

**270-RICR-20-00-1**

## **TITLE 270 - DEPARTMENT OF PUBLIC SAFETY**

### **CHAPTER 20 - E 9-1-1 OPERATIONS**

#### **SUBCHAPTER 00 - N/A**

PART 1 - Rhode Island E 9-1-1 Uniform Emergency Telephone System Rules and Regulations

#### **1.1 Preamble**

- A. The RI E 9-1-1 Uniform Emergency Telephone System Division, Department of Public Safety, State of Rhode Island and Providence Plantations ("RI E 9-1-1") is authorized to adopt rules and regulations pertaining to the quality of service, performance of service, and technological compliance of telephone common carriers, wireless telephone carriers and other telecommunication services providers as they relate to the providing of RI E 9-1-1 services to the general public (R.I. Gen. Laws §§ 39-21-11, 39-21.1-5, and 39-21.1-10). Such rules and regulations are promulgated in accordance with R.I. Gen. Laws Chapter 35-42.
- B. Telephone common carriers operating under the authority of the Rhode Island Public Utilities Commission ("PUC") are required to obtain a certificate of compliance with RI E 9-1-1's rules and regulations prior to the grant by the PUC of any license, permit, power, or authority to operate or the approval of any tariff, rate, or similar compensation measure by the PUC.
- C. RI E 9-1-1's Rules and Regulations, to the extent they are pertinent, apply to wireless telephone carriers, which are included within the definition of "telecommunication services provider," as that term is used in R.I. Gen. Laws Chapters 39-21 and 39-21.1 and in these Rules and Regulations.
- D. The within Rules and Regulations pertain to surcharge revenue, database management, network requirements and testing, local number portability, and cost recovery.

- E. Definitions of particular acronyms or terms, as those acronyms or terms are used in these Rules and Regulations, are contained in the Appendix to these Rules and Regulations, which is made a part of this promulgation.
- F. These Rules and Regulations shall take effect February 28, 2011.
- G. Adopted this 8th day of February, 2011, these Rules and Regulations, consisting of thirty-eight (38) pages, commencing with the Preamble, by the Rhode Island Uniform Emergency Telephone System Division, Department of Public Safety, State of Rhode Island and Providence Plantations

## **1.2 Surcharge Revenue**

- A. All telephone common carriers and all telecommunication services providers, as those terms are defined in R.I. Gen. Laws § 39-21.1-3, shall bill each subscriber of their respective services the surcharge levied under R.I. Gen. Laws § 39-1-62 and 39-21.1-14, , and shall remit such surcharge revenue to the Rhode Island Division of Taxation in accordance with R.I. Gen. Laws §§ 39-1-62 and 39-21.1-14, and the requirements of the Division of Taxation. In the instances in which a telecommunications services provider or telephone common carrier resells its service to other entities, the surcharge shall be collected and paid by the telecommunications services provider or telephone common carrier that has the direct relationship with the end user subscriber, in accordance with R.I. Gen. Laws §§ 39-1-62, 39-21.1-14, and the requirements of the Rhode Island Division of Taxation. The transmittal of such surcharge revenue shall be accompanied by such form as may be prescribed by the Division of Taxation or the entity that replaces the Division of Taxation. The form of the payment shall be made in accordance with requirements as may be prescribed from time to time by the Division of Taxation. Any surcharge revenue not timely transmitted in accordance with R.I. Gen. Laws §§ 39-1-62 and 39-21.1-14, shall be assessed interest as prescribed by Rhode Island law. This section does not apply to E 9-1-1 surcharges related to prepaid wireless services, as those surcharges are regulated by R.I. Gen. Laws § 39-21.2-1.
- B. When a telecommunications services provider or telephone common carrier resells its services other entities, that reseller shall report, upon request of the RI E 9-1-1 Uniform Emergency Telephone System the number of lines that are resold to each individual reseller. This section does not apply to E 9-1-1

surcharges related to prepaid wireless services, as those surcharges are regulated by R.I. Gen. Laws § 39-21.2-1.

- C. RI E 9-1-1 surcharges shall be applicable to any subscriber which is capable of accessing, connecting with, or interfacing with RI E 9-1-1 by dialing or initializing or otherwise activating the RI E 9-1-1 Uniform Emergency Telephone System through the numerals "9-1-1" by means of a landline local telephone exchange device, wireless instrument, device or means including, but not limited to, prepaid, cellular, telephony, Internet, Voice over Internet Protocol (VoIP), satellite, computer, radio, communications, data or data-only wireless lines or any other wireless instrument, device or means which has access to, connects with, or activates or interfaces or any combination thereof with the RI E 9-1-1 Uniform Emergency Telephone System. This surcharge shall be billed by each telecommunication services provider and shall be payable to the telecommunication services provider by the subscriber or prepaid services customer. This section does not apply to E 9-1-1 surcharges related to prepaid wireless services, as those surcharges are regulated by R.I. Gen. Laws § 39-21.2-1.
- D. The subscriber surcharge levied under R.I. Gen. Laws § 39-21.1-14(a), shall apply to Centrex-system-equivalent trunks in the ratio of 1:8; it shall not apply to trunks and lines provided to wireless telecommunication services providers as part of the RI E 9-1-1 network. The subscriber surcharge levied under R.I. Gen. Laws §§ 39-1-62 and 39-21.1.14(a) shall not apply to trunks and lines provided by telephone common carriers or wireless telecommunications services provided as part of the RI E 9-1-1 network. This section does not apply to E 9-1-1 surcharges related to prepaid wireless services, as those surcharges are regulated by R.I. Gen. Laws § 39-21.2-1.

