

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the	)	Application No. 911-001/
Commission, on its own	)	PI-52
motion, seeking to	)	
establish guidelines for	)	PROGRESSION ORDER No. 4
the administration of the	)	
Enhanced Wireless 911 Fund.	)	Dated: April 23, 2002

BY THE COMMISSION:

The Commission opened this docket on September 19, 2001, to establish guidelines for the administration of the Enhanced Wireless 911 Fund. The Commission issued Progression Order No. 3 in the above-referenced docket on January 29, 2002, sought written comments which were due March 8, 2002, and held another hearing on March 20, 2002 at 10:00 a.m. in the Commission Hearing Room.

O P I N I O N     A N D     F I N D I N G S

The Commission received written comments from the Enhanced Wireless 911 Advisory Board, ALLTEL, Intrado, Scottsbluff County, and Lancaster County. Ms. Julie Righter, Director of Lincoln/Lancaster County 911 and Mr. Robert Brower, Director of Scottsbluff County 911 testified at the hearing. Both Ms. Righter and Mr. Brower testified that coordination of testing between wireless carriers and public safety answering points (PSAPs) needs to be significantly improved. Ms. Righter testified that some PSAPs have faced difficulties in testing because some wireless carriers have not communicated with the PSAPs and have not provided sufficient advance notice of testing. For this reason, the Commission has added a provision requiring all involved parties to coordinate testing at least two weeks prior to testing, unless all parties agree otherwise. All involved parties are strongly encouraged to cooperate and communicate throughout the testing and implementation process.

Until final guidelines are adopted, the Commission will process any applications for funding from the Enhanced Wireless 911 Fund under the proposed guidelines set forth in Appendix A.

O R D E R

IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that interested parties file comments on the above-outlined issues on or before May 17, 2002. Parties filing comments should file three paper copies and one electronic copy. Electronic copies may be filed via email to [kthielen@mail.state.ne.us](mailto:kthielen@mail.state.ne.us).

IT IS FURTHER ORDERED that a hearing is set for May 23, 2002 at 1:30 p.m. in the Commission Hearing Room, Lincoln, Nebraska.

MADE AND ENTERED at Lincoln, Nebraska, this 23th day of April, 2002.

NEBRASKA PUBLIC SERVICE COMMISSION

COMMISSIONERS CONCURRING:

Chair

ATTEST:

Executive Director

APPENDIX A

Part

I. **General Guidelines Applicable to Wireless Carriers and Public Safety Answering Points (PSAPs)**

- A. **Fair Distribution of Funds:** Distributions of funds by the Commission to wireless carriers and PSAPs must be fair and nondiscriminatory.
- B. **Testing; Fund Distribution After Approval:** The PSAP, ~~and~~ the wireless carrier, the local exchange carrier, and the Director shall establish schedules for testing prior to activating wireless enhanced 911 service. Any testing must be scheduled at least two weeks in advance, unless all parties agree otherwise.
  - 1. The wireless carrier shall file a test and acceptance plan with the Commission, and the plan will not be accepted unless it meets the following requirements:
    - a. The plan shall identify phone dial plans to be tested. For each wireless carrier, testing shall include an activated phone, a non-activated phone, a roamer/traveler phone, and any pre-paid dial plans offered by a carrier.
    - b. The plan shall identify the procedures for testing and specify how results will be documented.
    - c. The wireless carriers' standard call routing sheet may be sufficient. One plan may be used for all PSAPs.

2. Testing must include, but shall not be limited to, examination of the following elements of wireless enhanced 911 service: ALI display accuracy (including network operations center number and 24 hour security number), ANI display accuracy, selective routing, default routing, and callback accuracy. Each of these elements shall be identified in the test and acceptance plan.

3. Prior to testing, the wireless carrier ~~will~~ shall forward a copy of the test and acceptance plan and a specific cell sector test plan to the PSAP jurisdiction to be tested. The wireless carrier and the PSAP shall mutually agree to test dates and times.

4. The PSAP and the wireless carrier shall verify whether testing has been successful under the plan and shall identify any discrepancies and their resulting solutions. Both parties shall signify successful completion of testing by signing the test plan. Neither party should sign the test plan unless testing has been successful. Any discrepancies or problems must be resolved to the satisfaction of the PSAP and wireless carrier prior to filing with the Commission.

