AN EVALUATION OF REVERSE 911 AS AN EFFECTIVE COMMUNITY ALERTING SYSTEM TO AUGMENT THE ROLE OF EMERGENCY MANAGEMENT

EXECUTIVE ANALYSIS OF FIRE SERVICE OPERATIONS
IN EMERGENCY MANAGEMENT

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ABSTRACT

The days of the air raid sirens are well embedded in our history; however the communities across the United States still rely on this technology to provide warnings to the community in the event of severe weather and other dangerous or hazardous conditions. These messages may also be disseminated through the resources of the local or regional media which requires the general population to physically have these media resources turned on at all times which is an unrealistic commitment.

The purpose of this applied research project is to evaluate the Reverse 911 service as a public alerting and communication tool, and to briefly compare it to existing communication resources currently used by the fire department to inform the public on emergency management incidents that may occur in the City.

The evaluative research methodology was used through literature research including electronic web searches, the use of electronic list servers, phone polling of specific focus groups, and personal interviews to formulate recommendations for the emergency management function of the fire department including:

1. In the event of an emergency incident requiring immediate incident information disseminated to the public, what methods are currently in-place to deliver the intended message and what kind of time-line could be expected to deliver this message?
2. How does Reverse 911 and what kind of computer system and phone system support is required for operation?
3. What kind of services Reverse 911 provide in terms of delivering information to the public?

4. What are the estimated costs associated with implementing and maintaining Reverse 911, and what kind of budget dollars may be identified to fund this project.
5. If Reverse 911 is right for the City of Branson, would it be advantageous to make the service available county-wide?

The results of this applied research project included the opportunity to utilize Reverse 911 for residential and commercial properties with specific regard to the demographics of the City of Branson as a tourist based community. An opportunity to rapidly provide emergency information through the phone system to alert a community that may see an average of up to 50,000 visitors each day, with a majority of these guests visiting or staying at designated target hazards such as the theaters or lodging facilities. This applied research project also provided the direction to establish this program county-wide which required minimal financial impact compared to the base price serving just one individual city.

Recommendations included obtaining detailed information and literature to be prepared by the company for all county fire and emergency managers to review. The next step would be to have all of these agencies meet to support the program for final proposal to the County Commissioners as funding is recommended through the County's 911 administration office.

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INTRODUCTION

Being able to communicate effectively is important for both you and your fire department. Think about how much of your time is spent communicating; it is an important part of your life. (Smoke, 1999)

The facilities provided at the communications center shall be based on the needs of the area for which service is to be provided, with emphasis on the adequacy and reliability of the systems provided, for both routine and emergency conditions, including the capability to receive communications from hearing-impaired persons. (NFPA, 2000)

The mission statement of the City of Branson Fire Department is "Through teamwork, communications, and professional career development, the City of Branson Fire Department is committed to providing prompt and reliable fire and life safety services to the residents and visitors of Branson. Firefighters promote and environment that encourages innovation and creativity from within, while maintaining a positive public image.

The City of Branson Fire Department has a problem. It does not have a solid and timely means of communicating with the public in both residential and commercial occupancies in the event of an emergency under the scope of the Emergency Management function. An important topic relating to the foundation of emergency services provided as mentioned in the fire department's mission statement, along with the role of being an effective leader and providing effective emergency communications to the public it serves.

The purpose of this applied research project is to evaluate the Reverse 911 service as a communication tool, and to briefly compare it to existing communication resources currently used by the fire department to inform the public on emergency management incidents that may occur in the City.

Specifically, this applied research project will attempt to examine the issue through a variety of methods including; (a) literature review; (b) personal interviews; (c) internet resources; and (d) phone polling communities of similar size to the City of Branson.

Evaluative research methods were used to answer the following questions:

1. In the event of an emergency incident requiring immediate incident information disseminated to the public, what methods are currently in-place to deliver the intended message and what kind of time-line could be expected to deliver this message?
2. How does Reverse 911 and what kind of computer system and phone system support is required for operation?
3. What kind of services Reverse 911 provide in terms of delivering information to the public?
4. What are the estimated costs associated with implementing and maintaining Reverse 911, and what kind of budget dollars may be identified to fund this project.
5. If Reverse 911 is right for the City of Branson, would it be advantageous to make the service available county-wide?

