

Adopted May 1, 2001

**RULES AND REGULATIONS OF THE RHODE ISLAND
UNIFORM EMERGENCY TELEPHONE SYSTEM DIVISION
OF THE
DEPARTMENT OF ADMINISTRATION, STATE OF
RHODE ISLAND AND PROVIDENCE PLANTATIONS**

PREAMBLE

The RI E 9-1-1 Uniform Emergency Telephone System Division, Department of Administration, 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 (Sections 39-21-11, 39-21.1-5, and 39-21.1-10, General Laws, State of Rhode Island). Such rules and regulations are promulgated in accordance with Chapter 35 of Title 42 of the General Laws, State of Rhode Island.

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.

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 Chapters 21 and 21.1 of Title 39 of the General Laws of the State of Rhode Island and in these Rules and Regulations.

The within Rules and Regulations pertain to surcharge revenue, database management, network requirements and testing, local number portability, and cost recovery.

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.

These Rules and Regulations shall take effect July 1, 2001.

Adopted this 1 day of May, 2001 , these Rules and Regulations, consisting of 39 pages, commencing with the Preamble, by the Rhode Island Uniform Emergency Telephone System Division, Department of Administration, State of Rhode Island and Providence Plantations.

Raymond LaBelle, Executive Director

On the 13th day of December, 2001 appeared before me Raymond LaBelle, to me be known as the Executive Director of the Rhode Island Uniform Emergency Telephone System Division, Department Of Administration, State of Rhode Island, and states upon his oath that the within document is the full and complete text of the Rules and Regulations adopted on May 1, 2001, to which he affixed his signature in my presence.

Lane W. Newquist, Notary Public
My Commission Expires March 25, 2002

RULES AND REGULATIONS
OF
THE
RHODE ISLAND
UNIFORM EMERGENCY TELEPHONE SYSTEM DIVISION
DEPARTMENT OF ADMINISTRATION
STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

TABLE OF CONTENTS

1. Preamble.....	1
2. Part One—Surcharge Revenue.....	4
3. Part Two--Database Management.....	6
4. Part Three—Network Requirements and Testing.....	20
5. Part Four—Local Number Portability.....	27
6. Part Five—Cost Recovery.....	28
7. Appendix	
Definitions.....	29
8. Severability.....	38
9. Effective Date.....	38

PART ONE

SURCHARGE REVENUE

- A.** All telephone common carriers and all telecommunication services providers, as those terms are defined in Section 39-21.1-3, General Laws, State of Rhode Island, shall bill each subscriber of their respective services the surcharge levied under Section 39-21.1-14, General Laws, State of Rhode Island, and shall remit such surcharge revenue to RI E 9-1-1 within thirty (30) days of the respective transmittal dates set forth in said Section 39-21.1-14. The transmittal of such surcharge revenue shall be accompanied by such form as prescribed by RI E 9-1-1 from time to time. The form of payment shall be by check made payable to "General Treasurer, State of Rhode Island." Any surcharge revenue not transmitted within thirty (30) days of the respective transmittal dates shall be assessed interest at the rate of eight percent (8%) per annum. The address to which surcharge revenue is to be transmitted is set forth on the transmittal form prescribed by RI E 9-1-1.
- B.** In the instances in which a telephone common carrier resells its services through other entities, the telephone common carrier shall collect the surcharge revenue from each of its resellers and shall transmit such surcharge revenue on behalf of its reseller(s), identifying the name of each reseller(s), and the respective amounts of surcharge revenue being transmitted on behalf of each respective reseller(s). In the instances in which a wireless telephone carrier resells its services through other entities, each other such reseller shall collect the surcharge revenue from its subscribers for service and shall remit the surcharge revenue in accordance with Paragraph A. above.

- C.** RI E 9-1-1 shall have the right, but not more frequently than at six month intervals unless there is an unexplained change in revenue surcharge remittance, to audit the number of subscribers of each telephone common carrier and telecommunication services provider and their respective reseller(s) and the amount of surcharge revenue attributable to each subscriber base of such entities. The telephone common carrier or telecommunication service provider that is audited shall reimburse the expenses incurred by RI E 9-1-1 in the audit, unless exemption is granted by the Executive Director.
- D.** 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, cellular telephone device, wireless communications device, radio, or any other communications devices or means (including computers). Data-only subscriber lines or cables and internet connection lines or cables which are capable of accessing, connecting with, or interacting with RI E 9-1-1 as aforesaid, are subject to the subscriber surcharge.
- E.** The subscriber surcharge levied under Section 39-21.1-14(a), General Laws, State of Rhode Island, 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.

