

## COLORADO DEPARTMENT OF REGULATORY AGENCIES

### Public Utilities Commission

#### 4 CODE OF COLORADO REGULATIONS (CCR) 723-2

##### PART 2

#### RULES REGULATING TELECOMMUNICATIONS PROVIDERS, SERVICES, AND PRODUCTS

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[indicates omission of unaffected rules]

#### Basic Emergency Service

##### **Basis, Purpose, and Statutory Authority**

The basis and purpose of these rules are to ensure safety, reliability, and affordability of the statewide emergency service network by defining basic emergency service, regulated pursuant to § 40-15-201, regardless of technology used to provide service; identifying obligations and requirements of providers offering or providing certain basic emergency service in Colorado; prescribing interconnection rules; prescribing reporting obligations on database information, outages, and interruptions; and, recognizing the potential for multiple providers of basic emergency service in Colorado.

The statutory authority for the promulgation of these rules is found at §§ 29-11-102(2)(b); 29-11-106(3); 40-2-108; 40-3-102; 40-3-103; 40-4-101(1) and (2); 40-15-201; 40-15-301; and 40-15-503(2)(g).

##### **2130. Applicability.**

- (a) Rules 2130 through 2159 apply to all originating service providers, TARPs, and to all persons offering or providing the services, functions, and processes within the definition of basic emergency service.
- (b) Some of the provisions in these rules apply to MLTS operators whose systems do not have automatic number and automatic location identification capability, or whose systems require the dialing of an additional digit(s) to access the public switched network

##### **2131. Definitions.**

The following definitions apply only in the context of rules 2130 through 2159:

- (a) "9-1-1" means a three-digit code used to report an emergency situation requiring a response by a public agency such as a fire department or police department.
- (b) "9-1-1 call" means any form of communication, regardless of technology and including, but not limited to, voice, data, text, and video, using 9-1-1 or other emergency code, number, or network address to communicate or report an emergency or matter of safety to a PSAP.

- (c) "9-1-1 system and network" means the any of the facilities, equipment, databases or any other component, regardless of the technology and ownership, used to transmit 9-1-1 calls from an originating service provider's switch, or next generation (NG) equivalent, to the PSAP, including any intermediary facilities, equipment, databases, or services, including ALI and ANI services, to provide communications and information to PSAPs or to enable emergency notification service.
- (d) "9-1-1 failure" or "9-1-1 outage" means any situation in which 9-1-1 calls cannot be transported from the service end users to the PSAP responsible for answering the 9-1-1 calls or in which a service end user is unable to receive emergency notifications. "9-1-1 failure" also includes an inability to deliver ALI or ANI information to the PSAP from an ALI or ANI database or a loss of the ALI or ANI functionality.
- (e) "9-1-1 tandem" or "9-1-1 tandem switch" means the equipment or functional equivalent, regardless of technology, that aggregates 9-1-1 calls for proper routing to PSAPs.
- (f) "Automatic Location Identification" (ALI) means the automatic display, on equipment at the PSAP, of the telephone number and other information concerning the location of the caller. ALI information includes but is not limited to non-listed and non-published numbers and addresses, and other information about the caller's location.
- (g) "ALI provider" means any person or entity that provides ALI service to a TARP, a PSAP, or a governing body, directly or indirectly, for a specific geographic area.
- (h) "ALI service" means all the services, features, and functionalities of elements and components used to provide ALI, including location information services, applications, databases, management processes and services, routing, aggregation, and transport, regardless of the technology used.
- (i) "Automatic Number Identification" (ANI) means the process used on customer-dialed calls to automatically identify the calling station, and the automatic display of the caller's telephone number on telephone answering equipment used by operators at the PSAP.
- (j) "Basic emergency service" under § 40-15-201(2) means a 9-1-1, E9-1-1 or NG9-1-1 service regardless of the technology used to provide the following:
  - (I) interconnection for 9-1-1 calls between a TARP and an originating service provider or a provider of intermediary aggregation services;
  - (II) delivery of 9-1-1 calls from an originating service provider or a provider of intermediary aggregation services to a TARP;
  - (III) delivery of 9-1-1 calls by a TARP to a PSAP including, but not limited to, switching, routing, aggregation, transport, protocol conversion, database inquiries, and interconnection to the PSAP;
  - (IV) ALI and ANI services; and
  - (V) provisioning by originating service providers or a provider of intermediary aggregation services to TARPs, ALI providers and providers of ANI of information required to deliver 9-1-1 calls to a PSAP, including but not limited to, telephone numbers, including non-published and non-listed numbers.

