



ENHANCED 9-1-1

STATE OF MONTANA

E9-1-1 COORDINATOR'S HANDBOOK

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MONTANA'S EMERGENCY TELEPHONE SYSTEM COORDINATOR'S HANDBOOK OUTLINE

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I. INTRODUCTION

This manual was written to provide insight into the process involved in filing plans for Enhanced 9-1-1 services within the State of Montana. When completed, each plan prepared using this process will have accumulated specific information regarding each implementation and identified the costs associated with each component. It is required that every person responsible for filing plans under MCA 10-4-101 through 10-4-312 will submit their plan using the following outline (**the Enhanced 9-1-1 planning form is available on the 9-1-1 website and also on diskette upon request**):

ENHANCED 9-1-1 EMERGENCY TELEPHONE SYSTEM PLAN SUMMARY

1. TYPE OF PLAN
2. COUNTY(S) INVOLVED
3. PROJECT COORDINATOR
4. PSAP MANAGER
5. NUMBER OF PSAPs
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II. OVERVIEW

A. ABOUT 9-1-1

1. *What is 9-1-1?*

9-1-1 is the three-digit telephone number designated for public use throughout the United States for reporting an emergency and requesting emergency assistance. It is intended as a nationwide telephone number giving the public direct access to an emergency answering center. 9-1-1 is provided as a service to the public with the primary objective of preserving life and property.

2. *History of 9-1-1*

The concept of a single emergency number originated in Europe and Great Britain. In 1937, England initiated a single emergency number, which could be accessed from anywhere in the country, known as "9-9-9". Belgium initiated a nationwide single emergency number in 1964 using the digits "9-0-0". Denmark uses "0-0-0" and Sweden uses "9-0-0-0-0".

In the United States, interest in the idea of a single, universal, emergency number accelerated in 1967, and the President's commission on Law Enforcement and Administration of Justice supported the concept. In November 1967 the U.S. Senate, with the House of Representatives concurring, issued a resolution which stated:

"Resolved...That it is the sense of the Congress that the United States should have one uniform nationwide fire reporting telephone number and one uniform nationwide police reporting telephone number."

In December 1967 AT&T assigned the digits 9-1-1 for the single emergency number and announced the birth of "9-1-1" to the public on January 12, 1968. Within a surprisingly short period of time after the announcement, 9-1-1 became the accepted standard, and the questions of how to overcome exchange boundary, equipment, and political problems during system planning and implementation started in earnest.

Although there was no legislation at the federal level mandating nationwide 9-1-1, in 1973 the National Advisory Council on Criminal Justice Standards reinforced the positions taken in 1967 by stating that:

"Every police agency should, by 1982, obtain single emergency telephone service, and the cost of such service should be borne by the private telephone subscriber." (Police Report, Standard 23.1)

B. 9-1-1 IN MONTANA

In 1974, the concept of a single nationwide emergency number reached Montana. Governor Thomas L. Judge appointed the Montana Justice Council on Criminal Justice Standards and Goals to adopt a set of standards and goals for the improvement of the state's criminal justice system. In 1976 the Council's report included the following standard:

"In order to dispatch emergency services, including law enforcement, more efficiently to both rural and urban areas, no later than 1980, local governments in each Montana community shall begin steps to centralize their communication facilities and cooperate with their local telephone company or cooperative in adopting a free universal emergency telephone number," (Community Crime Prevention Report, Standard 2.3)

1. *Legislative History*

On April 25, 1985, Governor Ted Schwinden signed into law Senate Bill 325, an act designating 9-1-1 as the primary emergency telephone number within Montana and a provision for funding assistance and coordination for its implementation throughout the state. (10-4-101 through 10-4-303 MCA).

By January 1, 1997, 96% of the state population had access to 9-1-1 service. The 5 counties without 9-1-1 (Daniels, Roosevelt, Sheridan, Valley and Meagher) were involved in the planning process, and expected to be ready to offer 9-1-1 service by late 1997 or early 1998. The Blackfeet Reservation had 9-1-1 service, but had not yet filed a plan, and the Rocky Boy Reservation had not yet started the planning process.

2. *1997 Legislative Session - House Bill 210*

In April, 1997, Governor Marc Racicot signed into law House Bill 210, which amended the original statute to provide additional funding for enhanced 9-1-1 and for dispatcher training. (10-4-101 through 10-4-312 MCA). Collection of the new Enhanced 9-1-1 surcharge began in July 1997, and funds are held in the State E9-1-1 Program Fund for each jurisdiction pending the submittal to and approval by the State 9-1-1 Program of an Enhanced 9-1-1 plan.

C. ADVANTAGES OF ENHANCED 9-1-1

- **Improved call routing:** E9-1-1 uses the caller's location, not telephone exchange, to direct a call to the appropriate call-answering center.
- **Improved Emergency assistance:** E9-1-1 allows immediate dispatch of emergency help even when the caller is unable to provide his or her location.

D. FEATURES OF ENHANCED 9-1-1 (E9-1-1)

E9-1-1 service is provided on a per system basis. In an E9-1-1 service area, one switching office is designated as an E9-1-1 tandem office, or “selective router” for all 9-1-1 calls. This E9-1-1 tandem office serves all Public Safety Answering Points (PSAPs) in the E9-1-1 service area and can provide “selective routing” (routing based on location of the caller) for incoming 9-1-1 calls from other central offices. The tandem office receives the 9-1-1 call with the ANI and uses the ANI to check the selective routing database to determine to which PSAP the call should be routed. It then sends the 9-1-1 call on the proper trunk to the correct PSAP. Dedicated E9-1-1 trunks are equipped in the E9-1-1 tandem office for each public safety answering point (PSAP) served.

A typical E9-1-1 call follows this sequence:

1. A caller dials 9-1-1.
2. The central office (CO) recognizes the call as a 9-1-1 call and sends the call, via a dedicated 9-1-1 trunk, to the tandem central office. The CO will send the caller’s telephone number, known as automatic number identification (ANI), with the voice call.
3. The tandem office recognizes that it is a 9-1-1 call, looks for the ANI, and then finds the associated Emergency Service Number (ESN). The ESN assigned to each telephone number in the tandem office is dictated by the address of the caller. The ESN directs the call to the correct Public Safety Answering Point (PSAP).
4. The PSAP sees the 9-1-1 call and sends a signal to the tandem office to forward the ANI. When the 9-1-1 dispatcher answers the ring at the PSAP the ANI is displayed.
5. The PSAP automatic location identification (ALI) controller sends the ANI to the E9-1-1 host computer, either at the PSAP or a remote location, to retrieve a lookup on the address associated with the ANI.
6. This retrieval request goes to the host computer via two data circuits and the address record is forwarded back to the PSAP. The lookup occurs so quickly that the ALI is displayed with the ANI as soon as, if not before, the 9-1-1 dispatcher answers the call.
7. The ANI/ALI will remain displayed until the call is terminated, and will be stored in the system with the permanent record of the incident. This record will include the time the call came in, the time it was answered, the position that answered the call, the time the call was transferred (if applicable), the time the call was terminated, and the trunk number used by the 9-1-1 call. Additional information may be stored depending on the capability of the PSAP’s E9-1-1 equipment.

These are standard features of an enhanced 9-1-1 system:

1. **Selective routing** is a standard service which routes an E9-1-1 call to the appropriate (primary) PSAP based on the calling party's telephone number. The **tandem** or **selective router** can also be programmed to perform additional E9-1-1 features such as:
2. **Default routing**, which allows an E9-1-1 call to be routed to a default PSAP when the call can not be selectively routed. This would occur if the ANI digits were garbled or not transmitted with the call. Typically, the default route destination would be the PSAP serving the majority of subscribers from that particular exchange, or central office.
3. **Alternate routing** allows the E9-1-1 Tandem Office to route a 9-1-1 call to a 7-digit phone number in the PSAP or to a pre-designated alternate PSAP if the primary or controlling PSAP is unable to accept the call. This situation would occur when all the 9-1-1 trunks into the primary PSAP are busy (either in use or defective due to an equipment problem.)
4. **Central office transfer** provides the capability for a 9-1-1 call to be transferred by the PSAP call-taker, via the E9-1-1 tandem office, to another PSAP or some other destination. A call transfer is accomplished at the E9-1-1 tandem office via a 3-way conference connection, which permits a simultaneous 3-way connection for the calling party, primary PSAP call-taker, and the desired destination.

The tandems are usually owned and operated by the "primary telephone company," i.e. the phone company with overall responsibility for E9-1-1 service in a given geographic area. Each tandem generally serves a large number of central offices, covering either a large geographic area or an area of very dense phone population.

Some additional features of E9-1-1 are:

1. **Automatic Number Identification (ANI)** provides an automatic display of the seven-digit number of the telephone line used to place a 9-1-1 call
2. **Automatic Location Identification (ALI)** enables an automatic display at the answering PSAP of information defining the geographical location (street address) of the telephone used to place the call and the dispatch information associated with the ANI
3. **The Customer Premise Equipment (CPE)**, i.e. the PSAP equipment, shall interface to either a telephone company database or a premise ALI database in order to request ALI information for a 9-1-1 caller's telephone number.

There are several databases related to E9-1-1. The primary E9-1-1 databases are:

1. **Selective Routing Database:** This is the database loaded into the tandem which is referenced by the ANI of the 9-1-1 call to determine to which PSAP the call should be routed. This database contains the "emergency service zone" (ESZ) for each address or range of addresses. An ESZ is a specific land area that is handled by a specific group of police, fire and emergency medical service responder (EMS) agencies. The database typically is composed of the community name, primary PSAP name, and the police, fire and EMS responder agencies for all addresses within that ESZ.
2. **Master Street Address Guide (MSAG):** This is the computer database which lists every conceivable street name, street type (Street, Road, Drive, etc.), street directional (North, South, East, West), possible low address number, possible high address number, and whether the street has only odd or only even numbers or both. Then for every MSAG entry it must be determined to which PSAP a 9-1-1 call from that address must be routed, and which **emergency service zone (ESZ)** that location falls within. All 9-1-1 calls from within any specific ESZ must be routed to the same PSAP.
3. **ALI Data Base:** This database provides the phone number, name (or business name) and address (physical location) of the calling party. The tool used to access the ALI database is the ANI of the phone number that dialed 9-1-1. This ANI is used as the "locator" for the ALI record associated with that ANI. This is the database that is displayed in the PSAP when the 9-1-1 call is received.
4. The more conventional form of this database is the "**Remote ALI Database**" where the telephone company maintains the data on a computer system some distance away from the PSAP.
5. "**Stand Alone ALI**" is occasionally employed in rural areas serving smaller, and less populated, jurisdictions where the costs of conventional remote ALI systems are too high to be affordable. In these systems it is essential that the person responsible for maintaining this local ALI database set up a regular process for receiving changes that have been made to the telephone company (or companies) customer records databases so they can keep this local ALI database up to date.

E. ENHANCED 9-1-1 FROM CELLULAR/WIRELESS TELEPHONES

As every PSAP manager with a 9-1-1 jurisdiction that is partially or fully covered by wireless service knows, wireless calls have substantially increased the volume of 9-1-1 calls coming into the PSAP. According to a press release issued by the Cellular Telecommunications Industry Association on May 20, 1997:

"Each day more than 59,000 calls are made to 9-1-1 or other emergency numbers by wireless phone users...CTIA conducted a national survey of wireless phone carrier representatives and emergency communication officers for 1996. According to the survey, there were 21,659,967 emergency wireless calls placed during the year in the United States...Another survey conducted by Peter Hart and Associates last year reported that 35 percent of wireless customers have used their phones in emergency situations."

The number of wireless subscribers is expected to increase dramatically. Speakers at the National Emergency Number Conference in June, 1997, stated that presently 1 in 3 new phone numbers are assigned to a wireless subscriber, and it is estimated that by the year 2000 10% of all households will own wireless phones only.

On June 12, 1996, the FCC adopted a new Report and Order for wireless 9-1-1 (Docket No. 94-102) that created rules for a two-phased implementation of wireless enhanced 9-1-1.

Phase I of the report and order requires that with each 9-1-1 call, the wireless carrier must give the Public Safety Answering Point (PSAP) a 10-digit call back number and location data of the specific cell site or cell sector where the call was originated.

Phase II requires wireless carriers to provide, by October 1, 2001, the call-back number and the location of the calling telephone (with an X,Y coordinate indicating latitude and longitude) within 125 meters (accurate 67% of the time.)

The FCC has also directed, however, that **wireless carriers do not have to provide wireless E9-1-1 unless the PSAP specifically requests the service.** The FCC directed that carriers must begin implementing service by October 1, 1997, but only for those PSAPs that request the service by April 1, 1997 or earlier. If a PSAP requests the service after April 1, 1997, the wireless carrier is required to provide the service 6 months from the date of the request.

In addition, PSAPs must also be prepared to receive the wireless information (i.e. **have the necessary equipment in the PSAP**), and there must be **a method available for the wireless carriers to recover costs** associated with equipment and network upgrades necessary to provide the service.

F. ROUTING WIRELESS 9-1-1 CALLS TO THE PSAP:

In a wireless communications system, all calls are gathered at a central switching facility (Mobile Telephone Switching Office or MTSO) before entering the public switched telephone network (PSTN). The MTSO acts as a dialing center for all cellular/mobile calls. When wireless 9-1-1 calls are “outpulsed” by the MTSO as 9-1-1, the PSTN recognizes only that the MTSO dialed 9-1-1. Therefore, the ANI that accompanies the 9-1-1 call is that of the MTSO **not** the calling party. Consequently, the PSAP equipment sees the call as originating from the MTSO and not from the wireless subscriber. This makes it more difficult for the selective router to direct the call to the proper PSAP.

There are several methods now in use for transferring wireless E9-1-1 calls to the PSAP:

1. **The most frequently used method in Montana is to convert the 9-1-1 call to a 7-digit number.** The 7-digit number used is the PSAP’s non-published 7-digit emergency number. No data information, such as ANI, is transferred with this method.
2. **The most sophisticated method is through “tandem translations.”** With this method, when a caller dials 9-1-1 the closest cell site, depending on environmental conditions, receives the 9-1-1 call. The cell converts the digits 9-1-1 to a pre-determined “pseudo-ANI” or P-ANI (NXX-XXXX), and the P-ANI is sent to the MTSO. At the MTSO the P-ANI is sent to the telephone company serving the tandem office, which converts the P-ANI back into 9-1-1. The call is then sent to a predetermined PSAP where the call appears to the E9-1-1 network as though a subscriber with the P-ANI as their calling telephone number had dialed 9-1-1. In a PSAP with E9-1-1 capability, the fictitious ANI may identify the call as a wireless call and show the cell site location. Tandem translations enable selective routing based on cell site location, but do not provide the actual callback number of the calling party’s phone.
3. **A similar method is available using remote call forwarding.** This feature allows for a comparable call routing. The PSAP will be able to identify the call as originating from a MTSO and the dispatcher is trained to recognize a specific ANI as a wireless call.

In addition to the difficulties associated with the routing of wireless calls, database issues are another perplexing problem. Although several technologies are currently available to provide both Phase 1 and Phase 2 wireless information, appropriate databases must be constructed to provide the required telephone subscriber and caller location information. It is also imperative that the PSAP’s E9-1-1 equipment be capable of receiving and displaying this information.

III. ORGANIZATION

A. GETTING STARTED

This section discusses how to organize locally to accomplish planning for enhanced 9-1-1 (E9-1-1), and provides a basic overview of the process involved.

1. APPOINTING A COORDINATOR

The first step in the development of the E9-1-1 Plan is to identify the individual responsible for preparing the Plan. The E9-1-1 Coordinator may be the PSAP Manager or another individual designated by the PSAP Manager to serve as the Coordinator.

Since E9-1-1, even in the smallest systems, will involve several public safety agencies, the coordinator needs to understand the various divergent interests represented and be able to integrate them into the E9-1-1 planning process. The coordinator should have the credibility, trust and confidence of those with whom he or she will work, and must be sensitive to local issues and politics, and be able to work well with people, both individually and in groups.

The coordinator will be responsible for drawing up the E9-1-1 plan for local and state approval, and will be responsible for the implementation of the E9-1-1 system when cut over is scheduled.

2. FORMING THE ENHANCED 9-1-1 PLANNING COMMITTEE

The second critical component in the planning process is the formation of the E9-1-1 Planning Committee. The committee should be formed as soon as possible so participants can become familiar with the requirements of the planning process and can become accustomed to working with one another. The committee should include representatives from public safety (law enforcement, fire and EMS) and the telephone company(s) serving the jurisdiction. The purpose of this committee is to provide input to the planning process from the perspective of the public safety community as a whole.

The coordinator and the planning committee should work closely together to identify problem areas, to develop acceptable goals and objectives, and to develop realistic E9-1-1 system alternatives that are acceptable to each participating public safety agency. Committee members should keep their respective jurisdictions informed of both progress and obstacles encountered and should communicate group recommendations to their respective agencies and jurisdictions concerning the preferred E9-1-1 system alternative.

The E9-1-1 coordinator may be either a voting or non-voting member of the E9-1-1 Planning Committee and should attend all meetings. In most cases the committee will want the coordinator to provide direction and recommendations for the group.