### **1.3 Database Management**

- A. Municipality/State Titles and Responsibilities:
  - 1. Municipal Coordinator/ MSAG Liaison and GIS Liaison - Each municipality shall designate an individual to serve as its municipal coordinator, MSAG liaison and GIS liaison for all issues involving the development and maintenance of address information for the RI E 9-1-1 ALI, MSAG, GIS, and selective routing (transfer) databases. The municipal coordinator may assign an individual to handle all issues involving the development and

maintenance of address information for RI E 9-1-1 ALI, MSAG, GIS, and selective routing (transfer) databases and the municipal MSAG. If the municipality has not assigned a person designated as its municipal coordinator, MSAG liaison and GIS liaison, the chief elected official (holding the highest elected office) becomes the municipal coordinator, MSAG liaison and GIS liaison by default. If there is any change in the municipal coordinator, MSAG liaison and GIS liaison, it is the responsibility of each municipality to notify the State of Rhode Island Enhanced 9-1-1 Uniform Emergency System of the change by the close of the following business day. The municipal coordinator, MSAG liaison and GIS liaison shall inform Rhode Island E 9-1-1 of any GIS updates, changes or deletions as they become known to the municipal coordinator.

2. State of Rhode Island Database Manager - This person is responsible for the coordination of all ALI, GIS, MSAG, and similar data between the PSAP(s), Service Provider, telecommunication services providers, and municipalities, and for updates to the RI E 9-1-1 databases.

B. Master Street Address Guide (MSAGs)—Use, Maintenance, Updates, and Verification.

1. Each municipality shall provide RI E 9-1-1 with accurate road names, number ranges, and emergency service zones (ESZ) for the purpose of creating the ALI wireless and wireline and GIS MSAGs (Master Street Address Guide). The ESN (emergency service number) information from the MSAG shall be used to route 9-1-1 calls to the state PSAP and to transfer the 9-1-1 calls to the correct secondary PSAP for dispatch.
2. Municipal MSAG Maintenance - After the ALI wireline and wireless and GIS MSAGs are created, each municipality shall continue to verify the accuracy of the information contained in the MSAGs and to advise the State of Rhode Island Database Manager, on an as-occurred basis, of any changes in road names, the establishment of new roads, changes in address numbers used on existing roads, closing and abandonment of roads, changes in police, fire, emergency medical service or other appropriate agencies, jurisdiction over any address, annexations and other changes in municipal boundaries, incorporation of new communities or any other matter that will affect the routing of "9-1-1" calls to the proper primary and/or secondary PSAP.

3. Timeframe for Updating the MSAG by the Database Provider - The Database Provider shall update the enhanced 9-1-1 MSAG by the end of the next business day from the date and time it receives an authorized request via the MSAG update form from the State of Rhode Island Database Manager.
4. Timeframe for Updating the GIS and Wireless MSAGs by the State of Rhode Island Database Manager - The State of Rhode Island Database Manager shall update the GIS and Wireless MSAGs within 24 hours (normal business day) from the date and time he/she receives a request from an authorized source.

C. MSAG Update Notification by the Database Provider

1. On a daily basis (normal business day), the Database Provider shall provide to RI E 9-1-1 all MSAG changes in a format that is mutually agreed upon by the Database Provider and RI E 9-1-1 Uniform Emergency Telephone System.
2. The Database Provider shall provide to the telephone common carriers a mechanized process whereby the telephone common carriers can download an electronic copy of the MSAG in its entirety and a file that contains only the previous normal business day's changes.

D. MSAG Yearly Re-verification

1. The Database Provider shall provide a year-end (as close in date to December 31 as possible) copy of each municipality's MSAG to the State of Rhode Island Database Manager by January 21 following the just-concluded calendar year. The State of Rhode Island Database Manager shall then provide each municipal coordinator, MSAG liaison and GIS liaison its respective municipal MSAG with instructions for correction.
2. The municipal coordinator, MSAG liaison and GIS liaison shall:
  - a. If the MSAG is 100% accurate, place the official municipal seal on the MSAG, sign and note that it is correct, or electronically note that it is correct, and in either format forward it to the State of Rhode Island Database Manager within 30 days of receipt.

- b. If the MSAG needs corrections make the necessary corrections (additions, changes, and deletions) to the MSAG within 30 days of receipt and return it to the State of Rhode Island Database Manager.
3. The State of Rhode Island Database Manager shall forward certified and corrected MSAGs to the Database Provider. Once all appropriate corrections have been received and processed by the Database Provider for each respective municipality requiring corrections, it shall make available a copy of the corrected and processed MSAG and send it to the State of Rhode Island Database Manager for forwarding to the respective municipality. Rhode Island E 9-1-1 shall have the ability to view and edit the contents of the MSAG database on a daily basis.

E. Emergency Service Number (ESN) Database Maintenance

1. Each municipality is responsible for identifying primary and secondary PSAP locations as well as the unique combinations of police, fire and emergency medical agencies or any other appropriate agencies responsible for providing emergency service in the Enhanced 9-1-1 serving area. The Database Provider shall assign an Emergency Service Number (ESN) for each unique combination of responding agencies upon approval of RI E 9-1-1 and shall notify the State of Rhode Island Database Manager of the assigned ESNs, of any changes of an ESN, or of any new ESNs. The municipalities will associate these ESNs with street address ranges or other mutually agreed upon routing of enhanced 9-1-1 calls to the primary and secondary PSAPs responsible for handling of calls from each telephone in the Enhanced 9-1-1 serving area.

