). These procedures should be verified by the service provider as being the accepted method of handling interruptions of service and exercised on a regular basis with appropriate assessment of any additional changes that may be necessary. It is critical that PSAPs fully recognize all the alternatives that exist for rerouting calls. Considerations for the selected alternate PSAP should include the impact of shifting call volume, staffing, available workstations, trunk lines, and effective voice and data exchange for the prompt dispatch of emergency services.

In the event that an end office becomes isolated, which means 9-1-1 calls cannot be routed beyond the local office exchange, it becomes necessary to have a local number within the affected exchange to receive calls for at least basic 9-1-1 service to continue. This level of emergency planning is a legitimate and necessary consideration in order to reduce failure potential and preserve continuity of operations.

The Enhanced 9-1-1 (E9-1-1) telephone service provider and the PSAP should have a clearly defined plan for such instances, including initial detection of the outage, effect on call processing and pre-determined alternate routing. The consideration of how to alert and dispatch a response agency must be included for a complete operations plan. Plans work best when both the provider and the PSAP are partners in the development. The PSAP has the responsibility to reinforce the planning effort by training the staff.

### **Insufficient Continuity of Operations and Survivability Planning**

There is much more to continuity of operations and survivability planning than the 9-1-1 network issues discussed above. The survivability of operational integrity in order to sustain basic levels of service is a critical aspect of operational effectiveness.



The range of service offerings available under adverse conditions may range from basic call taking and dispatch to the fully functional array of services offered under normal conditions at the PSAPs.

GeoComm recognizes the importance of being prepared with a series of backup plans designed to continue mission critical services in the unforeseen circumstance of a 9-1-1 system outage, facility, or technology failures, or emergencies which cause an excessive spike in emergency call volume. The PSAPs in Portage County have established a basic plan to continue 9-1-1 service to the public in the event of various major emergencies and disasters; however, there are significant limitations to the existing plans which include:

- **Primary Backup**

The city PSAP and county PSAP are the primary backup centers for each other. Both PSAPs are physically located across the street from each other and reportedly in a flood plain area.

- **Secondary Backup**

Both of the current PSAPs have an agreement with Waupaca County, dated November 12, 1998, to serve as a backup should both PSAPs need to be evacuated. There is a tandem to tandem transfer but there is a known time delay and redundancy is a further concern.

GeoComm's interviews with PSAP staff indicated that personnel are not clear on evacuations procedures and what actions to they should take once calls are transferred to Waupaca. It was further stated that the manual turnkey system which transfers the calls to Waupaca is not routinely tested nor are evacuations plans exercised.

GeoComm finds that there insufficient backup and continuity of operations planning between the city PSAP, county PSAP, and the county Emergency Management Office. Robust plans are necessary to ensure effective 9-1-1 service can be sustained during significant events, disasters, or network outages.

The continuity of operations plans should be exercised during periodic training scenarios. After the training, a credible after action report should be developed to provide documentation of needed improvements in the sustainability and survivability of critical emergency communications network functions.

The APCO NENA ANS I.1.02-1-2010 PSAP Service Capability Rating Scale cites annual exercises as a requirement. The actual level of regular or planned training and exercises related to emergency procedures was unable to be provided.

Both PSAPs have taken steps to provide continued operations of their individual centers in case commercial power is lost by providing Uninterruptable Power Supplies (UPS).



The PSAPs are further supported by a generator to provide power to critical communications equipment and to allow the continuation of dispatching emergency calls for service during power outages.

Inconsistent attention to the proper and regular exercising of critical systems can lead to a PSAP not being available at the most significant time of need.<sup>1</sup> GeoComm found that exercising of the generator system is performed at different levels and intervals by the both PSAPs.

As with exercising of critical generator systems, UPS battery maintenance programs are essential to ensure continuity of operations when they are most needed. Agencies should ensure that UPS battery maintenance and diagnostics testing be performed in accordance with the latest Institute of Electrical and Electronics Engineers (IEEE ) 450, IEEE 1106, or IEEE 1188 standards for the appropriate battery type.

**Workload Assessment and Assigned Responsibilities that Go Beyond 9-1-1 Call Response**

GeoComm evaluated the call volume, incidents, ancillary duties, and responsibilities in order to assess the PSAP workload and the impact ancillary duties have on the PSAP operations.

Both PSAPs handle a variety of ancillary duties and responsibilities. Many of these duties are naturally correlated with the call taking and dispatch function such as assisting with national crime database data entries, queries, confirmations, and maintenance of required files; maintaining local records systems, running background checks, and monitoring alarms and cameras. Ultimately, the determination of which ancillary duties transfer into the consolidated PSAP is a local decision. However, GeoComm identified several ancillary duties that we believe fall outside of the norm for consolidated PSAPs. Note: This list is a sample and is not all inclusive.

Portage County PSAP	Stevens Point PSAP
Answering humane society calls after-hours	Picking up abandoned bicycles
Answering Plover administrative calls	Rolling fingerprints
Performing non-emergency switchboard operations	Handling after-hour walk-ins
Processing Operating While in Intoxicated (OWI) paperwork	Picking up and dropping off squad cars for maintenance
Dubbing tapes for open records	Completing entry of bartenders and taxi license information
Performing administrative data entry	Processing overnight parking requests
Serving as backup to jail functions	Assisting Parking Enforcement Officer with money collection and clearing out storage units

<sup>1</sup> NFPA® 110 Standard for Emergency and Standby Power Systems 8.4



As with many agencies across the United States, dispatchers are often tasked with a multitude of ancillary duties in addition to answering 9-1-1 and administrative telephone lines and dispatching units to calls for service.

The measurement of actual call volume at the PSAP is frequently used to assess the service delivery provided by a PSAP. It is common to find training, equipment, network, staffing, and facility issues being related to overall call volume. In most PSAP environments, wireline calls are usually totaled separately from wireless 9-1-1 calls, as well as non-emergency calls on administrative lines are counted inbound and outbound. Despite the commonality of such call accounting, the actual workload associated with call processing can be dynamic and not always subject to simple numeric calculation as other ancillary duties may not be able to be counted for analysis purposes as call volumes.

GeoComm utilized PSAP provided data such as overall call volume of wireline, wireless, ringdown<sup>2</sup>, and non-emergency calls answered at the PSAP.

### Combined Call Volume for Portage County PSAP and Stevens Point PSAP

Call Volume	2006	2007	2008	2009	2010
Total wireline 9-1-1 calls <sup>3</sup>	5,496	5,218	4,912	4,272	4,282
Total wireless 9-1-1 calls <sup>4</sup>	6,712	7,497	8,510	8,168	8,673
Total ringdown line calls	5,257	5,459	5,865	5,330	5,807
Total emergency calls <sup>5</sup>	17,465	18,174	19,287	17,770	18,762
Total non-emergency calls	116,988	111,453	108,756	101,966	98,606
Total emergency and non-emergency calls	134,453	129,627	128,043	119,736	117,368

### Staffing and Minimum Coverage Issues

GeoComm gathered staffing data via data collection tool and through interviews conducted on-site at the PSAPs. GeoComm discovered both PSAPs reporting that all budgeted positions in their communications centers are currently filled and in some cases, there have been no personnel vacancies for several years. Both PSAPs interviewed did not report any problems attracting and hiring qualified candidates.

<sup>2</sup> Ringdown lines are direct, hot line connections between locations such as hospitals and a PSAP.

<sup>3</sup> Wireline 9-1-1 call volume includes incoming calls and TTY calls

<sup>4</sup> Wireless 9-1-1 call volume the same for both city and county PSAPs

<sup>5</sup> Total Emergency Call Volume includes wireline, shared wireless, ringdown, and TTY calls



Through PSAP interviews, some agencies reported a need for additional budgeted positions as authorized staffing levels do not meet the current and expanding needs of the center. GeoComm found that the call volume does warrant more staff in both the current single PSAP environment and in both consolidated PSAP options. The staffing and methodology is further discussed in the recommendations section.

However, as a quick snapshot, GeoComm offers the following two charts:

<b>Current Staffing</b>	<b>Portage County Sheriff PSAP</b>	<b>Stevens Point PSAP</b>
PSAP Manager	1 Part-Time Equivalent (PTE)	1 (PTE)
Operations Supervisor	2	0
Call Taker/Dispatcher/CSO	8	8
<b>Total</b>	<b>11</b>	<b>9</b>

<b>Actual Staffing Needs</b>	<b>Portage County Sheriff PSAP</b>	<b>Stevens Point PSAP</b>
PSAP Manager	1	1
Call Taker/Dispatcher/CSO	13	13
<b>Total</b>	<b>14</b>	<b>14</b>

The current staffing allocation is a staffing shortage results in the need for overtime when an individual is sick, on vacation, in training, or for any other reason not available for work.

In addition, GeoComm believes that a minimum of two dispatchers on duty is an essential risk management and employee safety factor. A minimum staffing level of two assists with continuity of operations in the event of call overload, dispatcher safety, backup coverage, and a variety of other reasons. At each PSAP there is not a consistent minimum staffing level of two on duty 24 hours a day, seven days a week.

### **Insufficient Collaboration on Dispatch Protocols**

GeoComm noted from multiple sources that there are concerns with the current dispatch operational protocols in place and that there are differing response protocols by each PSAP. There are some response agencies that are dispatched by each PSAP depending on call routing and location. There are reports of emergency field responders having to justify through the PSAP their request for additional fire and medical equipment, manpower, and resources.



The most effective and efficient public safety response systems are those in which call processing and dispatch protocols are looked upon as a whole system rather than the sum of its parts. GeoComm finds that there should be an increased focus on collaborative dispatch protocols and that the current issues must be addressed whether the PSAPs remain separate or if they consolidate. With improved technology, there will be the opportunity to utilize the robust CAD features related to unit assignments but that feature is rendered useless if the current issues with operational protocols are not addressed. With the use of EMD protocol systems, GeoComm recommends the inclusion of the Medical Director, responsible for the EMS system, in the establishment and ongoing review of medical protocols. This should include the questions asked by call takers of callers to assess the type and level of emergency and the dispatch assignments used by dispatchers in the notification of appropriate medical responders.



## Portage County, Wisconsin Options Matrix

This Options Matrix was identified by the Technical Working Group as an important element of the Portage County PSAP Consolidation Study. During Phase I of the project, the Technical Working Group identified these 23 goals and criteria upon which the two identified options are to be evaluated. It is designed to provide a side-by-side snapshot comparison of each option.

RFP Reference Number	Goals and Criteria	Option 1	Option 2
		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
a	Compliance with any and all applicable statutes, regulations, and ordinances.	Regardless of model, it is incumbent upon Portage County to ensure that the PSAP fully complies with all lawful requirements.	This option would require the Sheriff to agree to house the state TIME system computer terminal in a 3 <sup>rd</sup> party facility (§ 59.54(9)).
b	Minimize start-up costs for both the county and the city.	Option 1 allows for the use of existing facilities within the County Sheriff's Office. There would be no additional costs involved in remodeling and expanding this space to accommodate additional personnel since an ongoing capital improvement project which was started in May 2012 has already accounted for the additional needed space.	Option 2 would likely require the acquisition of a new facility or remodeling of existing county or city facilities to house an independent, civilian PSAP. The costs of an appropriate PSAP facility will cost significantly more than Option 1. The facility cost for this option is an estimated \$1,301,030 (Appendix A).
c	Minimize ongoing operational costs for both the county and the city.	Consolidated PSAPs are not always more cost effective to a jurisdiction planning to undertake such an initiative. However, the benefits of consolidated dispatch operations are efficient operations, better trained and readily available staff, and more robust response options. In some cases they may result in the ability to maximize costs savings by leveraging the purchasing power of a larger entity rather than individual, smaller PSAPs and agencies in purchasing equipment and critical infrastructure. As part of this study GeoComm has evaluated the operational costs	The costs for creating a new governmental entity can range from the purchase, acquisition, or building of an appropriate PSAP facility, establishing agency identify through the development of a brand and purchasing of requisite branded items such as uniforms, establishing a full management structure and providing human resources and support function financial support. This leads to the possibility of duplication of services for similar functions such as personnel management. One of the greatest costs for this option will likely be the additional support