BACKGROUND AND SIGNIFICANCE

The City of Branson is a small town with big city features. With a population of 6,050 full-time residents, this city population explodes each season to host over seven million visitors annually. There are 46 music theaters that combined may entertain 56,797 people and featuring one of 70 different live music shows. More than 200 lodging facilities provide 17,700 rooms to accommodate our guests in motels, hotels, bed and breakfast, along with a large condominium market. Approximately 392 restaurants are available for the residents and tourist with available seating for 34,244 guests. All of this in a small town atmosphere surrounded by the Ozark

Mountains and the White River Basin including Tablerock Lake, and Lake Taneycomo. (www.cityofbranson.org)

Branson has an established reputation as a successful Midwestern family destination with approximately half of the tourist driving from within a day drive of 400 miles or less. A foundation of thirty-five percent of the tourist arrive from a distance greater than 600 miles and therefore travel to Branson on motor coaches which has earned the community the title of America's top motor coach vacation destination. (City of Branson All-Hazard Mitigation Plan, 2001)

Providing family entertainment is expanded beyond the scope of the theaters, but also at the area lakes, theme parks, award winning golf courses, three large factory outlet malls along with a downtown shopping district, complimented by all of the area's restaurants and lodging facilities. (City of Branson All-Hazard Mitigation Plan, 2001))

The fire department operates from three fire stations strategically placed across the city. Each fire station is staffed with three personnel for twenty-four hour shifts. Additionally, three are three chief officers leading the organization. There are four divisions operated by the fire department including the administration, operations, technical services, and emergency management.

The emergency management division will be the primary focus of the applied research project as this division's primary purpose or responsibility is to establish policies and procedures that will allow the City of Branson to save lives, minimize injuries, protect property, preserve functioning civil government and maintain economic activities essential to the City's survival and recovery from natural and technological disasters. (City of Branson Emergency Operations Plan, 2001) All of this information is established in an emergency operations plan and this

division is headed by the fire chief and is supported administratively by both division fire chiefs.

Specifically, the Emergency Operations Plan charges the emergency management division with the responsibility to work as a government to cooperatively work with private and volunteer organizations to: (1) prevent avoidable disasters and reduce the vulnerability of residents and visitors to any disasters that may strike; (2) establish capabilities for protecting citizens from the effects of disasters; (3) respond effectively to the actual occurrence of disasters; and (4) provide for recovery in the aftermath of any emergency involving extensive damage within the county. (City of Branson Emergency Operations Plan, 2001)

The fire department's emergency management division also has a relatively new resource of an All-Hazard Mitigation Plan. This plans purpose or objective is to make the City of Branson a disaster resistant community; to protect the lives and property of the residents and visitors from natural and technological disasters. (City of Branson All-Hazard Mitigation Plan, 2001)

The steering committee consisting of residents and business people representing nearly every segment of the City of Branson developed short term and long term project goals for this All-Hazard Mitigation Plan. Projects with short term and long term time lines were established by this committee with a focused effort of reducing the effects of or mitigating potential hazards before they occur. One of the target projects identified in this plan for a long term project is to research and establish the resource of an auto-dialing system to alert theaters, lodging facilities, schools, and other public buildings that the City is under a severe weather warning. (City of Branson All-Hazard Mitigation Plan, 2001) This resource could also be used for other emergency communications needs with the general public.

Communicating emergency information or warnings in a timely manner provides a

constant challenge. Currently the City of Branson communicates this information in several formats including the use of sixteen storm warning sirens, nine of which have the capability of voice transmission along with the siren activation. The fire department also may utilize the resources of the Emergency Alert System, and may directly use the resources of the media as established in a media resource lists that gives contact information for local and regional media contacts.