PART TWO

DATABASE MANAGEMENT

A. Municipality/State Titles and Responsibilities:

1. Municipal Coordinator/Addressing Officer

Each municipality shall designate an individual to serve as its municipal coordinator 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 as the "addressing officer" 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 and/or addressing officer, the chief elected official (holding the highest elected office) becomes the addressing officer by default. If there is any change in the municipal coordinator and/or the Addressing Officer, 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.

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 service 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.

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.

1. 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.

2. 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.

3. 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.

On a daily basis (normal business day), the Database Provider shall provide to RI E 9-1-1 the previous day's MSAG changes in the Kermit protocol format or another format mutually agreed upon between the Database Provider, Service Provider, and Executive Director of RI E 9-1-1.

The Database Provider shall provide to the telephone common carriers, if they so request, a complete copy of the MSAG no more than four times a year.

D. MSAG Yearly Re-verification.

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/addressing officer its respective municipal MSAG with instructions for correction.

The municipality coordinator/addressing officer shall:

- ◆ **If the MSAG is 100% accurate**, place the official municipal seal on the MSAG, note that it is correct, and sign and forward it to the State of Rhode Island Database Manager within 30 days of receipt.
- ◆ **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.

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 print 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.

E. Emergency Service Number (ESN) Database Maintenance.

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 the Executive Director 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 ESN's. 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 Databases.

The data in Rhode Island's RI E 9-1-1 ALI wireline, wireless, MSAG, and GIS databases can only be used for 9-1-1 emergencies, public-safety planning and training, law enforcement, and disaster notification or evacuation, as authorized by the Executive Director. 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.

1. 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.

2. Data Exchange.

Data exchange between the Database Provider and all other telecommunication services providers shall follow the modified NENA 02-010 Standard for Recommended Formats & Protocols for Data Exchange used by the Database Provider and available upon request from the Database Provider. Any deviations from this standard must be submitted in writing and agreed to by the Executive Director of RI E 9-1-1.

3. Data Exchange Protocols.

The movement of ALI data between telephone common carriers and telecommunication services providers and/or RI E 9-1-1 databases shall follow the KERMIT protocol.

G. Known and Potential Problems that may Cause ANI and ALI Errors and/or System Failures.

The Service Provider, and all other telecommunication services providers operating in Rhode Island, shall notify the Executive Director of 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.

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 concurrence by the Executive Director of 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 at least once a year.

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

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:

1. Total TN Report

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.
Frequency	Monthly
Distributed	E-mail or File Transfer Protocol

2.ESN report

Description	Tally of TN's by ESN, sorted by municipality
Frequency	Monthly
Distributed	E-mail or File Transfer Protocol

3. Service Order Fallout Report

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.
Frequency	Monthly
Distributed	E-mail or File Transfer Protocol

4. Service Order Update Report

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.
Frequency	Monthly
Distributed	E-mail or File Transfer Protocol

5. MSAG Update Report

Description	MSAG changes for Rhode Island
Frequency	Daily
Distributed	E-mail or File Transfer Protocol

6. Initial TN Extract

Description	Extract of all TN's. No sort required. All telephone common carriers.
Frequency	One time and as often as needed for quality compares
Distributed	E-mail or File Transfer Protocol

7. Initial MSAG extract

Description	Extract of all Rhode Island MSAG records
Frequency	Annually and as often as needed for quality compares
Distributed	E-mail or File Transfer Protocol

8. Change File (aka service order file for Rhode Island)

Description	Update of all TN changes that passed ALI edits, both service order and maintenance, for all telephone common carriers
Frequency	Daily
Distributed	E-mail or File Transfer Protocol

9. Error File (aka service order error file for Rhode Island)

Description	All service orders for all telephone common carriers that did not pass the ALI edits and are placed into an error bucket
Frequency	Daily
Distributed	E-mail or File Transfer Protocol

10. Reverse ALI Reports

Description	Detail of all manual dip queries, including date/time, position, customer TN, customer name and address
Frequency	Monthly
Distributed	E-mail or File Transfer Protocol

11. NRF summary report

Description	Summary by day of all NRF, sorted by PSAP
Frequency	Monthly
Distributed	E-mail or File Transfer Protocol

12. NRF detailed report

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

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

Every telephone common carrier (including ALECs, CLECs, and ILECs) shall process their daily service orders and update the ALI database(s) within 24 hours (normal business day). This 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.