- (k) "Emergency notification service," also known as "reverse 9-1-1," means a service that, upon activation by a public safety agency, sends an alert to all landline, mobile, and other registered devices within a specified geographical area of an emergency event.
- (l) "Emergency telephone charge" means a charge to pay for the equipment costs, the installation costs, and the directly-related costs of the continued operation of an emergency telephone service according to the rates and schedules filed with the Commission.
- (m) "Enhanced 9-1-1" (E9-1-1) means the delivery of 9-1-1 calls with ANI and ALI (including non-listed and non-published numbers and addresses), and (optionally) selective routing, to a PSAP.
- (n) "Geographic area" means the area such as a city, municipality, county, multiple counties or other areas defined by a governing body or other governmental entity for the purpose of providing public agency response to 9-1-1 calls.
- (o) "Governing body" means a representative organization responsible for the oversight of 9-1-1 response activities in a specific geographic area. A governing body may be comprised of a board of county commissioners, a board of directors of a special district, a city council or other governing body of a city and/or county, or a separate legal entity established under § 29-1-201, C.R.S., et seq.
- (p) "Intermediary aggregation service" means the aggregation and transport of 9-1-1 calls for one or more originating service providers for delivery to a TARP's 9-1-1 selective router, or the NG9-1-1 equivalent.
- (q) "Multi-line telephone system" (MLTS) means a system comprised of common control unit(s), telephone sets, control hardware and software, and adjunct systems which enables users to make and receive telephone calls using shared resources such as telephone network trunks or data link bandwidth. This term includes, but is not limited to: network-based and premises-based systems such as Centrex service; premises-based, hosted, and cloud-based VoIP; and PBX, Hybrid, and Key Telephone Systems (as classified by the FCC under Part 68 of its current rules as of April 1, 2015).
- (r) "Multi-line telephone system manager" means any entity that deploys, manages, or operates an MLTS, either through a purchase or lease of an MLTS or by contracting for MLTS services such as Centrex, Hosted MLTS, Hosted VoIP, or similar services.
- (s) "National Emergency Number Association" (NENA) means the international not-for-profit organization whose stated purpose is to lead, assist, and provide for the development, availability, implementation and enhancement of a universal emergency telephone number or system common to all jurisdictions through research, planning, publications, training and education.
- (t) "Next Generation 9-1-1," or "NG9-1-1," is an Internet Protocol (IP) based system comprised of managed Emergency Services IP networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provides additional data, video, and interactive capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for Public Safety Answering Points (PSAPs) and other emergency service organizations.
- (u) "Originating service provider" means a person offering or providing any form of communication service by which an end user may make a 9-1-1 call.

- (v) "Pseudo Automatic Number Identification" (p-ANI) means a non-dialable phone number, consisting of the same number of digits as ANI, that is not a North American Numbering Plan telephone directory number, and that is used to support routing of originating service providers' 9-1-1 calls to a PSAP. p-ANI numbers may be used to convey special meaning to systems that are used to switch or route 9-1-1 calls to the various PSAPs, such as the identity of a wireless cell, cell sector or other geographic area used to associate a 9-1-1 call with the destination PSAP.
- (w) "Public Safety Answering Point" (PSAP) means a facility equipped and staffed to receive and process 9-1-1 calls.
- (x) "Selective routing" means the capability of routing a 9-1-1 call to a designated PSAP based upon the seven digit or ten-digit telephone number of the service end user dialing 9-1-1.
- (y) "Service end user" means a person placing a 9-1-1 call using any form of communication service.
- (z) "Telecommunications device for the deaf emergency access" or "text phone access" mean the provision of 9-1-1 access to individuals that use TTYs or computer modems.
- (aa) "Text telephone" (TTY) means a machine that employs graphic communication in the transmission of coded signals through a wire or radio communication system. TTY supersedes the term "TDD" or "telecommunications device for the deaf".
- (bb) "Telecommunications relay services" (TRS) means a telephone transmission service that enables an individual who has a hearing or speech disability to engage in communication by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of an individual who does not have a hearing or speech disability to communicate using voice communication services by wire or radio. Such term includes services that enable two-way communication between an individual who uses a text telephone, speech-to-speech services, video relay services, non-English relay services or other non-voice terminal device with an individual who does not use such devices, TRS supersedes the terms "dual party relay system," "message relay services," and "TDD Relay."
- (cc) "Transport, aggregation, or routing provider" or "TARP" means any person that transports, aggregates, or routes 9-1-1 calls from originating service providers, or from intermediary aggregation service providers to a PSAP.