F. Use of RI E 9-1-1 ALI and MSAG Databases

1. The data in the RI E 9-1-1 ALI and MSAG databases can only be used on a call-by-call basis for the purposes of handling 9-1-1 emergency calls, disaster notification or evacuation, in accordance with R.I. Gen. Laws § 39-21.1-4, or as authorized by RI E 9-1-1 to the extent permitted by R.I. Gen. Laws § 39-21.1-4. The data may reside on a database that may be owned and maintained by a third party, which would be the Database Provider. The Database Provider shall restrict access to such databases in conformity with these Rules and Regulations.

- a. Database Requirements - The RI E 9-1-1 databases shall be constructed to be redundant and fault tolerant and shall include safeguards to insure the security of the data.
- b. Data Exchange - Data exchange between the Database Provider and all other telecommunication services providers shall follow the industry standard as required by RI E 9-1-1. Any deviations from this standard must be submitted in writing and agreed to by RI E 9-1-1.

G. Known and Potential Problems That May Cause ANI and ALI Errors and/or System Failures

1. The Service Provider, and all other telecommunication services providers operating in Rhode Island, shall notify the State of Rhode Island Enhanced 9-1-1 Uniform Emergency Telephone System in writing of all known and/or potential service problems, including interface and service order processing problems, which cause or may cause incorrect ANI and/or ALI information to display at the PSAP.

H. Multiple Addresses for Single Telephone Numbers

1. To the extent such services are offered, each telephone common carrier shall provide to the State of Rhode Island Database Manager a list of all multiple locations served by a single telephone number in digital format. The list shall include the telephone number and each locatable address for all locations including the main listing (the address in ALI). Each telephone common carrier shall notify the State of Rhode Island Database Manager of any additions to, deletions from, or changes in the subscriber records of any party having off-premise exchange (OPX) service within three (3) business days of any change in such service by such subscribing party.

I. ALI Data Records

1. Every telephone common carrier operating in the State of Rhode Island shall provide ALI data and service updates to the RI E 9-1-1 Database Provider, in conformance with Section F of this Part Two. Alternative methods to update the ALI database between the telephone common carrier and the Database Provider are permitted, subject to agreement

between the RI E 9-1-1 Database Provider and the telephone common carrier and with concurrence by RI E 9-1-1.

2. Periodic reconciliation by the Database Provider of the RI E 9-1-1 database with the originating telephone common carrier's database shall be as required by RI E 9-1-1. All ALI information shall be provided to RI E 9-1-1 by the telephone common carriers at no cost to RI E 9-1-1.
3. The Database Provider shall confirm receipt of data transactions from the telephone common carriers to the Database Provider. The confirmation shall include the error code(s) if update was not successful, and statistical data of the total number of records received, processed, accepted and rejected.

J. Reports to Ensure Error Correction and Quality of Performance

1. The Database Provider shall provide to the State of Rhode Island Database Manager audit trail data that provides the following respective reports in a digital format compatible with the management information system of RI E 9-1-1:
  - a. Total TN Report
    - (1) Description – Tally of TN's by municipality, grouped by class of service and telephone common carrier, with individual reports for each common carrier and/or a total combined report.
    - (2) Frequency – Monthly
    - (3) Distributed – E-mail or File Transfer Protocol
  - b. ESN Report
    - (1) Description – Tally of TN's by ESN, sorted by municipality
    - (2) Frequency – Monthly
    - (3) Distributed – E-mail or File Transfer Protocol
  - c. Service Order Fallout Report



- (1) Description – Statistical Report (with totals) of service order fallout by error code, for each class of service, with individual reports for each telephone common carrier and a combined Rhode Island total. The total service orders processed shall be on each report.
  - (2) Frequency – Monthly
  - (3) Distributed – E-mail or File Transfer Protocol
- d. Service Order Update Report
- (1) Description - Statistical Report (with totals) of service order updates - insert / change / delete / unlocks / migrates- sorted by municipality and class of service, with individual reports for each telephone common carrier.
  - (2) Frequency – Monthly
  - (3) Distributed – E-mail or File Transfer Protocol
- e. MSAG Update Report
- (1) Description – MSAG changes for Rhode Island
  - (2) Frequency – Daily
  - (3) Distributed – E-mail or File Transfer Protocol
- f. Initial TN Extract
- (1) Description – Extract of all TN's. No sort required. All telephone common carriers.
  - (2) Frequency – One time and as often as needed for quality compares
  - (3) Distributed – E-mail or File Transfer Protocol
- g. Initial MSAG Extract
- (1) Description – Extract of all Rhode Island MSAG records