This applied research project relates to the Emergency Operations Unit 2 taught in the Executive Fire Officer Class, Executive Analysis of Fire Service Operations in Emergency Management. The terminal objective of unit 2 provides for the ability for "the students will be able to analyze fire service operations in emergency management and determine appropriate action." (National Fire Academy, 2001)

LITERATURE REVIEW

The literature review for this applied research project was completed to assist the emergency management division evaluate the opportunity to enhance current available methods of alerting to the public by considering the advantages provided by a system such as Reverse 911. The literature review involved research of sources including trade journals, books, reports, web page sites, and personal interviews.

Effectiveness

In every business, effectiveness is a balance of two key components including; (a) production, which defined is the desired results produced; and (b) production capability, that encompasses the maintenance, preserving, and enhancing the resources that produce the desired results. (Covey, 1990) The City of Branson uses this as just one of the habits provided by Covey and may become a key component when evaluating a new program for the emergency

management division as we strive to maintain this balance, yet obtain the desired result.

Current Capabilities

Currently, the City of Branson provides severe storm warning through the resources of sixteen storm sirens placed across the seventeen square mile City. These sirens are currently located in more densely populated areas of the City.

This is a system that is based on technology that is 50 years old starting from the foundation of air raid sirens. Storm sirens are placed in areas requiring one to be in hearing range and commonly might not be heard inside of a building and typically require the population to be awake. Additionally, storm sirens with voice capability may be difficult to understand, especially with considerations of noise from severe storms. (Larson, 2001)

The City may also use the resources of local media, by using a phone tree type of calling system. Typically requiring a chief officer assigned to a public information officer role to contact local media regarding emergency information to be disseminated to the public. Additionally, emergency messages may be disseminated through the resources of the Emergency Alert System that has to be activated from a media source in Springfield, Missouri.

In the middle of the night, few residents may be tuned in to a television or radio station to receive emergency information broadcasted. However, statistics show that over ninety percent of all households have at least one telephone. Unlike the television or radio, a telephone is almost always turned on and is more reliable during adverse or severe weather conditions. (Larson, 2001)

Furthermore, both of these systems, especially the resources of the Emergency Alert System, warn wide areas and after a given amount of false alarms, people are known to ignore the warnings for a specific area. (Larson, 2001)

Why Use Reverse 911

A community alerting phone system is a tool that maximizes a public safety organization to deliver critical information to a given community in a rapid and accurate manner. Additionally, the public safety resources in terms of man power may be at it's highest demand, and through the use of this type of system, the emergency message may be disseminated quickly, along with detailed instructions of any required action and in turn, may reduce potential harmful effects. (Larson, 2001)

Reverse 911 may also be used very specific to a geographic area, from specific residences, to specific types of occupancies, or given neighborhoods. All of these areas may be selected and initiated through the resources of global positioning, which will interact with these systems may already be established in communities. This system may also provide non-emergency uses from recalling public safety personnel, to posting community board type of information. (www.reverse911.com)

How to Use Reverse 911

This system is computer based in Windows Software. Once logged on, the user (communications center or emergency manager) would choose the type of activity to perform, fill out appropriate fields of information, select the area or calling zone to be called, choose or develop a message to be delivered, and initiate the calls. (www.reverse911.com)

Current Funding Resources

The City of Branson currently operates on a program based budget. Any new program such as this that would have a financial impact greater than $5,000 or five years of use is considered a major capital expense item. Therefore, if this product was chosen to be beneficial to the community, it would have to be entered into the capital expense budget process. (C.

Sparks, February 3, 2003)

An additional funding source is the current 911 administration budget. Taney County 911 administrator Tammy Hagler stated that the emergency phone service is currently supported by a phone tax of ten percent of the basic phone rate and generates approximately $550,000 annually. This emergency phone service was put on line in November of 1993 following the adoption of the phone tax which was approved up to fifteen percent by the Taney County voters in April of 1991. This budget supports the salaries for five dispatchers for the City of Branson and five dispatchers for Taney County, the administration staff, and associated equipment to support the emergency phone system. (T. Hagler, February 18, 2003)

PROCEDURES

Literature Review

The initial research for this applied research project started with a search for resources utilizing the computerized card catalog of the National Fire Academy Learning Resource Center (LRC), Emmitsburg, Maryland. This card catalog was accessed using the internet link to the Learning Resource Center and followed up with a phone call for assistance from the employees to assist with the search. A local college was used to access a journal through interlibrary loan. Additionally, literature was obtained from internet sites.