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		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
		of both options to both the city and county. The estimated budget is \$2,680,605.	staff needed. The estimated budget is \$3,785,873 (Appendix B), which is a difference of \$1,421,188 between the two options.
d	Maintaining adequate staffing 24/7/365, and compliance with staffing best practices.	Effective staffing is critical to any PSAP regardless of consolidation. There are a number of industry standards and best practices with regards to recruiting, hiring, training, and retaining effective PSAP staff. As part of this study, GeoComm has conducted an in-depth staffing analysis based on these standards and best practices and will make staffing recommendations to the Dispatch Advisory Group. For either option, the staffing required to meet call taking and dispatching needs 24/7/365 includes 20 call taker/dispatcher positions, five supervisors/designated leads, and one PSAP manager.	
e	Utilizing a common or interoperable record management system.	The benefits to the public safety agencies and citizens of Portage County created by an interoperable records management system, computer aided dispatch system, and mobile data computer system are of utmost importance to the safety of responders and citizens alike. The shared use of these critical communication platforms increases communications capability between responders and dispatchers as well as enhances situational awareness for all emergencies and other known events occurring within the community in real time. Regardless of Option 1 or 2, even if no changes were made to the existing PSAP structure, GeoComm recommends immediate steps towards moving all public safety agencies to the same RMS, CAD, and MDC system.	
f	Utilizing a common or interoperable computer aided dispatch system.		
g	Utilizing a common or interoperable mobile data computer system, including not only law enforcement, but fire and EMS as well.		
h	Maintain an adequate and robust supervision of the Dispatch Center 24/7/365.	Agencies are legally liable for the actions of their employees. Line level employees need proper supervision to effectively comply with agency policies, procedures, and protocols. Supervisors/designated dispatcher/call taker leads are needed to interpret the application of those directives given the dynamic set of circumstances for any given emergency situation and for that matter most non-emergency activities for which the PSAP personnel are charged with managing. More so, it is critical for PSAP supervisors/ dispatcher/call taker leads to be trained in specific policies of the PSAP and to not be distracted with supervisory responsibility over field personnel simultaneously. In a significant emergency, it would be easy for a field supervisor to be ineffective at supervising both diverse functions as dispatch and field response. Regardless of option, a PSAP must have supervisory personnel who are trained and focused on the specific needs of the PSAP. GeoComm fully details	



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		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
		the staffing needs within the current PSAPs as well as the optimum model and recommendations section of this report.	
i	Ensuring the Dispatch Center has adequate hardware and infrastructure to operate.	The current situation in Portage County with the divergent equipment used by both PSAPs and the age of critical equipment such as emergency radios are critical issues negatively impacting the day-to-day operations as well as limiting the effectiveness of the available response to a major event within the jurisdictions served by either PSAP. Regardless of options, any PSAP must have adequate hardware and infrastructure to carry out its mission efficiently and effectively. Anything less puts undue stress on the personnel charged with the duty of keeping responders safe and ensuring fast and efficient response to citizens when they are faced with an emergency situation. It is dangerous to responders and can cause staff retention problems.	
j	Maximize all opportunities to ensure officer and responder safety, and protect sensitive and/or confidential information.	Regardless of options, the primary goal of any PSAP must be to establish efficient workflow processes which maximize officer and responder safety. Anything less is unacceptable. Through consolidation under either option, responders will realize improved safety as a direct result of the coordinated response efforts from the consolidation of PSAP services, increased PSAP staffing based on call volume and industry standards, and the implementation of common communications platforms such as RMS, CAD, and MDC systems.	
		Confidential and sensitive "law enforcement only" information freely flows back and forth between the PSAP and Sheriff's Office. This improves responder safety and increases operational efficiency.	Law enforcement would be required to safeguard sensitive and confidential information and would by legal requirements restrict the information flow to a civilian PSAP.
k	Ensure maximum service to all stakeholders, proportioned to their demand on the system.	Regardless of options, there are many different methods for determining proper staffing based on end user agency staffing, call volume, discipline-specific operational needs and number of responders on any given shift. One of the major benefits of consolidation is the ability to maximize personnel resources.	
		Since the vast majority of PSAP functions involve law enforcement, and law enforcement proportionally has the greatest frequency and severity of threats of the public safety agencies served, direct accountability of the PSAP by the Sheriff's Office ensures that these critical functions are proportionately addressed.	In a civilian, independent PSAP the same focus could be established, however, there is a perception of equality to all disciplines served by the PSAP. Through system design and staffing, the appropriate amount of discipline-specific positions will likely require greater staffing to address the higher volume of law enforcement activity.



RFP Reference Number	Goals and Criteria	Option 1	Option 2
		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
l	Reasonably integrate the newest and most sustainable technology available.	Technology is one of the most expensive aspects of providing PSAP services. 9-1-1 related technology is a very dynamic and expanding proposition for city and county governments to manage. GeoComm believes that through consolidation and effective cost-sharing agreements, jurisdictions can optimize the technology available to the PSAP and its users and leverage the consolidated buying power to implement and sustain critical technology infrastructure.	
m	Utilization of standardized/universal dispatching procedures across the county.	For many years, the PSAP was considered and sub-unit of public safety and the various disciplines were single entities, operating in a vacuum. In today's public safety reality, it is critical that the public safety response agencies collaborate together as a complete public safety system. This includes law enforcement, fire, rescue, emergency medical services, PSAPs, and other related government agencies charged with providing services to the public and protecting the public in emergency situations. The most effective and cost efficient public safety response systems today are those that have a holistic view of the provision of emergency services and develops the policies, procedures and protocols for use by those diverse agencies in cohesive and collaborative manner rather than working as independent and disjointed entities. The use of a standardized and universal dispatch procedures for Portage County would greatly enhance the safety and efficient of the system as a whole.	
n	Ensure adequate and physically secure facilities for the new Dispatch Center, accessible to authorized personnel 24/7/365.	Regardless of options, any PSAP should be adequately and physically secure. Through the cooperative agreements established between the participating communities regarding oversight of dispatch operations, a need-specific protocol can be effectively established for identifying and authorizing appropriate personnel with access to the PSAP on a 24/7/365 basis. PSAPs can further be monitored by video camera both inside and outside of the Center and GeoComm recommends card swipe or other means of secure, electronic entry, and egress.	
o	Ensure an adequate and robust management structure to support the Dispatch Center.	Like the need for specially-trained and dedicated PSAP supervisors, the need for an appropriate management structure cannot be unstated. There are numerous benefits to effective PSAP management. Although closely related to other public safety response agencies, a PSAP is unique in its mission, needs and rapidly evolving technological systems. Dedicated management personnel are better able to focus on the trends in public safety communications and the various legal requirements for PSAP operations. A few such unique requirements include FCC rules, Department of Justice regulations, Fair Labor Standards, and National Law Enforcement Telecommunications System (NLETS/NCIC). A second but important benefit of an appropriate supervisory and management structure is the establishment of a professional career path for call takers and	



RFP Reference Number	Goals and Criteria	Option 1	Option 2
		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
		dispatchers. This is important in recruitment and retention efforts. In either option, GeoComm determined that an effective staffing level would include 20 call takers/dispatchers, five supervisors/designated leads, and one PSAP manager.	
p	Ensure ready access to a trained pool of personnel who can temporarily act as dispatchers in an emergency.	Consolidated PSAPs benefit from a larger and more diverse staff of trained call takers and dispatchers. This allows for improved scheduling and a cross-trained staff which can be scaled up or down to meet the changing needs based on call volume and when there is sudden unexpected escalation of community needs based on a significant emergency or disaster. Without consolidation, the effectiveness of one PSAPs personnel in assisting the other PSAPs personnel is greatly diminished because of the differences in protocols, equipment, and training.	
		The Sheriff's Office currently has a pool of trained personnel, consisting of deputies, corrections officers, and administrative staff, that can and do fill critical and unforeseen shortages, surges, or temporary vacancies in the PSAP. In addition, all of the field supervisors are trained as well. There is an additional benefit for the non-PSAP personnel in obtaining a better appreciation and understanding of the dispatching system, and vice versa.	In Option 2, with proper planning and training, field units or other personnel could be trained to complete basic call taking tasks, to assist in the PSAP during staff shortages and surges in call volume. However, it is unusual for consolidated, independent civilian PSAPs to operate in this manner and access to additional personnel is often lost.
q	Ensure the ability for law enforcement supervisors and managers to initiate and conduct direct command and control operations for significant events directly in the Dispatch Center.	A growing trend in public safety is to interconnect a PSAP with a jurisdiction's Emergency Operations Center (EOC) for the purpose of activation and dedicated space for command and control during major events or disasters. However, it takes more than a properly equipped EOC to accomplish this goal.	
		Law enforcement supervisors would maintain this ability for unfettered access and command/control of both field and dispatching assets.	Unfettered access may not be routinely allowed to non-dispatch personnel but through proper planning, operational protocols and training, this goal can still be reached in an independent PSAP.



RFP Reference Number	Goals and Criteria	Option 1	Option 2
		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
r	Ensure the greatest cost effective capability for redundant dispatching functions in case of an emergency which disables, or requires the abandonment of, the Dispatch Center.	In either case, a redundant system for ensuring the continuity of PSAP operations must be planned for, established, and regularly exercised.	
s	Integrate operations and procedures to ensure needed dispatching of resources across jurisdictional boundaries.	As previously mentioned, when consolidation of PSAPs is being considered by a jurisdiction, there is an opportunity for the public safety response system as a whole to strategically align itself to improve response services across the entire jurisdiction. To be effective, it will require key stakeholders to participate in discussions and agree upon operational protocols which integrate emergency response across all participating agencies within the jurisdiction. The advantages of this are a more robust, flexible, and supportive emergency response system which can be organized and managed through the consolidated PSAP. Responses can be dispatched based on nearest unit, call volume in a given area, or activities/incidents being handled by any one agency. Based on the agreements established by participating agencies, the end effect is a public safety force multiplier which enhances public safety services throughout the jurisdiction all coordinated by one PSAP where personnel know what is happening throughout the entire jurisdiction at any given moment.	
t	Maximize efficiency in dispatch workflow.	It is important to understand that consolidation of PSAPs is much more than simply merging two entities. One of the most important goals of consolidation is to maximize efficiency in dispatch work flow. Efforts will be required to analyze and establish protocols and procedures which allows for the most efficient work flow possible. This is often harder than it may seem initially because it generally requires small to significant changes to how PSAP personnel, field responders, and even citizens report and respond to any number of emergency and non-emergency incidents. For example, a crime in progress in which the suspect is fleeing and crossing jurisdictional boundaries can be more effectively and efficiently managed by dispatch staff working together in a consolidated PSAP. Situational awareness related to this call as well as other calls and available units is enhanced.	
u	Maintain the support for both county and city	Administrative functions conducted by PSAP personnel are often referred to as ancillary duties.	Under Option 2, an independent civilian dispatch center is usually less likely to accept ancillary duties



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		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
	administrative functions currently provided to each entity by the existing dispatch centers to the maximum extent possible.	When considering consolidation, these extra duties become a major discussion point which must be addressed. The first step is for both PSAPs to determine what are the core functions of the PSAP and what are defined by them as ancillary duties. Then, of those duties, decisions must be made regarding which will be transitioned to the consolidated PSAP and which duties will be left behind with the host agency. There are obviously cost factors which may influence these decisions because very few ancillary duties can just be stopped, someone will need to be assigned to handle them. This is not an issue to be taken lightly when determining which duties remain with the PSAP and which duties are not transitioned. GeoComm encourages both agencies to give deliberate consideration to only transitioning those duties to the consolidated PSAP that are a core function of receiving emergency calls and dispatching public safety responders. Otherwise, PSAP personnel will be distracted by these ancillary duties while simultaneously being responsible for the safety of citizens and responders alike.	from end user agencies. There is a stronger focus on PSAP mission and less focus on providing ancillary services to user agencies. This in turn lessens any potential cost savings to a city or county government because another employee or employees are required to perform those duties not accepted by the civilian PSAP.
v	Maintain an adequate number of radio channels or talk groups to conduct all necessary operations and support all applicable disciplines.	Under either option, having the ability to communicate properly is at the heart of any PSAP. An adequate number of radio channels must be addressed regardless of the final decision. Portage County is addressing this issue through the 2013 Capital Improvement Plan by adding a second repeated law enforcement radio channel and a simulcast radio system.	