5. A copy of the completed test and acceptance plan shall be filed with the Commission ~~after~~ within 30 days of successful completion of testing. After testing has been properly completed, carriers ~~can~~ may submit their invoice to the Commission to be directly reimbursed for costs that have been previously approved by the Commission. Testing will be deemed properly completed upon written approval by the Director of the Wireless Enhanced 911 Fund, and the Director will give weight to the PSAP manager's satisfaction with testing performance.

6. The Director of Enhanced Wireless 911 may serve as a mediator throughout the testing process.

C. **Timing of Orders** Timing of an order disposing of a request will be affected by the Commission's meeting schedule. Orders on requests will be entered at the Commission's public meetings ("Grist"), which generally take place every two weeks. The Commission's meeting schedule is available on its website at [www.nol.org/home/NPSC/](http://www.nol.org/home/NPSC/).

D. **Service Agreements** A public safety answering point may enter into a service agreement with one or more wireless carriers. If parties opt to use a service agreement, the Commission recommends that the parties contact the Director of the Wireless Enhanced 911 Fund for guidance in developing such agreement.

## II. Initiation of Enhanced Wireless 911 Service

- A. As required by FCC rules and regulations, a PSAP seeking enhanced wireless 911 service shall send a letter of request to wireless carriers providing service in its jurisdiction. The PSAP shall send a copy of the letter to the Commission.
- B. As required by FCC rules and regulations, a wireless carrier in receipt of a letter of request for enhanced wireless 911 from a PSAP shall send a letter of response to the PSAP. The letter shall include contact information, including phone number, fax number and e-mail address for the wireless carrier through implementation, for any third party vendors, and for the ongoing database and network management points of contact for problems identified after implementation. The wireless carrier shall send a copy of the letter to the Commission.

## III. Wireless Carrier Guidelines

- A. Wireless carriers seeking funding are required to comply with the following process:
  - 1. **Wireless Carrier Implementation Plan:** Upon receipt of a request for wireless E911 service from an eligible PSAP and prior to implementation, a wireless carrier must develop an implementation Plan for that PSAP or for the appropriate service area if the wireless carrier's switch serves more than one PSAP. A wireless carrier must submit its Plan to the Commission. Email submission to the Director of the Wireless E911 Program is acceptable. A wireless carrier written funding request, which is described below, will not be accepted unless that wireless carrier has an implementation Plan filed with the Commission. No particular format for the implementation plan is required.
    - a. A wireless carrier implementation Plan must:
      - 1) Describe chosen technology or technologies (SS7 solutions, LEC solution, third party service bureau, etc.).
      - 2) Describe architecture to implement the chosen enhanced wireless 911 technology(s) in areas which have active requests for deployment. This description must include the architecture necessary to implement statewide.

- 3) Indicate all counties and/or municipalities in the state in which the carrier provides wireless service and the location of towers. Indicate areas of the state, if any, where deployment has already occurred.
  - 4) List known cost elements for deployment, including non-recurring and recurring charges. Provide statewide costs, if possible.
  - 5) Describe personnel costs (estimated number of hours and rates) and proposed third party service rates, if any.
  - 6) If cost recovery is proposed at a monthly per subscriber rate, indicate the amount and describe the manner in which the rate was calculated.
  - 7) If costs are determined by number of cell towers, identify the number of cell towers in the applicable county or service area.
  - 8) Identify E911 database vendor and include associated costs.
  - 9) Indicate the point of contact and contact information, including the phone number, fax number and email address for the wireless carrier and any third party vendors through implementation and the ongoing database and network management points of contact ~~form~~ for problems identified after implementation.
  - 10) Provide any other information required by the Commission.
- b. A wireless carrier ~~or its third party vendor~~ shall provide or shall ensure that its third party vendor provides the Commission with updates of implementation of wireless enhanced 911 in the counties in which it provides wireless service. Such updates shall be filed no less than once per month. No particular format is required.
2. **Wireless Carrier Written Funding Request:** A wireless carrier requesting funding must submit a written request for funding from the Wireless Enhanced 911 Fund on the appropriate form provided by the Commission. Wireless carrier written funding requests must be filed within three months of implementation. Requests filed more than three

months after implementation may not be granted in full, and may be limited to reimbursement for no more than three months.