- (2) Frequency – Annually and as often as needed for quality compares
  - (3) Distributed – E-mail or File Transfer Protocol
- h. Change File (aka Service Order File for Rhode Island)
  - (1) Description – Update of all TN changes that passed ALI edits, both service order and maintenance, for all telephone common carriers
  - (2) Frequency – Daily
  - (3) Distributed – E-mail or File Transfer Protocol
- i. Error File (aka Service Order Error File for Rhode Island)
  - (1) Description – All service orders for all telephone common carriers that did not pass the ALI edits and are placed into an error bucket.
  - (2) Frequency – Daily
  - (3) Distributed – E-mail or File Transfer Protocol
- j. Reverse ALI Reports
  - (1) Description – Detail of all manual dip queries, including date/time, position, customer TN, customer name and address
  - (2) Frequency – Monthly
  - (3) Distributed – E-mail or File Transfer Protocol
- k. NRF Summary Report
  - (1) Description – Summary by day of all NRD, sorted by PSAP
  - (2) Frequency – Monthly
  - (3) Distributed – E-mail or File Transfer Protocol

I. NRD Detailed Report

- (1) Description – Daily printout from 9-1-1 system of all NRF, sorted and counted by TN
- (2) Frequency – Daily
- (3) Distributed – E-mail or File Transfer Protocol

2. Reports of a Monthly frequency shall be provided to RI E 9-1-1 by the end of the seventh business day following the end of the previous calendar month. Reports of a Daily frequency shall be provided by the end of the next business day following the close of the previous business day.

K. Service Order Processing and ALI Database Updating

1. Every telephone common carrier shall provide their initial load of ALI records and daily service orders to the database provider at no charge to RI E 9-1-1 within 24 hours (normal business day). This 24 hour time period is the time between the date and time the telephone common carrier supplies telephone service to a customer (the customer has the ability to dial 9-1-1) and the date and time the file was sent to the Database Provider (the Database Provider may also be the Service Provider).

L. ALI Discrepancy Procedure

1. Generally, RI E 9-1-1 call takers (telecommunicators), supervisors and managers, telecommunication services providers, Database Provider, and Service Provider shall use RI E 9-1-1's discrepancy system for processing ALI discrepancies.
2. ALI Discrepancy Reporting
  - a. Each 9-1-1 call taker (telecommunicator) shall fill out an ALI discrepancy report when a call is found to have erroneous database information. The ALI discrepancy report shall be forwarded to the State of Rhode Island Database Manager for approval and sent to the appropriate telephone common carrier for correction, if necessary.

- b. The telephone common carrier shall correct the ALI information within 24 hours of receipt of error (the corrected service order errors may be included within the telephone common carrier's next daily service order update file as long as it meets the 24-hour requirement).
- c. The telephone common carrier shall close out the ALI discrepancies in the RI E 9-1-1 discrepancy system. It shall identify the status of each error with the appropriate codes and narrative prior to the time the Database Provider receives and processes its corrected ALI record.
- d. The State of Rhode Island Database Manager shall note in the RI E 9-1-1 discrepancy system and forward any discovered MSAG discrepancies to the MSAG Liaison for correction, if necessary.

3. ALI Discrepancy Tracking

- a. Discrepancies Found or Known by Local Municipalities - If a 9-1-1 call is dispatched based upon incorrect ALI information, the responding agency (unit) shall notify the PSAP supervisor of the error within four hours of the completion of the dispatch, and the PSAP supervisor shall enter an ALI discrepancy into the RI E 9-1-1 discrepancy system for resolution.

M. PBX, Centrex & Other Telephone Systems of Similar Functionality

- 1. Every telephone common carrier offering Private Branch Exchange (PBX), Centrex, or other telephone services of similar functionality shall inform its existing customers and prospective customers of the limitations of such systems in providing caller location information to RI E 9-1-1.

N. Payphones

- 1. Each provider of public or private coin or coin-less telephone service shall provide access to RI E 9-1-1. Every payphone shall display instructions on how to use it to dial "9-1-1" for emergencies, indicating that a 9-1-1 call is free (no coin needed and no charge for 9-1-1 call). Maintaining the instructions for emergency "9-1-1" use is the responsibility of the entity or person that owns and/or operates the payphone.

2. Each provider of public or private coin or coin-less telephone service shall provide to the Database Provider the following information for each payphone: name of entity providing such service, telephone number of the payphone, customer name, street number and address, municipality in which the payphone is located, and information of the location of the payphone if (a) within a building (such as floor, room, suite, etc.) or (b) if within a public place or large open area (such as another landmark, directional reference, approximate distance and/or orientation from another recognizable object or land feature, etc.).

O. COCOT(s)

1. Customer-owned coin-operated telephone (COCOT) providers in the State of Rhode Island shall convert each public or private coin or coin-less telephone to "dial-tone first" capability to allow 9-1-1 calls to be made without first inserting a coin or paying any other charges. Each owner shall provide telephone service to RI E 9-1-1 with display instructions on how to use the service, indicating that a 9-1-1 call is free (no coin-needed and no charge for 9-1-1 call).
2. Each provider of customer-owned coin-operated telephones in the State of Rhode Island shall provide to the Database Provider the following information: the entity providing the telephone, the customer name, street address, municipality in which the telephone is located, the telephone number, and information of the location of the telephone if (a) within a building (floor, room number, suite, etc.) or (b) if within a public place or large open area (such as another landmark, directional reference, approximate distance and/or orientation from another recognizable object or land feature, etc.).

P. Data Security

1. Caller information provided during a 9-1-1 call shall be used only for the purpose of processing an emergency call and other authorized statutory purposes.
2. RI E 9-1-1 shall establish personnel security clearance standards for PSAPs to protect the confidentiality of ANI, ALI, and GIS data. The

physical layout of all PSAPs shall insure that no unauthorized individual is able to view ANI/ALI or GIS information.