RFP Reference Number	Goals and Criteria	Option 1	Option 2
		Consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center	Consolidating dispatching services within a newly created, separate, civilian department of the county
w	Maintain access to intrinsic resources, including physical equipment, financial resources, or human support services, needed to support routine or emergency dispatching functions.	<p>Under either option, availability of resources for the PSAP ensures its continued functioning, not only during periods of routine dispatching, but also during emergencies, equipment failures, special events, and other remote dispatching needs.</p> <p>The Sheriff's Office provides for a robust array of resources to support the PSAP during emergencies and unusual circumstances or demands. Current policies ensure that dispatching personnel can be deployed outside of the PSAP during unusual circumstances, such as mutual aid calls to the EOC, Incident Command Post (ICP), or to remote locations for special events.</p>	<p>With proper planning, training and agreements, this ability may still exist with a civilian PSAP unless response entities would not agree to provide access to ICPs and other mobile equipment to the civilian PSAP dispatchers.</p>



## Recommended Model for Portage County PSAP Consolidation

### Overview

The recommended model for Portage County is consolidating dispatching services within the existing Portage County Sheriff's Office Dispatch Center. This model allows the communities in the county to be served by a single PSAP where law enforcement, fire, and Emergency Medical Services (EMS) dispatch services will be consolidated. The existing configuration has inherent complications as a result of technical and operational issues caused by wireless call answering procedures due to the single Emergency Service Number (ESN) required by Wisconsin law. Additional complications include the variations in CAD systems and the age of critical infrastructure all of which negatively impact 9-1-1 service levels.

For the purpose of this report, GeoComm will refer to the consolidated center as the Portage County Consolidated PSAP. The Portage County Sheriff's Office Dispatch Center and Stevens Point PSAP would consolidate and be the sole provider of 9-1-1 call taking and dispatching services to public safety agencies in the county. This PSAP would serve all emergency services entities in the Stevens Point, Plover, and Portage County area including all other municipalities and other unincorporated areas.

It is important to realize that part of this recommendation is also working towards an overall culture shift for 9-1-1 and those who collaborate with the PSAP. GeoComm's recommendations detail how those involved with 9-1-1 would have an increased focus on 9-1-1 call taking, training, exercises, Continuity of Operations planning, formalized oversight, etc, with the goal of improved service overall and consistency of operations. For example, the staff will be responsible developing robust training plans, professional development activities, collaboration with communities the PSAP dispatches, and more.

### Projected 9-1-1 Total Call Volume

Based on the combined call volume for 2010, the consolidated center should anticipate a call volume around 118,000 non-emergency and 9-1-1 calls per year.

### Operational Improvements

There are both advantages and disadvantages to establishing one PSAP in Portage County.

- Optimum Model Advantages
  - Improved staff coverage and flexibility, based on primary yet dynamic re-assignment.
  - ◆ In a consolidated PSAP, the staff has primary duty assignments but also must be ready to shift into an alternate role based on the emerging dynamics related to call volume, incident behavior, emergency response parameters, and safety.



- ◆ The alternate assignment may be short lived or related to a specific task; however, seldom is public safety communication professional staff allowed to decline participating in another call/duty because they have an active, primary assignment.
  - Improved PSAP supervision, management, and quality assurance.
    - ◆ Results in improved risk management mitigation as supervisors are able to react to questions or issues, interpret policy, provide direction, and monitor employee performance.
  - Improved coordination of response to citizens' calls for service, management of public expectations, and open communication processes.
  - Improved responder safety through increased staff resources and monitoring of emergency radio help-button activations.
  - Developed and managed common protocols, policies, and effective procedures that support objective, measureable performance by staff.
  - Redundant communication paths to the Portage County Consolidated PSAP radio system to improve the reliability of dispatch communications.
  - Enhanced resource management, data, and voice interoperability.
  - The professionally-managed Portage County Consolidated PSAP supports and leads the county's 9-1-1 efforts to create positive peer relationships in support of shared technology, alternate forms of interoperability, effective incident command, and resource management.
  - Improved efficiency of call processing and work flows.
  - Eliminate unnecessary duplicate costs.
  - Decelerate long-term cost increases associated with staffing and technology.
  - Ability to fund center utilizing an equitable model approved by governing body.
- Optimum Model Disadvantages
- Stevens Point and Portage County PSAPs each have significant duties beyond dispatching 9-1-1 calls that will have to be accounted for at the local level and/or policy decisions should be made to reduce or redefine service delivery to citizens and responders.
  - Only one PSAP within Portage County would create a need for enhanced continuity of operations planning and potentially more complex backup capabilities for both short-term and long-term interruptions of service at the Portage County Consolidated PSAP.
  - Neither existing PSAP facility is adequate to accommodate the necessary staff for Optimum Model without significant renovation.

### **Oversight and Authority**

Effective oversight and authority is important to develop and maintain a successful consolidated PSAP operation.



The historical and current PSAP configuration within Portage County has been impacted by certain political and operational issues which have remained unresolved. It is GeoComm recommendation that strategic changes to the structure, oversight, and operational procedures is the best approach to resolving any service issues and provide a higher level of emergency service to the residents of Portage County.

- GeoComm recommends the following steps be implemented for the planning and implementation of the consolidated PSAP:
  - The county should establish an Emergency Services Policy Board, chaired by the Sheriff to provide guidance and oversight to 9-1-1 emergency services within Portage County. Membership should be representative of all participating communities. For example, a community could appoint an elected official, police department representative, fire department representative, or EMS representative. The formation of this Board could be accomplished through a transition of the current Dispatch Management Group.
  - The Dispatch Advisory Group should be used as the transition committee for implementing the recommendations described in Section 5. There should be an expanded and formal charter to participate and a primary focus should be the development of PSAP operational protocols and procedures for the consolidated PSAP.
  - It is GeoComm's recommendation that, through the Dispatch Advisory Group, law enforcement, fire, and EMS agencies collaborate to establish call taking and dispatch response protocols for the singular purpose of ensuring the best possible emergency response for the citizens while enhancing the safety of all emergency responders. To accomplish this critical objective requires political collaboration, operational collaboration in the form of accepted protocols and memorandums of understanding or other such documents that clearly communicate the agreed upon protocols, clearly written standard operating procedures and training for each call taker and dispatcher specific to each protocol. This approach results in three critical outcomes:
    - ◆ Call taking and dispatching efficiency is improved;
    - ◆ Emergency responses to the public are enhanced and improved;
    - ◆ Call takers and dispatchers are relieved of the responsibility of determining the correct operational and dispatch protocols during the call taking and dispatch process which often leads to delays and mistakes.
- The Emergency Services Policy Board should be charged with the responsibility of:
  - Formalizing interlocal agreements to be executed which include sections for what services are and are not provided, dispute resolution, and time periods for agreement and cancellation. GeoComm has provided the Portage County project manager with some examples.
  - Development of formal guidelines for the Dispatch Advisory Group and any other subcommittees, to include:
    - ◆ Establishing regular meetings schedules
    - ◆ Deciding procedures for designating alternate officials/representatives
    - ◆ Establishing recording of written minutes of meetings



- ◆ Implementing structured decision-making process
- ◆ Determining effective information flow to/from the group and the Sheriff's Office for review and feedback
- ◆ Providing high level input into the mission of the consolidated PSAP;
- ◆ Providing financial, policy, and political support needed to ensure the highest possible levels of responder safety
- ◆ Providing financial, policy, and political support needed to ensure the highest possible levels of public safety service to the citizens of Portage County
- ◆ Supporting each other by adopting a broader view beyond the specific needs of any one agency
- Creation of other technical, operations, and training subcommittees as deemed necessary to assist with the initial transition into consolidation but also for ongoing input into such issues.
- Establishment of a fair and equitable cost-sharing model funding formula, an operational budget, transition fund and Capital Improvement Plan (CIP).

Obviously, responder safety is critical and should always be based on a professional level of responsibility that is shared by all members of the Emergency Services Policy Board.

Members should encourage constructive review and candid assessment of the Portage County Consolidated PSAP 9-1-1 activity. While members may not always agree on an issue, the candid discussions cannot become personal. This response would negate and narrow the broad view of maintaining the overall mission, which members must agree is more important than individual preferences.

With this approach in mind, the Emergency Services Policy Board should provide input for a mission statement and strategic planning framework that includes goals, objectives, and actions plans to formalize service delivery standards, staffing models, minimum technology requirements, funding sources, and cost-sharing methodologies that would apply to a consolidated communications operation.

Implementation planning efforts should include call taking and dispatch protocols developed with a focus on service delivery. The Emergency Services Policy Board should agree upon the processes by which protocols will be periodically reviewed and modified, as necessary.

The Emergency Services Policy Board should appoint the Dispatch Advisory Group to begin the necessary implementation and transition planning at the operational and technical level. Participating agencies should be prepared to have personnel resources with sufficient expertise and time availability to participate and focus on planning and ongoing operations.



This may be accomplished by:

- Establishing processes to ensure all participating agencies have the ability to effectively report performance issues of concern with a level of confidence that detailed examination will occur.
- Understanding that during consolidation planning, community expectations of immediate costs savings must be properly managed. The planning costs, initial start-up, as well as the costs related to implementation of new technology, training and staff transition will take time to result in the financial stability and sustainability that may provide verifiable savings.



Through proper planning, coordination, relationship development, the Emergency Services Policy Board will set the framework for overall improvement in emergency communications within Portage County. This framework should include strategic configuration of the elements of 9-1-1 currently being handled separately by the city and county PSAPs and the Emergency Management Office.

Under the Policy Board's authority, the Dispatch Advisory Group will collaborate to implement these recommendations. As with any significant change in operations, there will likely be growing pains and a need to manage the overall emergency communication goals, without losing the most valid reason for consolidation – improving service to the public and the responders, on every call, every day.

### Operations

GeoComm recommends the Dispatch Advisory Group support the identification and appointment of a full-time PSAP manager to assist in the consolidation implementation planning and coordination items detailed in this report.



The Dispatch Advisory Group should support and assist the PSAP manager with coordinating the extensive planning and support activities necessary for successful implementation. The process of implementation and transition planning is complex and time consuming.

- Transition and implementation planning leadership within the Dispatch Advisory Group will bring supplemental expertise to the project and will ensure that the project stays on-track.
- The Dispatch Advisory Group should provide input into the development of a comprehensive funding plan for the consolidated PSAP to include cost-sharing formulas.
- The Dispatch Advisory Group should provide support and coordination of crucial public safety communications needs as the consolidation transpires.
- The Dispatch Advisory Group should provide input on policy level coordination with 9-1-1 service providers and wireless service providers.
- The Dispatch Advisory Group should coordinate, evaluate, and recommend technology needs for a consolidated PSAP.
- The Dispatch Advisory Group should provide input for a new Continuity of Operations Plan (COOP), PSAP Evacuation Plans, and Backup PSAP Plan. This is necessary since the PSAP will be responsible for providing effective resource management during large-scale incidents, natural disasters, and multi-jurisdiction/multi-agency and discipline incidents from a single point of control rather than fragmenting control among multiple PSAPs.
- The Dispatch Advisory Group should provide input in the development of standardized job descriptions for all participants. Following development of the staffing structure, examination of union contracts, as applicable, for 9-1-1 personnel should be conducted so that an appropriate and attractive compensation and benefit structure is implemented. Detailed personnel planning should include examination of existing collective bargaining agreements, personnel policies, compensation and benefits, career paths, and training.

## Staffing

GeoComm recommends a staffing structure be adopted for the new consolidated operation that ensures effective long-term management, supervision, and staffing.

- The PSAP manager should be employed by Portage County and be a highly skilled, professional manager with consolidated communications center management experience.
- Supervisory and operational personnel structures should be established to provide employment opportunities for incumbent personnel and a career ladder for professional telecommunicators. Following the development of the staffing structure, Portage County should examine 9-1-1 personnel union contracts so that an appropriate and attractive compensation and benefit structure is implemented. Detailed personnel planning should include examination of existing collective bargaining agreements, personnel policies, compensation and benefits, career paths, and training.

GeoComm recommends the Emergency Services Policy Board make policy decisions governing how the consolidated PSAP will operate. These policy level decisions will drive the final staffing structure which should be adopted to ensure effective long-term management, supervision, and staffing. Based on the 2010



call volume reported by each PSAP, the consolidated center would be responsible for call receipt and dispatch associated with approximately 117,368 emergency and non-emergency calls.