- a. A request must be accompanied by a statement of unbundled costs incurred or to be incurred for implementation and operation of enhanced wireless 911 Phase 1. Such costs must be separated into recurring or non-recurring costs. In order to be eligible for funding, these charges must be directly attributable to the implementation and operation of enhanced wireless 911 service as required by LB585, and the requesting wireless carrier must be able to explain and provide documentation for each item. Costs must be detailed showing item(s) or unit(s) or both. The following items must be detailed:

- 1) Non-recurring costs, including network equipment, tariff costs paid to a local exchange carrier for services for wireless E911 that are not billed to a PSAP, software, network access fees, number of access lines.
- 2) Item(s) or measurements and the associated tariff rate applicable in the development of charges (for example, a tariff of \$5.00 for 100 access lines).
- 3) Where tariff prices are not available, a cost outline detailing the development of charges by item(s) shall be included.
- 4) Information from the telephone service providers detailing the equipment operated or needed to implement and operate enhanced wireless 911 service, including any technology upgrades necessary to provide service.
- 5) The total number of wireless subscribers in the PSAP's service area.
- 6) Recurring costs, including software, database management, and maintenance.

- g. **Disposition of Wireless Carrier Request:** A request will be disposed by one of the following methods:

1. Granted;

2. Granted in part; or
3. Denied.

c. **Hearing on a Wireless Carrier Request:** The Commission may require a hearing on a request for funding. After receipt of a request, the Commission will determine whether a hearing is necessary. No request for funding will be denied or granted in part without a hearing unless a hearing is waived by the wireless carrier, but a request for funding may be granted without a hearing pursuant to modified procedures as provided in Rules of Commission Procedure.

d. **Eligible Costs:** The following is a list of costs that may be eligible for funding from the Enhanced Wireless 911 Fund:

- 1) E911 database management non-recurring fees, including:
  - 1) PSAP implementation plan.
  - 2) Collection of PSAP contact, boundary, and equipment information.
  - 3) Collection of local exchange carrier E911 network infrastructure.
  - 4) PSAP boundary mapping.
  - 5) Coverage area descriptions and overlays.
  - 6) Call routing recommendations and validation.
  - 7) Initial pANI database creation and pANI/ESRD assignments.
  - 8) Network interconnection and trunking recommendations.
  - 9) Selective routing translations per pANI.
- 1) E911 database management recurring fees, including maintenance of pANI/ESRD database. Vendor signal control point (SCP) service, where applicable, may be included.
- 2) Operation and transport costs, including:
  - 1) Wireless E911 Phase I implementation overall project management.
  - 2) Testing connectivity, routing, and translations of Phase I data.
  - 3) Wireless network planning and traffic engineering.
  - 4) Switch upgrades or patches to enable the provision of wireless E911 service.
  - 5) Network trunks/circuits, T1s or other equipment and software for connection and communication with local exchange carriers and/or PSAP equipment, signal control

points (SCPs), and ALIs for the provision of wireless E911 service.

- 4) Wireless carrier non-recurring fees, including implementation of T1 facility from mobile switching center (MSC) to selective router (SR).
  - 5) Wireless carrier recurring fees, including recurring fees for T1 facility from mobile switching center (MSC) to selective router (SR).
- e. The amount of reimbursement that a wireless carrier is entitled to receive on a recurring basis may be calculated in one of the following ways:
- 1) By multiplying the number of wireless subscribers receiving wireless E911 service as reported by the wireless carrier prior to its request for reimbursement by the amount authorized per subscriber for cost recovery by the Commission. Wireless carriers will be required to report their subscriber count not less than once per quarter. The dollar amount paid to the wireless carrier will vary based upon the total number of subscribers reported by the wireless carrier; or
  - 2) By submission of actual or estimated recurring costs incurred by the carrier and approved by the Commission. If the estimated costs are submitted, these costs must be trued up annually at a date to be set by the Commission ; or
  - 3) By a combination of methods 1) and 2); or
  - 4) By multiplying the number of cell sites serving a PSAP or service area by the rate per cell site authorized by the Commission. Wireless carriers will be required to report their number of cell sites serving a PSAP or service area not less than once per quarter. The dollar amount paid to the wireless carrier will vary based upon the total number of cell sites reported by the wireless carrier.
- f. **Fluctuations in Recurring Costs:** If methods (2) or (3) immediately above are used for calculating recurring costs, and if total recurring costs increase ten percent or greater over the amount approved by the Commission, the wireless carrier must submit an amended request for funding to the Commission for a review of its costs. The amended request for funding must



include an explanation of the increase, the amount of the increase, and the effective date of the increase.