3. ANTICIPATING "ROAD BLOCKS" IN THE PLANNING PROCESS

Jurisdictions planning for the implementation of E9-1-1 may encounter many of the same problems because the issues encountered in E9-1-1 planning are inherent in the process. This subsection attempts to anticipate some of these problems and their causes. Your area may experience none, some, or all of the problems discussed in this section.

9-1-1 telephone service shifts the burden of responsibility for accessing emergency services from the citizen to the public safety community. While the goal of simple, fast and easy citizen access is undisputed, its implementation generally causes problems for public safety agencies. It forces unaccustomed closeness, cooperation and dependence upon other agencies for the intact delivery of services in response to transferred or relayed emergency calls.

During the E9-1-1 system planning, the divergent values of fire, law enforcement and emergency medical services may come into conflict due to concerns over turf protection and system performance, and concern that the new system will somehow change agency response. The E9-1-1 Planning Committee must be able to discuss these issues openly and make every effort to reach acceptable compromises.

Later in the planning process, when choices between alternative E9-1-1 system designs must be made, elected officials will become involved, and a new set of values will be introduced to the process. These usually fall into two categories:

- **Performance:** The recommendations of the heads of the law enforcement, fire and EMS agencies concerning the effectiveness of the E9-1-1 system will influence the elected officials who will decide the fate of the various 9-1-1 alternatives. Officials listen to these recommendations because they attempt, as much as is consistent with other demands, to rate public safety services high on the list of priorities because of citizen demand.
- **Efficiency:** This value is of great importance when consolidation, central call answering, or dispatch is at issue. Taking away a community's call answering and/or dispatch function and placing it elsewhere can become an emotional issue. A particularly important value, that of community pride, must also be considered. This may become an issue when the Enhanced 9-1-1 system design recommends that call answering and/or dispatch be taken away from small communities and given to a larger, nearby community.
 - A secondary issue is that of familiarity with the local community. In rural areas, many people calling in emergencies give their location by telling the dispatcher his or her name and expecting that the dispatcher will know where to find them. If not, they expect the dispatcher to be familiar with the landmarks or "common place names" used throughout the locality.

While E9-1-1 is designed to resolve many of these problems, the issues may still affect the planning process in a negative way. Each planning group will find it necessary to deal with variations of these values. Each is cause for legitimate concern. The coordinator should become familiar with the characteristics of each community and its key "players" as early in the planning process as possible.

4. GENERATING COMMUNITY SUPPORT

Community support for the E9-1-1 planning effort, which may include an addressing project, will be needed at times to provide a solid base of favorable public opinion. This sets the groundwork for the decision-making process and eventual public awareness of E9-1-1 when it goes into operation. The E9-1-1 Coordinator and PSAP Manager may want to seek out speaking engagements at service organization luncheons, senior citizen groups, or the local grange. Public support for the process itself will pay off many times over, especially if E9-1-1 and/or rural addressing issues become controversial issues in the community. Public opinion and pressure can force forward movement on issues when the process seems to bog down due to conflict or inflexibility on the part of one or more of the participants.

5. RESOLVING INTERAGENCY CONFLICTS

As mentioned previously, E9-1-1 planning may produce interagency conflict. Most, but not all, conflicts are solvable. The coordinator should identify and isolate the most important potential conflicts at the beginning of the process and be prepared to mediate between disgruntled agency heads. Time, education and peer pressure are the three greatest assets the coordinator can use over the course of the planning process. Be willing to take a pro-active approach. Often, conflict resolution involves first determining the "real" issues causing the conflict, e.g. what is it that each conflicting party really wants? Then the next step is to help them reach a compromise. By seeking compromise, you may find it will pay great dividends in improved public service.

B. OVERVIEW OF THE PLANNING PROCESS

Project management is the organized planning and tracking of projects. As a successful project manager you will allocate resources, track costs, and manage the "critical path", a series of tasks that must be completed as planned to keep the entire project on schedule.

During the planning process the E9-1-1 Coordinator should list the tasks necessary for successful completion of the project on paper, indicate the entity or individual responsible for completion of each task, and use this list as a "road map" when filing state plans and during actual work on deployment of the E9-1-1 system. This part of the process allows you, as the project manager, to ensure that all tasks assigned for each phase of the project are successfully completed before moving on to the next phase of implementation.

1. SETTING GOALS AND OBJECTIVES

One of the first tasks of your E9-1-1 Committee should be to establish goals and objectives for your E9-1-1 system. Goals and objectives provide guidance and direction. In the process of developing the plan, they are considered a consensus for the project's process, scope and desired outcome by those developing them. Group consensus on desired outcomes provides a standard by which to measure the alternative E9-1-1 system designs that may be developed later in the study.

The process of goal setting is important for establishing what it is you want to do and how to achieve it. The development of goals and objectives by the E9-1-1 Planning Committee will provide agencies with a chance to agree on a common direction, after they have had the opportunity to express their needs, discuss those needs, and finally settle on a compromise. This process identifies the areas where agencies differ on assumptions, purpose, or needs, while identifying and narrowing differing assumptions and requirements.

As used in this handbook, the following definitions apply:

- **Goals** are statements of broad direction, general purpose, or intent. A goal is general and timeless in its application. The achievement of goals cannot be directly measured and is not concerned with a particular achievement within a specified time period.
- **Objectives** are statements concerned with particular achievements that will contribute, in whole or in part, to the accomplishments of one or more goals. Progress toward accomplishing an objective should be observable, but not necessarily quantifiable.
- **Tasks** are alternative ways and means by which an objective may be accomplished (collectively or singly). They are sometimes called methods.
- **Standards** are a form of measurement that can be applied to tasks, providing an indication of movement toward achievement of stated objectives.

Goals and objectives must have the following characteristics in order to work successfully:

- 1) Goals and objectives must be realistic and reasonably easy to achieve.
- 2) The scope of goals and objectives, tasks, and standards must be broad and comprehensive enough to cover all pertinent planning issues, yet narrow enough to provide meaningful guidance.

2. ENHANCED 9-1-1 TASKS

Once the E9-1-1 Planning Coordinator has been chosen and the Planning Committee formed the group should establish the goals and objectives. Once the goals and objectives have been established, the Committee may then list the tasks necessary to accomplish those goals and objectives. Identifying these tasks that will fit into the jurisdiction's general plan for E9-1-1 is basically done at the local level. The following is a list of some generic goals and sample tasks required to accomplish these goals:

- 1. Complete rural and municipal addressing**
 - a) Assemble existing map data from existing City and County sources
 - b) Obtain input from various sources such as the general public, US Postal Service, etc.
 - c) Develop preliminary road naming and numbering plan
 - d) Draft Addressing Ordinance to be issued by appropriate elected officials
 - e) Assign street names to all streets and roads and street addresses to all structures within the jurisdiction
 - f) Notify public of new addresses as appropriate (See *Montana Addressing Guidebook for Local Governments* for additional tasks associated with the addressing process)

- 2. Begin development of Master Street Address Guide (MSAG)**
 - a) Determine location of law enforcement, fire department and ambulance boundaries
 - b) Acquire appropriate subscriber information from telephone companies
 - c) Review existing telephone company information for consistency with existing street/road names and numbers
 - d) Identify missing or incorrect information and add or revise information as necessary
 - e) Submit revised information to telephone companies for verification and request error reports
 - f) Review error reports and make necessary corrections (transmittal of data back and forth between local MSAG coordinator and telephone companies and resulting correction of data will be a lengthy, time-consuming process)

- 3. Determine E9-1-1 network configuration**
 - a) Meet with telephone company representatives to discuss alternatives
 - b) Request costs associated with the proposed network

- 4. Determine PSAP equipment needs and follow locally determined RFP process**
 - a) Decide on new equipment or equipment upgrades necessary for E9-1-1
 - b) Determine anticipated requirements for wireless E9-1-1
 - c) Develop equipment request for proposal (RFP) and distribute to national vendors
 - d) Attend on-site demonstrations of PSAP equipment
 - e) Committee and dispatcher(s) review proposals and prepare a recommendation of an equipment vendor for elected officials
 - f) Elected officials award an equipment vendor contract

5. PSAP Equipment Installation

- a) Necessary PSAP remodeling and electrical rewiring is done
- b) Equipment vendor installs equipment
- c) Appropriate equipment and network tests are conducted
- d) Dispatchers and supervisors receive appropriate training on new equipment

6. Final MSAG Development

- a) MSAG reaches 95%+ accuracy
- b) Updated records submitted to database provider for loading
- c) Testing and resolution of any problems or errors

7. System “live” with Enhanced 9-1-1

Reaching each of these goals is based on accomplishing the necessary tasks. Remember, not all goals or tasks are represented here. Your local planning process will identify which tasks are yours and will add new ones based on the scope of your deployment.

Additional Information Available from the 9-1-1 Program Office:

The 9-1-1 Program Office has a booklet titled *Montana Addressing Guidebook for Local Governments* that is available for local addressing/E9-1-1 planning committees upon request.

The *Enhanced 9-1-1 Telephone System Application* to be submitted to the Department of Administration for plan approval is available in hard copy or on disk.

Two sample **Request for Proposals (RFP)** for local jurisdictions to use as the Committee begins to develop an RFP that will meet their needs. One is designed for jurisdictions that intend to install a complete telephone system that will provide 9-1-1 and all telephone services in an integrated package. The second is designed for jurisdictions that intend to purchase a 9-1-1 Call Answering unit that will operate alongside the administrative telephones. Both sample RFPs are available in hard copy or on disk and may be revised as needed by the local jurisdiction.

IV. THE PLANNING PROCESS

A. BASIC CONTACT INFORMATION

1. OBTAIN MAPS OF THE AREA

Maps will become an integral part of your planning and MSAG development efforts. Careful attention to the maps you acquire will serve you during all phases of your project. When determining which map you will use, keep in mind these general areas of interest:

- Does the map encompass your entire service area?
- Are there adequate copies available easily and inexpensively?
- Has your general area decided on a "standard" base map?
- Does the map indicate both street name and address range?
- Does the map have a street name index?

Generally the larger the map, the easier it will be to use. By copying sections of a larger "base" map, you can create a map binder from which cross referencing becomes easier.

2. LIST EMERGENCY SERVICE PROVIDERS WITHIN THE AREA

By creating or identifying an existing list of emergency providers within your jurisdiction, you can form your user group. This information will be useful for contractual agreements, telephone company uses and the assignment of the Emergency Service Zones.

3. LIST OTHER PRIMARY PSAPS IN THE AREA

You will need to identify every Primary PSAP contiguous to your own. This requirement helps to ensure the ability to build your call transfer matrix and will give the telephone companies a clear picture of your area. Remember, assume nothing relative to what your telephone company may or may not know about your geographical location.

If the Enhanced 9-1-1 plan includes a change to the existing 9-1-1 jurisdiction it is essential that contact with the PSAP Managers in the affected counties be made. **These PSAP managers must approve your E9-1-1 plan**, and joint effort can speed your plan submission and approval as well as your installation. It is recommended that you notify these PSAPs in writing of your intent to file an E9-1-1 plan. Cooperative effort in developing the MSAG, and other system decisions will reduce overall expenses and lead to a more reliable E9-1-1 system.

B. ADDRESSING REQUIREMENTS

1. DETERMINE ADDRESS REQUIREMENTS

To gain the full benefit of E9-1-1 service, each telephone number must be linked to a physical address, so that any 9-1-1 caller can be located by emergency service providers. The physical address of the telephone will also determine how the 9-1-1 call is routed. E9-1-1 uses the caller's location, not the telephone exchange, to direct a call to the appropriate call-answering center.

Using the data associated with the maps acquired, determine the areas within your E9-1-1 jurisdiction that need to be addressed. This process should be coordinated with the telephone companies in your area to determine the areas with telephone service. A cursory examination of the address files held by the telephone companies can be used to assist you in determining the need for additional addressing within your jurisdiction. This may also be the best time to bring your process to the attention of local postal officials.

a. If Addressing is Required:

The addressing project is one of the most important components of the E9-1-1 planning process. Creating physical addresses requires naming all roads, including private roads, with unique names and assigning numbers consistently to all properties. It is important that citizens be given one address that can be used for 9-1-1 service, for mail delivery, and by utilities, delivery services, and others.

If the county or counties in your 9-1-1 jurisdiction have not started an addressing project, or if the present addressing system has not been updated or maintained, **now is the time to refer to the *Montana Addressing Guidebook for Local Governments*** included in the E9-1-1 planning packet. This handbook contains a list of recommended tasks for creating physical addresses.

For citizens to gain the greatest benefit from E9-1-1 service, a community's addresses should conform to the recommendations in the Addressing Handbook. These guidelines were developed by the Department of Administration's Geographic Information Systems section and the 9-1-1 Program. **The addressing system must generally conform to these guidelines if State 9-1-1 Program funds are to be used to help finance the project.**

The Department of Administration can also assist in the addressing process by providing the following items upon request: 1) maps for use in the addressing project; 2) information regarding GPS/GIS contractors; and 3) suggestions for maintaining the address database once it has been created.

Once the address database has been constructed, it must be continually updated to accommodate changes and new addresses.

C. TELEPHONE COMPANY AND CUSTOMER PREMISE EQUIPMENT (CPE) ISSUES

1. CONTACT YOUR TELEPHONE COMPANIES

You should contact your telephone companies early in the planning process. Your “primary” company will be the company with the exchange boundary that encompasses your Public Safety Answering Point, and is therefore responsible for providing network access. This company will be responsible as the first point of contact for coordination of network maintenance and repair. You can initiate discussions with them as you begin to evaluate the need for additional addressing.

a. *Provide map information*

At the first session with the representatives for telephone companies, you may want to make a copy of your planning map available to them. This will give them a clear picture of the areas you hope to serve with enhanced 9-1-1.

b. *List all telephone companies*

At this first session, using the map, identify all the telephone companies in your service areas. If all companies have not been contacted, determine who will initiate the first contact with these companies. It may be the E9-1-1 Coordinator or the “primary” telephone company representative that will initiate this contact.

c. *Determine the next steps*

Most companies will need to establish a formal working relationship with both your agency as well as the other companies involved. With the companies at the first meeting, determine the next steps in the planning process.

2. CONSIDER THE AVAILABILITY OF WIRELESS ENHANCED 9-1-1 AS PART OF THE PLANNING PROCESS

It is recommended that 9-1-1 Coordinators / Committees contact their wireless carriers early in the E9-1-1 planning process to express interest in receiving wireless E9-1-1 information and request cost estimates for receiving the service. Although PSAP managers and E9-1-1 Coordinators are currently involved with implementing E9-1-1 for “hardwire” phones, the impending availability of E9-1-1 for wireless calls must also be considered. Although wireless carriers are not required to provide the service until the necessary PSAP equipment to receive the wireless E9-1-1 information is in place, it is important to obtain as much information as possible about equipment requirements. Any new E9-1-1 equipment purchased for the PSAP should be able to accommodate wireless E9-1-1 requirements, such as 10 or 20-digit ANI.

3. DETERMINE CUSTOMER PREMISE EQUIPMENT (CPE) REQUIREMENTS

When working through this process, your telephone company and/or your telephone equipment vendor may be your greatest help. Since E9-1-1 is an additional capability added to your existing basic system, the solution may be the addition of network appliances linked to your existing equipment. However, your telephone company or equipment vendor may determine your existing installation is not adequate for the tasks involved with E9-1-1 services. In either case, **cost estimates for all additional equipment should be included with your plan.**

If the 9-1-1 Committee intends to issue a request for proposals (RFP) for customer premise equipment (CPE) two **sample RFPs are available from the 9-1-1 Program Office.** One is designed for jurisdictions that intend to install a complete telephone system that will provide 9-1-1 and all telephone services in an integrated package. The second is designed for jurisdictions that intend to purchase a 9-1-1 Call Answering unit that will operate alongside the administrative telephones. Both sample RFPs are available in hard copy or on diskette and may be revised as needed by the local jurisdiction.

4. REVIEW REQUIREMENTS FOR YOUR ENHANCED 9-1-1 SYSTEM

- a) Costs for customer premise equipment
- b) Database and E9-1-1 network costs
- c) Additional work required to complete the Master Street Address Guide (MSAG)
- d) **Selective Routing** (or class marking): If you and your telephone company determine your system requires selective routing services, be sure to include the areas where selective routing will occur, and the costs associated with this option in your plan.
- e) **Facility Modifications:** If your facility requires any modifications for the proposed installation, these costs should be included in your plan.

D. COMPUTER HARDWARE AND SOFTWARE AND ALI DATABASE MAINTENANCE

Network and database management is an ongoing task involved with E9-1-1. By keeping your network updated with accurate information you provide the best service available to your citizens.

A plan for hardware, software, and data base maintenance, including estimated costs associated with this maintenance, must be included as part of your E9-1-1 plan.