List Server

A message was posted on the University of Missouri Fire and Rescue Training Institute's list server known as MOFIRETRAIN-L. This message stated the desire of the author to obtain information from Missouri Fire Department's that currently utilize a Reverse 911 or similar phone type system to respond to the e-mail message. Only two responses were obtained; the Joplin and St. Charles Fire Departments.

Focus Group

The City of Branson commonly polls seven Missouri communities of similar size regarding specific issues relating to the City. The cities polled may appear somewhat deceiving from a population basis as the City of Branson's population is just over 6,000 people. However, the City chooses to poll these communities as our population expands daily due to an influx of employees and tourists. The Missouri cities polled included Sedalia, Nevada, Jefferson City, Springfield, Popular Bluff, Joplin, and Clinton.

Personal Interviews

Personal interviews were conducted to obtain information and a perspective from that of the City, the company providing Reverse 911 service, the local phone company CenturyTel, area emergency managers, and sources from the media.

Fire Chief Carl Sparks was interviewed regarding his specific interest in establishing this community communication resource to the City of Branson. Chief Sparks established this goal as part of the Project Impact Plan, and suggested this topic for the applied research project. Chief Sparks was also a resource regarding the existing emergency alert systems in the City, including the severe storm sirens.

Chris Berndt, the fire chief for the Western Taney County Fire Protection District and emergency management director for Taney County was interviewed with a focus on using Reverse 911 not only in the City of Branson, but county-wide.

Morris James, the news director for KTTS Radio in Springfield, Missouri was interviewed for information regarding the Emergency Alert System and its activation. KTTS is the primary source to initiate the Emergency Alert System in southwest Missouri.

Tammy Haggler, Taney County 911 administrator was interviewed regarding a potential

partnership to bring Reverse 911 to the county, logistics of doing so, and financial considerations to help fund the project.

CenturyTel engineer Darryl Robinson was contacted and interviewed for logistical information from the local phone service provider. Also from the phone company, their central office technician Craig Anderson was interviewed to obtain research information for this report.

Reverse 911 sales representative Jill Rott was contacted with resources obtained regarding the resources that this system provides as well as estimated cost to establish and maintain the system in the City and Taney County-wide.

Limitations

The primary limitation to this applied research project was a lack of resources in the form of journals or other information at the National Fire Academy's Learning Resource Center (L.R.C.). The author's initial assumption was that this type of Reverse 911 service was fairly common. Only one resource, a journal, was discovered at the L.R.C. through the resources of the electronic accessed card file and this was confirmed with the assistance of a L.R.C. employee.

Resources on what has become an important topic to the fire department to research, was limited to information discovered on the internet and through personal interviews to discover implementation features of the service and successful usage by other organizations.

The final limitation is purely the fault of the author… six months went by quickly in the fast paced community of Branson! It was also a tough assignment to not only research, but to write a research paper to this magnitude, and not to simply write in a media release or journalistic format.

RESULTS

Answers to Research Questions

Research Question 1. Currently, the City of Branson Fire Department may disseminate emergency information to the public through the resources of sixteen severe weather sirens, nine of which have the capability of voice communications. This type of warning is provided virtually immediately, without delay, upon the direction of the emergency manager or his designate. (C. Sparks, February 3, 2003)

Emergency information may also be disseminated through the resources of the media in two specific formats. The first is through a media resource lists which requires individual phone calls and personal interviews to be given to each one prior to the message being sent via television or radio. The time element to accomplish this is simply based on the scope of message presented to each media source, or the time it takes to complete the phone calls.