Q. The Company Identifier

1. The telecommunications services provider shall use the company identifier system (service provider company abbreviation) of the National Emergency Number Association (NENA). This abbreviation shall be used to identify the telecommunication services providers. Data in this field shall be stored in the ALI database and be available for display at the PSAP.

R. Support to RI E 9-1-1 by Database Provider

1. The Database Provider shall, in conjunction with RI E 9-1-1, establish a process for the identification and resolution of ALI, MSAG, and related database content, reporting, and management issues. The process shall provide a mechanism for the escalation of issues to progressively higher levels of authority, as necessary, with corresponding timeframes for resolution. In addition, the process shall provide for the identification of appropriate subject matter experts of the Database Provider, who shall be available on a 24x7x365 basis, as required under circumstances enumerated in the process.

## **1.4 Network Requirements and Testing**

A. Telephone Common Carrier E 9-1-1 Network Requirements

1. Network Connectivity - Every wireless service provider shall provide 9-1-1 network connectivity to the RI E 9-1-1 selective router(s) free of charge to RI E 9-1-1.
2. Diversity and Redundancy - The 9-1-1 network is to be completely and fully diverse and consist of redundant routes (as further discussed hereunder) from the selective router(s) into the PSAP(s) and must follow all NENA recommended standards including, but not limited to, those standards relating to the trunking from the selective router(s) to the PSAP(s). The RI E 9-1-1 PSAP(s) must have two completely and fully diverse and redundant routes from the selective router(s) into the PSAP(s).

3. Trunking - E 9-1-1 wireline telephone service trunks shall be dedicated to handle only E 9-1-1 traffic. A minimum of two diverse and redundant routes shall be provisioned from each telephone common carrier's central office(s), as follows: at a minimum one route from each central office to each of the two E 9-1-1 tandems, in Providence and in West Warwick, Rhode Island, respectively or any other tandems that may replace the Providence and West Warwick tandems. If the tandem locations are changed, the telephone common carriers will be afforded reasonable notice of the change so as to make the appropriate network modifications. RI E 9-1-1 may authorize the provisioning of an alternative trunking scheme upon a written request by both the Service Provider and a competitive local exchange carrier demonstrating that there are no facilities available within a reasonably foreseeable time and that the proposed alternative trunking scheme employs dedicated E 9-1-1 trunks, provides diversity and redundancy, and does not compromise the already existing network.
4. Grade of Service - Trunk quantities shall be based on a P.01 grade of service, e.g., so as to ensure that not more than one 9-1-1 call in 100 9-1-1 calls will experience a busy signal during the average busy season and time-consistent busy hour. As a general rule, the ratio of the number of central office trunks to the tandems should be as follows: up to 10,000 lines = two (2) trunks; 10,000 or more lines = an additional trunk for each additional 10,000 lines (or fraction thereof) over 10,000 lines.
5. Network Testing - Prior to commencement of service in Rhode Island, a telephone common carrier shall, conjunctively with RI E 9-1-1, conduct test calls. A minimum of two test calls shall be made from each NXX across each 9-1-1 trunk from the telephone common carrier's central office to the E 9-1-1 tandems. Test calling shall be arranged with RI E 9-1-1 at least three business days in advance by notifying it. Testing will be scheduled after the telephone common carrier has made arrangements with the RI E 9-1-1 Database Manager. The telephone common carrier shall test the accuracy of the numbers to be tested and the municipalities within which they fall. The telephone common carrier shall input the telephone numbers to be tested into the ALI database at least 24 hours prior to the commencement of testing. Test calls shall be documented on a test log form prescribed by RI E 9-1-1, which shall include the following

test measurements: validation of the display of the correct ANI; validation of the display of the correct ALI; call setup timing, including the interval between the time the last digit in 9-1-1 was pressed by the caller and an audible (ringing) signal was heard by the caller and the interval between the time the last digit in 9-1-1 was pressed by the caller and an audible (ringing) signal was heard at the PSAP; any other criteria as agreed upon by the telephone common carrier and RI E 9-1-1. Call testing results on the prescribed log form shall be sent to RI E 9-1-1 upon completion of testing, which shall provide a copy to the Database Provider for review and error correction.

6. Monitoring - Each telephone common carrier shall provide traffic studies for the average busy season and time-consistent average busy hour (as determined by RI E 9-1-1 call volume reports) every six months to ensure P.01 grade of service. RI E 9-1-1 and the telephone common carrier shall coordinate the every-six-month dates at which such studies will be conducted. RI E 9-1-1 shall have the right to perform line load studies periodically, but not more than every six (6) months and/or shall have the right to order each telephone common carrier to perform such line load studies, at its own expense, for purposes of ascertaining its subscriber base and/or conformance with technological standards, performance of service, and quality of service.

#### B. Wireless Carrier Network Requirements and Testing

1. Trunking - E 9-1-1 trunks shall be dedicated to handling only enhanced 9-1-1 traffic. A minimum of two diverse and redundant digital trunks shall be provisioned from each wireless carrier's mobile telephone switch (MTS) as follows:
  - a. Primary Route - A minimum of one direct digital T1 carrier with a minimum of six channels (DSOs) utilizing Feature Group D signaling, or another industry standard authorized by RI E 9-1-1, shall connect the two (2) RI E 9-1-1 selective router(s). RI E 9-1-1, with the assistance of the Service Provider, shall provision the DSOs equally across the two digital trunks from the Providence DACS to the PSAP.