E. PLAN FOR 9-1-1 DISPATCHER TRAINING

1. TRAINING REQUIREMENTS:

A plan for training 9-1-1 dispatchers must be included in your E9-1-1 plan. One (or more) of the following training options will satisfy this requirement:

- a. *Basic Telecommunicator Class* offered at the Montana Law Enforcement Academy. If the PSAP manager sends all dispatchers to this class, this fulfills the training requirement, and it is not necessary to describe in detail any additional training. Simply note in your plan that all dispatchers attend Basic Telecommunicator and include a brief description of any additional training provided.
- b. *Emergency Medical Dispatch (EMD)*. If all PSAP dispatchers are certified, or will become certified in EMD, this will satisfy the training requirement. If some or all dispatchers are EMD certified, include this information in your plan, along with the name of the EMD system used to obtain this certification.
- c. *In-house training program and/or other training for dispatchers*. If no other training is provided which satisfies the training requirement, include an outline of the in-house training program used for all new dispatchers. If dispatchers are sent to workshops conducted by another training provider, include a brief description of the workshops attended, the name of the training provider(s), and estimated number of dispatchers who attend this training each year.

Include estimated annual costs for dispatcher training in your E9-1-1 plan.

F. THE APPLICATION PROCESS

1. COMPLETE THE MONTANA DEPARTMENT OF ADMINISTRATION PLANNING FORM
 - a) *Circulate to agencies for sign off.* You must review this final document with your user community for agreement. Be sure to include the signatures of the appropriate individuals authorized to sign such a document.
 - b) *Obtain sign-off from other PSAPs in your county or in neighboring counties affected by the plan.* As with signatures from your user community, the plan will require sign off by any other PSAP within your county. **If the anticipated use of selective routing will change the existing jurisdictional boundaries, the PSAP manager of any jurisdiction affected by the change must sign the plan.** If this is a countywide plan involving more than one PSAP, or a multi-county plan, this requirement will be signatures of all managers of PSAPs included in or affected by the plan.

2. SUBMIT FORMS TO THE DEPARTMENT OF ADMINISTRATION FOR REVIEW

The Department of Administration 9-1-1 Program Office has up to six months in which to review the plan. Once the review is complete, the 9-1-1 Program will approve or deny the plan. **Be sure to send copies of the final plan for E9-1-1 to all the telephone companies that provide service in the 9-1-1 jurisdiction.**

3. PLAN REVIEW PROCESS

Once your plan has been received by the department, it will be placed in the state review process. Should your plan, as submitted, require modification, the department will contact you in writing. Plan modification may include additional information related to your deployment or the redesign of various components.

4. RECEIVE DEPARTMENT OF ADMINISTRATION APPROVALS

When your plan has been approved, you will receive written notice from the department, along with notification of when the E9-1-1 funds will be distributed to your jurisdiction, a copy of the criteria that will be used to review the appropriate expenditure of E9-1-1 Program funds, and a "Statement of Acceptance" form. **The Statement of Acceptance must be signed** by the administrative head of the 9-1-1 jurisdiction and the copy with original signatures returned to the Department of Administration.

G. DEPLOYMENT

Once your plan has been approved by the department, continue with the deployment process.

1. INITIATE CONTRACTS FOR SERVICE

a. *Involved telephone companies:* You will need to determine when to initiate the contractual process involved on the local level.

b. *Interlocal agreements:* Depending on how you have achieved your countywide plan, interagency agreements may need to be developed. Keep in mind such issues as selective routing, MSAG development, and maintenance.

2. BEGIN MASTER STREET ADDRESS GUIDE (MSAG) DEVELOPMENT

Purpose of the MSAG: To assign an “emergency service number” (ESN) to each subscriber record within the 9-1-1 jurisdiction. The ESN is a number that is assigned to each residence, business, and coin telephone. The ESN provides information needed to route the E9-1-1 call to the appropriate public safety answering point (PSAP) and to indicate which law, fire, and medical agencies provide service to that location.

This computer data base lists every conceivable street name, street type (Street, Road, Drive, etc.), street directional (North, South, East, West), possible low address number, possible high address number, and whether the street has only odd or only even numbers or both. Then for every MSAG entry it must be determined to which public safety answering point (PSAP) a 9-1-1 call from that address must be routed, and which Emergency Service Zone (ESZ) that location falls within. All 9-1-1 calls from within any specific ESZ must be routed to the same PSAP.

Developing the MSAG is a process that merges information from various sources and arrives at a consensus for road and street naming convention. It must be assumed that some manner of standard addressing exists for the area to be served by an Enhanced 9-1-1 system.

The telephone company responsible for providing the ALI database will work with 9-1-1 jurisdiction personnel to develop the MSAG. They will probably ask each jurisdiction to designate a single individual to supervise the construction of the E9-1-1 databases and to serve as the single point of contact for the telephone companies involved. The telephone company will make its listings of road and street names available to the MSAG Coordinator. The Coordinator then verifies these listings for accuracy and conformance with local regulations.

Once standard street naming and spelling issues are settled, the Coordinator, working with 9-1-1 dispatchers and the 9-1-1 Committee, will determine the geographical areas that represent unique combinations of emergency services. Telephone subscribers within an “emergency service zone” (ESZ) will share the same law enforcement agency, fire department, and emergency medical services. The Coordinator then provides address ranges to the MSAG provider for the various combinations of emergency responders for the area served.

For example:

ESZ 111 = Billings Police Department, Billings Fire Department, Billings Ambulance Service
ESZ 112 = Yellowstone County Sheriffs Dept., Billings Fire Dept., Billings Ambulance Service
ESZ 113 = Yellowstone Co. Sheriffs Dept., Yellowstone County Rural Fire Dept., Billings Amb.

Computer Aided Dispatch (CAD) systems differ significantly in their requirements for address information. Depending on the CAD system, they may use additional data such as intersections, specific street address numbers, and other fields of information that create the useful functions available in CAD. This difference may cause misperceptions of the requirements for creating an MSAG as opposed to the requirements for creating a CAD database.

For agencies currently using CAD or other electronic forms of geographical locator, MSAG development is greatly enhanced. The database need not be sophisticated, but will require the street name and address range information for the area served by the PSAP.

Typically the PSAPs serving a larger population may have some form of electronic database, or access to one. For areas of lesser population, manual methods of location compilation may be sufficient. Regardless of the method used for identifying streets and ranges, the basic E9-1-1 Automatic Location Identification (ALI) data stream displayed in the PSAP will be similar to the following:

(406)	555-1234	TIME:	DATE:
CLASS OF SERVICE:			
CUSTOMER NAME: (First, Middle, Last)			
1234 MAIN STREET NE APT 4			
1 LAW ENFORCEMENT			
2 FIRE PROTECTION			
3 EMERGENCY MEDICAL SERVICE			

The most important resources used in developing the MSAG are maps showing the exact location of individual addresses, especially those near jurisdictional or PSAP boundary lines. A set of maps generated by the county addressing project should provide reliable information on street locations, street names, and individual addresses. Fire district maps or maps already in use in the PSAP will probably contain the most reliable information on fire district boundaries. A listing or index of all streets within each fire district is also very helpful. Law enforcement boundaries are determined by city limits and county boundary lines. Emergency medical service responders should be able to assist in determining correct boundaries for their jurisdictions.

The development of the MSAG can be a lengthy process. It is important that this work result in as accurate a product as possible, since it is the "engine" that drives E9-1-1 services.

MSAG Maintenance: Once completed, maintenance of the MSAG Database is essential to the effectiveness of E9-1-1. The MSAG is affected by constant changes such as new streets, business or residential development, annexations, etc., and must be updated continuously. To provide the most efficient method of data base maintenance, a computer file may be created to maintain all address/street information.

3. SITE PREPARATION

As work on the MSAG draws to a close, the primary telephone company and any other contractors will begin the installation of facilities required for E9-1-1. If you have decided to go through the bid process for customer owned and maintained equipment, now is the time to award the bids and install this equipment.

4. SYSTEM INSTALLATION

After all RFPs have been awarded and the site preparation is done, installation may proceed. Keep in mind that installation of the new customer premises equipment may cause some interruption within your communication facility. Most vendors know how to install quickly and without undue interruption, but make sure your installer knows how you intend to handle this interruption in service. If your PSAP will experience a change out of existing customer premise equipment, You will need to establish an exact time when the actual "cut-over" will occur, and the length of time you can expect to be "down." Having worked this out with your vendor prior to cut-over can ease the problem.

5. TESTING THE SYSTEM

Working with your telephone companies, establish a testing program. Determine who will test your system, and how and when that testing will occur. It is recommended that you allow a minimum of 30 days to allow equipment "burn in" time.

H. GOING ONLINE WITH ENHANCED 9-1-1

Congratulations! You are now providing E9-1-1 services to your community. If you haven't already done so, now is a good time to educate your citizens to the new service and reinforce the benefits gained by using 9-1-1.

1. MAINTENANCE

This is also a good time to review your maintenance procedures and make sure that the database maintenance will be an ongoing process.

Appendix A

i. NENA Wireless 9-1-1 Checklist

This checklist is provided as a tool to assist 9-1-1 authorities in the implementation of Phase I Wireless 9-1-1 service. NENA makes no claim that this is an all-encompassing list, nor that the steps are listed in the order that applies to every PSAP. The expectation is that each PSAP authority that undertakes the implementation of Wireless 9-1-1 service will customize the list as their circumstances dictate. Over time, we would hope that members add steps that may have been omitted.

✓ STEP 1 Initial Decision

Determine that you want to implement Phase 1 Wireless 9-1-1 Service. In making this decision consider the following:

- a) For this step you are not making a final decision. You should be looking at the operational side of the house such as equipment, staffing, and the idiosyncrasies of wireless calls, etc.
- b) This initial decision may be based more on political considerations than on facts and figures.
- c) Keep in mind that wireless emergency calls tend to take longer than wireline calls, due largely to the inability of the caller to give an exact location.
- d) You will typically receive far more calls per incident on wireless than on wireline.
- e) If you are the dispatching agency for emergency services in your area, you are already receiving at least some of these calls. They may be coming to you through some other agency (e.g. State or County Police) and may be filtered, but they are coming into your center.
- f) If you are not taking any wireless calls right now, your PSAP will probably get bigger. You may only need a couple more trunks, or you may need additional answering positions and personnel to staff them, but you will grow. Contact the technical representative from your 9-1-1 service provider. You need to determine that company's ability to provide Wireless 9-1-1 services and their preferred technology.
- g) Some money now will save a lot of money later. The implementation of wireless 9-1-1 technology will reduce the average handling time per call, freeing your call takers to answer more calls. Wireless 9-1-1 calls are growing each year as the number of wireless phones continues to increase. If you do not implement Wireless 9-1-1, the cost of additional call takers and answering positions will soon surpass the costs associated with Phases I and II.
- h) All 9-1-1 systems differ slightly, due to the differences in demographics, political climate, funding mechanisms, configurations, PSAP CPE technology, GIS capability and 9-1-1 service provider technology from one county to the next and from state to state. Because of this, there are no national seminars or reference models that address all the subtleties and nuances of your particular PSAP or system. You will be using what are, essentially, off-the-shelf items to implement Wireless 9-1-1, but finding a model exactly like yours to follow will be extremely difficult. You will have to address all the issues.
- i) If you are fairly sure that your system or PSAP will choose to proceed, go to the next step.

✓ STEP2 Initial 9-1-1 Service Provider (LEC) Contacts

- a) From this conversation, you should look to determine the impact, if any, on your CPE, trunk configuration, ALI display format and/or computer aided dispatch system, as well as any options that might be available to you.
- b) If your 9-1-1 provider will meet with you before you send the letters requesting Phase I service, (most will) then you might include this meeting as part of the first step.
- c) Remember that there is no provision, in any legislation, that requires you to blindly accept the

service in the manner they (the carriers and/or the 9-1-1 service provider) prefer to provide it. You do have choices and there are provisions for settling disputes, which, hopefully, will not be needed.

✓ **STEP 3 Notifications**

Determine who the wireless providers in your area are and:

- a) Send the wireless carriers certified letters, indicating that you want to begin negotiations to accept wireless Phase 19-1-1 calls. (Note that nowhere is the term contract used.)
- b) Include a date for the first planning meeting. Generally speaking, it is a good idea to allow 30 days notice.
- c) Copy these letters to your 9-1-1 service provider (typically, the LEC).

This step begins the process of developing the cost estimates, workload estimates, and technology choices available to you on an individual case basis.

✓ **STEP 4 Planning Meeting**

Conduct a get-to-know-one-another meeting with all of the participants that will be involved in your implementation process. Indicate to them that you will not discuss proprietary issues.

- a) This meeting should include:
 - -all of the wireless carriers (may include any subcontractors they utilize)
 - -your 9-1-1 service provider
 - -your CPE provider
 - -your CAD vendor
 - -your mapping vendor

Attempt to resolve the following issues at this meeting:

- b) The method of Wireless 9-1-1 call delivery to be employed, agreed to by all participants. It will be CAS, NCAS, or a Hybrid CAS solution.
- c) Establish how the number of trunks from each wireless carrier to the selective routing tandem(s) will be determined. NENA will be issuing an official recommendation later this year:
 - The 9-1-1 authority and the wireless carrier should establish geographic areas to be served by 9-1-1 trunk groups. These geographic areas may be as small as a single city or as large as an entire state. It is expected that many will serve a county or small group of counties.
 - The wireless carrier is responsible for determining how many trunks are required to provide a P.01 grade of service to the designated geographic area and communicating that information to the 9-1-1 authority.
 - Establishing trunk groups for specific defined geographic areas provides congestion control (management of the volume of calls from any one geographic area) and facilitates default routing assignments.
- d) Determine if you will establish a separate set of wireless 9-1-1 trunks from the selective routing tandem to your PSAP(s). Note the cost for these would probably be borne by the PSAP authority.
- e) Separate wireless trunk groups are not necessary but they do provide a guard against the blocking of wireline 9-1-1 calls in the event of a major incident in public view. This does not necessarily mean a total duplication of the wireline trunk group to the PSAP. You need to discuss this thoroughly with your 9-1-1-service provider.
- f) As mentioned in Step 1, your PSAP is, almost certainly, going to have to grow to accept

wireless calls. Once the total offered load from all the wireless carriers has been computed, your 9-11 service provider will assist you in determining how many additional trunks, if any, are required to the PSAP.

g) Select default and alternate PSAPs. Make sure everyone involved understands the difference.

h) Identify if any of the players are utilizing subcontractors. You should understand the role and responsibilities of the subcontractors, as well as who is accountable for their performance.

i) Ask all of the players how they will implement Network Reliability Council and NENA recommendations regarding diversity and redundancy. Ask for explanations-of how calls will flow (or not flow) if individual components or communications links fail.

j) Talk about pANIs (pseudo Automatic Number Identification), ESRDs (Emergency Services Routing Digits) and ESRKs (Emergency Services Routing Keys) so that you understand what they are. You will be involved in making a choice concerning which of these methods of identifying cell sites and or cell faces will be employed in your system. Ask about the effects each will have on your ALI information, the ability to identify your response agencies, the support of Selective Transfer, and the flexibility for PSAP reassignment.

k) Discuss cell sector naming conventions. Establish what information will go in the Subscriber Name field versus the Street Address field. NCAS requires the creation of default records in the ALI database that may require special attention.

l) Determine if any of the issues described above create any special demands on, or problems for, your CPE.

m) Determine how your mapping system, if you have one, will interface with the wireless calls and be used to identify the responders assigned to the area covered by the cell/sector. It might also be used to facilitate transfers to neighboring PSAPs. If it can do any of these things, it may give you more flexibility and more choices. Computerized mapping is not mandatory, but is absolutely recommended, especially in Phase II.

n) Attempt to determine, in general terms, what costs the wireless carriers, 9-1-1 service provider and PSAP CPE supplier intend to bill to the PSAP authority, if any. Ask specific questions about circuit costs, database interface costs and engineering fees. Details should be obtained in writing in private meetings.

o) Note: In 1999, the FCC removed the requirement that a cost recovery mechanism (for the wireless carrier's costs) be in place for Phase I implementation to begin. Your state, however, may already have established a mechanism for carrier cost recovery. The FCC ruling does not preempt any state or local mechanisms.

p) Provide a mechanism for your wireless carriers to interface with your 9-1-1 service provider, so that each understands the other's role. They will need to communicate regarding the ordering of trunks (from the MSC to the selective router) and database access, among other things. Your goal is to help establish this working relationship and make sure it continues until implementation is completed. Do not allow them to stop talking to each other or to start talking to each other only through you. Be vigilant and stay involved, but don't do their job for them.

q) Do not assume that the carrier representatives understand how wireless 9-1-1 works or how it relates to your current 9-1-1 system. Some will and some will not.

r) Identify the primary contact for your system or PSAP, so that everyone knows who to keep in the loop.

s) Identify the specific individuals in each company that will be managing their portion of the implementation. Ask for telephone numbers, pager numbers and e-mail addresses.

t) Identify the NENA company ID and 24X7 contact number for each carrier.

u) Develop a test plan that describes, in detail, all the aspects of the testing phase. Ask each

carrier to submit a test plan. You have the option of allowing each carrier to use their own plan, or developing a master test plan from those you receive. Do not let any carrier connect without providing a test plan.

- v) Arrange for individual meetings to discuss anticipated workload, cell routing, subscriber base in your coverage area and any other proprietary issues.
- w) Discuss any applicable state or local legislation or regulations. Keep in mind that 9-1-1 service providers, specifically the LECs, are regulated at the state and federal level, but wireless carriers are only regulated at the federal level.
- x) Set time lines to move forward if you feel comfortable with the information you have received. If you need to obtain more information before a final decision is made, make that known.
- y) Establish trouble reporting procedures and expectations.
- z) Establish notification procedures for major outages.