GeoComm uses a complex methodology for calculating PSAP staffing needs that incorporates several nationally accepted practices such as Erlang-C calculations, APCO's Project RETAINS, and NENA Call Answering Standard/Model Recommendation (NENA 56-005), supplemented by GeoComm's proprietary methodology. The result of GeoComm's analysis is based on a total call volume of 117,368 which includes all reported emergency and non-emergency calls. The Erlang-C model projects the needed number of call takers/dispatchers factoring in variables such as number of calls, average call duration, and call answering standards.

The staffing levels also take into account Net Available Work Hours (NAWH) for each staff member. To determine the number of personnel needed to fill a position, a NAWH calculation must be performed. Again, some basic assumptions must be made at this stage of the process. Specific vacation, sick leave, holiday, and training time allocations must be assumed. GeoComm projects the following benefit impact:

<b>Net Available Work Hours</b>	
Full Year Full-Time Coverage	2,080 hours
Vacation/PTO	120 hours
Sick Leave	80 hours
Holiday	80 hours
Training	40 hours
Meals/Breaks (Self-relieving within minimum staffing)	0 hours
<b>Total Net Available Work Hours</b>	<b>1,760 hours</b>

Each coverage position requires 7,040 hours annually for continuous staffing. Based on the above assumptions relative to net available work hours, it requires 25 full-time equivalent personnel positions to provide continuous staffing for each coverage position.

Agency management should be vested with the authority to schedule resources as needed to effectively provide public safety services. The staff calculations utilized by GeoComm are intended to provide adequate management resources.

Under the current structure, every wireless call that is answered by Portage County PSAP staff is also answered by Stevens Point PSAP staff. Therefore, a net call reduction is realized by eliminating this duplicate call answer process.



It should be noted that the Erlang-C model assumes a consistent call volume throughout the entire 24 hour period. As this is not the nature of public safety, scheduling adjustments must be made to accommodate peak and low-volume time periods. GeoComm conducted assessment on a ten percent projected call volume increase to ensure recommended staffing was not at a threshold. GeoComm is confident in the PSAP staffing recommendation based on the projected call volume and current operational workflow. Any adjustments in operational procedures may have a corresponding impact on staffing needs. For adequate comparison, GeoComm used the same methodology to assess the current staffing at each PSAP and found that both PSAPs are currently understaffed according to industry effective practices.

The following chart represents current authorized staffing levels of the existing PSAPs.

<b>Staffing</b>	<b>Portage County Sheriff PSAP</b>	<b>Stevens Point PSAP</b>
PSAP Manager	1 Part-Time Equivalent (PTE)	1 (PTE)
Operations Supervisor	2	0
Call Taker/Dispatcher/CSO	8	8
<b>Total</b>	<b>11</b>	<b>9</b>

Utilizing the GeoComm staffing methodology, the following chart represents the appropriate staffing level for each separate entity. The results show an increase of five call takers/dispatchers for each agency. While GeoComm has not specifically identified a minimum number of shift-supervisors, this is an important issue that must be addressed by the local agency. Even where employees are not given an official supervisory title, someone should be designated as lead-worker, coordinator, or supervisor at all times for accountability of work performance and risk management.

<b>Staffing</b>	<b>Portage County Sheriff PSAP</b>	<b>Stevens Point PSAP</b>
PSAP Manager	1	1
Call Taker/Dispatcher/CSO	13	13
<b>Total</b>	<b>14</b>	<b>14</b>



Finally, the following chart represents the recommended staffing level for the Portage County Consolidated PSAP.

<b>Staffing</b>	<b>Portage County Consolidated PSAP</b>
PSAP Manager	1
Shift Supervisor/Lead	5
Call Taker/Dispatcher	20
<b>Total</b>	<b>26</b>

Based on the total projected call volume, GeoComm recommends that 20 call takers/dispatchers are needed to appropriately meet industry standards with respect to call processing. If call volume were cyclical, this would result in four staffed positions in the consolidated PSAP; two call taker positions, one police dispatch position, and one fire/EMS dispatch position.

Since call volume is sporadic across the 24 hour period, agency management must have the authority and flexibility to dynamically schedule staff according to actual workload. Therefore, GeoComm recommends one police dispatch position, one fire/EMS dispatch position, and one call taking position as the absolute minimum staffing level during the lowest call-volume time periods. Due to the lower volume of fire dispatch activity, the fire dispatch position would serve as an overflow call taker position for handling unexpected spikes in call volume.

GeoComm recommends that managing human resource options be a major component of any PSAP consolidation plan. Human resource considerations include seniority, insurance, vacation time/leave, job titles, retirement, benefits, and much more. Some of the significant employment policies that must be considered in the transition planning include:

- A salary and benefits plan should be put into effect in order to normalize salaries and benefits employees within the present PSAPs.
- Seniority transfer from current employer to new center.
- Current staff does not receive a salary decrease. If anyone is over the current position maximum then their pay increases are frozen until the new pay plan matches their salary.
- New job titles are recommended for employees of the consolidated center.
- All leave, benefits, vacation, retirement, etc., should be assumed by the new entity and established accordingly with a final effective date.
- Use of existing county departments for payroll and human resource duties.



GeoComm also makes the following additional recommendations to the Emergency Services Policy Board:

- One authorized PSAP manager position be allocated to manage the staff, budget, technology and operations.
- For any shift, a lead dispatcher should be assigned. GeoComm recommends that an additional five call taker/dispatchers serve as shift supervisors/leads. GeoComm believes that one lead dispatcher on duty at a time can effectively supervise the size and scope of the operation being recommended. The organization can designate qualified lead dispatchers based on seniority, skill, or a variety of other items.
- Adapt scheduling to include a minimum of two on shift at a time.
- Any increase above this recommended staffing level should include consideration of a dedicated fulltime dispatch supervisor.

### **Ancillary Duties Evaluation**

As noted above, the staffing assessment is based on processing 9-1-1 and non-emergency calls and dispatching calls to appropriate field responders along with the corresponding support activity. If ancillary duties beyond call taking and dispatching are assigned to the PSAP, the impact on staffing must be assessed in addition to these core duties.

GeoComm recommends that as a part of the Portage County Consolidated PSAP implementation plan, each PSAP transition only those ancillary duties which are essential to the core call taking and dispatch function of 9-1-1 service to the communities.

There are many functions being performed by the PSAP personnel in each center that will need to be reassigned, modified, or eliminated upon full consolidation. While some of the ancillary duties identified in the current operations could be assimilated into the Portage County Consolidated PSAP with proper training on community policies, procedures, and resources – additional staffing or duty reassignment may be required. If duties beyond those associated with call taking or dispatching functions are expected and required of the consolidated PSAP, additional staff required to handle those duties will need to be added into the staffing complement and the budget recalculated. These are local decisions and some duties may not be appropriate to transition to the new operation.

The Emergency Services Policy Board should direct the Dispatch Advisory Group to work collaboratively to examine ancillary duties and determine what duties have a reasonable alternative solution that either remain with the current agency in some other form or could be handled by one agency through interagency agreement(s).



The Dispatch Advisory Group should expect that some functions will remain as actions of call taking and dispatch. Just a few examples include:

- Response to National Crime Information Center (NCIC) and National Law Enforcement Telecommunications System (NLETS) query
- Processing warrant inquiries
- Active wanted and other criminal process checks (protective orders, restraining orders)
- Participation in emergency notification via authorized city, county, and statewide programs

When determining the staffing level of the Portage County Consolidated PSAP, GeoComm did utilize call volume numbers beyond 9-1-1, so there will be some flexibility for the Portage County Consolidated PSAP to be responsible for some of the ancillary duties currently handled by the two separate PSAPs.

### **Facilities**

In order to make the best decision possible regarding the current facilities, it is important to note that both PSAPs have no room for expansion within their current dispatch area. The Sheriff's Office building currently houses the Emergency Management Office which with building modification would allow an expansion of their current dispatch area.

This expansion would allow the positions to increase from three to five and include a break area equipped with refrigerator, sink, microwave, PSAP manager office, and a restroom (Appendix C). The dispatch room should be capable of accommodating additional growth for at least ten years of sustained operations.

While this report focuses on existing needs, the county should plan for additional growth as Portage County continues to progress. This centralized expansion should meet those future needs.

An analysis of the facility options based on the information supplied and on-site observation reveals the following:

- The remodeled facility could accommodate the space requirements of the Portage County Consolidated PSAP; however, the Emergency Management Office would need to relocate.
- The Sheriff's Office facility can accommodate the parking requirements.
- The Sheriff's Office facility can provide a secure, access controlled location.
- The remodeling costs of renovating the current facility would be less expensive than those associated with the development of a new PSAP.
- Renovation and construction costs would be primarily confined to one facility.
- The affective and resourceful use of shared spaces and systems is gained when utilizing a centralized site.



- Remodeling the facility while occupying a part of the space can be disruptive and provide a contaminated working environment.

All current PSAP employees are key stakeholders and valuable resources in consolidation discussions involving their space needs. Clearly, they will bring legitimate concerns about their personal future and the roles they will play in a centralized center. Beyond their personal concerns, they are professionals with experience that can help ensure a successful transition to a centralized location.

### **Redundancy, Diversity, and Continuity of Operations Planning**

The PSAPs have not established sufficient levels of redundancy and diversity as prescribed by industry standards and best practices. PSAPs must work diligently to identify a fully capable alternate PSAP to which their Enhanced 9-1-1 (E9-1-1) calls could be routed during a local interruption of service. It is critical for every PSAP to plan for an outage that may be longer than a few hours and affect services beyond 9-1-1 call delivery.

There is the existence of a Memorandum of Understanding from 1998 that establishes an agreement between the City of Stevens Point, the Portage County Sheriff's Office, and Waupaca County for primary and secondary backup in case of emergency.

There are not any detailed procedures to support these actions and plans. There is also no indication of any exercises or drills to practice and refine appropriate procedures to follow should the need arise.

As a result of GeoComm's recommendation to consolidate, the existing agreement must be reevaluated because the opportunity for the city and county to serve as backups for each other would no longer exist with a single PSAP configuration.

Local governments/jurisdictions have always prepared, to the greatest extent possible and within the resources available, to respond to all disasters and emergencies within their jurisdictions. However, over the past two decades, state and local governments and public safety jurisdictions have become increasingly aware of the extent to which disasters and emergencies can interrupt, paralyze, disrupt, and/or destroy capabilities to preserve critical government institutions and perform essential governmental functions effectively under emergency conditions.

The Federal Emergency Management Agency (FEMA) U.S. Department of Homeland Security (DHS) defines Continuity of Operations as is an effort within individual executive departments and agencies to ensure that Primary Mission Essential Functions (PMEFs) continue to be performed during a wide range of emergencies, including localized acts of nature, accidents and technological or attack-related emergencies.



COOP planning is designed to develop and maintain a plan that enables each level of government and jurisdiction within it to preserve, maintain, and/or reconstitute its capability to function effectively in the event of the threat or occurrence of any disaster or emergency that could potentially disrupt government/jurisdiction operations and services.

GeoComm recommends that emergency plans and procedures be fully defined and all PSAP personnel trained for such events.

GeoComm recommends that COOP planning be undertaken immediately through cooperative agreements with Waupaca County or other willing PSAPs. Formalized agreements for backup and alternate routing should be developed for short-term and long-term outages, service interruptions, or inability to access a PSAP facility and relocation of staff and calls is needed. Expectations should be documented, as well as the conditions under which Portage County Consolidated PSAP might use the other for backup or alternate operations.

A single selective router serving the 9-1-1 needs of Portage County without an alternate means to transmit the crucial location data to the PSAP during periods of failure creates another point of potential vulnerability in the network and increases risk. GeoComm recommends that Portage County investigate the opportunities for the integration of dual selective router capabilities within the 9-1-1 network. Telecommunications Service Priority (TSP) is a Federal Communications Commission (FCC) program that contracts with the local telecommunications service provider (wireline and wireless 9-1-1 service providers,) to give preference to restoration of critical service to users enrolled in the program. This service applies to the addition of new lines/service or the restoral of current infrastructure following disruption in service regardless of the cause.

The program is most beneficial during a major disaster or attack in which the telecommunications infrastructure in an area is damaged and the public is most at risk. In these circumstances, telecommunication service providers' restoration crews are often over extended and only those customers enrolled in the TSP program will have their service issues addressed in a timely manner.