**Wireless Carrier Invoice:** After a request for funding has been approved, and after testing has been approved by the Director of the Wireless Enhanced 911 Fund, and after implementation has occurred, the wireless carrier may submit invoices to the Commission. Invoices will only be paid if the carrier is current on remitting the required surcharge to the Enhanced Wireless 911 Fund.

4. **Distributions to Wireless Carriers:** If the total amount of funds requested by wireless carriers and PSAPs exceeds the amount in the Enhanced Wireless 911 Fund in any given month, wireless carriers must receive a pro rata share of funds and the balance of payments must be carried over to the following month or months until all of the approved payments are made.

~~III.~~ **IV. Public Safety Answering Point (PSAP) Guidelines**

- A. PSAPs seeking funding are required to comply with the following process:

1. Prerequisites to approval: A PSAP seeking funding must have landline enhanced 911 in place, with the following features:

- a. Selective router and/or tandem;
- b. All equipment needed to operate landline enhanced 911;
- c. Capability to receive data;
- a. Eight (8) digit ANI/ALI; and
- b. Rural addressing.

None of the costs of the required prerequisites will be funded by the Enhanced Wireless 911 Fund.

2. **PSAP Registration:** A PSAP seeking funding from the Enhanced Wireless 911 Fund shall register with the Commission. Email submission of registration to the Director of the Wireless E911 Program is acceptable. A PSAP written funding request, described below, will not be considered unless a PSAP has registered with the Commission. A PSAP registration shall:

- c. Identify characteristics of the PSAP, including volume of all 911 calls received by the requesting PSAP (broken down by wireless and landline calls, if available, or reasonable estimates), population served by the PSAP jurisdiction, size of geographical area in square miles served by the requesting PSAP jurisdiction, and identification of other PSAPs serving the same geographical area;

- d. Identify the local exchange carrier that provides 911 service to the PSAP;
- e. Identify the location, make and type of selective router used to provide enhanced 911 to the PSAP;
- f. Describe the configuration of the PSAP, including the number of incoming 911 trunks and the number of trunk groups supported, plus the number of direct transfer lines and their jurisdiction, and whether or not that jurisdiction is supported by the same selective router as the PSAP;
- g. Identify the type of customer premises equipment (CPE) utilized by the PSAP, including back room equipment and version of software used. Identify whether the equipment is capable of receiving 10/20 ANI information, and the number of incoming trunk lines that the equipment can support;
- h. Identify the type of 911 handsets utilized by the PSAP, including the version of the equipment and version of the software utilized;
- i. Identify jurisdictions served by PSAP, including primary jurisdiction and all secondary police, fire and EMS jurisdictions for which the PSAP has primary responsibility, as well as any shared jurisdictions served by the PSAP. If the PSAP has a back-up center, identify each of these elements for the back-up center, and whether the back-up center is staffed;
- j. Identify the volume of calls handled by the PSAP, including volume of wireline 911 calls, wireless 911 calls, and non-emergency seven digit calls;
- k. Identify the authorized staffing level of the PSAP and possible training implications and costs for Phase I;
- l. Identify the carriers that are currently providing Phase I and any carriers from whom Phase I has been requested;
- m. Identify the provider for ANI/ALI data and the number of data circuits presently used. Estimate the number, if any, of additional data link circuits required;
- n. Identify the implementation costs and recurring costs charged by the local exchange carrier for Phase I. A copy of a list of costs is sufficient;

- o. Identify any potential cost impacts beyond costs for services and equipment from the local exchange carrier, including equipment upgrades, software upgrades, costs to maintain connectivity with adjacent jurisdictions and back up center upgrades;
- p. Identify whether the entire PSAP jurisdiction is addressed for enhanced 911 service. If only a portion of the jurisdiction is addressed, identify any portion that is not addressed;
- q. Identify whether the PSAP jurisdiction is supported by a GIS map utilizing state plane latitude and longitude;
- r. Identify whether the PSAP jurisdiction is supported by a Computer Aided Dispatch system and whether there are any impacts or potential impacts of enhanced wireless 911 and the estimated costs for correcting those impacts;
- s. Identify whether the PSAP is capable of accepting Phase II calls;
- t. Identify the PSAP manager, the PSAP point of contact for Phase I implementation, and the PSAP's MSAG point of contact.

**3. Written Funding Request** A PSAP requesting funds must submit a written request for funding from the Fund on the appropriate form provided by the Commission.