Once this meeting has ended and a decision has been made, you will need to stay active with all the parties involved as you proceed through the implementation process. Each company will probably assign a Project Manager to coordinate their internal activities, but you will be (or provide) the overall Project Manager.

✓ **STEP 5 Identify Cell Coverage-Treatment of Proprietary Information**

- a) The wireless carriers can provide you with RF coverage maps for all the cells in your service area. This usually requires execution of a nondisclosure agreement or other proprietary information release form. This is a fairly standard procedure for the provision of RF coverage maps, and will typically require the assistance of legal counsel.
- b) From these maps, you will be able to associate individual cells and sectors with individual PSAPs. The goal is to identify the cells/sectors in each PSAP's service area, in order to establish call routing assignments. Wireless calls may not necessarily route to the same PSAP as wireline calls from the same area. The 9-1-1 authority may choose to route all wireless calls to a single PSAP or subset of PSAPs.
- c) Cells along the border should be reviewed to determine if the majority of the serving area of one or more sectors is in the jurisdiction of a neighboring agency. This will determine routing for those sectors to your system versus someone else's.
- d) This review should be done during face-to-face meetings and you should consider having representatives from the PSAPs/systems immediately surrounding yours present. This will assist in determining which PSAP will accept calls from cell sites along the borders and eliminate any contention down the road.
- e) Keep in mind that you will have to perform this step with each carrier individually. They will share their RF coverage information with the PSAP authority on a one-on-one basis, but will absolutely not share it with their competitors in the room. If your area is served by two 800 MHz cellular carriers, three 1.9GHz PCS carriers and an ESMR carrier, plan on having six separate meetings.
- f) 9-1-1 systems are very often deployed on a county or state level. Wireless telecommunication systems are deployed according to FCC-franchised trading areas, which may cover an entire state or parts of several states. To get optimum cooperation and results from the carriers, try to address Wireless 9-1-1 at the scale of the trading area or as close to it as possible. This may require a cooperative effort among several PSAP authorities.

✓ **STEP 6 Implementation**

Develop an implementation plan based on the output from the planning meeting. 9-1-1 service providers and some wireless carriers often provide project management assistance.

a) Issue Purchase Orders and/or Letters of Intent, as appropriate. You will need to issue some type of written order to each wireless carrier, your

9-1-1 service provider, your CPE provider and any other vendors involved in the project.

- Even if no money will change hands, a written document is required to constitute an official order for service. The six-month implementation clock starts only after a valid order has been received.

b) Hold regularly scheduled project meetings. Have each player provide a status report. Proprietary details should be discussed privately. Track the progress of each player. Try to identify potential problems sooner rather than later.

c) Try to hold to a firm but flexible schedule. Deadlines will be missed, but should be immediately rescheduled. Activities for which there is no target date may never be completed.

d) Stagger the cutover schedule. Don't attempt to activate Phase I service from six carriers on the same day. Spread them out, especially the first two or three. You may want to schedule one carrier on Monday and another on Wednesday of the first week. If all goes well, you can accelerate the schedule for the remaining carriers. If you have problems, you will have time to address them before the next carrier compounds the problem.

- Do not schedule cutovers on Friday or the day before a holiday. You want the carriers and your 9-1-1 service provider to be fully staffed the first 2-3 days of operation.
- Post-implementation items that should be included in a Service Agreement:
- Determine method for obtaining new revised cell information from the carriers.
- Determine the method of notification for new carriers entering your serving area.
- Track call volumes to determine ongoing trunking requirements.
- Obtain usage data from carriers for MSC-to-9-1-1 tandem trunks.
- Obtain usage data from 9-1-1 service provider for tandem-to-PSAP trunks,

ii. Wireless E9-1-1 Phase II Readiness Package

Introduction

FCC rules require a Public Safety Answering Point (PSAP) to establish that they will be ready and able to receive and utilize Phase II data before the PSAP requests that level of service from a wireless provider. That represents a “readiness” issue for PSAPs desiring to implement such service. To some extent, what constitutes readiness has been defined by the FCC in their “City of Richardson” decisions. However, there continues to be much confusion, and, therefore, uncertainty regarding the details of those decisions and how they apply in real life situations. A standard, nationally applicable method to determine readiness and document that status, consistent with the FCC requirements, and also taking into account other considerations, was considered a way to minimize this uncertainty, and, thus, roadblocks to success.

This resource, and the inherent guidelines involved, have been produced by the Emergency Services Interconnection Forum (ESIF), an effort jointly convened by the Alliance for Telecommunications Industry Solutions (ATIS) and the National Emergency Number Association (NENA). Partners to the development of this Readiness Package included representatives of wireless carriers, 9-1-1 service system providers, and public safety organizations, like NENA and APCO.

Public Safety Authorities should utilize this package as a standard method to evaluate their readiness to request and implement wireless E9-1-1 Phase II service, to communicate with other partners involved in this process, and document readiness to wireless carriers from whom they request Phase II implementation. Using a standard process and documents to manage the Phase II service readiness and request process simplifies the communications effort between the partners to this effort, and minimizes misinterpretation and variations in this technically complex arena. The result will be the acceleration of an extremely important public safety service.

Contents

- Phase II Readiness Checklist Form – see Attachment A
- Checklist Explanatory Appendix
- Checklist Form Instructions
- Suggested Communications Flow Management
- Supplier Information Request Letter Content Recommendations
- Suggested Methods for Phase II Request for Service

Questions or suggestions for improvements to this package should be directed to: esif@atis.org.

1. Instructions for the Phase II Readiness Checklist Form (Attachment A)

The Checklist Form is structured around four segments: Public Safety Authority, PSAP Equipment Capabilities, 9-1-1 Service System Provider Capabilities, and CAD or Mapping Capabilities. The Checklist should support requests from both individual PSAPs, and multiple PSAP 9-1-1 authorities at the county or regional level. When multiple PSAPs are being defined as a group for Phase II Readiness, the PSAPs involved must be identified in the vendor information request correspondence and in the carrier request letter.

Certain of the Readiness items are required by the FCC, based on past understandings of industry methods – these are indicated by the tag ‘Req’ after those items. Others are included because they are necessary, based on recent technical approaches to Phase II. Other items are noted as optional or ‘if required’, based on the wireless interface solution chosen jointly by the wireless carrier and public safety authority, and/or local plans for Mapping methods. It should be recognized that automated mapping systems are not required for Phase II, but if utilized, become a consideration in getting ready to implement Phase II, in terms of PSAP operations. Notes are also provided to explain certain aspects of some readiness items.

The Checklist form can be utilized in a PC using EXCEL or an equivalent spreadsheet program, or it can be printed for manual use.

The Checklist Form provides three tracking columns: Available/Needed, Date of Request, and Installation Date. Intended uses for these are as follows:

Available/Needed

The Public Safety Authority managing the Phase II readiness evaluation process uses this column to indicate which items are in place, or need to be in place within 6 months of the intended Phase II request date.

Date of Request

For those items that are needed, but which the Public Safety Authority does not have and needs to request from the service provider or vendors, enter the date when the request was made. If a needed item is already installed, enter NA (Not Applicable).

Installation Date

If the item is already installed, indicate the date when installation was accomplished.. For items not already installed, and for which a request (above) was made, enter the date commitment returned from the service provider or vendor as to when the item will be installed. This date will be returned in response to the Public Safety Authority request letter described below.

Wireless E9-1-1 Phase II Readiness Checklist - Attachment A -

Phase II Readiness Item	FCC	Available/ Needed *	Date of Request	Installation Date
Public Safety Authority:				
Will PSAP(s) be receiving E9-1-1 and wireless Phase I prior to Phase II activation? (If No, you must implement Phase I in conjunction with Phase II)	Req	_____		
PSAP Cost Recovery capability (Note 1)	Req	_____	Source: _____	
Ability to Utilize the Phase II X,Y Data (If by CAD or Mapping System, see below)	Req	_____	Method: _____	
PSAP Eqpt Capabilities: (Eqpt Vendors)				
CPE Adjustment to support ALI response format change for added Phase II data	Req	_____	_____	_____
If required, CAD Adjustment for Phase II data		_____	_____	_____
CPE Ability to Re-bid for ALI		_____	_____	_____
9-1-1 Service Provider Capabilities:				
ALI Server Interface from MPC - E2 or ALI Server Interface from MPC - PAM	Req	_____	_____	_____
If Hybrid or CAS* solution, Selective Routing switch software package (may require 20 digit signaling) * see Note 2	Req	_____	_____	_____
ALI response format update to support added Phase II data	Req	_____	_____	_____
Re-bid to ALI and MPC may be required (see Note 3)		_____	_____	_____
CAD or Mapping Capabilities: (Vendors)				
CAD-based Mapping (optional)		_____	_____	_____
Mapping System (optional)		_____	_____	_____

* must be available within 6 months after planned Phase II request date

Note 1: If via state legislation, provide cite and date. Can be via local source, such as General Fund

Note 2: Call Associated Signaling (CAS) will not be viable for Phase II until Location Determination vendors are able to provide Caller Location data within the timing of the switching network.

Note 3: Re-bid must be to primary ALI server(s), not just local memory, and legally available in your state

ALL INSTALLATION DATES MUST BE WITHIN 6 MONTHS OF YOUR PHASE II REQUEST DATE TO CARRIER

2. Explanatory Appendix for the Phase II Readiness Checklist

The Richardson Ruling requires that PSAPs provide documentation demonstrating that 1) the PSAP has a cost recovery method in place, 2) that the PSAP has requested any necessary upgrades from the 9-1-1 service system provider, and 3) that any necessary PSAP equipment upgrades have been ordered and will be completed before the end of the carrier's 6-month deployment due date.

Public Safety Authority:

Will PSAP(s) be receiving E9-1-1 and wireless Phase I prior to Phase II activation?

(If No, you must implement Phase I in conjunction with Phase II)

The FCC's Richardson Ruling requires an answer to this question. Phase I is a building block for Phase II; it establishes the basic call and data network additions for wireless E9-1-1. If you have not already implemented Phase I, you will be required to do so before Phase II can be implemented. Some carriers may accept a simultaneous request for Phase I and Phase II and implement them consecutively, immediately implementing Phase II as soon as Phase I is operational. If you have not yet implemented Phase I and you plan to request both phases at the same time, you should coordinate this with the wireless carrier.

PSAP Cost Recovery capability (Note 1)

The Richardson Ruling requires an answer to this question. The ruling requires that a PSAP have some mechanism for recovering its expenses. This *does not* mean that special legislation is required, although that is one method of PSAP cost recovery. This can be as simple as a line item on your agency budget to show that funds have been allocated to cover these expenses, or some other designated funding source. However, it *is necessary* that you show you have cost recovery in place. A photocopy of your budget page showing that these funds are allocated will normally be all that is required, or a reference to existing legislation. It *is required* that you indicate that you have a method of recovering PSAP costs, *and* that you indicate the source of these funds, providing copies of supporting materials.

Ability to Utilize the Phase II X,Y Data

(If by optional CAD or Mapping System, see below)

The Richardson Ruling requires an answer to this question. The ruling *does not* require that you have a computerized mapping system in place, but it does require that you have the ability to utilize the latitude and longitude information that will be used by the wireless carrier to convey the caller's location to you. This could be as simple as paper maps for small areas, or perhaps an off-the-shelf mapping package that can be used to locate map coordinates in your service area. It *is required* that you indicate you have a method of utilizing the data, and you should tell your wireless carrier what method you have chosen by indicating it on this form. If you are using an integrated mapping

system, where the wireless 9-1-1 data will flow electronically into the map software upon receipt of a call, you are encouraged to complete the CAD or Mapping section at the bottom of this form.

PSAP Equipment Capabilities: (Equipment Vendors)

CPE Adjustment to support ALI response format change for added Phase II data

The Richardson Ruling requires an answer to this question. The ALI server transmission format for your PSAP(s) must have the ability to pass the caller's X and Y coordinate data items as part of the ALI query response data. This will usually require the addition of these two fields, at minimum, to your pre-Phase II ALI format, and may also include other related data items, such as uncertainty. The PSAP(s) 9-1-1 CPE must be able to receive and process these data items for display to the calltaker by the end of the carrier's 6-month implementation period.

If required, CAD adjustment for Phase II data

Depending on where in the ALI transmission format the Phase II data items are added, CAD system adjustments may be needed to adapt CAD processes for the presence of the added data items. Verify with your CAD vendor that this work will be done by the end of the carrier's 6-month implementation period.

CPE Ability to Re-bid for ALI

Most 9-1-1 CPE has re-bid capability, but you should assure that your specific equipment can do so. Since the caller location data in Phase II may not be available quickly enough to supply with the initial ALI data response, the PSAP calltaker may have to re-bid to update ALI during the call progress.

9-1-1 Service Provider Capabilities:

ALI Server Interface from MPC – E2 or ALI Server Interface from MPC – PAM

The Richardson Ruling requires an answer to this question. As Phase II is currently being implemented, caller location data is transferred into the ALI servers from a Mobile Positioning Center (MPC) in CDMA/TDMA systems and from a Gateway Mobile Location Center (GMLC) in GSM systems via an E2 or PAM interface method. In order to support Phase II, the 9-1-1 service system provider (usually an ILEC) must work with the MPC/GMLC vendors to implement ALI server software changes and make an E2 or PAM connection. The Public Safety Authority preparing this Phase II Readiness Checklist must verify that the 9-1-1 service system provider will have this interface prepared by a specific date within the planned 6 month Phase II implementation period.

If Hybrid or CAS solution, Selective Routing switch software package (may require 20 digit signaling)

The Richardson Ruling requires an answer to this question. While Phase II could be done using Call Associated Signaling (CAS) if the caller's location could be identified quickly enough (less than 6 seconds), CAS is not presently in use for Phase II. If the Hybrid solution is used between the wireless carrier and the Selective Router (9-1-1 tandem), the Selective Routing switch must have specific software options to support this method. As a result, the Public Safety Authority must verify that the 9-1-1 service system provider will have this capability prior to Phase II testing and turn up. In some applications, Hybrid requires 20 digit signaling capability between the Selective Router and the PSAP 9-1-1 CPE equipment. Verify this with the 9-1-1 service system provider as part of this item on the checklist.

ALI response format update to support added Phased II data

The Richardson Ruling requires an answer to this question. The ALI server transmission format for your PSAP(s) must have the ability to pass the caller's X and Y coordinate data items as part of the ALI query response data. This will usually require the addition of these two fields, at minimum, to your pre-Phase II ALI format, and may also include other related data items, such as uncertainty. The 9-1-1 service system provider must provide changes to the ALI transmission process to support this data provision.

Re-bid to ALI and MPC may be required

As Phase II is currently being implemented, caller location data is transferred into the ALI servers from a Mobile Positioning Center (MPC) in CDMA/TDMA networks or a Gateway Mobile Location Center (GMLC) in GSM networks via an E2 or PAM interface method. The 9-1-1 service system provider's ALI servers must be equipped to forward a re-bid from the PSAP 9-1-1 CPE on to the MPC/GMLC to cause an MPC/GMLC query for the caller location data, which is then returned through the MPC/GMLC to the ALI servers for delivery to the PSAP.

CAD or Mapping Capabilities: (Vendors)

Completion of this information is *not required* by the Richardson Ruling, but if you are using an integrated mapping system, where the wireless 9-1-1 data will flow electronically into the map software upon receipt of a call, you are encouraged to complete this section. Your wireless carrier needs to be aware that you are expecting the data they transmit to be accepted into your mapping system, and you will need to coordinate with them to assure a smooth integration. By providing this information now, the wireless carrier can better coordinate this phase of your implementation.

CAD-based Mapping (optional)

If your CAD system has mapping capabilities, and you plan to import the latitude/longitude call data from your 9-1-1 CPE directly into the CAD, an interface between the two systems will be required. It is recommended that you convey your plans to the wireless carrier at the time of your phase II request (using this form) to support the process of coordinating the integration. If a software update is required for your CAD system, you should indicate when the update was requested from your

CAD vendor and the installation date – if the software upgrades are already completed, or not required, so indicate. It is important that your wireless carrier be aware of your upgrade plans and schedule if you plan to use this method of utilizing the call data.

Mapping System (optional)

If you are using a mapping system (non-CAD based), and you plan to import the latitude/longitude call data directly into the system, then it is important that you let your wireless carrier know of your plans and your current status, as indicated above for CAD systems. It is important that your wireless carrier be aware of your upgrade plans and schedule if you plan to use this method of utilizing the call data.

Suggested Communications Flow Management

(Note: This process can be used both for new Phase II requests and for documenting readiness at the request of wireless carriers for Phase II requests already made in the past.

If a past request for Phase II is to be verified for PSAP readiness, simply send a verification-oriented letter in step 5 below, rather than an initial Phase II request letter)

1. The Public Safety Authority determines the needed items and fills out the Readiness Checklist, as above.
2. For those items requiring service provider or vendor requests to install features or equipment, the Public Safety Authority prepares Request letters to the appropriate parties, documenting the request dates on the Checklist. The request letters should include specific response date expectations, and should be followed up if responses are not forthcoming.
3. The service provider and/or vendors respond to the letters, by providing response letters documenting their date commitments for installation of the requested items or services.
4. The Public Safety Authority tracks the responses for timeliness and completeness of response information, documenting the installation dates on the Checklist form.
5. When installation dates have been received for all requests, the Public Safety Authority is ready to prepare their wireless carrier Phase II service request letters.