The second type of media resource is through the Emergency Alert System (E.A.S.). The E.A.S. is activated by region with the local source being located at KTTS Radio in Springfield, Missouri. Once a message is formulated and passed to KTTS Radio, it will be sent out through the E.A.S. in less than five minutes. (Morris James) However, as cited previously in this document, the argument is still present that all of these systems rely heavily on the ability to hear the sirens, or have a radio or television turned on. (Larson, 2000)

An additional human factor for communicating with the public includes the resources of public safety personnel canvassing neighborhoods, such as police officers assisting in evacuation, or the use of voice communications through emergency vehicle sirens. Both are labor intensive as all available man power may be required at the actual emergency incident.

Research Question 2. Reverse 911 is an interactive community alerting system

developed by Sigma Communications, Inc in 1993. This tool may be used to contact citizens through the phone lines in specific or designated geographic areas for disseminating urgent information. (www.reverse911.com)

The system itself is considered a "turn key system." In short, the computer system is delivered, set up, and training is provided, for the cost of the system. This includes a Windows 2000 operating system, printer, power supply, and phone equipment pertinent to the product. (www.reverse911.com)

Coordination with the phone company would also be required. During the research portion of this project, CenturyTel engineer Darryl Robinson relayed basic information about the phone companies part of the set-up process and logistical information to bring the system on-line. This was related to a practical opportunity as the City of Wentzville, Missouri has purchased the Reverse 911 system and is currently in the process of bringing in on-line in the very near future. Mr. Robinson stated that beyond the phone line acquisition, the City of Wentzville purchased approximately $2,500 of phone equipment to tie into the system. (D. Robinson, February 20, 2003)

Obtaining the phone number data base for the system requires a functional use to be determined. This meaning whether the Reverse 911 will be used only for emergency information or for non-emergency purposes also. Craig Anderson, a central office technician for CenturyTel related that the 911 phone data base provided by the phone company can only be used for emergency purposes. Any non-emergency use may initiate a constitutional breech of privacy. (C. Anderson, February 20, 2003) However, Reverse 911 sales representative Jill Rott shared that this company will provide a phone data base that is included in the set up and annual maintenance fees. The only disadvantage to using these types of lists are that established

unlisted numbers, and people who have placed their number on “no-call” lists will not be provided. (J. Rott, February 19, 2003)

Ms. Rott continued by stating most communities that choose to use the non-emergency function of this system obtain a phone data base from the company, then simply use the resources of the media and special speaking engagements, for example, to educate the community on the resources the system provides and asked for and obtained permission to use their personal phone numbers. (J. Rott, February 19, 2003)

Once the computer system is installed, the City would be required to choose how many phone lines they would anticipate using, based on timing information provided by Reverse 911. The company recommended for the community size of Branson that eight phone lines would be adequate and could deliver 960 messages of a thirty second length each hour. Additional lines may be added, or the use of what is called a “line grabber” could be accessed to provide these lines if needed. The “line grabber” would be an extension of the eight dedicated lines, and would access phone lines within the same building of city hall. These phone lines may include those not needed in an emergency, such as those in other City departments accessing low use extensions or fax lines, for example. (J. Rott, February 19, 2003)

Research Question 3.

Reverse 911 has the distinction to provide public notification of emergency warnings through the phone systems without reliance on third party agencies such as the television or radio markets and without having to do neighborhood canvassing with emergency personnel. This phone system will interact with CAD or GIS programs to deliver emergency information to designated geographic areas. (Larson, 2000)

As mentioned previously, this system may deliver up to 960 calls each hour to residential

and commercial properties from eight dedicated lines and is expandable by adding lines or by using the “line grabber” technology to secure lines from within the same building such as City Hall which is where the communication center is located. (J. Rott, February 19, 2003)

Additionally, Reverse 911 supports several features beyond just providing emergency information to the public. These options support non-emergency functions including the opportunity to make the system interactive with the public through touch tone access on their telephone. J. Rott, February 19, 2003)

These options include the opportunity for the public to respond to recorded messages and therefore, the emergency responders benefit by being able to disseminate the information, review damage assessment information provided by the public, and in turn be able to respond more efficiently to disasters. (Larson, 2000)

This system will allow for acquiring hazardous materials information that will interact with the system to resource the North American Field Guide, to assist in determining a geographic call area for evacuation or sheltering in place, or other critical information regarding hazardous materials incidents. (J. Rott, February 19, 2003)