GeoComm recommends that due to the vulnerabilities Portage County should initiate an investigation into the costs and process required to implement TSP for the consolidated PSAP.

### **Training**

GeoComm recommends the creation of a transitional training program to prepare existing PSAP staff for operations within the consolidated environment. This should be followed by the full implementation of a new agency training program for new hires of the Portage County Consolidated PSAP.



- GeoComm recommends that each PSAP immediately comply with federal laws identified in the Title II regulations of the Americans with Disabilities Act (ADA) as it relates to the provision of telephone emergency services to people who are deaf, deaf-blind, hard of hearing, or have a speech impairment. PSAPs are required to provide each person assigned within a PSAP who has the responsibility to answer emergency calls with comprehensive training on effectively recognizing and handling teletypewriter (TTY) calls. This is a federal law in effect since 1990 and applies to primary and secondary PSAPs. Further, the Department of Justice requires that each person assigned within a PSAP also receive refresher TTY training as often as other training but at a minimum of every six months. As the group moves to the consolidated PSAP environment, the training must be included in all new hire training and the PSAP must also ensure training and testing occurs within the six month requirement.
- GeoComm recommends that the Portage County Consolidated PSAP acquire formal training for its trainers and transition to an industry accepted formal Communications Training Officer (CTO) program to begin standardized training and/or strengthen existing in-house training. The CTO training program should at a minimum meet the Minimum Training Standards for Public Safety Communications Training Officer - APCO ANS 3.101.1-2007.
- GeoComm recommends that the Portage County Consolidated PSAP develop or acquire a training course for all PSAP personnel which meets or exceeds the Minimum Training Standards for Public Safety Telecommunicators - APCO ANS 3.103.1-2010. The standard identifies minimum training requirements for public safety call takers, fire service dispatchers, law enforcement dispatchers, and EMS dispatchers and will achieve improved responder safety through effective call prioritization, call handling, field unit resource management, radio discipline, and immediate access to additional resources all public safety disciplines. This program further defines the roles of call takers and dispatchers in effective public safety response.
- GeoComm recommends that the consolidated PSAP adopts a formal training program for supervisors which meets or exceeds APCO's Minimum Training Standards for Public Safety Communications First-Level Supervisor.
- As another positive outcome of formal, standardized training, GeoComm recommends that the county establish and participation of a Telecommunicator Emergency Response Taskforce (TERT) in accordance with the APCO/NENA ANS 1.105.1-2009 Standard for TERT. This program leads to the establishment of predetermined and selected trained teams of individuals who can be mobilized quickly and deployed to provide mutual aid and to assist communications centers during disasters and other emergency situations.
- GeoComm recommends that the consolidated PSAP adopt a formal Quality Assurance/Quality Improvement program which evaluates employees on proper call handling and dispatching of all disciplines of resources. APCO International is in the process of formally approving two related standards which should be considered while establishing this program. The candidate training standard is Core Competencies and Minimum Training Standards for Public Safety Communications Quality Assurance Evaluator and the candidate operational standard is entitled Quality Assurance/Quality Improvement.

Although not a current staffing recommendation, GeoComm encourages the county to consider the need for a dedicated PSAP Training Coordinator as the PSAP experiences growth. The staffing analysis results are at the cusp of the baseline for a Training Coordinator recommendation.



## Technology

Through this study, GeoComm has analyzed and documented several technical issues with the existing PSAPs and the 9-1-1 network which should be addressed immediately.

The issues with the single ESN for wireless calls cannot be addressed technically based on Wisconsin law. However, through consolidation this issue can be managed appropriately. The dual answer process for all wireless 9-1-1 calls should be reevaluated if consolidation does not occur. The existing procedure (in which both PSAPs answer simultaneously) has significant risk management and operational concerns. It is also not an industry accepted practice. In most communities with single ESN requirements, all wireless 9-1-1 calls go to a single designated PSAP which then hands the call off to the appropriate secondary agency as necessary.

In addition, the Computer Aided Dispatch (CAD) and Records Management System (RMS) disparity is a significant issue that impacts call processing, sharing of data, and obstructs situational awareness between agencies and field responders.

GeoComm recommends that the Emergency Services Policy Board should establish a CAD subcommittee to examine the issues impacting transition to the current Sheriff's Office PSAP CAD or a new CAD system, including determination of the appropriate technical standards for any coordinated system.

The subcommittee should detail the functional requirements of the system, technical needs, and parameters to ensure that the goal of a centralized single CAD system is met. The CAD system serving the new consolidated center should efficiently handle the diverse needs of law enforcement, fire/rescue, and EMS.

The CAD subcommittee will need to develop detailed transition planning with the goal that ensures that agencies dispatched by the consolidated PSAP will be able to access call reports through local access to the RMS. The final step in the plan is the completion of a fully migrated CAD and subsidiary programs such as RMS on a common platform that has sufficient security measures included to allow access to only authorized users. The subcommittee should also evaluate the cost and efficiency of having the CAD system "export" data to existing or new Records Management Systems. Many RMS systems are designed specifically for a particular public safety discipline. An RMS system that is excellent for law enforcement may not provide sufficient functionality for fire and EMS, which have unique federal reporting requirements. Many agencies select a CAD system that meets their needs and is capable of exporting data to various agency RMS networks. GeoComm has noted that many agencies struggle to find a single RMS system that meets the needs of all user agencies. Given open standards platforms and new data transfer standards, the option for separate CAD and RMS should be considered.



The CAD subcommittee should evaluate expanded technology to directly assist field units with information flow. With appropriate technological advances, sensitive information can be provided quietly, in real-time to responders. In addition, resources such as photographs, building floor plans, closed circuit television feeds and audio monitoring of an evolving scene can be transmitted directly to the most appropriate unit. Next Generation 9-1-1 systems will allow a great deal of data and information collection by the PSAP. Much of this information will have tactical and operational relevance. A mobile data platform will be needed in order to “push” some of this information out to responding law enforcement, fire/rescue, and EMS personnel.

GeoComm understands that the radio systems issues are being addressed under a separate project. The age of the radio system and the lack of sufficient channels is another critical concern. Efforts to continue toward the upgrade to the radio system should continue.

In addition, WISCOM is a new trunked statewide radio system that is being planned through grant funding. As part of this initiative, dispatch will have a four channel unit to talk with state patrol.

GeoComm believes that through the transition to consolidation, these areas must be recognized for their criticalness and serve as a driving force which encourages and motivates all stakeholders to work together as a team to improve and enhance the overall public safety system in Portage County.

### **Operational Procedures and Standards**

Operational standards and procedures are an equally important piece of any public safety communications center. Public safety in each community has advanced based in large measure by the standard of service demanded by the community being served. There are a number of “national” standards that can be used as guidelines by governing bodies in establishing the level of service being provided to the community.

The National Emergency Number Association (NENA); the Association of Public Safety Communications Officials, International (APCO); the National Fire Protection Association (NFPA); the Federal Emergency Management Agency (FEMA); the Commission on Accreditation for Law Enforcement Agencies (CALEA), and others have each established various standards and guidelines that provide guidance to public safety agencies on their communications operating systems and facilities.

NENA promotes planning, training, research, and education as well as the technological advancement, availability and implementation of a universal emergency telephone number system (9-1-1). NENA has developed a series of technical and operational information and requirement documents focused on the PSAP aspects of a public safety communications center.



The NENA Call Answering Standard/Model Recommendation (NENA 56-005) is a standard for answering 9-1-1 calls. Ninety percent of all 9-1-1 calls arriving at the PSAP shall be answered within ten seconds during the busy hour (the hour each day with the greatest call volume, as defined in the NENA Master Glossary 00-001). Ninety-five of all 9-1-1 calls should be answered within 20 seconds. The recommended staffing level of the Portage County Consolidated PSAP would allow the PSAP to comply with this standard.

The National Fire Protection Association is an international nonprofit membership organization which develops consensus codes and standards, research, training, and education on fire prevention and public safety. The NFPA's Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems (NFPA 1221) provides guidance on many public safety communications matters including communications center design and operations. Public safety communications centers and system must function under all conditions. They must provide the highest degree of reliability feasible in order to assure continuous functionality. The provisions contained in NFPA 1221 when implemented are key aspects of having a reliable, continuously functioning center.

NFPA 1221 establishes that:

- Ninety-five percent of alarms shall be answered within 15 seconds and 99 percent of alarms shall be answered within 40 seconds. (SECTION 7.4.1)
- Ninety-five percent of emergency dispatching shall be completed within 60 seconds. (SECTION 7.4.2)

GeoComm recommends the consolidated PSAP to comply with each of these standards. It is important that the PSAP formalize a set of performance expectations to which it will be held accountable. User agencies being dispatched by the consolidated PSAP, as well as the public, need to understand what level of efficiency is expected with the emergency dispatch system. These performance standards should be tracked and reported on a monthly basis. Failure to achieve success in a given standard may indicate the need for additional personnel or technology resources. The justification for those resources can be linked back to the performance standard.

In some consolidation efforts, the politics influence an ongoing disjointedness or separatism after consolidation which can negate the benefits of such a move and significantly damage the employee's morale. Countering these potential issues can be accomplished through effective management of the transition and the management philosophy of the Portage County Consolidated PSAP.

As the agencies transition to the consolidated environment, it is critical to the effective operations of the Portage County Consolidated PSAP for retained employees from both PSAPs to feel included in certain, appropriate decisions and be identified with the new consolidated PSAP. The management approach should be team-oriented and will be enhanced with a designated PSAP manager. There should be established and



communicated a clear mission to provide the highest quality of emergency services to the citizens of Portage County and all public safety responders regardless of agency affiliation.

### **Financial**

Funding PSAP operations requires more than simple fiscal accountability. Careful attention must be focused on appropriate service levels to ensure public trust and fulfill the essential function of responsible government. GeoComm has reviewed the current Portage County and Stevens Point PSAP operational budgets and projected future expenditures under various alternative structures. This section of the report provides a fiscal summary that will support decision-making for both the short and long-term interests of participating agencies.

In the Existing Conditions report, GeoComm provided details about Wisconsin's adoption of a funding mechanism to reimburse local telecommunications exchange carriers for the landline telephone network expenses incurred to implement and operate an Enhanced 9-1-1 (E9-1-1) system. Under the current structure, no portion of the landline 9-1-1 surcharge is remitted to any local government or state agency. County and municipal governments that operate a landline public safety answering point fund all equipment, training, and salary expenses of the PSAP through the county or municipal budget. The landline 9-1-1 surcharge is limited to the recovery of telecommunications network expenses specific to a given county.

The participating telephone carrier's costs of providing 9-1-1 service in a given county are pooled, and a common surcharge rate is billed to each wireline access line in the county regardless of the interconnecting local carrier. The amount of the surcharge varies from one county to the next, based upon the cost of the 9-1-1 network and the number of billable access lines in each county. The Portage County surcharge is currently set at 0.36 cents per wireline access line. The 0.36 cents is paid directly to the telephone companies with no money passing through to either city or county budget.

Currently, Portage County funds the PSAP 9-1-1 costs (telephone equipment, repairs, and maintenance) through the Emergency Management Office.

Each PSAP receives budget allocations through its governing body for personnel, radios and other expenses associated with the operation of the PSAP.

This financial information is designed to provide a snapshot of the operational costs involved in establishment of the Optimum Model. The purpose of this exercise is not to provide exact budgetary information but to provide sufficient cost detail permitting local agencies to evaluate the feasibility of moving forward with the proposed model. GeoComm requested detailed budget information from each of the participating agencies. The financial assessment is based on the following criteria:



1. Total of current costs of the participating agencies to the extent disclosed. It should be noted that many of the overhead and support expenses, particularly for Stevens Point, are imbedded in the larger police department budget and therefore difficult to identify.
2. Identification of budget estimates for general expenses of the recommended model, integration of the Stevens Point PSAP into the existing Portage County PSAP within the Portage County Sheriff's Office.
3. Identification of any prospective costs or cost savings over the next five years.

In order to establish a baseline for cost savings, GeoComm examined the current operations of the Portage County PSAP and the Stevens Point PSAP under the approach that any deficiencies in the current structure may not provide an appropriate cost comparison model to a theoretically perfected model. In other words, it would not be appropriate for the elected officials of Portage County to compare an operation that is understaffed or one that has deficient equipment or facilities to a new fully staffed state-of-the-art operation and claim that all of the projected costs are a result of the consolidation.