- a. A request must be accompanied by a statement of unbundled costs incurred or to be incurred for implementation and operation of enhanced wireless 911 Phase 1. Such costs must be separated into recurring or non-recurring costs. In order to be eligible for funding, these charges must be directly attributable to the implementation and operation of enhanced wireless 911 service as required by LB585, and the requesting PSAP must be able to explain and provide documentation for each item. Costs must be detailed showing item(s) or unit(s) or both. The following items must be detailed:
  - 1) Non-recurring and recurring costs, including network equipment, tariff costs, software, network access fees, number of access lines, database management and maintenance.

- 2) Where tariff prices are not available, a cost outline detailing the development of charges by item(s) shall be included.
- 3) Information from the telephone service providers detailing the equipment operated or needed to implement and operate enhanced wireless 911 service, including any technology upgrades necessary to provide service.
- 4) If a PSAP enters into a service agreement with a wireless carrier, the PSAP shall file a copy of the service agreement with the Commission.

b. PSAP written funding requests must be filed within three months of implementation. Requests filed more than three months after implementation may not be granted in full, and may be limited to reimbursement for no more than three months.

**B. Priority of PSAP Requests for Funding:** The Commission may approve the distribution of funds pursuant to a request if the Commission finds that the costs requested are eligible and that sufficient funds are available for distribution. If funds are not sufficient to satisfy all requests by PSAPs and wireless carriers, the requests will be funded in a sequence deemed appropriate by the Commission, in consultation with the advisory board, when the board is in place. The Commission shall consider, but is not limited to, the following factors:

1. Documented volume of all 911 calls received by each requesting PSAP.
2. Population served by each requesting PSAP jurisdiction.
3. Size of geographical area in square miles served by each requesting PSAP jurisdiction.
4. The number of wireless subscribers with a billing address in each requesting PSAP jurisdiction.
5. Whether there are multiple PSAPs serving the same geographical area.
6. Whether surrounding PSAPs are selectively routed and have an integrated ALI database.
7. Whether the PSAP serves multiple counties.
8. The efficiency and economy of implementing the particular PSAP.
9. For Phase II requests, whether all other Phase I requests have been fulfilled.
10. Any other factor deemed appropriate by the Commission, in consultation with the advisory board when the board is in place.

**C. Disposition of a PSAP Request.** A request will be disposed by one of the following methods:

1. Granted;
2. Granted in part;
3. Denied; or
4. Granted with deferral of funding.
  - a) Grant with deferred funding will occur if the Commission finds that a request merits approval but the Enhanced Wireless 911 Fund lacks sufficient funds to satisfy all requests. Deferred requests will be funded in the order that they are granted when funds become available.

E. **Hearing on a PSAP Request:** The Commission may require a hearing on a request for funding. After receipt of a request, the Commission will determine whether a hearing is necessary. No request for funding will be denied, approved with deferred funding, or granted in part without a hearing unless hearing is waived by the requesting party, but a request for funding may be granted without a hearing pursuant to modified procedures as provided in Rules of Commission Procedure.

F. The following may be eligible costs for PSAPs:

1. Recurring costs for:
  - a. Digital Service, level 0 (DS-Os) off T1 facility from mobile switching center (MSC) to selective router (SR)
  - b. Circuits from selective router (SR) to PSAP
  - c. Data links and cell links
  - d. Upgrades for 10-20 digit capability, if required by wireless service provider for inter-tandem transfer in selective routing process.
2. Non-recurring costs for:
  - a. Digital Service, level 0, (DS-Os) off T1 facility from mobile switching center (MSC) to selective router (SR)
  - b. Circuits from selective router (SR) to PSAP
  - c. Data links and cell links
  - d. Customer premises equipment (CPE)
  - e. Software and hardware upgrades
  - f. Tandem upgrades
  - g. Personnel training for processing data elements of wireless enhanced 911 service.

F. The amount a PSAP is eligible to be paid for may be calculated by multiplying the number of subscribers by a rate approved by the Commission. If this method of calculating payment is used, the PSAP shall ensure that the Commission is updated with subscriber counts not less than quarterly.

V. Role of Advisory Board

In addition to responsibilities delineated in Neb. Rev. Stat. § 86-2201 to 86-2214 and 291 Neb. Admin. Code Chapter 5, Section 007, the advisory board shall review the eligibility of particular costs upon request of the Director, including software upgrades, implementation of enhanced wireless 911 for cell sites covering multiple counties, and consulting fees. Review of such costs shall not unreasonably delay processing of an application.