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 ALI Trakker system for logging, tracking, and closing out ALI discrepancies.

1. ALI Discrepancy Reporting.

Each 9-1-1 call taker (telecommunicator) shall fill out an ALI discrepancy report in ALI Trakker 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 Database

Provider and appropriate telephone common carrier for correction, if necessary.

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).

The telephone common carrier shall close out the ALI discrepancies in the ALI Trakker 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.

The State of Rhode Island Database Manager shall note in ALI Trakker and forward any discovered MSAG discrepancies to the municipal coordinator/addressing officer for correction, if necessary.

2. ALI discrepancy tracking by ALI Trakker

ALI Trakker will track the following types of ALI discrepancies:

a. No Records Found (NRF).

Each call taker (telecommunicator) shall constantly compare the ALI information from the ALI database with information supplied by the caller to identify discrepancies. If the RI E 9-1-1 caller's ALI information is a NRF, the call taker shall document it in the ALI Trakker system. The State of Rhode Island Database Manager shall approve or note the NRF and forward the NRF to the telecommunication services provider for correction.

b. Non-emergency 9-1-1 Calls.

Each call taker (telecommunicator) shall document all non-emergency 9-1-1 calls in the ALI Trakker system.

c. Service Order Fallout.

The daily service order error file shall be processed so that each service order telephone number that was rejected is entered into ALI Trakker. The State of Rhode Island Database Manager shall work with each telecommunication services provider to ensure that each of the errors are corrected and closed out with the appropriate information.

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 ALI Trakker for resolution.

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

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.

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.

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.

The Database Provider shall use the company identifier system (service provider company abbreviation) of the National Emergency Number Association (NENA). The “Company ID” field in the NENA-02-010 Recommended Formats and Protocols for Data Exchange shall be used to identify the telecommunication services providers, including wireless carriers. Data in this field shall be stored in the ALI database and be available for display at the PSAP.

R. Database Data Access by RI E 9-1-1

Every telephone common carrier operating in the State of Rhode Island shall authorize the Database Provider to permit designated personnel of RI E 9-1-1 access, on a view-only basis, to the records in the ALI database of each and every telephone common carrier. In addition, every telecommunication services

provider shall provide RI E 9-1-1 with the name and contact number of its subscriber information contact person on a 24x7x365 basis.

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

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.

PART THREE

NETWORK REQUIREMENTS AND TESTING

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

- 1. 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. The Executive Director of 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.
- 2. 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.

- 3. 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 Database Provider. 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 the Executive Director of RI E 9-1-1 upon completion of testing, who shall provide a copy to the Database Provider for review and error correction.

4. 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 trunk with a minimum of six channels (DSOs) utilizing Feature Group

D signaling shall connect the Providence DACS and the wireless carrier's MTS. 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. Alternate 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, one tandem originating in Providence and one tandem originating in West Warwick. The wireless carrier shall provision this route with a remote call forwarding arrangement with the Service Provider that incorporates four (4) unique-to-carrier telephone numbers (ANIs), one ANI each representing a geographic quadrant within the State of Rhode Island, as designated by RI E 9-1-1. The Service Provider shall input the four unique-to-carrier ANIs into the ALI database, and shall ensure that the class of service "MOBL" is utilized for these remote call forwarding numbers.

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. A pANI shall be assigned to each cell sector by RI E 9-1-

1 and be maintained in its database. Within three business days following receipt of the transmission tower location and cell sector information, RI E 9-1-1 shall provide the wireless carrier with the carrier's assigned pANIs. The wireless carrier shall then provision its MTS with the pANIs associated with each of its transmission towers and respective cell sectors located in the State of Rhode Island. 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 pANI representing the transmission tower's cell sector.

- d. Grade of Service.** Trunk (DSO) 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. To ensure this grade of service, there shall be a minimum of six (6) DSOs from the MTS to the Providence DACS.
- 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 alternate 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 alternate 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 pANI 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 the Executive Director of 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. The 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.

PART FOUR

LOCAL NUMBER PORTABILITY

- A. Purpose of Local Number Portability.** Local Number Portability (LPN) was authorized under the federal Telecommunications Act of 1996 to facilitate competition in local telephone service markets by permitting a customer of one telecommunication service 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.** 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.** 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.