In fact, GeoComm's assessment of the revenue and expense requirements of the recommended model reveals that initially costs will be higher than the currently separated costs due to a number of important factors:

1. Current staffing levels at both PSAPs are below a level that GeoComm could recommend based on current call load and field response activity.
2. Facility improvements are needed at both PSAPs.
3. Equipment improvements are needed at both PSAPs.
4. Training, supervision, and management structure improvements are needed at both PSAPs.

In order to conduct an assessment of the true cost of consolidation, the cost of the current operations should be brought into alignment with the optimum levels of the proposed operation. This approach, while sound, is extremely challenging due to the aforementioned benchmarking difficulty.

For this reason, GeoComm urges Portage County and the City of Stevens Point to place a higher priority on evaluating the service improvements than attempting to justify cost savings over current operations. This is best accomplished with an understanding that the current operation is sub-baseline. It should also be noted that there are many implementation planning decisions that must be made in the transition process. These implementation decisions will result in costs or cost savings that may be greater or less than projected. The duplication of technology, facility, and staff that exists today with the two PSAPs is apparent and at the very least, a simple combined operation would be more efficient than the two independent PSAPs.



While cost savings will not be realized initially, GeoComm recommends a consolidated PSAP operation as the best direction for the county. Reducing the duplication of services will result in improved service delivery, better utilization of taxpayer dollars, and long-term financial stability which meets the county’s goal of selecting a consolidation solution that provides the best overall operational and financial benefit for providing public safety services to the communities’ citizens.

For the purposes of our analysis, GeoComm has used the reported combined budgets of Portage County Sheriff PSAP, Portage County Emergency Management (9-1-1), and Stevens Point PSAP budgets as a starting point for assessment. The combined budget for the two PSAPs is \$1,783,2671. As noted previously, this figure is based on reported budgets. The financial information is nonetheless a valuable planning and decision making tool. The budget will be impacted by decisions made by the Emergency Services Policy Board and will fluctuate based on determined staffing levels, CAD system, training, facility accommodations, etc. In addition, there will be transitional costs in order to have a smooth move to consolidation. This should not be overlooked in the planning process.

The following chart details a combined budget of the Portage County Sheriff PSAP, Portage County Emergency Management (9-1-1), and Stevens Point PSAP.

Categories	Combined Budgets of Portage County Sheriff PSAP, Portage County Emergency Management (9-1-1), and Stevens Point PSAP
Salaries (does not include PT PSAP Manager) <sup>1</sup>	\$ 782,448
Overtime	\$ 22,500
Payroll Expense (includes social security, workers compensation, and FICA hospital tax)	\$ 46,027
Benefits	\$ 345,035
Communications Tower Rent/Maintenance	\$ 37,405
Telephone/Teletype	\$ 9,500
Wireline/Wireless 9-1-1	\$ 14,382
Travel/Training Expense	\$ 4,485
Radio Console Maintenance	\$ 8,500
Repairs and Maintenance	\$ 10,000
Telephones	\$ 25,984
VPN Software	\$ 17,000

<sup>1</sup> Salaries included current salary budgets that support 9-1-1 provided by Stevens Point PSAP, Portage Sheriff’s Office PSAP, and Emergency Management. Specific salary budgets are broken out for the Portage County Consolidated PSAP in the following chart.



Categories	<b>Combined Budgets of Portage County Sheriff PSAP, Portage County Emergency Management (9-1-1), and Stevens Point PSAP</b>
CAD Procurement and Five Year Maintenance	\$ 460,000
<b>Total Operational Budget</b>	<b>\$ 1,783,267</b>

\*CAD procurement costs and VPN software are included in the budget and amount is based on a quote provided to Stevens Point.

The budget for a consolidated PSAP within the current Portage County Sheriff's Office operation is projected in the following chart.

<b>Portage County Consolidated PSAP within the Sheriff's Office Operation Operating Budget</b>	
Manager Salaries	\$ 70,000
Supervisor/Lead Salaries	\$ 230,000
Dispatcher/Call Taker Salaries	\$ 880,000
Overtime	\$ 50,000
Payroll Expense (includes social security, workers compensation, and FICA hospital tax)	\$ 110,700
Benefits	\$ 425,580
Communications Tower Rent/Maintenance	\$ 37,405
Telephone/Teletype	\$ 10,000
Wireline/Wireless 9-1-1	\$ 15,000
Travel/Training Expense	\$ 13,000
Radio Console Maintenance	\$ 10,000
Repairs and Maintenance	\$ 10,000
Telephones	\$ 26,000
VPN software	\$ 17,000
CAD Procurement and Five Year Maintenance	\$ 460,000
<b>Total Operational Budget</b>	<b>\$ 2,364,685</b>

\*CAD procurement costs and VPN software are included in the budget and amount is based on a quote provided to Stevens Point.

Renovations of the current Portage County Sheriff's Office PSAP facility would be required as part of the consolidation implementation. Although the cost of these renovations is projected to be approximately \$65,000 the costs are not attributable to consolidation. The Portage County capital improvement project



which was started in May 2012 has already accounted for the additional needed space and therefore, there would be no additional costs involved in remodeling and expanding this space to accommodate additional personnel.

GeoComm's recommendation is for a single consolidated PSAP serving the entire county within the Sheriff's Office structure. GeoComm realizes that it is a local decision on how the PSAP is funded and recommends establishment of a fair and equitable cost-sharing model. In order for any potential consolidation to be successful, an equitable cost-sharing methodology must exist.

GeoComm recommends that the Emergency Services Policy Board establish a fair and equitable cost-sharing model based on political demographics and/or workload indicators. There are a number of cost-sharing formulas that could support the consolidated PSAP such as percentages based on:

- Population
- 9-1-1 Call Volume
- Events Dispatched
- Assessed Valuation

In the recommended option, GeoComm suggests that the percentage of total calls for service be the factor for an equitable cost-sharing methodology. Each participating agency should contribute financially to the overall cost of the operation. The amount of the financial contribution should equal the agency's impact on the operation. For example, an agency responsible for 15 percent of total workload should contribute 15 percent of the total cost of the operation. 2010 call volume data for each community should be used to determine the initial cost-share percentages and this amount should be adjusted annually to account for call volume fluctuations.

GeoComm also recommends that the Emergency Services Policy Board establish a transition plan that requires staff and financial support. While some costs will be minimized by utilizing an existing facility, there are local transition decisions and correlating cost impacts may potentially include:

- Building renovations including dispatch position furniture
- PSAP equipment additions/replacement/relocation
- Radio equipment additions/replacement/relocation
- CAD assessment and transition
- Service level agreements
- Radio channel dispatch support
- Legal services
- Staffing and supervisory span of control decisions



- Standard Operating Procedure (SOP) review and modification
- Training
- Overtime

GeoComm attempted cost comparisons of the current and combined operations; however, it is was not possible to be confident in these projections due to the current understaffed environment, PSAP budgets embedded in agency budgets, and the unknowns of local decisions and efforts that would be completed during the transition and implementation process.

Initially consolidation would likely result in a higher cost amount due to increased staffing and transitional costs. It will take several years to see a true “cost savings” due to the undercapitalized operation today; however, service improvements and a more collaborative 9-1-1 environment will be realized immediately as will more efficient allocation of public funds.

GeoComm believes that the consolidated PSAP will require a healthy fund balance or starting operational fund balance for unforeseen transition costs. The Emergency Services Policy Board should determine the specific level of contingency but it is recommended that the amount be sufficient to cover, at a minimum, six months of operations. The level of contribution from each existing agency to the operational fund balance should be determined and should be commensurate with an appropriate value such as communities served, call volume, or dispatch volume.

In addition, it will be necessary for the Emergency Services Policy Board to develop a multi-year Capital Improvement Plan (CIP). The CIP development is an essential part of long range planning for the organization to help ensure the long-term health of the operation and to fulfill the appropriate level of fiscal responsibility to its member communities. CIP identifies the life cycle of critical components of the systems used in the PSAP and will assist with financial planning to replace those critical elements before they become risk to the agency.

The CIP should include considerations of 9-1-1 equipment, computer and telephony components, generators, UPS systems, HVAC, major building repairs such as roofing, pavement resurfacing or windows, 9-1-1 position furniture replacement, and CAD. The CAD discussion will be a crucial discussion item for the Emergency Services Policy Board to address early in the transition process.

GeoComm recommends that the CAD transition occur at the same time as the physical relocation of the Stevens Point PSAP to consolidated Portage County PSAP. Stakeholders should be aware that the move could be more expensive with the installation of remote servers but it is a justified expense when compared to relocating a CAD that is being phased out.



### **Short-term and Long-term Solutions for Consolidation**

GeoComm believes that the information, recommendations and other data provided in this report will serve Portage County well in your consolidation efforts or even if no consolidation were to every take place. As described throughout the report there are recommendations which should be implemented in the short-term such as compliance with the Americans with Disabilities Act (ADA), converting the city of Stevens Point to the new Computer Aided Dispatch (CAD) system, and collaboration on operational and response protocols.

The long-term considerations include the remodel of the sheriff's PSAP area, radio upgrade, any necessary equipment upgrades for Next Generation 9-1-1 (NG9-1-1), and the full integration of Stevens Point dispatching services into the Portage County Consolidated PSAP.

Portage County and the cities of Stevens Point and Plover took the first steps of the journey towards consolidation with the work of the Technical Working Group in Phase I and engaging GeoComm in Phase II with the development of this consolidation implementation plan.



# Preliminary Implementation Planning

The following list of preliminary implementation planning recommendations will assist Portage County, the Emergency Services Policy Board, and the Dispatch Advisory Group in the completion of the transition to the new consolidated Public Safety Answering Point (PSAP). An implementation timeline is also included within this section.

## Oversight and Authority

### Recommendation 1

The county should establish an Emergency Services Policy Board and expand the existing Dispatch Advisory Group to include direct and indirect representation from the participating entities. The chief law enforcement position in the county, the Portage County Sheriff or designee, should be the designated chair of the Emergency Services Policy Board.

### Recommendation 2

The Emergency Services Policy Board should provide input for a mission statement and strategic planning framework that includes goals, objectives, and action plans to formalize interlocal agreements, service delivery standards, staffing models, minimum technology requirements, funding sources, ancillary duty transition decisions, and cost-sharing methodologies that would apply to a consolidated communications operation.

### Recommendation 3

The implementation planning efforts should include call taking and dispatch protocols developed with a focus on service delivery. The Dispatch Advisory Group should agree upon the processes by which protocols will be periodically reviewed and modified, as necessary.

### Recommendation 4

The Dispatch Advisory Group should serve as a steering committee to begin the necessary implementation and transition planning at the operational and technical level.

### Recommendation 5

The Dispatch Advisory Group should develop a new Continuity of Operations Plan (COOP).

### Recommendation 6

The Dispatch Advisory Group should provide input in the development of standardized job descriptions and participate in detailed personnel planning to include examination of existing collective bargaining agreements, personnel policies, compensation and benefits, career paths, and training.



## Facility

### Recommendation 7

New console workstations in the Portage County Consolidated PSAP should be purchased to house all required equipment. We recommend employee involvement in review of options.

### Recommendation 8

Lighting capability in the Portage County Consolidated PSAP should have a wide range of adjustments. Individual lighting at each position is most preferred. We recommend employee involvement in review of options.

## 9-1-1 System and Telephone

### Recommendation 9

All operators should wear headsets while on duty. This eliminates the background noise and assists with noise canceling capability during emergency calls.

### Recommendation 10

All speed dial assignments programmed into the telephone system should be checked and validated and new speed dial assignment should be identified and programmed.

### Recommendation 11

If Voice over Internet Protocol (VoIP) lines are used, it is recommended that one analog dial tone circuit be provided on a standard telephone set that does not require electricity. This is necessary to allow for emergency notification in the event of a catastrophic system failure.

### Recommendation 12

The county should evaluate various other speed dial and ringdown lines to area hospital and other critical facilities located within the county.

### Recommendation 13

It is recommended that certain equipment be permanently assigned to the Portage County Consolidated PSAP to facilitate continued operations and evacuation of the Center, including cell phones, portable radios, printed copies of critical resource contacts and agency personnel phone numbers (including office, home, and cell phones) and other equipment deemed necessary by management.