**2132. Process for Certification.**

- (a) The Commission finds and declares that basic emergency service is vital to public health and safety. Further, it finds that the public convenience and necessity require the availability and, when requested, the provision of basic emergency service to all geographic areas in Colorado. The following entities offering or providing basic emergency services not previously approved by the Commission to be offered or provided in an existing provider's basic emergency services certification must obtain a certificate of public convenience and necessity.
  - (I) Transport, aggregation, or routing providers, or TARPs.
  - (II) Providers of ALI or ANI services offered or provided to a PSAP.
  - (III) Providers of any basic emergency service that is offered or provided to a PSAP.

- (b) The Commission may certify multiple providers of basic emergency services if such certification is found by the Commission to be in the public interest. Each application for certification shall be considered on a case-by-case basis.
- (c) An application for certification under this rule shall include, in the following order and specifically identified, the following information, either in the application or in appropriately identified attachments:
  - (I) the information required by paragraph 2103(a);
  - (II) an attestation that the applicant will offer its basic emergency services statewide;
  - (III) if the applicant has previously filed with the Commission current reports or material that include the information required in subparagraph (I) and (II), it may confirm this by filing an attestation of completeness and accuracy with proper citation of title and date of the other filed material; and
  - (IV) a detailed statement describing the means by which the applicant will provide the basic emergency service. This statement shall include, but is not limited to:
    - (A) the technical specifications including specific standards for the system and network that will be used to provide the basic emergency services
    - (B) detailed information on emergency restoration of the system, and redundancy and diversity of circuits;
    - (C) all agreements between the applicant and any ALI provider, TARP, or a sub-contractor providing a service that would require certification under paragraph 2132(a) if provided to a PSAP directly;
    - (D) all inter-governmental agreements regarding governing bodies or PSAPs;
    - (E) all interconnection agreements between a TARP and originating service providers, providers of intermediary aggregation services, ALI providers, or any provider certified pursuant to rule 2132;
    - (F) proposed tariffs including cost-based rates, service offerings and detailed terms and conditions, which must demonstrate the accuracy, reliability, non-discriminatory nature, statewide availability and affordability of the basic emergency service, and compliance with rules 2133, 2134, 2135, and 2145.
    - (G) all documentation, including but not limited to cost methodologies, used to determine tariff rates;
    - (H) a description of the processes and mechanisms for the gathering and management of the names, addresses, telephone numbers, and other necessary information for all customers;
    - (I) a description of all information and supporting processes that will be exchanged with the PSAP or governing body;

- (J) a description of the process and information exchanged for any testing with originating service providers, intermediary aggregation service providers and any basic emergency service provider certified pursuant to rule 2132 used to ensure the accuracy and reliability of the basic emergency service;
- (K) a description of the process and information exchanged for the testing and delivery of the basic emergency service to PSAPs used to ensure the accuracy and reliability of the basic emergency service; and
- (L) any other matter affecting public safety and the public interest.
- (V) A current audited financial statement showing that the applicant's assets, liabilities, and net worth are sufficient to provide basic emergency services; and
- (VI) an acknowledgment that the applicant will provide basic emergency service in accordance with these rules and all applicable quality of service rules.

**2133. Uniform System of Accounts, Cost Segregation and Collection.**

All persons certified under rule 2132 shall maintain their books and records and perform separation of costs as prescribed by rules 2400 through 2459, or as otherwise prescribed by the Commission.

**2134. Obligations of TARPs.**

- (a) A TARP shall obtain facilities from or interconnect with the facilities of all originating service providers that have customers in geographic areas designated by governing bodies. A TARP shall interconnect at physically and geographically diverse aggregation points with all originating service providers, intermediary aggregation service providers, ALI providers, providers of ANI services, and other TARPs with facilities in the serving area. A TARP shall make its 9-1-1 facilities available to originating service providers, intermediary aggregation service providers, ALI providers, providers of ANI services, and all other TARPs to facilitate 9-1-1 call transfer and routing between the appropriate PSAPs. A TARP shall create, or amend as necessary, provisions in its interconnection agreements with all providers of basic emergency service in compliance with rules 2130 through 2159.
- (b) At the request of an originating service provider, within and for an area under the responsibility of a single governing body, a TARP shall provide and arrange for the necessary facilities to interconnect, switch, and transport 9-1-1 calls from the originating service provider and other TARPs to the PSAP that is responsible for answering the 9-1-1 calls. Interconnection shall be accomplished in a timely manner, generally not more than 30 days from the time the TARP receives a written request. Interconnection facilities shall generally be engineered as follows.
  - (I) Dedicated facilities for connecting each originating service provider's switch, router or other agreed upon point-of-presence to the TARP shall be based on the requirements established by the responsible TARP to serve the service end users within that local exchange or geographic area.
  - (II) If shared or common facility groups are used to transport calls from the originating service provider switch, router or point-of-presence to the TARP, facilities shall be sized to carry the additional call volume requirements. Additionally, common or shared groups shall be arranged to provide 9-1-1 calls on a priority basis where economically and technically feasible.