- b. Default Route - A default route shall be provisioned over the public switched network of the Service Provider to the two tandems serving the E 9-1-1 network in Rhode Island. The wireless carrier shall use RI E 9-1-1-provided default number(s) as the default route in the event of failure within the 9-1-1 network.
- c. Provisioning of MTS; Data Maintenance - Each wireless carrier shall send transmission tower location and cell sector information to RI E 9-1-1 in a format prescribed by RI E 9-1-1. The wireless carrier(s) shall request ESRK range in writing from the RI E 9-1-1 database manager. The RI E 9-1-1 database manager shall provide, as soon as reasonably practicable, the ESRK range to the wireless carrier. When a 9-1-1 call is sent over the Primary Route, a twenty (20) digit number shall be sent by the wireless carrier to the PSAP, consisting of the subscriber's ANI (MIN) and the ESRK.
- d. Grade of Service - Trunk (DSO) quantities shall be based on a P.01 grade of service or another grade of services as required by RI E 9-1-1.
- e. Network Testing - Prior to commencement of service in Rhode Island, a wireless carrier shall, conjunctively with RI E 9-1-1, conduct test calls. Test calls shall be made using the primary route and the default route. Using the primary route, a minimum of two test calls shall be made from each cell sector for every tower. In addition, a minimum of two test calls shall be made across each DSO from the wireless carrier's MTS. Using the default route, the wireless carrier shall "busy out" all digital circuits and thereby utilize the remote call forwarding arrangement. Test calls shall be documented on a test log form prescribed by RI E 9-1-1, which shall include the following test measurements: validation of the correct ANI (caller/subscriber's mobile identification number, or MIN) display; validation of the correct ESRK display; validation of the correct ALI display concerning tower location; validation of the correct display of the cell tower and cell sector coverage on the PSAP map; call setup timing, including the interval between the time the last digit in 9-1-1 was pressed by the caller and an audible (ringing) signal was heard by the caller and the interval between the time the last digit in 9-1-1 was pressed by the caller and an audible

(ringing) signal was heard at the PSAP; any other criteria as agreed upon by the telephone common carrier and RI E 9-1-1. Call testing results on the prescribed log form shall be sent to RI E 9-1-1 upon completion of testing.

- f. Monitoring - Each wireless carrier shall provide traffic studies for the average busy season and time-consistent busy hour (as determined by RI E 9-1-1 call volume reports) every six months to ensure P.01 grade of service. RI E 9-1-1 and the wireless carrier shall coordinate the every-six-month dates at which such studies will be conducted. RI E 9-1-1 shall have the right to perform cell site channel loading studies periodically, upon the giving of fifteen days' calendar notice, but not more than every six (6) months, and/or shall have the right to order each wireless carrier to perform such cell site channel loading studies, for purposes of ascertaining its subscriber base and/or conformance with technological standards, performance of service, and quality of service.

C. Service and Network Support to RI E 9-1-1 by Service Provider

1. The Service Provider and Network Service Provider shall, in conjunction with RI E 9-1-1, establish a process for the identification and resolution of all service and network issues. The process shall provide a mechanism for the escalation of issues to progressively higher levels of expertise and/or authority, as necessary, with corresponding timeframes for resolution. In addition, the process shall provide for the identification of appropriate subject matter experts of the Service Provider, who shall be available on a 24x7x365 basis, as required under the circumstances enumerated in the process.

## **1.5 Local Number Portability**

A. Purpose of Local Number Portability

1. Local Number Portability (LNP) was authorized under the federal Telecommunications Act of 1996 to facilitate competition in local telephone service markets by permitting a customer of one telecommunication services provider to switch to another telecommunication services provider while retaining the same telephone

number. This “portability” feature has public safety implications for RI E 9-1-1, and is the reason for Rules and Regulations concerning it.

**B. Procedures for Migration of Telephone Numbers**

1. The Recipient Company shall be solely responsible to obtain authorization from the end user for the migration of the end user’s telephone number from the Donor Company. In addition, the Recipient Company shall provide verification to the Database Provider that the end user’s telephone number has been ported (migrated) to the Recipient Company by the Donor Company. The procedures for the migration of the number from the Donor Company to the Recipient Company and to the Database Provider shall, in all other respects, be those set forth in “NENA Recommended Standards for Local Exchange Carriers, ALI Service Providers, and 9-1-1 Jurisdictions” of the National Emergency Number Association (NENA), as revised from time to time.

**C. Prohibited Action by Donor Company**

1. A Donor Company is prohibited from thwarting, delaying, prohibiting, or otherwise impeding the migration of a telephone number due to any unpaid charges, prior service disputes, or billing disputes with the end user.

## **1.6 Cost Recovery**

**A. Cost Recovery**

1. In the case of telephone common carriers providing service in Rhode Island, the cost of providing 9-1-1 services is governed by R.I. Gen. Laws § 39-21-12. In the case of wireless telephone carriers, 9-1-1 service is regulated by the Federal Communications Commission pursuant to statutes of the United States of America, with the costs of such service recoverable in accordance with state and federal laws and rules and regulations. In accordance with the FCC determination in re: King County (Washington), CC Docket Number 94-102, and in the absence of an agreement to the contrary, wireless telephone carriers operating within Rhode Island are required to provide 9-1-1 services up to the input of the RI E 9-1-1 selective router(s) at no charge to RI E 9-1-1.