### Recommendation 14

It is recommended that a 9-1-1 trunk study be performed on an annual basis to ensure trunking capacity for Portage County and their citizens.



**Recommendation 15**

It is recommended that Portage County continue with advancement to upgrade or replace current customer premise equipment to include Management Information System (MIS) for all agencies.

**Computer Aided Dispatch System****Recommendation 16**

It is recommended that 9-1-1 Automatic Number Identification/Automatic Location Identification (ANI/ALI), Mapping, Emergency Medical Dispatch (EMD), Records Management System (RMS), and National Crime Information Center (NCIC) interface with the Computer Aided Dispatch (CAD) for all agencies.

**Recommendation 17**

A team composed of technical and operational personnel should review all response area assignments and incident response patterns to insure that the CAD system has up to date information which reflects the needs of each agency.

**Recommendation 18**

A team composed of technical and operational personnel should review dispatch protocols and establish common call classes and recommendation tables in the CAD for each participating agency.

**Recommendation 19**

A series of meetings should be scheduled with all participating agencies to evaluate and review available applications that could extend functionality and their use in the communications center and in the field of the mobile data computers.

**Recommendation 20**

GeoComm recommends that the Dispatch Advisory Group provide input on the establishment of a CAD subcommittee to examine the issues impacting transition to the current or a new CAD system, including determination of the appropriate technical standards for any coordinated system. The subcommittee should detail the functional requirements of the system, technical needs, and parameters to ensure that the goal of a centralized single CAD system is met.

**Personnel Recruitment and Hiring****Recommendation 21**

The county should hire/select a civilian supervisor/manager to operate and manage the consolidated communications center. This individual should have prior public safety supervisory experience and who can enter the position with sufficient knowledge to support a consolidated operation.



**Recommendation 22**

It will be crucial for the Portage County Consolidated PSAP to develop human resources policies to guide the development of the staff. The policy should contemplate the issues of retention of incumbent employees, pay and benefits and work rules.

**Recommendation 23**

The county should establish a set of job descriptions, benefits, and salary ranges that are commensurate to the existing employee structure of all agencies. Entry level salary should be commensurate with the applicant's prior dispatching experience.

**Recommendation 24**

The county should hire 20 public safety dispatchers, five supervisors/designated leads, and one civilian supervisor/manager to meet the necessary staffing requirements for the consolidated communications center.

**Recommendation 25**

Portage County shall establish a minimum staffing pattern of two dispatchers on duty at all times in order to comply with applicable NFPA standards and industry accepted guidelines regarding public safety communication center staffing.

**Recommendation 26**

The county should use a pre-employment testing standard for new applicants. Validated programs are in place for successful hires in the emergency services dispatch services environment. Several of these programs available are Criticalll, Perfex, and BPAD.

**Recommendation 27**

All non-dispatch personnel used for shift coverage and back-fill should be trained to the same standard as the civilian dispatcher work force and should be expected to perform to the same level as the civilian dispatchers with regard to policy, procedure, and compliance with all Standard Operating Procedures (SOP's).

**Recommendations 28**

All non-dispatch personnel used for shift coverage and back-fill should work a minimum of six hours a month to maintain their dispatch readiness status. The county faces a liability exposure if it allows a part time dispatcher to work in the communications center following a long absence without remedial training or competency checking.



## Training

### Recommendations 29

GeoComm recommends that each PSAP immediately comply with federal laws identified in the Title II regulations of the Americans with Disabilities Act (ADA) as it relates to the provision of telephone emergency services to people who are deaf, deaf-blind, hard of hearing, or have a speech impairment.

### Recommendation 30

GeoComm recommends that the Portage County Consolidated PSAP acquire formal training for its trainers and transition to an industry-accepted formal Communications Training Officer (CTO) program to begin standardized training and/or strengthen existing in-house training. The CTO training program should at a minimum meet the Minimum Training Standards for Public Safety Communications Training Officer - APCO ANS 3.101.1-2007.

### Recommendation 31

GeoComm recommends that the Portage County Consolidated PSAP develop or acquire a training course for all PSAP personnel which meets or exceeds the Minimum Training Standards for Public Safety Telecommunicators - APCO ANS 3.103.1-2010. The standard identifies minimum training requirements for public safety call takers, fire service dispatchers, law enforcement dispatchers, and EMS dispatchers and will achieve improved responder safety through effective call prioritization, call handling, field unit resource management, radio discipline, and immediate access to additional resources all public safety disciplines.

### Recommendation 32

GeoComm recommends that the consolidated PSAP adopts a formal training program for supervisors which meets or exceeds APCO's Minimum Training Standards for Public Safety Communications First-Level Supervisor.

### Recommendation 33

GeoComm recommends that the consolidated PSAP adopt a formal Quality Assurance/Quality Improvement program which evaluates employees on proper call handling and dispatching of all disciplines of resources.

### Recommendation 34

GeoComm recommends that the county consider establishing and participating in a Telecommunicator Emergency Response Taskforce (TERT) in accordance with the APCO/NENA ANS 1.105.1-2009 Standard for Telecommunicator Emergency Response Taskforce (TERT).



**Recommendations 35**

The new communications supervisor/manager should develop a formal, written training plan for all employees that will include sufficient classroom instruction for all employees to receive information on agencies policy and procedure, work rules, dispatch procedures, and other administrative tasks.

**Recommendation 36**

The consolidated PSAP should establish and maintain a set of training records which document the training provided to each employee and implement a system to monitor recertification dates.

**Recommendation 37**

At a minimum, the county should register the communications supervisor/manager as a member in the Association of Public Safety Communications Officials (APCO) [www.APCO911.org](http://www.APCO911.org), and National Emergency Number Association (NENA), [www.NENA.org](http://www.NENA.org). The communications supervisor/manager should also be encouraged to join other local and regional organizations that support public safety communications.

**Recommendation 38**

The communications supervisor should attend APCO/NENA conferences to attend classes and view the latest in public safety technology and meet with managers from other centers who can provide valuable information and document sharing.

**Radio System****Recommendation 39**

It is a recommendation for the continued advancement of the radio system project and to review and develop a future upgrade to the current system to include appropriate future channel capability for all agencies.

**Quality Assurance/Best Practices****Recommendation 40**

The county needs to fully define the internal PSAP processes for alternate routing and this should be clearly outlined within local Standard Operating Procedures (SOPs). These procedures should be verified by the service provider as being the accepted method of handling interruptions of service and exercised on a regular basis with appropriate assessment.



**Recommendation 41**

It is critical for every PSAP to plan for an outage that may be longer than a few hours and affect services beyond 9-1-1 call delivery. The consideration of how to alert and dispatch a response agency must be included for a complete operations plan. The continuity of operations plans should be established and exercised during periodic training scenarios. After the training, a credible after action report should be developed to provide documentation of needed improvements in the sustainability and survivability of critical emergency communications network functions.

**Recommendation 42**

As part of the quality assurance process, the centralized center should adopt a policy of mandatory reportable events that may occur in the communications center, including dispatch to wrong location, a second 911 call from the original caller, certain equipment failures, geo errors discovered in the CAD system, 9-1-1 addressing error, etc. The intent of the policy is to insure that issues are brought to the attention of the supervisor/manager for necessary corrective action.

**Financial****Recommendation 43**

The Emergency Services Policy Board should establish a transition plan that details staff and financial support from the affected agencies. Costs will be minimized by utilizing an existing facility; however, there are local transition decisions and correlating cost impacts including:

- Building renovations including dispatch position furniture
- PSAP equipment additions/replacement/relocation
- Radio equipment additions/replacement/relocation
- CAD assessment and transition
- Service level agreements
- Radio channel dispatch support
- Legal services
- Staffing and supervisory span of control decisions
- Standard Operating Procedure (SOP) review and modification
- Training
- Overtime



**Recommendation 44**

Portage County should establish a healthy fund balance or start operational fund balance for unforeseen transition costs. The Emergency Services Policy Board should determine the specific level of contingency but it is recommended that the amount be sufficient to cover, at a minimum, six months of operations. The level of contribution from each existing agency to the operational fund balance should be determined and should be commensurate with an appropriate value such as communities served, call volume, or dispatch volume.

**Recommendation 45**

The Emergency Services Policy Board should develop a multi-year Capital Improvement Plan (CIP). The CIP development is an essential part of long range planning for the organization to help ensure the long-term health of the operation and to fulfill the appropriate level of fiscal responsibility to its member communities. CIP identifies the life cycle of critical components of the systems, such as 9-1-1 equipment, computer and telephony components, generators, UPS systems, Heating, Ventilating, and Air Conditioning (HVAC), major building repairs such as roofing, pavement resurfacing or windows, 9-1-1 position furniture replacement, and CAD that are used in the PSAP. The CIP will assist with financial planning to replace those critical elements before they become risk to the agency.

**The preliminary implementation timeline is located on the following page. The estimated implementation timeline is approximately six months and the dates shown are for example purposes only.**



### Portage County PSAP Relocation Plan

ID	Task Name	Duration	Start	Finish	Qtr 1			Qtr 2			Qtr 3					
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
1	<b>Six Months Prior to Relocation Date</b>	<b>23 days</b>	<b>Tue 1/1/13</b>	<b>Thu 1/31/13</b>												
2	Approval of project and funding authorization by Portage County and City of Stevens Point	23 days	Tue 1/1/13	Thu 1/31/13												
3	Identify and meet with local primary point of contact per agency with decision making authority	23 days	Tue 1/1/13	Thu 1/31/13												
4	Appointment of Portage County Project Manager	23 days	Tue 1/1/13	Thu 1/31/13												
5	Internal Project Kick-off meeting (Set project team meeting schedule)	23 days	Tue 1/1/13	Thu 1/31/13												
6	Develop final project timeline based on kick-off date	23 days	Tue 1/1/13	Thu 1/31/13												
7	Initiate discussions with AT & T (911SSP) regarding redundant and diverse routing from Local Service Office to PSAP	23 days	Tue 1/1/13	Thu 1/31/13												
8	Meet with architectural firm to establish final construction timeline; review acknowledgement of appropriate standards compliance (NFPA, APCO)	23 days	Tue 1/1/13	Thu 1/31/13												
9	Develop personnel transition plan	23 days	Tue 1/1/13	Thu 1/31/13												
10	Develop training development and delivery plan	23 days	Tue 1/1/13	Thu 1/31/13												
11	Develop CAD & mapping transition plan	23 days	Tue 1/1/13	Thu 1/31/13												
12	<b>Five Months Prior to Relocation Date</b>	<b>20 days</b>	<b>Fri 2/1/13</b>	<b>Thu 2/28/13</b>												
13	Discuss and choose interim dual service option during transition, as needed	20 days	Fri 2/1/13	Thu 2/28/13												
14	Finalize order for 9-1-1 and administrative trunks with LEC	20 days	Fri 2/1/13	Thu 2/28/13												
15	Develop final equipment purchase plan and specifications for all replacement equipment and furniture; provide all standards documentation and RFP documentation as necessary	20 days	Fri 2/1/13	Thu 2/28/13												
16	Issue appropriate RFP procurement documents for all equipment/services	20 days	Fri 2/1/13	Thu 2/28/13												
17	<b>Four Months Prior to Relocation Date</b>	<b>21 days</b>	<b>Fri 3/1/13</b>	<b>Fri 3/29/13</b>												
18	Initiate assignment of FCC license modification requirements	21 days	Fri 3/1/13	Fri 3/29/13												
19	Review, evaluate and select any necessary equipment/services not yet under contract for the project	21 days	Fri 3/1/13	Fri 3/29/13												
20	Issue purchase orders following local purchase, contract agreements	21 days	Fri 3/1/13	Fri 3/29/13												
21	Verify provider action plan and timelines to obtain CPE hardware – Assess impact of selected solution upon building space, layout and services planning	21 days	Fri 3/1/13	Fri 3/29/13												
22	Review/Approve architectural drawings	21 days	Fri 3/1/13	Fri 3/29/13												
23	Issue notice to proceed with construction and establish final constructions timeline	21 days	Fri 3/1/13	Fri 3/29/13												
24	<b>Three Months Prior to Relocation Date</b>	<b>22 days</b>	<b>Mon 4/1/13</b>	<b>Tue 4/30/13</b>												
25	Schedule regular, recurring meeting s/contacts with all contractors, subcontractors, service providers to progress toward completion of the actual transition plan for 9-1-1 and related services	22 days	Mon 4/1/13	Tue 4/30/13												
26	Verify in writing, post meeting that all participants have their elements defined, are moving toward completion of tasks	22 days	Mon 4/1/13	Tue 4/30/13												