- (III) The point of interconnection of the TARP facilities to originating service providers that employ switching systems in the geographic areas served by the responsible TARP shall be at the location of the originating service provider's switch or at a mutually agreed point of interconnection. The point of interconnection for originating service providers that may employ switching systems located outside of the geographic area served by the TARP shall be at or near the locations of each of the TARP selective routers, or functional equivalent, or at a mutually agreed point of interconnection within the area served by the TARP. The TARP is not obligated to compensate an originating service provider for the cost of transport facilities from the point of interconnection to switch locations outside of the geographic area of service provided by the TARP.
- (c) A TARP shall file with the Commission all interconnection agreements with originating service providers, intermediary aggregation service providers, or any provider certified to offer basic emergency service pursuant to rule 2132 within 30 days of execution. If a TARP has an interconnection agreement with an originating service provider, a provider of 9-1-1 aggregation services, or an ALI provider effective as of the adoption of this paragraph, the TARP shall file those interconnection agreements with the Commission within 30 days of the effective date of the Commission's adoption of this paragraph.
- (d) A TARP or any person interconnecting with a TARP may file a pleading requesting the Commission to determine reasonable, just, and non-discriminatory rates, terms, and conditions of an agreement to interconnect with a TARP.
- (e) A TARP shall develop and file with the Commission tariffs that establish cost-based rates for basic emergency services. These rates shall be averaged statewide. The costs shall include an aggregation of 9-1-1 system and network costs and interconnection costs. The TARP shall develop and file with the Commission tariffs that establish cost-based rates that will apply to governing bodies or PSAPs for establishing and maintaining records in the TARP's 9-1-1 system and network associated with working telephone numbers or any other number utilized in place of ANI to route calls to PSAPs. Any non-working telephone numbers or any other numbers that are not actively used for routing calls to the PSAP shall not be included in the record count for billing purposes.
- (f) A TARP shall render a single monthly bill for its tariff services to governing bodies. The monthly bill shall provide the detail necessary to enable the governing body to validate the charges including, but not limited to, the total number of 9-1-1 records for originating service provider's numbers and the quantity of any other number utilized in place of ANI records, if applicable. Any number not actively capable of calling 9-1-1 shall not be included in the record count or assessed a charge. Upon an annual request, the governing body will be provided at no charge a copy of the records, ALI database, or both, upon which the TARP charges the governing body for TARP services.
- (g) 9-1-1 calls from wireless providers or providers of interconnected VoIP using a number in place of an ANI to direct calls to a particular PSAP, and record counts associated with private switched ALI services, may be billed to the PSAP or governing body only if the PSAP or governing body has ordered those services.
- (h) TARPs shall ensure that TRS based 9-1-1 calls are routed to the correct PSAP in order to respond to the emergency at the location of the person experiencing the emergency.
- (i) A TARP shall ensure that all 9-1-1 facilities, including interconnections between the TARP and, originating service providers, intermediary aggregation service providers, ALI providers, providers of ANI services, other TARPs, or PSAPs, are engineered, installed, maintained, and monitored in order to provide a minimum of two geographically diverse routes and a minimum

grade of service that has one percent (P.01) or less blocking during the busy hour or other grade of service approved by the Commission.

- (j) Each TARP shall designate a telephone number that originating service providers, intermediary aggregation service providers, ALI providers, PSAPs, TARPs, and any other provider of basic emergency service can use to communicate potential and actual 9-1-1 failures or outages and restoration of service. Such telephone number shall be staffed seven days a week, 24 hours a day, by personnel capable of processing calls to take immediate corrective action.
- (k) A TARP shall keep on file with the Commission its contingency plan in accordance with paragraph 2139(e).
- (l) TARPs shall treat all customer telephone number information, customer location information, line counts, and customer counts by geographic area that the TARP obtains from originating service providers as confidential and intermediary aggregation service providers, and the TARP shall not disclose such confidential information to any person or entity other than the PSAPs, governing bodies, or the Commission and only for billing purposes. The TARP shall obtain agreements from PSAPs that, as a condition of receiving this information, the PSAPs shall not disclose or use such information for any purpose other than to verify TARP billing to the PSAP, verify the accuracy of the emergency telephone charge billing by carriers to their end users, or respond to emergencies.