## 1.7 Appendix

- A. Definitions – For the purpose of these Rules and Regulations, the following acronyms and terms shall have the respective meanings contained in their respective definitions.
1. “Access Line” means the connection between a customer premises network interface and the telephone common carrier that provides access to the public switched telephone network.
  2. “ALI Discrepancy” – See “Discrepancies”
  3. “XTrakker” means the software program utilized by the Rhode Island Uniform Emergency Telephone System under license from microDATA GIS, Inc., to provide geographic display of locations of calls to the PSAP and to track the incidence of and resolution status of ALI discrepancies.
  4. “Audit Trail Data” means the data that supports the information required in the Reports enumerated in § 1.3(J) of this Part.
  5. “Automatic Location Identification” means the automatic display at the PSAP of the caller’s telephone number, the address/location of the telephone and supplementary emergency services information.
  6. “Automatic Number Identification (ANI)” means the telephone number associated with the access line from which a call originates.
  7. “Business Day” means each successive 24-hour period of time beginning at midnight on Monday and ending at midnight on the following successive calendar day, but excluding Saturdays and Sundays and the recognized holidays of the respective individual telephone common carriers and telecommunication services providers.
  8. “Average Busy Hour” means the one-hour period during the week statistically shown over time to be the hour in which the most telephone calls are received.
  9. “Average Busy Season” means the two consecutive months of the calendar year statistically shown over time to be the two consecutive months in which the most telephone calls are received.

10. "Company Identifier or Identification Number (Company ID)" means a 3-5 character identity chosen by the Service Provider that distinguishes the entity providing the dial tone to the end user. The Company Identifier is maintained by NENA in a nationally accessible database.
11. "Central Office" means a facility in which a switch or switching equipment is located which routes local and long distance voice and data transmissions between callers and called parties.
12. "Centrex" means a business telephone service offered by some telecommunication services providers that provides PBX-type features over access lines.
13. "Completion Date" means the date on which a telephone common carrier or telecommunication services provider has completed a change of service or initiation of service to an end user or a change in an end user's service record (such as a change in name or address). A completion date is also the date of disconnection of dial tone by the Donor Company and the connection of dial tone by the Recipient Company to an end user. The expectation is that the completion date will be the due date on the service order.
14. "Database" means an organized collection of information, typically stored in computer systems, comprised of fields, records (data), and indexes. In 9-1-1, such databases include MSAG, telephone number (TN)/ESN, ALI/ANI information of subscribers or end users, and GIS data.
15. "Database Provider" means the entity providing Automatic Location Identification and/ or Automatic Number Identification data services and other services utilizing databases associated with 9-1-1 service. The Database Provider may also be the Service Provider.
16. "Data Exchange" means the process of exchanging 9-1-1 data between Telecommunication Services Providers and the Database Provider.
17. "Dedicated Trunk" means a telephone circuit used for a single purpose, such as the transmission of 9-1-1 calls.
18. "Discrepancies" means a term used to describe subscriber records that do not match the MSAG or, based upon information from end-users making

9-1-1 calls or from other reliable sources, do not match ALI/ANI information in the ALI or other RI E 9-1-1 databases, and are referred to an error file or discrepancy report for resolution.

19. “Diverse Routing” means the practice of routing circuits along different physical paths in order to prevent total loss of 9-1-1 service in the event of a facility failure.
20. “Donor Company” means the Telecommunication Services Provider currently responsible for an end user’s telephone service prior to the migration of the telephone number to another Telecommunication Services Provider.
21. “Emergency Service Number (ESN)/Emergency Service Zone (ESZ)” means an ESN is a three-to-five digit number representing a unique combination of emergency service agencies (law enforcement, fire, and emergency medical service) designated to serve a specific range of addresses within a particular geographical area, or Emergency Service Zone (ESZ). The ESN facilitates selective routing and selective transfer, if required, to the appropriate PSAP and the dispatching of the proper service agency(ies).
22. “End User” means the RI E 9-1-1 caller.
23. “Enhanced 9-1-1” means an emergency telephone system which includes network switching, database, and customer premise equipment (CPE) elements capable of providing Selective Routing, Selective Transfer, Fixed Transfer, ANI, and ALI.
24. “Feature Group D” means a multi-frequency signaling protocol, originally developed to support equal access to long distance services, capable of carrying one or two ten-digit telephone numbers.
25. “GIS” means geographic information system, a computerized, digital method of capturing location data of objects on the ground. The data captured by this method is referred to as GIS data.
26. “GIS Liaison” means a person or entity that is appointed or assigned by a local community to be the coordinator of GIS activities on behalf of the

local community. This person or entity will work with RI E 9-1-1 in resolving local community GIS issues.