Supplier Information Request Letter Content Recommendations

- Clearly identify the subject of the letter as Wireless E9-1-1 Phase II Service Request – this validates the letter as a request in conjunction with Phase II
- Specify which services or items from the Checklist you are requesting.
- You could attach a copy of the Checklist with the items highlighted, as a way of verifying the requested items
- Specify an expected response date from the provider or vendor
- List the PSAP(s), or County and PSAPs, covered by the request
- If different items are needed for different PSAPs in a multiple PSAP request letter, list the requested items by PSAP
- Sent the letters by Certified Mail, with a receipt request, so that you can verify that the letter was received and accepted by the provider on a known date

Suggested Methods for Phase II Request for Service

Write a service request letter to each wireless carrier providing service in your jurisdictional area – this can be a request for a single County or for multiple Counties. Make it very clear which service territory is being handled with the request – list the PSAPs, or Counties and PSAPs, covered by the request.

Copy these request letters to your E9-1-1 Service System Providers (ILECs acting as E9-1-1 host companies). It is recommended that the letters to both carriers and SSPs be delivered using Certified Mail, with a receipt, to verify the date delivered.

Attach a copy of the completed Phase II Readiness Checklist, which documents your actions in requesting necessary capabilities, and the installation dates.

Sample letter to Wireless Carrier



P.O. Box 5021, 59403-5021

March 25, 2004

Jackie Mines
Qwest Wireless
200 South 5th Street, Rm 1700
Minneapolis, MN 55402

RE: E9-1-1 Compliance

Dear Jackie,

As the coordinator of 9-1-1 services in your area, I am pleased to issue this formal request for information on how your company, Qwest Wireless, will comply with the Phase II obligations of the Federal Communication Commission (FCC) E9-1-1 Report and Order, Number 94-102.

As you know, the FCC's wireless E9-1-1 report requires that your company, Qwest Wireless, provide an Automatic Number Identification (ANI) and an Automatic Location Identification (ALI) within six months of receiving this formal request from the Cascade County/Great Falls 9-1-1 Public Safety Answering Point (PSAP). This is my organizations first step in that direction.

I must know how much the service is going to cost and what impact it will have on my current system configuration. I would appreciate an analysis and an overview of the expected one-time cost and the ongoing operational costs associated with the provision of ANI and ALI services. In addition, I would like to understand your network implementation plans for this service.

I look forward to working with Qwest Wireless to improve the quality of wireless E9-1-1 services for your customers and the citizens of Cascade County, the City of Great Falls, and Malmstrom Air Force Base. I encourage you to contact my office as soon as possible with the name of the person we may contact to discuss logistics, funding and other technical and non technical concerns.

My hope is tat we can develop a productive and positive working relationship in the coming months and years, and that we can continue to work together to improve the quality, reliability and effectiveness of wireless E9-1-1 services. Attached is our E9-1-1 Phase II PSAP Preparation Check List.

Please contact me at the Great Falls Police Department, (406)455-8410 to discuss these issues in more depth.

Thank you for your assistance.

Sincerely,

Robert G. Jones
E9-1-1 Center Coordinator



March 2, 2004

Robert Jones
E9-1-1 Center Coordinator
Great Falls Police Department
P.O. Box 5021
Great Falls, MT 59403-5021

Re: **PSAP Readiness Assessment for Wireless E911 Phase II Service
Cascade County, Montana**

Dear Mr. Jones:

As you may be aware, the FCC amended its Enhanced 911 ("E911") rules in response to a Petition from the City of Richardson, Texas to clarify when and how a PSAP can request delivery of E911 service from a wireless carrier. The change was aimed at ensuring that deployment efforts by carriers and PSAPs are maximized to achieve the most effective implementation results. The new rules provide guidance on how to assess whether or not a PSAP is ready and capable of receiving the service it has requested, and how carriers are to determine whether or not the PSAP request is valid.

The rules require that a PSAP (1) make a request for service to a wireless carrier; (2) is capable of receiving and utilizing the Automatic Location Identification ("ALI") and Automatic Number Identification ("ANI") data elements associated with the service; and (3) have a mechanism for recovering the PSAP's costs. Western Wireless must receive confirmation from your county that these three criteria have been met. Furthermore, under the FCC's new rules, a PSAP must respond to questions about its readiness within 15 days otherwise the deployment may be placed on hold.

To help Western Wireless better understand the capabilities of your PSAP and the LEC provider, please provide confirmation that the PSAP is capable of receiving and utilizing the Phase II signal. Among other things, your confirmation should include whether or not the PSAP has installed or has at least ordered the necessary equipment and facilities to make it capable of receiving Phase II service. Such items may include, but are not limited to, PSAP equipment and software, LEC trunking facilities and the necessary contractual arrangements with the LEC providing service to your PSAP. Also, please confirm that the necessary upgrades to the LEC Selective Router and ALI database are in place or will be in place by the end of the deployment deadline.

Lastly, the PSAP must demonstrate that a funding mechanism exists for recovering its costs of facilities and equipment necessary to receive and utilize the E911 data elements to be supplied by the carrier. Satisfying this requirement can be accomplished by citation to or a copy of the relevant funding legislation.

To assist you in providing this information, Western Wireless requests that you complete and return to it the enclosed PSAP Checklist along with an affirmative statement confirming your PSAP's overall readiness. The information on the Checklist is extremely valuable for a smooth and efficient deployment of service, and will greatly speed along the deployment process. Please respond to the questions on the Checklist and complete and sign the Certification box on the back page and return all four pages to me within 15 days.

Western Wireless desires to work with you to ensure that service can be rolled out in as quick and efficient time frame as possible. In order to do this, a great deal of cooperation and communication between all of the parties is necessary. Having a clear understanding as to the state of preparedness for your PSAP will help tremendously. Your detailed responses to the requests above are required to move forward in the deployment process.

Please don't hesitate to contact me with any questions, I can be reached at (425) 586-8432, or via email at nathan.glazier@wwireless.com. I look forward to working with you to ensure a swift deployment. Thank you.

Sincerely,



Nathan Glazier
Manager of Regulatory Affairs

Enclosures

SAMPLE

5. Sample Western Wireless PSAP Preparation Checklist

**E911 Service
PSAP Preparation Checklist**

Location: Cascade County, Montana PSAP Name: Cascade County/Great Falls Police Dept. 911 Center
E-Mail: _____
Contact: Robert Jones, 911 Center Coordinator Phone: _____

Is the PSAP receiving Phase II calls today? _____ YES _____ NO
Is Phase II deployment being coordinated by a state director or organization? _____ YES _____ NO

PSAP Computer Equipment

Equipment Provider: Plant Equipment
Equipment Model: MAARS
Software Level: PSC-16
How many digits can the software/CPE receive? 20
Is equipment capable of receiving and utilizing ANI and ALI? _____ YES _____ NO
If no, when is the next software or equipment upgrade scheduled? _____
Will the upgrade allow the equipment to receive and utilize ANI and ALI? _____ YES _____ NO
Is your PSAP able to receive and utilize 911 calls sent in the NCAS format? _____ YES _____ NO
Does the PSAP require "911 Addresses" for each cell site? _____ YES _____ NO
Will legal addresses or address descriptions of cell sites suffice? _____ YES _____ NO
Does the PSAP have an integrated mapping database? _____ YES _____ NO

Local Exchange Carrier (LEC) Selective Router and Tandem Equipment

Is the PSAP connected to a LEC Selective Router (or tandem)? _____ YES _____ NO
If no, will the state allow for Phase II deployments to occur via a direct connection to the PSAP? _____
_____ YES _____ NO
What is the name of the LEC? Owest
What is the name of the Selective Router? Helena Mt
Western Wireless Corporation

5. Sample Western Wireless PSAP Preparation Checklist

On October 17, 2001, the FCC amended its Enhanced 911 ("E911") rules in response to a Petition from the City of Richardson, Texas to clarify when and how a PSAP can request delivery of service from a wireless carrier. The change was aimed at ensuring that deployment efforts by carriers and PSAPs are maximized to achieve the most effective implementation results. The new rules will help prevent squandering valuable time attempting to deploy service in areas with prevailing technical problems or where the PSAP is not ready to truly receive delivery of the service. The FCC rule change clarified when a PSAP's request for E911 service can be deemed "valid." Specifically, the amendment changed FCC rules Section 20.18(j), which sets forth the conditions of PSAP readiness under which a PSAP can request E911 service from a wireless carrier.

The rules require that a PSAP (1) make a request for service to a wireless carrier; (2) is capable of receiving and utilizing the Automatic Location Identification ("ALI") and Automatic Number Identification ("ANI") data elements associated with the service; and (3) have a mechanism for recovering the PSAP's costs. Western Wireless has not yet received confirmation from your county that these three criteria have been met. In order for Western Wireless to proceed with E911 deployment activities in your county it requires that you respond with the status of your county and PSAP regarding the above three prerequisites.

CERTIFICATION

PSAP Name: Cascade County / Great Falls Police Dept 911 Center

- 1) Did the PSAP make a request to Western Wireless for the delivery of service? YES NO
- 2) Is the PSAP capable of receiving and utilizing the Automatic Number Identification (ANI) and Automatic Location Identification (ALI) data elements associated with service? YES NO
- 3) Does the PSAP have a mechanism for recovering the PSAP's costs? YES NO

I hereby certify that the above listed PSAP has made a valid request for the delivery of E911 service from Western Wireless, and that the PSAP is capable of receiving and utilizing the ANI and ALI data elements of the service, and that the PSAP has a mechanism for its cost recovery.

Signature: [Signature]

Date: April 8 2004

For technical questions concerning the delivery of service, please contact Kim Smith, with Intrado at (720) 494-5898. For questions concerning contracts and cost of service, please contact Nathan Glazier with Western Wireless at (425) 586-8432. Please complete all four pages of this document and return it to Western Wireless at the address below within 30 days.

Western Wireless Corporation
Attn: Nathan Glazier
3650 131st Ave. SE, Suite 400
Bellevue, WA 98006
Fax: (425) 586-8118

Western Wireless Corporation

6. Intrado Sample PSAP Survey Response



Informed Response: PSAP Survey

Please indicate questions you cannot answer. We will gladly contact the person who has the information.

General Information	Current	Corrections/Additions
PSAP Name	Great Falls-Cascade County 9-1-1	
PSAP ID For Intrado internal use only	30328000	
24x7 Phone Number A 24 hour / 7 day a week 10 digit number that rings into the emergency dispatch center and is answered by 9-1-1 call takers. This number would be used for any public safety emergency which can not be traditionally routed on "9-1-1" trunks or lines.	(406) 452-7906	
Additional 24x7 Phone Number	(406) 761-5135	
Physical Address of PSAP	112 1st St S	
City	Great Falls	
County	CASCADE	
State	MT	
Zip Code	59403	
Mailing Address for PSAP	112 1st St S	
City	Great Falls	
State	MT	
Zip Code	59403	
PSAP Website Address		
Does your PSAP have access to the Internet?		
Oversight Agency/Authority Board Name		
Administrative Contact Name of contact at the PSAP who oversees the dispatch center	Pamela Johnstone	
Contact Title	MSAG Coordinator	
Phone Number	(406) 455-8555	
Fax Number	(406) 761-7858	
Email	pjohnstone@ci.great-falls.mt.us	
9-1-1 Service Type B = Basic or E = ALI Enhanced	B	
Enhanced Date If Basic, what is anticipated cutover date to ALI?	Existing & Enhanced	
Wireline PSAP Type P = Primary (receives first routed 9-1-1 calls) S = Secondary (receives 9-1-1 calls by transfer from a primary only)	P	
Wireless PSAP Type same as above but for wireless calls	P	
Alternate PSAP Where are calls transferred if your PSAP is evacuated?	Mahmston AFB	
Wireless Primaries Please list all wireless primary answering points for your county	Great Falls-Cascade County 9-1-1	
Wireless Coverage Area If you are a wireless primary, for what cities/towns/areas do you answer wireless 9-1-1 calls?	Entire county of Cascade	
MSAG Coordinator Who is the county MSAG Coordinator?	Pamela Johnstone	
Contact Title	MSAG Coordinator	
Phone Number	(406) 455-8555	
Fax Number	(406) 761-7858	
Email	pjohnstone@ci.great-falls.mt.us	
Phase I Wireless Information	Current	Corrections/Additions
Wireless Deployment Contact Name of person responsible for wireless Phase I / Phase II deployment	Robert Jones	
Title	9-1-1 Coordinator	
Address	PO Box 5021	
City, State, Zip	Great Falls MT 59403	
Phone Number	(406) 455-8410	
Fax Number	406 771-1664	
Email	bjones@ci.great-falls.mt.us	
Will this person be making call routing decisions?	y	
If not, who is the correct person?		

6. Intrado Sample PSAP Survey Response

PSAP Technical Contact Who is the person who maintains your PSAP's CPE (ALI, Phones)	Qwest 800 357 0911	
Phone Number		
Email		
ALI Display Vendor (e.g. Motorola, Positron, CML)	Plant Equipment	
ALI Display Model (e.g. Centralink, Lifeline, Sentinel, etc.)	MAARS	
What is the software version number running on this equipment?		
What is your PSAP's Phase I ALI Format Name?	N/A	
Are any changes planned to your ALI format in the near future? If so, what changes and when will they be made?	No	
Please provide a screen print of a sample ALI record		
20 Digit Capability Is your 9-1-1 system capable of receiving 20 digits (vs. 8 or 10) from the selective router?	Y	
Computer-Aided Dispatch Does your PSAP have CAD?	Y	
Is the CAD connected to the ALI display?	Y	
If no CAD, do you use mapping software? What is it called?		
Planned Activities Are there any planned equipment upgrades within the next 6-12 months? If so, please list.	N	
ALI Host Provider Which telephone company provides the ALI?	Qwest Intrado	
ALI Host Contact Who is the technical support contact?	Qwest	
Phone	800 357 0911	
Standalone ALI Does your PSAP query a local or regional ALI database as opposed to, or in addition to, a national ALI database?	N	
Names of Selective Router(s) (SR) serving PSAP	Helena MT	
Which SR is the primary for wireless call routing?	Helena MT	
SR Host Provider Which telephone companies provide the SR(s)?	Ameritech	
SR Host Contact Who is the technical support contact?	Larry Sheldon Qwest	
Phone	406 543 8045	
Wireless ESN What are the wireless ESN(s) assigned to the SR(s)?	010	
Do you have plans to order dedicated wireless trunks? If so, when?	Notified	Using same trunks for wireline and wireless calls
Phase 0 Number What is the 10 digit dialable/PSTN number used to route Phase 0 calls?	406 457 8700	
Are there any issues that may affect your agency's deployment efforts, such as PSAP relocation, personnel on leave, selective router changes, etc?	No	
Phase II Wireless Information		
ALI General If Sprint, Verizon or SWBT, what is your LEC provided ALI ID (that transmits to our ALI with PAN protocol)	Current	Corrections/Additions
ALI Display Has your PSAP or LEC determined an ALI format for Phase 2?	Yes	
If yes, what is the name of the ALI format that supports Phase 2 data?	NCRS	
If yes, what date will the format be switched to Phase 2?	Ready AVL	
Please provide a screen print of a sample Phase 2 ALI record.	OK Attached	
Is your PSAP capable of manually re-bidding your ALI system to obtain dynamically updated location information?	Yes	

6. Intrado Sample PSAP Survey Response

How do you manually re-bid your ALI system to obtain dynamically updated location information? If button, what is it labeled? (e.g. Button, touchscreen, drag & drop, pull-down list, unknown = PSAP doesn't know, not available yet = avail. In future but not	Button	
ALI - CAD Connectivity Are there specific requirements in the ALI datastream that are necessary for your CPE/CAD equipment to work effectively?		
ALI - CAD Connectivity Do any fields transfer to CAD (especially X,Y)	Yes	
Has your PSAP requested Phase 2 connectivity from the LEC?	Yes	
When did you request Phase 2 connectivity from the LEC?	Feb 04	
What is the date Phase 2 connectivity is expected?	August	
Has the LEC provided a completion date?	NO	
Planned Activities (Phase 2) Are there any planned equipment upgrades required for Phase 2?	No	
Please supply any documentation from your vendor(s) that would indicate your PSAP is Phase 2 ready or the date by which your PSAP will be Phase 2 ready.		

Please return survey to: Maria Nix, Intrado Inc., 1601 Dry Creek Dr, Longmont CO 80503
 Email: maria.nix@intrado.com, Fax: 720-494-6600, Phone: 720-494-5889
 Thank you for your time and attention.