PART FIVE
COST RECOVERY

- A. Cost Recovery, Generally.** In the case of telephone common carriers providing service in Rhode Island, the cost of providing 9-1-1 services is governed by Section 39-21-12, General Laws, State of Rhode Island. 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.
- B. Cost Recovery: Database Provider and Service Provider.** To the extent compliance with these Rules and Regulations imposes reasonable additional costs upon the Database Provider or Service Provider, such reasonable costs may be recovered in accordance with applicable state and federal laws and rules and regulations.

APPENDIX

DEFINITIONS. For purposes of these Rules and Regulations, the following acronyms and terms shall have the respective meanings contained in their respective definitions.

<i>Access Line</i>	The connection between a customer premises network interface and the telephone common carrier that provides access to the public switched telephone network.
<i>Addressing Officer</i>	The individual assigned by each municipality to handle all issues involving the development and maintenance of address information for the RI E 9-1-1 MSAG, addressing, and/or routing databases.
<i>ALI Discrepancy</i>	See “ <i>Discrepancies</i> ”.
<i>ALI Trakker:</i>	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.
<i>Audit Trail Data:</i>	The data that supports the information required in the Reports enumerated in Section J of Part Two of these Rules and Regulations.
<i>Automatic Location Identification:</i>	The automatic display at the PSAP of the caller’s telephone number, the address/location of the telephone and supplementary emergency services information.
<i>Automatic Number</i>	

<i>Identification (ANI):</i>	Telephone number associated with the access line from which a call originates.
<i>Business Day:</i>	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.
<i>Average Busy Hour</i>	The one-hour period during the week statistically shown over time to be the hour in which the most telephone calls are received.
<i>Average Busy Season</i>	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.
<i>Company Identifier or Identification Number (Company ID):</i>	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.
<i>Central Office</i>	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.

<i>Centrex</i>	A business telephone service offered by some telecommunication services providers that provides PBX-type features over access lines.
<i>Completion Date:</i>	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.
<i>Database:</i>	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.
<i>Database Provider:</i>	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.
<i>Data Exchange:</i>	The process of exchanging 9-1-1 data between Telecommunication Services Providers and the Database Provider.

<i>Dedicated Trunk</i>	A telephone circuit used for a single purpose, such as the transmission of 9-1-1 calls.
<i>Discrepancies:</i>	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.
<i>Diverse Routing</i>	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.
<i>Donor Company:</i>	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.
<i>Emergency Service Number (ESN)/Emergency Service</i>	
<i>Zone (ESZ):</i>	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).

<i>End User:</i>	The RI E 9-1-1 caller.
<i>Enhanced 9-1-1:</i>	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.
<i>Feature Group D</i>	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.
<i>GIS</i>	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.
<i>Grade of Service</i>	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.
<i>Master Street Address Guide (MSAG):</i>	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.
<i>Migrate or Migration:</i>	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.

*Mobile Identification
(MIN) Number*

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.

*Mobile Telephone Switch
(MTS)*

A switch used by a wireless carrier which routes voice and data transmissions within a given geographic area served by the wireless carrier.

*National Emergency Num-
ber Association (NENA):*

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.

No Record Found (NRF):

A condition where no ALI information is available for display at the PSAP.

North American

Numbering Plan:

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. NPA-NXX-XXXX.

Number Plan Area (NPA): 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.

NXX: 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.

pANI 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.

Private Branch Exchange (PBX): 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.

Public Safety Answering Point (PSAP):

- 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.

Recipient Company: 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.

<i>Service Order:</i>	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.
<i>Service Provider:</i>	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.
<i>Subscriber</i>	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.
<i>Telecommunication</i>	
<i>Services Provider:</i>	Every person, party, or entity which provides communications services, including, but not limited to audio communication, print communication, or visual communication or any combination thereof, for profit on a subscription or pay-for-services basis by means of landline local telephone exchange devices, cellular telephone devices, wireless communication devices, radio, or any other communication devices or means which have access to, connect with, or interface with the RI E 9-1-1 Uniform Emergency Telephone System. Telecommunication services provider includes "Service Provider," "telephone common carrier," "communications common carrier," "telephone companies," "common carrier," and "telecommunication common carrier" as defined in the Code of

Federal Regulations at 47 CFR part 22, as amended from time to time.

Telephone Common

Carrier: Any person, party or entity, which provides communications, services 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.

TN: Telephone number. It is also a term used to refer to records in the ALI data base, which includes a subscriber's telephone number.

24x7x365 Basis This phrase refers to 24 hours per day (24), 7 days per week (7), and each day (365) of every calendar year.

Severability. 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.

Effective Date. These Rules and Regulations shall take effect on July 1, 2001.