**2135. Obligations of ALI Providers**

- (a) An ALI provider shall provide sufficient facilities to interconnect to the PSAPs to meet the requirements of the PSAPs or the governing body.
- (b) If the ALI provider is not also the TARP, it shall provide to TARPs, for the geographic areas served, all information required by the TARPs to ensure that calls are routed from the end users to the correct PSAP.
- (c) No TARP, intermediary aggregation service provider, or originating service provider shall interconnect with an ALI provider unless the ALI provider provides sufficient facilities to interconnect to the PSAPs so that it can meet the requirements of the governing body or PSAP and comply with paragraphs 2136(a) and (b) and other relevant provisions of these rules.

**2136. Obligations of Originating Service Providers and Intermediary Aggregation Service Providers.**

- (a) All originating service providers and intermediary aggregation service providers shall deliver 9-1-1 calls, at an agreed upon point of interconnection within the geographic area of a certificated TARP. All agreements and the associated charges for interconnection between originating service providers and TARPs, or between intermediary aggregation service providers and TARPs, shall be filed with the Commission within 30 days of execution. An originating service provider, intermediary aggregation service provider, or TARP may apply to the Commission for resolution of any dispute relating to interconnection of facilities delivering 9-1-1 calls. The TARP and the originating service provider or provider of intermediary aggregation service may agree, to dedicated, common or joint 9-1-1 network elements to be used to transport calls to the PSAP. A TARP is not required to construct 9-1-1 network facilities or compensate an originating service provider or intermediary aggregation service provider for such facilities located outside of the TARP's service area.

- (b) All originating service providers and intermediary aggregation service providers shall furnish name, address, and telephone number or any other number used in place of the ANI for 9-1-1 call routing and ALI information for all customers, including non-published or non-listed numbers, to all TARPs requiring such information and to all ALI providers for the provision of 9-1-1 services and emergency notification services. Such initial or updated information shall be provided to such TARPs and ALI providers within 24 hours of initial service or a change in service in which the telephone number corresponds to a changed location. All originating service providers shall furnish such information in accordance with rule 2142 only after each recipient has stated formally in writing that the recipient has complied with rule 2138. Non-working numbers or any other numbers without 9-1-1 capabilities that the originating service provider desires to have loaded or retained in the TARP's facilities shall be separately identified to the TARP, ALI providers, and PSAPs. All costs for providing this customer information and updates to this information shall be the responsibility of the originating service provider.
- (c) All originating service providers shall collect and remit the emergency telephone charge as required by § 29-11-100.5, C.R.S., et seq., to the appropriate governing body.
- (d) Originating service providers and intermediary aggregation service providers are prohibited from routing 9-1-1 calls directly to a PSAP over administrative lines or in any other manner than through a TARP's 9-1-1 system and network.
- (e) Each originating service provider and intermediary aggregation service provider shall designate a telephone number that PSAPs, 9-1-1 governing bodies, the Commission and TARPs can inquire about us potential and actual 9-1-1 failures or outages and restoration of service. Such telephone number shall be staffed seven days a week, 24 hours a day by personnel capable of processing the call to initiate immediate corrective action.
- (f) All originating service providers shall give formal written notice of intent to provide 9-1-1 service within -a geographic area to the governing body responsible for the PSAP within that geographic area prior to activating service in order to establish necessary contact information and arrangements for the collection and remittance of the 9-1-1 emergency telephone charge.
- (g) Interconnections with payphone providers.
  - (I) An originating service provider shall not interconnect with a payphone provider unless the payphone provider:
    - (A) allows customers to place a 9-1-1 call without requiring a coin deposit or other charges; and
    - (B) furnishes the ALI provider(s), the originating service provider that provides the dial tone connection, the PSAP, the governing body, and the TARP the Commission-required name and location information.
  - (II) The prohibition in this paragraph shall not apply to payphones provided to inmates in penal institutions where access to 9-1-1 is not required.
- (h) All originating service providers and intermediary aggregation service provider shall comply with rule 2140.

**2137. Obligations of Multi-line Telephone Systems (MLTS).**

- (a) For purposes of this rule:

- (I) "Emergency telephone service" (ETS) means a telephone system using 9-1-1 to report police, fire, medical, or other emergency situations.
  - (II) "End user" means the person making telephone calls, including 9-1-1 calls, from the MLTS that provides telephone service to the person's place of employment, school, or to the person's permanent or temporary residence.
  - (III) "Residence" or "residence facility" shall be interpreted broadly to mean single family and multi-family facilities including apartments, townhouses, condominiums, dormitories, hotels, motels, resorts, extended care facilities, or similar entities, facilities, or structures.
  - (IV) "Written information" means information provided by electronic mail, facsimile, letter, memorandum, postcard, or other forms of printed communication.
- (b) A MLTS manager responsible for an MLTS that is not installed, configured or maintained to provide direct access to 9-1-1 shall give written notice to all end users or potential users of each MLTS describing the proper method of accessing emergency telephone service (ETS), or 9-1-1, in an emergency.
- (I) Such written information shall be provided to each end user by placing stickers or cards including the appropriate method to access ETS on each MLTS telephone. Additionally, such written information shall be provided to each individual end user annually and at the time of hiring in the case of an employer, at the time of registration in the case of a school, and at the time of occupancy in the case of a residence facility.
  - (II) At a minimum, such written information that is attached to the telephone and provided annually shall include the following words: "To dial 9-1-1 in an emergency, you must dial #-9-1-1." [# = Insert proper dialing sequence].
- (c) When calls to access ETS from an MLTS do not give one distinctive ANI and one distinctive ALI, or both, for each end user, the MLTS operator shall instruct, in writing, that the end user must stay on the telephone and tell the ETS operator the telephone number and exact location.
- (I) Such written information shall be provided to each individual end user annually and at the time of hiring in the case of an employer, at the time of registration in the case of a school, and at the time of occupancy in the case of a residence facility. Whenever possible, such information also shall be placed on cards or stickers on or next to the MLTS telephone.
  - (II) At a minimum, such written information shall include the following words: "When calling 9-1-1 from this telephone in an emergency, you must stay on the telephone and tell the 9-1-1 operator your phone number and exact location. This telephone does not automatically give the 9-1-1 operator your phone number and exact location. This information is critical for a quick response by police, fire, or ambulance."
  - (III) If an MLTS operator provides telephones that are not assigned to a particular end user, but that may be used by members of the public, the MLTS operator shall place a sticker or card on or next to the pertinent telephone either identifying the method for dialing 9-1-1 from that telephone or stating there is no 9-1-1 access from that telephone.

- (d) Exemption from rules. The disclosure requirements of this rule shall not apply to MLTS provided to inmates in penal institutions, jails, or correctional facilities, to residents of mental health facilities, or to residents of privately contracted community correctional facilities, including substance abuse and mental health treatment facilities, or other such facilities where access to ETS is not required.

**2138. Nondisclosure of Name, Number, and Address Information.**

- (a) ALI providers, governing bodies, and PSAPs shall sign non-disclosure agreements consistent with this rule. Originating service providers and providers certified pursuant to rule 2132 shall provide telephone numbers or location data, including non-published and non-listed telephone numbers, only to an ALI provider, governing body, or PSAP that executes a non-disclosure agreement.
- (b) Pursuant to rules 1105, 1104, and 2360 through 2399, in order to receive personal information from an originating service provider, an intermediary aggregation service provider, governing body, PSAP, or provider certified pursuant to rule 2132, shall state formally in writing to the originating service provider that it has agreed to non-disclosure of personal information consistent with this rule.
- (c) ALI information shall not be used for purposes other than for responding to requests for 9-1-1 emergency assistance, initiating delivery of emergency warnings using an emergency notification service, or periodic testing of these services. However, a query, or reverse search of the ALI information, initiated at the PSAP to electronically obtain the ALI information associated with a known telephone for purposes of handling a 9-1-1 emergency call is permitted.
- (d) If personal information is improperly disclosed because the originating service provider or intermediary aggregation service provider did not properly inform the intermediary aggregation service provider or provider certified pursuant to rule 2132 that the personal information should not have been disclosed, the originating service provider shall pay the applicable rates of the originating service provider for changing a customer's telephone number, unless the customer declines such number change.

**2139. 9-1-1 Reliability, Resiliency and Contingency Planning and Service Restoration**

- (a) All facilities, equipment and databases used by TARPs, ALI, and intermediary aggregation service providers to provide basic emergency service shall be appropriately monitored and configured with the necessary redundancy, power and geographic diversity to ensure the availability of basic emergency service at all times. Basic emergency service shall be accorded the highest priority restoration in the event of a failure or outage.
- (b) TARPs and ALI providers shall develop cost-based tariff rates for deploying the necessary redundancy, power, and geographic diversity for their provision of basic emergency service.
- (c) An TARP and ALI provider may file a pleading requesting Commission waiver of the deployment of the necessary redundancy, power, and geographic diversity upon a showing of economic or technological infeasibility or that such deployment is not in the public interest.
- (d) Originating service providers, intermediary aggregation service providers, ALI providers and TARPs shall ensure that an inventory management process exists for properly identifying 9-1-1 circuits.