For non-emergency uses specific, this system will allow communities to use features such as Community Information, allowing the public to call into the system on a dedicated line to access information specific to a community such as special event parking, or monthly storm siren testing, for example and in turn, reduce the number of non-emergency calls generated to a communications center. Additionally, this system has an available feature called Guardian Calling, where people from the community may be programmed into the system to be called at specific times to check on their well being. This interactive feature requires the person to respond by touch tone and will print out a successful check. If there is not an appropriate

response, this system will automatically notify a responsible caregiver or emergency system to check on the resident. (J. Rott, February 19, 2003)

This system may also be used to mobilize personnel and the example given by Ms. Rott related to recalling off duty public safety personnel. She gave the example of a need for ten off duty firefighters to be recalled for duty due to a disaster. This system would have a phone bank of contacts via home, cell and pager numbers to contact personnel. Once contacted, the interactive portion of the system could be utilized with a touch tone response to confirm that the employee was or was not available to report for duty. Then, the automatic print out would provide a summary of who was responding in for duty. (J. Rott, February 19, 2003)

A similar feature was also presented as the system is able to perform multiple faxing without the use of a third party vendor, or by individual faxing pertinent information. (J. Rott, February 19, 2003) The author has used this type of feature through the local Chamber of Commerce to fax occupancies with an example being to maintain minimum heat in commercial businesses that may be closed for the tourist season as temperatures fall sub-freezing to protect fire suppression systems.

Research Question 4.

Reverse 911 provided a pricing summary based on the City of Branson population of 6,050 (rounded up to 7,000 for growth) and a county population of 30,000. Noted in this document is the fact that installation of the system and training services are included in the price and not a line item. Below is a brief summary with a complete pricing summary example listed in the appendix. (J. Rott, February 19, 2003)

City of Branson		Add Taney County
System/Database	$12,122	$1,383
System Hardware	$23,250	
System Options	$22,100	
Total	$57,472	

Each year, Reverse 911 assesses a maintenance fee that covers the costs of software upgrades an updated phone database. The annual maintenance fee is set at 15% of the purchase price for the system specified. (J. Rott, February 19, 2003)

Funding for this project could be proposed through a major capital expense line item through the emergency management division of the fire department if justified as a project with adequate effectiveness on the community. (C. Sparks, February 3, 2003) Another resource is to initiate this project county-wide and fund this through the 911 Administrative Offices. According to 911 Administrator Hagler, this project could potentially be funded within the annual budget, without requesting an increase in the phone tax supporting the emergency phone system. (T. Hagler, February 18, 2003) Additional web resources related funding sources for this system through grants and private industry.

Question 5.

This system is currently working in communities across the State of Missouri including the Cities of Joplin, Crestwood, and in the near future, Wentzville. (J. Rott, February 19, 2003) Reverse 911 relates on their web page that this service is presently serving over 100 communities across the nation (www.reverse911.com)

The Reverse 911 system may be made interactive with the associated options provided as

citizens may report information back to the communications via touch tone phone. Examples focus on damage assessment for emergency services, injuries or entrapment, flash flooding, to name a few. In short, it could be a great emergency management size-up tool. (J. Rott, February 19, 2003)

Emergency contacts made through this system may be more reliable as most residents have a telephone that is always on compared to the resources of television or radio. (Larson, 2000)

Reverse 911 could easily integrate as a county-wide service. The 911 emergency phone service is in place and has two key answering points at the County Sheriff's Department and the second at the City of Branson. Therefore, the system is in place and could easily benefit the entire county, rather than just the City of Branson, with minimal additional funding required based on figures presented by the vendor. (T. Hagler, February 18, 2003 interview)

DISCUSSION

The current systems used by the City of Branson Fire Department for emergency management purposes are most likely matching the base line of what is done across the nation. Utilizing our media resources, the Emergency Alert System, storm sirens, and even personnel to make emergency information notification to the public seems to just simply meet the basic standard.