27. "Grade of Service" means the designation, expressed as a decimal fraction, of the probability (P) of a telephone number being blocked. P.01 is the grade of service reflecting the probability that one call out of one hundred during the average busy hour will be blocked.
28. "Master Street Address Guide (MSAG)" means a database of street names and address ranges within their associated municipalities defining Emergency Service Zones (ESZs) and their associated Emergency Service Number (ESNs) to enable proper routing of 9-1-1 calls.
29. "Master Street Address Guide (MSAG) Liaison" means a person or entity that is appointed or assigned by a local community to be the coordinator of MSAG activities on behalf of the local community. The person or entity will work with RI E 9-1-1 in resolving community MSAG issues.
30. "Migrate or Migration" means the term used to describe the inward transaction the Recipient Company submits to the RI E 9-1-1 Database Provider that signifies movement of telephone service and a telephone number from a Donor Company.
31. "Mobile Identification Number (MIN)" means a 34-bit binary number that a wireless handset transmits to identify itself to the wireless network. It is the number associated with a cellular-wireless device.
32. "Mobile Telephone Switch (MTS)" means a switch used by a wireless carrier which routes voice and data transmissions within a given geographic area served by the wireless carrier.
33. "National Emergency Number Association (NENA)" means the National Emergency Number Association is a not-for-profit corporation established in 1982 to further the goal of "One Nation-One Number" for emergency purposes, by serving as a networking source and promoting research, planning, and training. In doing so, NENA educates, sets standards, and provides certification programs, legislative representation and technical assistance for implementing and managing 9-1-1 systems.

34. “No Record Found (NRF)” means a condition where no ALI information is available for display at the PSAP.
35. “North American Numbering Plan” means the use of 10-digit dialing in the format of a 3-digit NPA, followed by a 3-digit NXX and a 4-digit line number.
36. “Number Plan Area (NPA)” means an established three-digit area code for a particular calling area. It takes the form of NXX, where N is any digit from 2 through 9 and X is any digit from 0 through 9.
37. “NXX” means a three-digit code in which N is any digit 2 through 9 and X is any digit 0 through 9. They are the second set of three digits in the North American Numbering Plan.
38. “pANI” means the code (usually a telephone number, and thus an “ANI”) that is used to identify the receiving antenna coverage area for a wireless call. The “p” simply signifies that it is not an access line for other calling purposes.
39. “Private Branch Exchange (PBX)” means a private telephone system that is connected to the Public Switched Telephone Network, and which has more than one answering station reachable through a common telephone number.
40. “Public Safety Answering Point (PSAP)” means a facility equipped and staffed to receive RI E 9-1-1 calls. A Primary PSAP receives the calls directly. When a 9-1-1 call is transferred, the next receiving PSAP (the responding agency) is designated a Secondary PSAP.
41. “Recipient Company” means the new Telecommunication Services Provider responsible for the end user’s telephone service and RI E 9-1-1 data after the migration of the telephone number from a Donor Company.
42. “Service Order” means the document used by telephone common carriers and other telephone services providers for initiation of, additions to, changes of, or removals of telephone service or of subscriber information.
43. “Service Provider” means an entity providing one or more of the following 9-1-1 elements: Network, customer premise equipment (CPE), or



Database Services. The Service Provider may also be a Database Provider.

44. "Subscriber" means a party that utilizes the services of a telecommunication services provider in exchange for money or other lawful consideration and which is the principal obligor under such an arrangement.
45. "Telecommunication Services Provider" means every person, party or entity which provides communications services, telephony services, voice or data transmission services, and wireless prepaid services, including, but not limited to: audio, print information, Voice Over Internet Protocol (VoIP), data or visual information, communication or transmission or any combination thereof, for profit on a subscription, wireless prepaid services, wireless prepaid telephone calling arrangement or pay-for-services or any other basis by means of landline local telephone exchange, cellular telephone, wireless communication, radio, telephony, Internet, data, satellite, computer, prepaid wireless telephone, Voice Over Internet Protocol (VoIP) instruments, devices or means, or any other communication or data instrument, devices or means which have access to, connect with, or interface with the E 9-1-1 Uniform Emergency Telephone System. Telecommunication services provider includes "telephone common carrier," "wireless services provider," "communications common carrier," "telephone companies," and "common carrier" as those terms are used in R.I. Gen. Laws Chapter 39-21 *et seq.* and R.I. Gen. Laws § 39-21.1 *et seq.* and "telecommunication common carrier" as defined in the Code of Federal Regulations at 47 C.F.R. Part 22, as amended from time to time and as defined in the NENA Master Glossary of the 9-1-1 terminology as amended from time to time.
46. "Telephone Common Carrier" means any person, party or entity, which provides communications, services for profit between a point of origin and a point of reception by way of landline wire connection between the two (2) points. It includes resellers of such services.
47. "TN" means telephone number. It is also a term used to refer to records in the ALI data base, which includes a subscriber's telephone number.

- 48. "Wireless Services Provider" means cellular, satellite or other radio based telephony or data transport commercial entity.
- 49. "24x7x365 Basis" means 24 hours per day (24), 7 days per week (7), and each day (365) of every calendar year.

## **1.8 Severability**

- A. Should any portion of these Rules and Regulations be held to be invalid under any state or federal law or Constitution of the State of Rhode Island and Providence Plantations or of the United States of America, the remaining portions of such Rules and Regulations shall remain in full force and effect.
- B. Effective Date - These Rules and Regulations shall take effect on February 28, 2011.

**270-RICR-20-00-1**

**TITLE 270 - DEPARTMENT OF PUBLIC SAFETY**

**CHAPTER 20 - E 9-1-1 OPERATIONS**

**SUBCHAPTER 00 - N/A**

PART 1 - Rhode Island E 9-1-1 Uniform Emergency Telephone System Rules and Regulations (270-RICR-20-00-1)

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Editorial Note: This Part was filed with the Department of State prior to the launch of the Rhode Island Code of Regulations. As a result, this digital copy is presented solely as a reference tool. To obtain a certified copy of this Part, contact the Administrative Records Office at (401) 222-2473.