- (e) Each provider certified pursuant to rule 2132 that provides facilities, equipment, or databases used to provision basic emergency service to a PSAP shall develop a 9-1-1 Reliability and Contingency Plan in conjunction with all impacted PSAPs and 9-1-1 governing bodies. The plan shall detail the actions to be taken in the anticipation of, or event of, a 9-1-1 failure or outage. Each certified provider shall:
  - (I) maintain a copy of its plan;
  - (II) file a copy of its current plan with the Commission by April 30 of each year; and
  - (III) notify the PSAPs of any changes in the network that may require a change to the 9-1-1 Reliability and Contingency Plan.
  
- (f) All originating service providers and intermediary aggregation service providers providing a basic emergency service shall:
  - (I) furnish providers certified pursuant to rule 2132 any necessary information to develop a 9-1-1 Reliability and Contingency Plan; and
  - (II) notify the PSAPs of any changes in the network that may require a change to the 9-1-1 Reliability and Contingency Plans.
  
- (g) A 9-1-1 Reliability and Contingency Plan shall contain:
  - (I) an identification and location of all primary and back-up facilities, equipment and databases or any and all other components to provide basic emergency service;
  - (II) maps depicting the basic emergency service architecture;
  - (III) an identification and description of all interconnection points with TARPs, ALI providers, and PSAPs;
  - (IV) all processes and information from TARPs, ALI providers, intermediary aggregation service providers, originating service providers, PSAPs and governing bodies necessary so that 9-1-1 calls can be answered until 9-1-1 service is restored;
  - (V) all processes and information regarding 9-1-1 service degradation and outage notification in order to:
    - (A) arrange to temporarily re-route 9-1-1 calls to another PSAP;
    - (B) arrange, with the cooperation of the originating service provider, to route 9-1-1 calls to a local telephone number;
    - (C) provide another mutually agreed upon temporary solution so that 9-1-1 calls can be answered until 9-1-1 service is restored; and
    - (D) any other details as determined by the TARP, ALI provider, governing bodies, PSAPs, and Commission staff.

- (h) Originating service providers, intermediary aggregation service providers and providers certified pursuant to rule 2132 shall work cooperatively with the PSAPs to manage and monitor the report of a 9-1-1 failure or outage (e.g., issuance of a trouble ticket number in order to track such a failure or outage).
- (i) Originating service providers, intermediary aggregation service providers and providers certified pursuant to rule 2132 shall notify a person, agency, or responsible party designated by the governing body regarding a planned or unplanned 9-1-1 failure or outage, by notifying the designee of the governing body immediately of the nature and extent of the 9-1-1 outage or failure and actions being taken to correct the planned or unplanned 9-1-1 failure or outage. PSAPs shall notify the responsible TARP before invoking the emergency notification system to allow the TARP to avoid or mitigate an outage due to the volume of calling. In the event the PSAP detects a failure in the 9-1-1 system, the PSAP shall immediately notify the TARP in that geographic area of the failure.
- (j) If a 9-1-1 failure or outage exceeds or is anticipated to exceed 15 minutes from the time a originating service provider or provider certified pursuant to rule 2132 becomes aware of the outage and after notification to the PSAP and the Commission, the TARP or ALI provider shall implement the contingency plan and shall perform the following actions, if applicable:
  - (I) arrange to temporarily re-route 9-1-1 calls to another PSAP;
  - (II) arrange with the cooperation of the originating service provider to route 9-1-1 calls to a local telephone number;
  - (III) use facilities obtained for alternative routing of E9-1-1 calls for temporary use during service interruptions, such as private network facilities and governmental facilities; or
  - (IV) provide other mutually agreed upon temporary solutions so that 9-1-1 calls can be answered until 9-1-1 service is restored.
- (k) In the event that the anticipated failure or outage in the provision of 9-1-1 service is in the facilities of the originating service provider, intermediary aggregation service provider, or provider certified pursuant to rule 2132, such provider shall notify the TARPs that is responsible for delivering 9-1-1 calls to the PSAP for its customers and the affected PSAP. In the event that the anticipated failure or outage in the provision of 9-1-1 service is in the facilities of the TARPs, that TARPs must notify of all originating service providers, intermediary aggregation service providers, and PSAPs that are affected by the failure or outage.
- (l) Intermediary aggregation service providers, originating service providers, and providers certified pursuant to rule 2132 shall have qualified service technicians on site, when necessary, within two hours or their best effort, after being notified by the PSAP of a failure or outage of the 9-1-1 system.
- (m) If a 9-1-1 failure or outage exceeds 30 minutes and affects more than 400 lines or five percent (whichever is less) of the lines in a wireline exchange or equivalent VoIP wireline or wireless serving area, the responsible TARP, ALI provider, provider of intermediary aggregation service providers, the originating service providers, and any provider certified pursuant to rule 2132 shall notify the affected governing body and PSAP(s), the Commission, and the Office of Emergency Management, if activated, of the following:
  - (I) name of entity reporting;
  - (II) contact name, phone number, e-mail address;