Using a product for communities that are under 5,000 in population or even closer to the size of Branson may not always have the need for such an elaborate service, however, the demographics that Branson may very well prove the need for this type of resource. Not only are there 6,050 residents, but the city explodes in population each day with an influx of the employees for the work force and all of the tourists that it hosts each year. That brings into the

picture over 1,200 commercial businesses, many of them being target hazards including the theaters, lodging facilities, and shopping malls.

This type of system would be a huge benefit for notifying the community of emergency messages by simply being able to target not only geographic areas, but also specific types of businesses. One example was mentioned earlier in the project with the ability to fax multiple properties, but even what appears to be even simpler and that is to reverse call for something as simple as reminding commercial properties with fire sprinkler systems to insure minimum heat is maintained during weather systems that produce sub-freezing temperatures.

Reverse 911 can make a difference in promoting the safety of our community from the residents to the visitors. It can be a project to help mitigate the effects of a disaster, and may be accomplished for what appears to be a reasonable start up price and annual maintenance fee.

RECOMMENDATIONS

When the author started researching this topic at the recommendation of the Fire Chief as one of the objectives of the Project Impact plan, he had a preconceived idea that this system would be very expensive, difficult to maintain, and most likely not ever be used. However, the information in this applied research project hopefully shares a different view with the opportunity to complete the project with the following recommendations.

1. Meet with Reverse 911 sales representative Jill Rott as scheduled for the Missouri Emergency Managers meeting scheduled in April. The company will be able to provide additional educational material to formally make the proposal.
2. Propose the service with associated costs to the Lakes Area Fire Chiefs Association which includes the fire chiefs and emergency managers in all of the Taney County communities and gain approval from the organization.

3. Establish a request for proposal to be drafted for formal proposals to be presented including actual services provided and financial support required.
4. Propose the final project to the 911 advisory board for presentation to the Taney County Commissioners for this project to be initiated county-wide and operated and financially supported by the 911 Administration.
5. Implement Reverse 911 and document the difference that it makes in our county.

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Appendix A
Reverse 911 Detailed Price Quote

	Base Price	2nd Year Warranty
REVERSE 911	$9,650	$1,448
Database including population of 7,000 people	$1,089	$1,077
Database including population of 30,000 people	$1,383	$1,332
OS: Windows 2000 Professional	Included	Included
OPTIONAL SOFTWARE FEATURES	**Base Price**	**Warranty**
Community Information Line	$2,400	$360
Guardian Calling	$2,400	$360
Mobilization	$3,500	$525
Faxing	$2,400	$360
Fax-On-Demand	$2,400	$360
Voicemail	$3,000	$450
HazMat™	$3,500	$525
Eventtracker	$2,500	$375
HARDWARE		
Computer, Monitor, UPS, Printer	$5,250	$788
4 Intel Voice Cards (4 Ports Each)	$8,000	$1,200
1 Intel Voice & Fax Card (4 Ports Each)	$3,500	$525
LineGrabber™ per 2 Voice Cards/8 phone lines	$2,500	$375
MassCall™ (also includes a per call charge of 20 cents)	$4,000	$4,000
INSTALLATION, TRAINING AND SUPPORT	**Base Price**	**Warranty**
Installation Services:	Included in overall price	
Total Hours Included:	8 hours	
Training Services:	Included in overall price	
Total Hours Included:	8 hours	
Total Installation, Training & Support	Included in overall price	
Manuals & Other Printed Materials	Included in overall price	

Appendix B
Biography

Ted L. Martin is a Division Chief with the City of Branson Fire Department. He serves as the division chief of the Technical Services Division responsible for fire prevention including inspection of new and existing commercial properties, public fire safety education, and special projects. He is a state certified Firefighter II, Haz-Mat Operations, Fire Instructor II, Fire Inspector, and Paramedic. In addition, he is an instructor for the University of Missouri Fire & Rescue Training Institute and the Missouri State Fire Marshals Office. A graduate of the College of the Ozarks, Point Lookout, Missouri (south of Branson), he earned a Bachelor's of Science Degree in Mass Communications in 1995. While not at work, he enjoys just about anything outdoors, especially at the lake and works with the youth at through his home church and a local youth ministry organization called Youth Life.