### Portage County PSAP Relocation Plan

ID	Task Name	Duration	Start	Finish	Qtr 1			Qtr 2			Qtr 3			
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
27	Resolve conflicts between contractors/vendors regarding responsibility for shared, co-located equipment, power sources, and security which may include vendors for:	22 days	Mon 4/1/13	Tue 4/30/13										
28	Radio	22 days	Mon 4/1/13	Tue 4/30/13										
29	CAD	22 days	Mon 4/1/13	Tue 4/30/13										
30	CPE	22 days	Mon 4/1/13	Tue 4/30/13										
31	Mapping	22 days	Mon 4/1/13	Tue 4/30/13										
32	Logging Recorder	22 days	Mon 4/1/13	Tue 4/30/13										
33	IT Support and Servers (Primary/Redundant) STDS	22 days	Mon 4/1/13	Tue 4/30/13										
34	Electrical	22 days	Mon 4/1/13	Tue 4/30/13										
35	HVAC	22 days	Mon 4/1/13	Tue 4/30/13										
36	Access Controls	22 days	Mon 4/1/13	Tue 4/30/13										
37	<b>Two Months Prior to Relocation Date</b>	<b>23 days</b>	<b>Wed 5/1/13</b>	<b>Fri 5/31/13</b>										
38	Compile paper copies of crucial databases and load onto laptop for transition to temporary PSAP (important phone numbers, agency call-out lists, emergency contacts, etc.)	23 days	Wed 5/1/13	Fri 5/31/13										
39	Verify CAD Server capability to switch over to more workstations and hold emerging data through transition	23 days	Wed 5/1/13	Fri 5/31/13										
40	Review individual progress reports of each contractor for percent completion, timelines, cost containment	23 days	Wed 5/1/13	Fri 5/31/13										
41	<b>Coordinate network installation and equipment room preparations</b>	<b>23 days</b>	<b>Wed 5/1/13</b>	<b>Fri 5/31/13</b>										
42	Verify and install, if not yet done; required racks, cable/wire runs/conduits to Operations Area & Support Space	23 days	Wed 5/1/13	Fri 5/31/13										
43	<b>One Month Prior to Relocation Date</b>	<b>20 days</b>	<b>Mon 6/3/13</b>	<b>Fri 6/28/13</b>										
44	Develop contact list for PSAP staff liaisons per component for use through transition and initial startup period	20 days	Mon 6/3/13	Fri 6/28/13										
45	Begin testing all systems as available that are reported as complete and fully document results	20 days	Mon 6/3/13	Fri 6/28/13										
46	Identify and contact any contractor/service provider that has not responded to previous inquiries as to readiness or has not appeared to have reached acceptable level of project completion	20 days	Mon 6/3/13	Fri 6/28/13										
47	Schedule meeting with all contractors, subcontractors, service providers and external partners to discuss status of their work, components as related to transition plan and timeline for 9-1-1 and related services	20 days	Mon 6/3/13	Fri 6/28/13										
48	Verify in writing, post meeting that all participants have their elements defined, are moving toward completion of tasks.	20 days	Mon 6/3/13	Fri 6/28/13										
49	Resolve any reported conflicts, newly identified needs, modifications of installation plans, equipment or services	20 days	Mon 6/3/13	Fri 6/28/13										
50	<b>Three Weeks Prior to Relocation Date</b>	<b>5 days</b>	<b>Mon 7/1/13</b>	<b>Fri 7/5/13</b>										

### Portage County PSAP Relocation Plan

ID	Task Name	Duration	Start	Finish	Qtr 1			Qtr 2			Qtr 3			
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
51	Accept delivery of new new equipment/furniture and begin installation within new PSAP area	5 days	Mon 7/1/13	Fri 7/5/13										
52	Accept delivery and staging, as requested, of new equipment	5 days	Mon 7/1/13	Fri 7/5/13										
53	<b>Two Weeks Prior to Relocation Date</b>	<b>5 days</b>	<b>Mon 7/8/13</b>	<b>Fri 7/12/13</b>										
54	Review project punch list of statuses to resolve issues and complete all remaining items	5 days	Mon 7/8/13	Fri 7/12/13										
55	Verify installation of equipment, cables and peripherals	5 days	Mon 7/8/13	Fri 7/12/13										
56	Verify PSAP readiness for transition	5 days	Mon 7/8/13	Fri 7/12/13										
57	Finalize staff schedules for transition	5 days	Mon 7/8/13	Fri 7/12/13										
58	<b>One Week Prior to Relocation Date</b>	<b>5 days</b>	<b>Mon 7/15/13</b>	<b>Fri 7/19/13</b>										
59	Staff orientation and training to new Ops area, support space, new equipment and consoles	5 days	Mon 7/15/13	Fri 7/19/13										
60	Staff briefing on transition steps	5 days	Mon 7/15/13	Fri 7/19/13										
61	Training on run card or alternate recordkeeping process(es) for dispatch system	5 days	Mon 7/15/13	Fri 7/19/13										
62	Identify and resolve any conflicts and validate status of each subsystem as of date and anticipated cut-over date	5 days	Mon 7/15/13	Fri 7/19/13										
63	Perform complete backup of electronic files	5 days	Mon 7/15/13	Fri 7/19/13										
64	Complete testing plan for all components to include making test calls to test functionality of related systems	5 days	Mon 7/15/13	Fri 7/19/13										
65	Schedule meeting with all contractors, subcontractors, service providers to discuss actual transition plan for 9-1-1 and related services	5 days	Mon 7/15/13	Fri 7/19/13										
66	Verify in writing, post meeting that all participants have their elements defined, are moving toward completion of tasks.	5 days	Mon 7/15/13	Fri 7/19/13										
67	<b>Day of Cutover</b>	<b>0 days</b>	<b>Fri 7/19/13</b>	<b>Fri 7/19/13</b>										
68	Verify that paper copies of crucial databases are prepared and loaded onto laptop for transition to temporary PSAP (important phone numbers, agency call-out lists, emergency contacts, etc.)	0 days	Fri 7/19/13	Fri 7/19/13										
69	<b>Cutover Operations</b>	<b>0 days</b>	<b>Fri 7/19/13</b>	<b>Fri 7/19/13</b>										
70	Complete all systems functionality testing - Observe for 24 hour period or all shifts	0 days	Fri 7/19/13	Fri 7/19/13										
71	<b>Post-cutover</b>	<b>23 days</b>	<b>Mon 7/22/13</b>	<b>Wed 8/21/13</b>										
72	Relocation Project Final Report to all stakeholders including performance issues, concerns as well as action plans for any pending final acceptance of any provider	23 days	Mon 7/22/13	Wed 8/21/13										

While the issues that the agencies of Portage County will face when embarking on a transition to the Optimum Service Model will seem extremely challenging at times, GeoComm urges stakeholders to look past those issues in order to improve public safety service in the county and achieve service delivery consistent with the goals and criteria established by the Technical Working Group in Phase I of this project.

Similar to working toward improvements in the current structure, the biggest challenges will be confronting and resolving the existing apprehension towards the consolidation concept; however, it is achievable through coordination, cooperation, and collaborative efforts. One hurdle of this model may be overcoming resistance to transition to a consolidated entity. GeoComm understands it will take significant effort by all agencies that participate for it to be successful. There will likely be challenges at the local level as the transition becomes a political “hot” topic.

Some will perceive this model as an erosion of their power, too time intensive, or disruptive to current service; however, the result will be a 9-1-1 model that meets industry standards, provides a streamlined service to the community, and achieves the goals and criteria.

GeoComm realizes that transition to the Portage County Consolidated PSAP and a more centralized and collaborative 9-1-1 environment across the county will require significant planning and will not happen overnight. GeoComm presents this report to provide a foundation for transition and implementation to an improved countywide 9-1-1 system.

GeoComm is proud to have been a partner with you in this critical endeavor.



## Independent Consolidated Communications Center Facility Specifications

Area	Quantity	Size (square feet)	Total
Manager's Office	1	230	230
Shared Office	1	140	140
Dispatch/Call Taker Positions	4	100	400
Supervisor/Lead Positions	1	100	100
Technical Services Office	1	140	140
Administrative Office/Reception Area	1	320	320
Kitchen/Break Room	1	320	320
Small Conference	1	140	140
Training Room/Training Simulator	1	640	640
Copy, File, Work Room	1	120	120
Equipment Room (IT and Radio)	1	320	320
Restroom, Lockers, and Showers	2	450	900
Storage	1	140	140
Total			3,910
Building Circulation 15%			587
Building Services 10%			391
Gross Building Spaces			4,888
Parking Spaces		30 <sup>1</sup>	3,900
Parking Circulation 15%			585
Parking Lot Space			4,485
Description	Size (square feet)	Price (square feet)	Subtotal
Facility	4,888	\$210	\$ 1,026,480
Parking Lot and Exterior	4,485	\$30	\$ 134,550
Total Facility Cost			\$ 1,161,030
Architectural and Engineering Cost			\$ 140,000
Consolidated Communications Center Extended Total			\$ 1,301,030

<sup>1</sup> Parking to accommodate shift change, administrative staff, and off-duty training attendees.



*GeoComm's space recommendations/estimates are based on our Public Safety Answering Point (PSAP) expertise, best practices, and various other similar planning efforts for new PSAP facilities that our team members have been involved in. In addition, GeoComm finds that it is common for many communities to have formal facility managers and potentially local space standards (i.e., a department director's office is "X number of square feet," manager's office is "X number of square feet," etc.). Our facility specifications sheet is intended to be a guide for cost estimating, and GeoComm expects that specific space allocation recommendations would be sought from the architect who works with available building footprints. In addition, the consolidated facility construction estimates presented in this report do not include real estate acquisition, land preparation, or furnishings.*



## Options Operating Budgets

Operating Budget Categories	Consolidated Portage County PSAP	Independent Agency
Salaries	\$ 1,180,000 <sup>1</sup>	\$ 1,263,000 <sup>2</sup>
Overtime	\$ 50,000	\$ 50,000
Payroll Expense <sup>3</sup>	\$ 110,700	\$ 118,170
Benefits	\$ 425,580	\$ 454,298
Communications Tower Rent/Maintenance	\$ 37,405	\$ 37,405
Telephone/Teletype	\$ 10,000	\$ 10,000
Wireline/Wireless 9-1-1	\$ 15,000	\$ 15,000
Travel/Training Expense	\$ 13,000	\$ 14,000
Radio Console Maintenance	\$ 10,000	\$ 10,000
Repairs and Maintenance	\$ 10,000	\$ 10,000
Telephones	\$ 26,000	\$ 26,000
VPN Software	\$ 17,000	\$ 17,000
CAD Procurement and Five Year Maintenance	\$ 460,000	\$ 460,000
<b>Total Operational Budget</b>	<b>\$ 2,364,685</b>	<b>\$ 2,484,873</b>
Facility Construction/Renovation	-	\$ 1,301,000
<b>Extended First Year Cost</b>	<b>\$ 2,364,685</b>	<b>\$ 3,785,873</b>

<sup>1</sup> This budget item includes manager salaries, supervisor/lead salaries, and dispatcher/call taker salaries. The salary breakout is included in Section 4 of this report, page 4-21.

<sup>2</sup> The salary budget for creating a new governmental entity will require additional office, human resources, financial, and technical support. These additional costs account for the higher salary budget line item for the independent operation. In addition to manager salaries, supervisor/lead salaries, and dispatcher/call taker salaries; GeoComm has included budgetary salary estimates for technical services and administrative services.

<sup>3</sup> Payroll expense includes operating budgets for social security, workers compensation, and FICA hospital tax.



# Portage County Sheriff's Office Remodel

Neither Public Safety Answering Point (PSAP) as currently designed have adequate space to support the consolidated PSAP. However, the Portage County Sheriff's Office is currently undertaking a remodel that would incorporate the current emergency management office space which is inside the Sheriff's Office building. The remodel is currently underway with anticipated completion by the end of 2012. This is budgeted within the Capital Improvement Project #30-12-02. The following floor plan was provided by the Portage County Sheriff's Office and is the first draft of the plans.