SAMPLE

6. Intrado Sample PSAP Survey Response

Can the tandem selectively route 911 calls? YES NO

Is the Selective Router capable of SS7 signaling? YES NO

If no, does the PSAP want to receive E911 service via CAMA signaling? YES NO

What is the CLLI Code of the Selective Router? HLNAMTMA

What is the Point Code of the Selective Router? 248-026-001

Does the PSAP have a current contract with the LEC to deliver 911 calls via the Selective Router to the PSAP? YES NO

If no, when will a contract be in place? _____

When will Selective Routing services begin? In place today

Are there trunks in place between the PSAP and the LEC Selective Router? YES NO

Is the PSAP currently receiving any wireless 911 calls over these trunks? YES NO

If no, when are wireless calls schedule to be cut over to these trunks? Anytime

If there are no trunks, have trunks been ordered from the LEC? YES NO

Does the LEC have capacity to add additional trunks? YES NO

When will the trunks be delivered and available for service? 9 trunks in use

ALI Database

Is the PSAP connected to a stand-alone ALI (SALI) database? YES NO

If yes, who is the manufacturer? _____

What is the model type? _____

What software load is it currently running? _____

Is the SALI database able to receive information dynamically? YES NO

If no, when will the PSAP be cut over to a national ALI database? _____

Is the PSAP connected to another national ALI database, and if so, who is the provider? Intrado

6. Intrado Sample PSAP Survey Response

How many ALI databases are there in the state? Intrado

Please list their locations: _____

Please identify the PSAPs in your county that are served by each ALI database: _____

Please identify the specific interface that will be implemented and the manner in which the LEC expects Western Wireless to interconnect with the ALI database (e.g. specific trunking and messaging requirements). _____

Interface information request should be directed to:
Robert Jones 406 455 8410

Please identify the format the LEC expects to receive the data, the type of data the ALI will be capable of receiving (including confidence factor) and all specifics required to develop an interface on the wireless network that will be compatible with the LEC ALI. _____

Will the ALI database(s) be able to query the wireless carriers' MPC? YES NO
MPC stands for "Mobile Positioning Center."

Is the PSAP currently connected to the ALI database(s)? YES NO

Is there a Phase II ALI upgrade scheduled, and when will it occur? Phase II compliant

Does the LEC currently support the "E-2" interface? YES NO

If no, is there an upgrade scheduled, and when will it occur? _____

MONTANA Wireless Carriers
Additional carrier addresses are available at
<http://www.fcc.gov/wtb/e911/>
Updated 1-30-07

Tim Green
Advanced Communications Technology (ACT)
P O Box 7039
Sheridan, WY 82801
Phone: 307-673-0910
Fax: 307-673-0911
tpgreen@actaccess.net

Mario Villalpano
Air Tel Montana
6830 Oquento Rd, Suite 203
Las Vegas, NV 89118
Phone: 702-804-5870
Fax: 702-804-5847

Renee Hoover
Alltel Communications
(formerly Western Wireless)
(dba Cellular One)
E911 Manager
Alltel Communications
1 Allied Drive
Building 5 Floor 5
Little Rock AR 72202
Phone: (501) 905-6325
Fax: (501) 9005-6307
Wireless (501) 941-8333
renee.b.hoover@alltel.com

Kathy Mahoney
Chinook Wireless
3550 Mullan Rd. Ste. 103
Missoula, MT 59808
Cell (406) 590-2018
Fax (406) 728-8814
kmahoney@chinookwireless.com

Gerry Anderson
Mid Rivers Wireless
P O Box 280
Circle, MT 59215
Phone: 406-485-3301
Fax: 406-485-2924
gerrya@midrivers.com

Ms. Jackie Mines
Qwest Wireless
200 South 5th Street, Rm 1700
Minneapolis, MN 55402
Phone: 612-664-4850
Fax: 612-664-4772
jackie.mines@qwest.com

Gary Dascher
Sagebrush Cellular
Subsidiary of Nemont Telephone Cooperative
P O Box 352
702 2nd Ave. So.
Glasgow, MT 59230
Phone: 406-228-2600
Fax: 406-228-9908

Chris Hunter
Transaria, Inc
7330 Shedhorn Drive
Bozeman, MT 59718-6951
Phone: 406-556-1710
Fax: 406-585-9645
chunter@transaria.com

Tim Hodges
Triangle Communications System, Inc.
P O Box 1140
Havre, Montana 59501
Phone: 406-394-7807
Fax: 406-394-2141
tim.hodges@mtintouch.net

Mr. Peter McHale
Verizon Wireless
One Verizon Place, MS GA3B1REG
Alpharetta, GA 30004
Phone: 678-339-4295
FAX: 678-339-8554
peter.cchale@VerizonWireless.com

Appendix B

9-1-1 GLOSSARY

9-1-1: A three digit telephone number to facilitate the reporting of an incident or situation requiring response by a public safety agency

9-1-1 Call: Any telephone call that is made by dialing the digits "9-1-1"

9-1-1 Jurisdiction: A group of public or private safety agencies who operate within or are affected by one or more common, telephone company central office boundaries and who have agreed in writing to jointly plan a 9-1-1 emergency telephone system

9-1-1 System: A 9-1-1 system encompasses more than a three-digit telephone number which automatically connects the emergency call to a Public Safety Answering Point (PSAP). A 9-1-1 system is the total emergency response capability involving the 9-1-1 emergency number, the dispatch function, radio equipment, staffing the PSAP facility, and the management of a coordinated effort in law enforcement, fire, and emergency medical aid

Abandoned Call: A called placed to 9-1-1 in which the caller disconnects before the call can be answered by the PSAP attendant

Access Line: The telephone service line that connects a subscriber's main telephone(s) or equivalent main telephone(s) to the telephone company's switching office. As used in 10-4-101 MCA, Exchange Access Service means; "Telephone exchange access lines or channels that provide local access from the premises of a subscriber in this state to the local telecommunications network to effect the transfer of information". This definition is provided as a means of establishing the point at which the 9-1-1 telephone fee is applied

ACD: See "Automatic Call Distributor"

ALI (Automatic Location Identification): A system capability that enables an automatic display of information defining geographical location (e.g., a street address) of the telephone used to place the 9-1-1 call; this feature is available in Enhanced 9-1-1 (E9-1-1) systems

ANI (Automatic Number Identification): A capability that enables the automatic display of the 7-digit number of the telephone used to place the 9-1-1 call; this feature is available in E 9-1-1 systems and some customized 9-1-1 systems

APCO: Associated Public Safety Communications Officers International

Automatic Call Distributor (ACD): Equipment used to distribute large volumes of incoming calls, in approximate order of arrival, to call takers not already working on calls or to "store" calls until call takers become available

Basic 9-1-1 System: A telephone system which automatically connects a person dialing the digits "9-1-1" to an established PSAP through normal telephone service facilities

CAD: Computer Aided Dispatch

Call Detail Recording: Provides a written record by telephone number of all E9-1-1 calls received by a PSAP

Called Party Hold: A telephone system feature that enables the PSAP to control the 9-1-1 call and to maintain a connection through the telephone system's switching facilities even if the 9-1-1 caller has hung up the telephone, or to permit the tracing of a call

Call Relay Method: The 9-1-1 call is answered at the PSAP, where the pertinent information is gathered, and the call taker relays the caller's information to the appropriate public or private safety agency for further action

Call Transfer Method: The PSAP call taker determines the appropriate response agency and transfers the 9-1-1 caller to that agency

Central Office (CO)--also called a wire center (a switching unit in a telephone system): The smallest subdivision in the telephone system which has relatively permanent geographic service boundaries defined by the extent of CO physical telephone service coverage and/or electronic software defined coverage

Centrex: A type of private exchange with its switching equipment as part of the telephone company's central office. Centrex systems enable incoming calls to be dialed directly to any extension without an operator's assistance and are often used to tie numerous separate offices or locations together. Outgoing intercom calls are dialed directly by the extension users. When making an emergency call from a Centrex phone, it is usually necessary to dial "9" before dialing the 9-1-1 emergency number

CJIN: Criminal Justice Information Network, MT Dept. of Justice, previously known as "LETS" or the Law Enforcement Teletype System

Customer Premises Equipment (CPE): Terminal equipment at a primary PSAP

Database: A collection of information organized in a computer to facilitate rapid search and retrieval. For E9-1-1, such databases include Master Street Address Guide (MSAG), telephone number/ESN, and telephone customer records

Data Management System (DMS): A system of manual procedures and computer programs used to create, store and update the data required to provide selectively routed 9-1-1 service

Dedicated Trunk: A telephone circuit used for one purpose only, i.e., transmission of 9-1-1 calls

Default Routing: A selective routing feature which allows 9-1-1 calls to be routed to a designated alternate location (the default PSAP) if the incoming 9-1-1 call cannot be selectively routed due to an ANI failure, garbled digits, or other causes which may prevent selective routing

Dial Tone First: The provision of dial tone to originate 9-1-1 calls from coin telephones without charge

Direct Dispatch Method: 9-1-1 call answering and radio dispatch for a particular agency are both performed at the PSAP

Dispatcher: An individual who uses radio or other means to dispatch a public or private safety agency's resources. This person may or may not function as a 9-1-1 call taker

Emergency Call: A telephone request for service which requires immediate action to prevent loss of life, reduce bodily injury, prevent or reduce loss of property and other emergency situations determined by local policy

EMS: Emergency Medical Services

E9-1-1 (Enhanced 9-1-1): Enhanced 9-1-1 systems is the general term referring to emergency telephone systems with specific electronically controlled features, such as ALI, ANI, Selective Routing, and which use the MSAG geofile. Most E9-1-1 systems implemented to date have been provided by the local Bell operating companies, although there are other vendors who make equipment (computers, ACD, and PSAP equipment) which is often part of the overall E 9-1-1 system

Enhanced 9-1-1: A telephone system that includes selective routing, ANI and ALI to facilitate appropriate public safety response

ESN (Emergency Service Number): Defines the selective agencies that are served by a particular telephone number

Exchange: A defined geographic area served by one or more central offices in which the telephone company furnishes services

Forced Disconnect: A telephone feature that allows the PSAP to break or disconnect a telephone connection and avoid caller jamming of 9-1-1 lines.

GIS: Geographical Information System

GPS: Global Positioning System

Idle Circuit Tone Application: A telephone system feature which applies a distinctive tone to the 9-1-1 call taker to indicate the calling party has hung up. The tone may indicate whether the calling party has hung up before or after the PSAP answers

Independents: Non-Bell System companies providing telephone service in various areas of the state

Key Telephone Equipment: A telephone set that has the capability of multiple line terminations. Most phones in offices that have six, ten, or more "buttons" are examples of key telephones. Each phone line can be accessed by depressing one of the buttons or "keys"

Logging Recorder: A device that records date/time, voice communications and other transactions involved in the processing of calls to a PSAP

Main Station: A telephone that is connected directly to a central office and has a unique telephone number. It is not an extension station

Manual Transfer: A call routing feature which allows the call taker to transfer an incoming call by pressing a single button and dialing either a telephone number or a two-digit "Speed Calling" code. Usually found only in ESS telephone central office areas

Master Street Address Guide (MSAG): The computerized geographical file that consists of all named streets and address ranges within the 9-1-1 system area. This database is the key to the selective routing capability of E 9-1-1 systems and requires constant updating after the initial file is established

NENA: National Emergency Number Association

Network:

1. A series of points interconnected by communications channels
2. The switched telephone network is the network of telephone lines normally used for dialed telephone calls
3. A private line network is a network of communications channels confined to the use of one customer

Non-selective Routing: The capability of routing 9-1-1 calls by the use of the NXX or trunk group rather than the location of the caller's telephone

NXX: The first three digits of a local telephone number that identifies the central office switching location within its area code; also referred to as NNX

P.01 Grade of Service: A measure of emergency telephone service in which no more than one call in 100 attempts will receive a busy signal on the first attempt during the average busiest hour.

PBX: Private Branch Exchange - a telephone switchboard with many stations not individually identifiable to the telephone utilities switching network (also called a PABX)

POTS: Plain Old Telephone Service

Primary PSAP: The initial answering location for 9-1-1 calls in a selectively routed 9-1-1 system

Private Line: A telephone line used only for communication between two points and which does not connect with the public telephone system

Private Safety Agency: As defined in 10-4-101 MCA means any entity, except a public safety agency, providing emergency fire, ambulance, or medical services

PSAP: Public Safety Answering Point - The initial answering location of a 9-1-1 call (sometimes called a 9-1-1 center)

Public or Private Safety Agency: As defined in 10-4-101 MCA, means the State and any city, county, city-county consolidated government, municipal corporation, chartered organization, public district, or public authority located in whole or part within this state that provides or has authority to provide emergency services

Public Switched Telephone Network (PSTN): The totality of equipment, lines, and controls assembled to establish communications paths between calling and called parties

Ringback: Permits the answering point to ring a "hung up" telephone on a held circuit; this feature is useful when a calling party has failed to provide all necessary information to the answering point before "hanging up"

Ring Back: A capability that permits the PSAP calltaker to cause the telephone on a held circuit to ring (also known as Re-ring)

Secondary PSAP: A location to which 9-1-1 calls are transferred from the primary PSAP

Selective Routing (SR): A telephone system feature that enables all 9-1-1 calls originating from within a defined geographical region to be answered at a predesignated PSAP (a component of an E9-1-1 system)

Selective Transfer: Another term for a (fixed) transfer which allows the calltakers to transfer an incoming call by pressing a single button. For example, one button would transfer calls for fire, and another button would be used for ambulance

Serving Central Office: The telephone company's central office area in which a PSAP is located

Switched Network: A complex of diversified channels and equipment that automatically routes communications between the calling and called person or data equipment

Switchhook Status Indication: Allows the PSAP to monitor, by means of supervisory lamps, the status of a calling party being held. Indicates whether the calling party still is connected, is on hold, or has disconnected

Tandem Trunking: An arrangement where a telephone line connection has one or more intermediate switching points which are required or permitted before reaching the final destination (called party)

Tariff: A document filed by a telephone company with the State Public Service Commission which lists the communication services offered by the company and gives a schedule of rates and charges

TDD: Telecommunications Device for the Deaf

Telco: Telephone company or utility

Telephone Utility (TELCO): Means any public utility that is engaged in the business of supplying the public with telephone or telephonic service or operating a telephone exchange

Terminal Equipment: Telephone call answering and transfer equipment

Trunk: A circuit used for connecting a subscriber in a central office to other services in/out of the switching equipment (e.g., Long Distance Trunk, Operator Trunk, Recorded Announcement Trunk, etc.)

Trunk Group: One or more trunks terminated at the same two points

TTY: Teletypewriter (see "TDD")

Uninterruptible Power Supply (UPS): The capability of providing a continuous source of power without regard to the interruption or loss of commercial power.

Appendix C



STATE OF MONTANA BASIC and ENHANCED 9-1-1 FUNDING GUIDELINES

The following criteria or standards have been established to determine if budgetary items are appropriate to the installation, operation, and improvement of an emergency telephone system using 9-1-1 and can be funded from money received from the **Basic or Enhanced 9-1-1 Emergency Telecommunications Account** established under 10-4-301 MCA:

1. **PSAP Operation:** The budgetary item relates to the operation of the public safety answering point (PSAP) and may include:
 - Telephone system for the public safety answering point (PSAP) capable of handling the required 9-1-1 trunks and non-emergency lines, including network cards, etc.
 - Installation and recurring phone costs for 9-1-1 trunks and non-emergency lines for the PSAP
 - Telephone Devices for the Deaf (TDDs) for each call-taker position
 - FAX line if located at the PSAP
 - Radio consoles installed in the PSAP
 - Radio frequency coordination / licensing fees /dispatch paging
 - Paging Encoders / paging systems
 - Special emergency notification paging systems / “reverse 9-1-1” systems
 - Voice logging recorder capable of recording all incoming phone lines and radio channels, including recording media (the PSAP may choose to purchase a recorder with fewer channels and record 9-1-1 lines and selected non-emergency lines and/or radio channels)
 - Instant recall playback recorders for each dispatch position

- Software and hardware for computer aided dispatch (CAD)
 - The PSAP's share (pro-rated) for records management system (RMS) software
 - Computer hardware and/or software used by call-takers and/or radio dispatchers in the PSAP, including printers, UPS units, cabling, etc.
 - Upgrades to PSAP computer hardware and software as required
 - Costs for maintenance and repair of equipment located in the PSAP or equipment room
 - Headsets, headset cords and other misc. small equipment for the PSAP
 - Maps (wall maps, map books, computer-based maps, etc.), including map racks and/or stands
 - Materials, such as paper and notebooks, required to develop written Standard Operating Guidelines (SOGs) for the PSAP
 - Books and resource materials used in the PSAP such as reverse directories, local government and law enforcement agency directories
 - Furniture for the PSAP such as workstations, chairs, printer stands, etc.
 - Generator to provide power in case of power failure and battery backup to supply power to PSAP equipment (pro-rated if backup power also supplied to other areas of the building)
 - Security camera and/or intercom system monitored or used by PSAP personnel
 - Air conditioning and/or air filter system for PSAP and equipment room
 - Miscellaneous supplies used in the PSAP
 - Insurance costs
2. **E9-1-1:** The budgetary item relates to the development, installation and operation of the jurisdiction's enhanced 9-1-1 (E9-1-1) system and may include:
- Telephone equipment capable of handling and displaying E9-1-1 database information
 - Costs associated with developing the Master Street Address Guide (MSAG) and the E9-1-1 database
 - Costs associated with maintaining the MSAG and E9-1-1 database

- Costs associated with hiring an E9-1-1 project manager or consultant to assist with planning and/or project management
 - Costs associated with providing Wireless E9-1-1 services
3. **Dispatch of emergency service responders:** The budgetary item supports the direct dispatch, relay or transfer of calls for emergency service and may include:
- Paging encoders and emergency paging systems in the PSAP
 - Pagers for law enforcement, fire or emergency medical service (EMS) responders
 - Repeater sites including buildings and/or towers and any equipment at the site used by the PSAP (costs must be pro-rated if the site is used by other entities)
 - Microwave sites including buildings and/or towers and any equipment at the site used by the PSAP; also microwave links (costs must be pro-rated if the site is used by other entities)
 - Utility costs for providing electricity to repeater or microwave sites
 - Backup generator, battery backup, and alarm systems for repeater or microwave sites
 - The PSAP's share of lease/rental costs for repeater or microwave sites
 - Costs associated with maintenance, repair, or upgrades for PSAP or repeater/microwave site equipment
 - Maintenance and/or repair of the repeater or microwave site and any equipment at the site used by the PSAP
4. **Training:** The budgetary item is related to call-taker, dispatcher, or supervisor training; allowable expenditures include:
- Tuition costs for the class, conference, workshop or seminar
 - Costs for materials used in the training session
 - Costs related to emergency medical dispatch, including flip cards for use in the PSAP
 - Travel expenses, including meals and lodging
 - Salaries for dispatchers attending the training and for dispatchers to fill shifts at the

PSAP while others attend the training

- Dues and memberships fees for dispatchers, supervisors, technical support staff and managers for professional organizations such as APCO or NENA
 - Subscriptions to 9-1-1 or dispatch related magazines, such as *9-1-1 Magazine*
5. **PSAP Building requirements including moving expenses:** The budgetary item is related to a PSAP remodel, whether to provide additional work area or to ensure that the PSAP is located in a secure area. Funds may also be used for costs associated with moving the PSAP to another facility, including the cost of purchase or construction of a new building (pro-rated if other agencies are located in the facility).
 6. **Public Education:** Costs associated with developing a public education program and disseminating information to the general public, elected officials, and user agencies about proper use of 9-1-1, what the system provides, what the needs are, and any other information pertinent to the successful operation of 9-1-1 systems.
 7. **Salaries:** The budgetary item is for salaries for call-takers, dispatchers, PSAP shift supervisors, PSAP managers, 9-1-1 Coordinators, technical support staff (pro-rated), addressing coordinators (pro-rated) and employees responsible for addressing, MSAG, or E9-1-1 database construction and/or maintenance (pro-rated).
 8. **Alternate PSAP:** The budgetary item is related to the development and operation of an alternate PSAP and may include phone line and equipment costs, computer hardware and software, maps, furniture, and other miscellaneous materials necessary for successful operation of the alternate site.
 9. **Addressing:** The budgetary item is related to a rural or municipal addressing project necessary for the successful implementation of enhanced 9-1-1 (E9-1-1); allowable expenditures include:
 - GPS centerline road mapping within the 9-1-1 jurisdiction, including purchase of GPS equipment and salaries for the person(s) doing the work
 - Assignment of addresses to all structures within the 9-1-1 jurisdiction and address verification, including verification letters to residents
 - Costs associated with coordinating addressing assignment with the U.S. Postal Service
 - GIS compilation of the data and final map output in both hardcopy and digital formats
 - Purchase of hardware and software necessary for the GIS work
 - Costs associated with assigning addresses and producing paper maps without the use of GIS

- Cost for hiring a contractor to conduct the rural addressing project
- Training costs for employee(s) who will assume maintenance of the addressing, MSAG and E9-1-1 databases; includes training in use of GPS equipment
- Costs associated with addressing, MSAG, and E9-1-1 database maintenance
- 9-1-1 pro-rated share of costs associated with web-based GIS maintenance, including set-up fee and website maintenance

10. An explanation of how the budgetary item supports the installation, operation, or improvement of an E9-1-1 emergency telephone system is addressed in the Jurisdiction's 9-1-1 application "Project Overview".

Future budgetary expenditures, not included or contemplated in the Jurisdiction's original Final Plan for E9-1-1, must be referred to the State 9-1-1 Program for review and approval.

Annual expenditure reports to the State 9-1-1 Program are required of all funds received from the State 9-1-1 Program and are subject to periodic monitoring. This requirement is to ensure 9-1-1 jurisdictions are adhering to an approved plan and are using 9-1-1 Program funds in the manner prescribed by statute (10-4-303 & 312 MCA).

1 st Draft:	12/21/2000
2 nd Draft:	3/6/2001
3 rd Draft:	5/2/2002
Adopted	6/26/2002

REFERENCES

TITLE 10

**MILITARY AFFAIRS AND DISASTER
AND EMERGENCY SERVICES**

CHAPTER 4

STATE EMERGENCY TELEPHONE SYSTEM

Part 1 -- Emergency Telephone System Plans

- 10-4-101. Definitions.
- 10-4-102. Department of administration duties and powers.
- 10-4-103. Emergency telephone system requirements.
- 10-4-104. Agreements among safety agencies for rendering emergency services.
- 10-4-105 through 10-4-110 reserved.
- 10-4-111. Submission of preliminary plans for 9-1-1 jurisdictions -- review -- cost estimates.
- 10-4-112. Submission and approval of final plans -- exception.
- 10-4-113. Requirement for approval of final plan -- department to insure compliance.
- 10-4-114 through 10-4-120 reserved.
- 10-4-121. Pay phones to be converted to allow emergency calls without charge.
- 10-4-122 through 10-4-124 reserved.
- 10-4-125. Submission of revised plan for conversion from basic 9-1-1 to enhanced 9-1-1.
- 10-4-126. Dedicated 9-1-1 telephone facilities to be provided -- capabilities.

Part 2 -- Funding

- 10-4-201. Fees imposed for telephone exchange access services.
- 10-4-202. Exemptions from fees imposed.
- 10-4-203. Provider required to maintain record of collections.
- 10-4-204. Deadlines for filing returns.
- 10-4-205. Refund to provider for excess payment of fee.

- 10-4-206. Credit for overpayment -- interest on overpayment.
- 10-4-207. Statute of limitations.
- 10-4-208 through 10-4-210 reserved.
- 10-4-211. Provider required to hold fee in trust for state -- penalty and interest.
- 10-4-212. Provider considered a taxpayer under provisions for fee.

Part 3 -- Emergency Telephone System Account--Usage

- 10-4-301. Establishment of emergency telecommunications accounts.
- 10-4-302. Distribution of basic 9-1-1 account by department.
- 10-4-303. Limitation on use of basic 9-1-1 funds.
- 10-4-304 through 10-4-310 reserved.
- 10-4-311. Distribution of enhanced 9-1-1 account by department.
- 10-4-312. Limitation on use of enhanced 9-1-1 funds.

Part 1

Emergency Telephone System Plans

10-4-101. Definitions. As used in this chapter, unless the context requires otherwise, the following definitions apply:

- (1) "Basic 9-1-1 account" means the 9-1-1 emergency telecommunications account established in 10-4-301(1)(a).
- (2) "Basic 9-1-1 service" means a telephone service meeting the standards established in 10-4-102 that automatically connects a person dialing the digits 9-1-1 to an established public safety answering point.
- (3) "Basic 9-1-1 system" includes equipment for connecting and outswitching 9-1-1 calls within a telephone central office, trunking facilities from the central office to a public safety answering point, and equipment, as appropriate, that is used for transferring the call to another point, when appropriate, and that is capable of providing basic 9-1-1 service.
- (4) "Department" means the department of administration provided for in Title 2, chapter 15, part 10.
- (5) "Direct dispatch" means a 9-1-1 service in which a public safety answering point, upon receipt of a telephone request for emergency services, provides for a decision as to the proper action to be taken and for dispatch of appropriate emergency service units.
- (6) "Emergency" means an event that requires dispatch of a public or private safety agency.
- (7) "Emergency services" means services provided by a public or private safety agency,

including law enforcement, firefighting, ambulance or medical services, and civil defense services.

(8) "Enhanced 9-1-1 account" means the 9-1-1 emergency telecommunications account established in 10-4-301(1)(b).

(9) "Enhanced 9-1-1 service" means telephone service that meets the requirements for basic 9-1-1 service and that consists of selective routing with the capability of automatic number identification and automatic location identification at a public safety answering point enabling users of the public telecommunications system to request emergency services by dialing the digits 9-1-1.

(10) "Enhanced 9-1-1 system" includes customer premises equipment that is directly related to the operation of an enhanced 9-1-1 system, including but not limited to automatic number identification or automatic location identification controllers and display units, printers, and software associated with call detail recording, and that is capable of providing enhanced 9-1-1 service.

(11) "Exchange access services" means:

(a) telephone exchange access lines or channels that provide local access from the premises of a subscriber in this state to the local telecommunications network to effect the transfer of information; and

(b) unless a separate tariff rate is charged for the exchange access lines or channels, any facility or service provided in connection with the services described in subsection (11)(a).

(12) A "9-1-1 jurisdiction" means a group of public or private safety agencies who operate within or are affected by one or more common central office boundaries and who have agreed in writing to jointly plan a 9-1-1 emergency telephone system.

(13) "Private safety agency" means any entity, except a public safety agency, providing emergency fire, ambulance, or medical services.

(14) "Provider" means a public utility, cooperative telephone company, or any other entity that provides telephone exchange access services.

(15) "Public safety agency" means the state and any city, county, city-county consolidated government, municipal corporation, chartered organization, public district, or public authority located in whole or in part within this state that provides or has authority to provide emergency services.

(16) "Public safety answering point" means a communications facility operated on a 24-hour basis that first receives 9-1-1 calls from persons in a 9-1-1 service area and that may, as appropriate, directly dispatch public or private safety services or transfer or relay 9-1-1 calls to appropriate public safety agencies.

(17) "Relay" means a 9-1-1 service in which a public safety answering point, upon receipt of a telephone request for emergency services, notes the pertinent information from the caller and relays the information to the appropriate public safety agency, other agencies, or other providers of emergency services for dispatch of an emergency unit.

(18) "Subscriber" means an end user who receives telephone exchange access services.

(19) "Transfer" means a 9-1-1 service in which a public safety answering point, upon receipt of a telephone request for emergency services, directly transfers the request to an appropriate public safety answering agency or other provider of emergency services.

History: En. Sec. 1, Ch. 635, L. 1985; amd. Sec. 30, Ch. 370, L. 1987; amd. Sec. 46, Ch. 42, L. 1997; amd. Sec. 1, Ch. 448, L. 1997.

10-4-102. Department of administration duties and powers. (1) The department shall assist in the development of basic and enhanced 9-1-1 systems in the state. The department shall:

(a) establish procedures for determining and evaluating requests for variations from basic or enhanced 9-1-1 service;

(b) upon request of a 9-1-1 jurisdiction, assist in planning a basic or enhanced 9-1-1 system;

(c) establish criteria for evaluating basic and enhanced 9-1-1 system plans;

(d) monitor implementation of approved basic and enhanced 9-1-1 system plans for compliance with the plan and use of funding; and

(e) as it finds necessary, report to the legislature the progress made in implementing statewide basic and enhanced 9-1-1 systems.

(2) The department shall obtain input from all 9-1-1 jurisdictions by creating an advisory council to participate in development and implementation of the 9-1-1 program in the state. The council must be established pursuant to 2-15-122. The highway patrol, emergency medical services organizations, telephone companies, the associated public safety communicators, the department of emergency services, police departments, sheriff's departments, local citizens, organizations, and other public safety organizations may submit recommendations for membership on the advisory council.

History: En. Sec. 3, Ch. 635, L. 1985; amd. Sec. 20, Ch. 112, L. 1991; amd. Sec. 16, Ch. 349, L. 1993; amd. Sec. 2, Ch. 448, L. 1997.

10-4-103. Emergency telephone system requirements. (1) Every public and private safety agency in this state may establish or participate in a basic or enhanced 9-1-1 system.

(2) A basic 9-1-1 system must include:

(a) a 24-hour communications facility automatically accessible anywhere in the 9-1-1 jurisdiction's service area by dialing 9-1-1;

(b) direct dispatch of public and private safety services in the 9-1-1 jurisdiction or relay or transfer of 9-1-1 calls to an appropriate public or private safety agency; and

(c) a 24-hour communications facility equipped with at least two trunk-hunting local access circuits provided by the local telephone company's central office.

(3) An enhanced 9-1-1 system must include, in addition to the requirements for a basic 9-1-1 system:

(a) automatic number identification that automatically identifies and displays the calling telephone number at the public safety answering point; and

(b) automatic location identification that automatically identifies and displays the address of the calling telephone at the public safety answering point.

(4) The primary emergency telephone number within the state is 9-1-1, but a public safety answering point shall maintain both a separate seven-digit secondary emergency number for use by the telephone company operator and a separate seven-digit nonemergency number.

History: En. Sec. 2, Ch. 635, L. 1985; amd. Sec. 3, Ch. 448, L. 1997.

10-4-104. Agreements among safety agencies for rendering emergency services. (1) Public or private safety agencies sharing common boundaries may enter into agreements which provide that an emergency unit dispatched by an emergency telephone system established in accordance with 10-4-103 must render emergency services without regard to jurisdictional boundaries.

(2) A public safety agency with jurisdictional responsibilities must in all cases be notified by the public safety answering point of a request for service in the agency's jurisdiction.

History: En. Sec. 7, Ch. 635, L. 1985.

10-4-105 through 10-4-110 reserved.

10-4-111. Submission of preliminary plans for 9-1-1 jurisdictions -- review -- cost estimates. (1) A 9-1-1 jurisdiction may submit a preliminary plan for establishing a basic or enhanced 9-1-1 system in accordance with 10-4-103 to:

- (a) public and private safety agencies in the 9-1-1 jurisdiction;
- (b) the department; and
- (c) providers of telephone service in the 9-1-1 jurisdiction's service area.

(2) The department shall review the preliminary plan for compliance with 10-4-103 and rules adopted pursuant to 10-4-102 and report its approval or disapproval to the 9-1-1 jurisdiction within 90 days of receipt of the plan.

(3) A provider of telephone service in the 9-1-1 jurisdiction's service area shall, within 90 days of receipt of the plan, provide the 9-1-1 jurisdiction with a good faith estimate of the cost to the 9-1-1 jurisdiction for implementing the plan.

History: En. Sec. 4, Ch. 635, L. 1985; amd. Sec. 4, Ch. 448, L. 1997.

10-4-112. Submission and approval of final plans -- exception. (1) A 9-1-1 jurisdiction shall submit a proposed final plan for establishing a basic or enhanced 9-1-1 system pursuant to 10-4-103 within 1 year from receipt of the department's approval of its preliminary plan to:

- (a) public and private safety agencies in the 9-1-1 jurisdiction;
- (b) the department; and
- (c) providers of telephone service in the 9-1-1 jurisdiction's service area.

(2) In addition to other matters required by 10-4-103, the final plan must include a description of all capital and recurring costs for the proposed basic or enhanced 9-1-1 system.

(3) The department shall determine whether the final plan complies with 10-4-103 and rules adopted pursuant to 10-4-102. Subject to 10-4-113, if the department determines that the plan complies, it shall approve the plan, or if the department determines that the plan does not comply, it shall disapprove the plan. The department shall inform the 9-1-1 jurisdiction of its decision within 180 days of receipt of the plan. In any statement approving a final plan, the

department shall indicate a timetable in which the provider shall undertake necessary telephone system conversions. The timetable must be such that conversions may not be required unless sufficient funds to compensate the provider for its conversion costs are available within 1 year of the initial installation of the 9-1-1 system.

History: En. Sec. 5, Ch. 635, L. 1985; amd. Sec. 5, Ch. 448, L. 1997.

10-4-113. Requirement for approval of final plan -- department to insure compliance. The department may not approve the preliminary or final plan for basic or enhanced 9-1-1 service within a 9-1-1 jurisdiction unless the plan is accompanied by a written approval from the governing bodies of all participating public and private safety agencies included in the 9-1-1 jurisdiction.

History: En. Sec. 6, Ch. 635, L. 1985; amd. Sec. 6, Ch. 448, L. 1997.

10-4-114 through 10-4-120 reserved.

10-4-121. Pay phones to be converted to allow emergency calls without charge. Every provider of telephone service or other owner of a pay station telephone in an area served by an emergency telephone system established pursuant to 10-4-103 must convert every pay station telephone to permit dialing 9-1-1 or the telephone company operator without deposit of a coin or other charge to the caller. Conversion must be completed by or before the time the emergency telephone system is operational.

History: En. Sec. 8, Ch. 635, L. 1985.

10-4-122 through 10-4-124 reserved.

10-4-125. Submission of revised plan for conversion from basic 9-1-1 to enhanced 9-1-1. (1) A jurisdiction intending to implement an enhanced 9-1-1 system shall submit an amended plan for establishing an enhanced 9-1-1 system to:

- (a) every public and private safety agency in the 9-1-1 jurisdiction;
- (b) the department; and
- (c) all providers of telephone service in the 9-1-1 jurisdiction's service area.

(2) The amended plan must include:

- (a) a description of all capital and recurring costs for the proposed enhanced 9-1-1 system;
- (b) the proposed schedule for implementation of the enhanced 9-1-1 system;
- (c) the proposed expenditures for equipment and software upgrades;
- (d) a plan for maintaining all automatic number identification and all automatic location identification databases; and
- (e) a plan for 9-1-1 dispatcher training that must include, at a minimum:
 - (i) basic telecommunicator certification awarded upon successful completion of the basic telecommunicator class offered through the Montana law enforcement academy;

(ii) emergency medical dispatch certification awarded upon successful completion of one of the emergency medical dispatch programs that provide dispatch-specific medical training and training and practice in the use of written or automated medical dispatch protocols; or

(iii) training that includes handling 9-1-1 emergency telephone calls and relaying information to the appropriate responder or dispatch agency.

(3) (a) The department shall determine whether the enhanced 9-1-1 plan complies with the provisions of this part, including rules adopted pursuant to 10-4-102, and shall inform the 9-1-1 jurisdiction of its determination within 180 days of receipt of the plan.

(b) If the department approves an enhanced 9-1-1 plan, the department shall indicate a timetable within which the provider shall undertake necessary conversions to dedicated 9-1-1 circuits. The timetable must be such that conversions may not be required unless sufficient funds to compensate the provider for its conversion costs are available within 1 year of the initial installation of the 9-1-1 system.

(4) If enhanced 9-1-1 service has been included as part of an approved final plan for basic 9-1-1 service, the jurisdiction is not required to submit an amended plan for enhanced 9-1-1 service.

History: En. Sec. 7, Ch. 448, L. 1997.

10-4-126. Dedicated 9-1-1 telephone facilities to be provided -- capabilities. Every provider of telephone service in an area served by an emergency telephone system established pursuant to 10-4-103 shall provide dedicated 9-1-1 telephone facilities capable of providing automatic number identification to the public safety answering point. The provision of facilities and services required under this section must be accomplished according to a plan, including a timetable, approved pursuant to 10-4-111.

History: En. Sec. 8, Ch. 448, L. 1997.

Part 2

Funding

10-4-201. Fees imposed for telephone exchange access services. (1) Except as provided in 10-4-202:

(a) for basic 9-1-1 services, a fee of 25 cents a month per access line on each service subscriber in the state is imposed on the amount charged for telephone exchange access services, wireless telephone service, or other 9-1-1 accessible services; and

(b) for enhanced 9-1-1 services, a fee of 25 cents a month per access line on each service subscriber in the state is imposed on the amount charged for telephone exchange access services, wireless telephone service, or other 9-1-1 accessible services.

(2) The subscriber paying for exchange access line services is liable for the fees imposed by this section.

(3) The provider shall collect the fees. The amount of the fees collected by the provider is considered payment by the subscriber for that amount of fees.

(4) Any return made by the provider collecting the fees is prima facie evidence of payments by the subscribers of the amount of fees indicated on the return.

History: En. Sec. 9, Ch. 635, L. 1985; amd. Sec. 9, Ch. 448, L. 1997.

10-4-202. Exemptions from fees imposed. The fees imposed by 10-4-201 do not apply to:

(1) services that the state is prohibited from taxing under the constitution or laws of the United States or the constitution or laws of the state of Montana; or

(2) amounts paid by depositing coins in a public telephone.

History: En. Sec. 10, Ch. 635, L. 1985; amd. Sec. 10, Ch. 448, L. 1997.

10-4-203. Provider required to maintain record of collections. Every provider responsible for the collection of the fee imposed by 10-4-201 shall keep records, render statements, make returns, and comply with rules adopted by the department of revenue with respect to the fee. Whenever necessary in the judgment of the department of revenue, it may require the provider or subscriber to make returns, render statements, or keep records sufficient to show whether there is liability for the fee.

History: En. Sec. 11, Ch. 635, L. 1985.

10-4-204. Deadlines for filing returns. (1) The provider collecting the fee under 10-4-201 must file a return with the department of revenue on or before the last day of the month following the end of each calendar quarter, reporting the amount of fee due on exchange access line services during the quarter. Returns are subject to the penalty for false swearing provided in 45-7-202.

(2) When a return of the fee is required, the provider required to make the return shall pay the fee due the department of revenue at the time fixed for filing the return.

(3) The provider shall pay the fee based on the net amount billed for the exchange access service fee during the quarter.

(4) As used in this section, the "net amount billed for the exchange access service fee" equals the gross amount billed for such service, less adjustments for uncollectible accounts, refunds, incorrect billings, and other appropriate adjustments.

History: En. Sec. 12, Ch. 635, L. 1985.

10-4-205. Refund to provider for excess payment of fee. If the amount paid by a provider to the department of revenue exceeds the amount of fee owed, the department of revenue shall refund the amount of the excess payment, with interest on the excess payment at the rate of 0.5% a month or fraction of a month from the date of payment of the excess until the date of the refund. A refund may not be made to a provider who fails to claim the refund within 5 years after the due date for filing of the return with respect to which the claim for refund relates.

History: En. Sec. 13, Ch. 635, L. 1985; amd. Sec. 1, Ch. 229, L. 1993.

10-4-206. Credit for overpayment -- interest on overpayment. (1) If the department of revenue determines that the amount of fee, penalty, or interest paid for any year is more than the amount due, the amount of the overpayment must be credited against any tax, penalty, or interest then due from the taxpayer and the balance refunded to the taxpayer or the taxpayer's successor through reorganization, merger, or consolidation or to the taxpayer's shareholders upon dissolution.

(2) Except as provided in subsection (3), interest is allowed on overpayments at the same rate as is charged on deficiency assessments from the due date of the return or from the date of overpayment, whichever date is later, to the date the department of revenue approves refunding or crediting of the overpayment.

(3) (a) Interest does not accrue during any period in which the processing of a claim for a refund is delayed more than 30 days by reason of failure of the taxpayer to furnish information requested by the department of revenue for the purpose of verifying the amount of the overpayment.

(b) Interest is not allowed:

(i) if the overpayment is refunded within 6 months from the date the return is due or from the date the return is filed, whichever is later; or

(ii) if the amount of interest is less than \$1.

(c) Only a payment made incident to a bona fide and orderly discharge of actual tax liability or one reasonably assumed to be imposed by this chapter is considered an overpayment with respect to which interest is allowable.

History: En. Sec. 11, Ch. 676, L. 1991.

10-4-207. Statute of limitations. (1) Except as provided in subsection (3), a deficiency may not be assessed or collected with respect to the year for which a return is filed unless the notice of the additional fee proposed to be assessed is mailed within 5 years from the date the return was filed. For purposes of this section, a return filed before the last day prescribed for filing is considered as filed on the last day. If the taxpayer, before the expiration of the period prescribed for assessment of the fee, consents in writing to an assessment after that time, the fee may be assessed at any time prior to the expiration of the period agreed upon.

(2) A refund or credit may not be allowed or paid with respect to the year for which a return is filed after 5 years from the last day prescribed for filing the return or after 1 year from the date of the overpayment, whichever period expires later, unless before the expiration of the period the taxpayer files a claim or the department of revenue determines the existence of the overpayment and approves the refund or credit. If the taxpayer has agreed in writing under the provisions of subsection (1) to extend the time within which the department of revenue may propose an additional assessment, the period within which a claim for refund or credit may be filed or a credit or refund allowed if no claim is filed is automatically extended.

(3) If a return is required to be filed and the taxpayer fails to file the return, the tax may be assessed or an action to collect the tax may be brought at any time. If a return is required to be

filed and the taxpayer files a fraudulent return, the 5-year period provided for in subsection (1) does not begin until discovery of the fraud by the department of revenue.

History: En. Sec. 15, Ch. 676, L. 1991.

10-4-208 through 10-4-210 reserved.

10-4-211. Provider required to hold fee in trust for state -- penalty and interest. (1) Every provider required to collect the fee imposed by 10-4-201 holds it in trust for the state of Montana and for the payment thereof to the department of revenue in the manner and at the time provided by 10-4-204.

(2) (a) If a provider required to collect the fee fails to remit any amount held in trust for the state of Montana or if a subscriber fails to pay the fee on or before the last day of the month following the end of each calendar quarter, the department of revenue shall add to the amount of the delinquent fee, in addition to any other penalty provided by law, a penalty equal to 10% of the delinquent fee plus interest at the rate of 1% a month or fraction of a month computed on the amount of the delinquent fee plus any unpaid penalties and interest. Interest is computed from the date the fee is due until the date of payment.

(b) The department of revenue may waive the penalty if the provider establishes that the failure to pay on time was due to reasonable cause and was not due to neglect.

(3) (a) When a deficiency is determined and the additional fee becomes final, the department of revenue shall mail a notice and demand for payment to the provider. The fee is due and payable at the expiration of 10 days after the notice and demand were mailed. Interest on any deficiency assessment bears interest until paid, at the rate of 1% a month or fraction of a month, computed from the original due date of the return.

(b) If payment is not made within 10 days, the amount of the deficiency is considered delinquent. A 10% penalty must be added to the amount of the deficiency.

(4) The 10% penalty provided for in subsection (3)(b) may be waived by the department of revenue if the provider establishes that the failure to pay the proper amount of fees was due to reasonable cause and was not due to neglect.

(5) The department of revenue may enforce collection by the issuance of a warrant for distraint for the collection of the delinquent amount and all penalties, interest, and collection charges accrued thereon. The warrant is governed by the provisions of Title 15, chapter 1, part 7.

History: En. Sec. 14, Ch. 635, L. 1985; amd. Secs. 1, 19, Ch. 676, L. 1991.

10-4-212. Provider considered a taxpayer under provisions for fee. Unless the context requires otherwise, the provisions of Title 15 referring to the audit and examination of reports and returns, determination of deficiency assessments, claims for refunds, penalties, interest, jeopardy assessments, warrants, conferences, appeals to the department of revenue, appeals to the state tax appeal board, and procedures relating thereto apply to this part as if the fee were a tax imposed upon or measured by net income. The provisions apply to the subscriber liable for the fee and to the provider required to collect the fee. Any amount collected and required to be remitted to the department of revenue is considered a tax upon the provider

required to collect it, and that provider is considered a taxpayer.

History: En. Sec. 15, Ch. 635, L. 1985; amd. Sec. 19, Ch. 10, L. 1993.

Part 3

Emergency Telephone System Account -- Usage

10-4-301. Establishment of emergency telecommunications accounts. (1) There are established in the state special revenue fund in the state treasury:

(a) an account for all fees collected for basic 9-1-1 services pursuant to 10-4-201(1)(a); and

(b) an account for all fees collected for enhanced 9-1-1 services pursuant to 10-4-201(1)(b).

(2) All money received by the department of revenue pursuant to 10-4-201 must be paid to the state treasurer for deposit in the appropriate account. An amount equal to 3.74% of the money received pursuant to 10-4-201 must be deposited in the state general fund.

(3) The accounts established in subsection (1) retain interest earned from the investment of money in the accounts.

(4) After payment of refunds pursuant to 10-4-205, the balance of the respective accounts must be used for the purposes described in part 1 of this chapter.

(5) The distribution of funds in the 9-1-1 emergency telecommunications accounts described in subsection (1), as required by 10-4-302 and 10-4-311, is statutorily appropriated, as provided in 17-7-502, to the department.

(6) Expenditures for actual and necessary expenses required for the efficient administration of the plan must be made from appropriations made for that purpose.

History: En. Sec. 16, Ch. 635, L. 1985; amd. Sec. 2, Ch. 628, L. 1989; amd. Sec. 47, Ch. 42, L. 1997; amd. Sec. 5, Ch. 422, L. 1997; amd. Sec. 11, Ch. 448, L. 1997; amd. Sec. 5, Ch. 389, L. 1999; amd. Sec. 1, Ch. 41, L. 2001.

10-4-302. Distribution of basic 9-1-1 account by department. (1) The department shall make quarterly distributions of the entire basic 9-1-1 account. The distributions must be made for the costs incurred during the preceding calendar quarter by each provider of telephone service in the state for:

(a) collection of the fees imposed by 10-4-201;

(b) modification of central office switching and trunking equipment for emergency telephone service only; and

(c) conversion of pay station telephones required by 10-4-121.

(2) Payments under subsection (1) may be made only after application by the provider to the department for costs incurred in subsection (1). The department shall review all applications relevant to subsection (1) for appropriateness of costs claimed by the provider. If the provider contests the review, payment may not be made until the amount owed the provider is made

certain.

(3) After all amounts under subsections (1) and (2) have been paid, the balance of the account must be allocated to cities and counties on a per capita basis. However, each county must be allocated a minimum of 1% of the balance of the counties' share of the account. A 9-1-1 jurisdiction whose 9-1-1 service area includes more than one city or county is eligible to receive operating funds from the allocation for each city or county involved. The department shall distribute to the accounting entity designated by a 9-1-1 jurisdiction with an approved final plan the proportional amount for each city or county served by the 9-1-1 jurisdiction. The department shall provide a report indicating the proportional share derived from the individual city's or county's allocation with each distribution to a 9-1-1 jurisdiction.

(4) If the department through its monitoring process determines that a 9-1-1 jurisdiction is not adhering to an approved plan or is not using funds in the manner prescribed in 10-4-303, the department may, after notice and hearing, suspend payment to the 9-1-1 jurisdiction. The jurisdiction is not eligible to receive funds until the department determines that the jurisdiction is complying with the approved plan and fund usage limitations.

(5) The department shall distribute any balance in the basic 9-1-1 account on July 1, 1998, on a per capita basis to those 9-1-1 jurisdictions that have approved final plans filed with the department as required by 10-4-112.

History: En. Sec. 17, Ch. 635, L. 1985; amd. Sec. 1, Ch. 153, L. 1991; amd. Sec. 6, Ch. 422, L. 1997; amd. Sec. 12, Ch. 448, L. 1997.

10-4-303. Limitation on use of basic 9-1-1 funds. Money received under subsection (3) of 10-4-302 may be used only to pay for installing, operating, and improving a basic 9-1-1 emergency telephone system. Money not necessary for immediate use may be invested by the city or county. The income from the investments may be used only for the purposes described in this section.

History: En. Sec. 18, Ch. 635, L. 1985; amd. Sec. 13, Ch. 448, L. 1997.

10-4-304 through 10-4-310 reserved.

10-4-311. Distribution of enhanced 9-1-1 account by department. (1) The department shall make quarterly distributions of the entire enhanced 9-1-1 account for costs incurred during the preceding calendar quarter by each provider of telephone service in the state for:

(a) collection of the fee imposed by 10-4-201(1)(b); and
(b) modification of central office switching and trunking equipment necessary to provide service for an enhanced 9-1-1 system only.

(2) Payments under subsection (1) may be made only after application by the provider to the department for costs described in subsection (1). The department shall review all applications relevant to subsection (1) for appropriateness of costs claimed by the provider. If the provider contests the review, payment may not be made until the amount owed the provider is made certain.

(3) After all amounts under subsections (1) and (2) have been paid:

(a) for each fiscal year through the fiscal year ending June 30, 2007:
(i) 84% of the balance of the account must be allocated to cities and counties on a per capita basis. However, each county must be allocated a minimum of 1% of the balance of the counties' share of the account.

(ii) the remaining 16% of the balance of the account must be distributed evenly to the counties with 1% or less than 1% of the total population of the state; and

(b) for fiscal years beginning after June 30, 2007, 100% of the balance of the account must be allocated to cities and counties on a per capita basis. However, each county must be allocated a minimum of 1% of the balance of the counties' share of the account.

(4) An enhanced 9-1-1 jurisdiction whose enhanced 9-1-1 service area includes more than one city or county is eligible to receive operating funds from the allocation for each city or county involved. The department shall distribute to the accounting entity designated by an enhanced 9-1-1 jurisdiction with an approved final plan for enhanced 9-1-1 service the proportional amount for each city or county served by the enhanced 9-1-1 jurisdiction. The department shall, upon request, provide a report indicating the proportional share derived from the individual city's or county's allocation with each distribution to a 9-1-1 jurisdiction.

(5) If the department determines that an enhanced 9-1-1 jurisdiction is not adhering to an approved plan for enhanced 9-1-1 service or is not using funds in the manner prescribed in 10-4-312, the department may, after giving notice to the jurisdiction and providing an opportunity for a representative of the jurisdiction to comment on the department's determination, suspend payment from the enhanced 9-1-1 account to the 9-1-1 jurisdiction. The jurisdiction is not eligible to receive funds from the enhanced 9-1-1 account until the department determines that the jurisdiction is complying with the approved plan for enhanced 9-1-1 and fund usage limitations.

History: En. Sec. 14, Ch. 448, L. 1997; amd. Sec. 6, Ch. 389, L. 1999.

10-4-312. Limitation on use of enhanced 9-1-1 funds. (1) Money received under 10-4-311(3) or (4) may be used only to pay for installing enhanced 9-1-1 features or for operating and improving an emergency telephone system using 9-1-1 service once the plan for converting to enhanced 9-1-1 has been approved.

(2) With department approval, money received under 10-4-311(3) or (4) may be used to pay for basic 9-1-1 service. The 9-1-1 jurisdiction shall submit a request for an exception under this subsection to the department based on a demonstrated hardship, including geographical constraints, funding limitations, or absence of technical capability or capacity.

(3) Money not necessary for immediate use may be invested by the city or county. The income from the investments may be used only for the purposes described in this section.

History: En. Sec. 15, Ch. 448, L. 1997.