- (III) date and time of beginning of outage or failure;
  - (IV) date and time of end of outage or failure;
  - (V) number of service end users affected;
  - (VI) affected geographic area;
  - (VII) description of outage or failure, including causes;
  - (VIII) description of services affected;
  - (IX) name and type of equipment causing the outage, if applicable;
  - (X) corrective action;
  - (XI) whether the outage or failure affects ALI only;
  - (XII) whether lack of diverse routing contributed to the outage;
  - (XIII) whether backup power contributed to the outage;
  - (XIV) whether network monitoring links transmitted data about the failed or degraded network equipment and facilities;
  - (XV) agencies notified, including PSAP(s), Sheriff/Police, etc.; and
  - (XVI) specification of elements of the 9-1-1 Reliability and Contingency Plan that have been implemented.
- (n) Notification must be provided pursuant to paragraph (m) the earlier of: 30 minutes from the time an outage exceeds 15 minutes; or 30 minutes from the time the provider knows an outage is anticipated to exceed 15 minutes.
- (o) Intermediary aggregation service providers, originating service providers, and providers certified pursuant to rule 2132 shall file a written report within ten days of a failure or outage with the Commission containing the information identified in paragraph (m) of this rule. As an alternative to the written report, the Director, or the Director's designee, may request, on a case-by-case basis, a written report within five days from the date of the request, outlining the nature, cause, extent, and corrective action taken.

**2140. Reports.**

- (a) Each intermediary aggregation service provider, originating service provider, and provider certified pursuant to rule 2132 shall furnish to the Commission at such time and in such form as the Commission may require, a report answering all questions propounded regarding the implementation, usage, availability, 9-1-1 failures or outages, cost of providing, and such other information relevant to the provision of this service. These reports shall be provided at regular intervals, to be determined by the Commission, and on a form approved by the Commission.
- (b) Periodic or special reports concerning any matter about which the Commission is concerned relative to the provision of basic emergency service shall be provided in a manner determined by the Commission, and on a form approved by the Commission.

- (c) Each intermediary aggregation service provider, originating service provider, and provider certified pursuant to rule 2132 shall furnish to the Commission all 9-1-1 outage reports filed in the FCC's Network Outage Reporting System and Disaster Information Reporting System.
- (d) All FCC defined covered 9-1-1 service provider serving Colorado shall file with the Commission all filings made with the FCC including the Initial and Annual Reliability Certification or any other information required by Part 12 of 47 C.F.R.
- (e) Each TARP shall provide to the Commission staff monthly ALI retrieval data for the twelve-month period from August 1 of previous year through July 31 of current year for each governing body's service area. If the TARP cannot provide this information for a governing body's service area, Commission staff may request this information from a 9-1-1 governing body. This information will be due no later than September 30 of each year.

**2141. 9-1-1 Advisory Task Force.**

- (a) The Commission shall establish a 9-1-1 Advisory Task Force. The purpose of the Advisory Task Force is to provide oversight of the statewide implementation of basic emergency service. The Advisory Task Force shall include, but is not limited to, the following representative parties directly interested in 9-1-1 services: governing bodies, originating service providers, service end users including those with disabilities, providers of basic emergency service, 9-1-1 vendors, and any associations or groups representing 9-1-1 stakeholders. The Commission staff shall be responsible for administering the 9-1-1 Advisory Task Force and facilitating its meetings and agenda. The 9-1-1 Advisory Task Force shall evaluate alternate technologies, and service and pricing issues related to implementing statewide 9-1-1 services in a cost effective fashion. Commission staff shall provide periodic reports to the Commission on the implementation of 9-1-1 services statewide.
- (b) The Advisory Task Force shall:
  - (I) make future recommendations and report to the Commission concerning, the implementation of 9-1-1 in Colorado;
  - (II) consider 9-1-1 service quality and the cost of statewide 9-1-1 service to the PSAPs and to end-use customers of 9-1-1 service in developing reports and recommendations;
  - (III) investigate, analyze, and recommend resolution of existing or anticipated statewide 9-1-1 issues;
  - (IV) investigate and report to the Commission on the development, implementation and transition to any new 9-1-1 technologies and capabilities, including any impacts to the consumer, originating service provider, service end user or PSAP; and
  - (V) monitor and report to the Commission on FCC proceedings or other national organizations or agencies on matters that may affect 9-1-1 services in Colorado.

**2142. National Emergency Number Association (NENA) Data Standards.**

The following National Emergency Number Association (NENA) standards are incorporated by reference. References to these recommended NENA standards do not include later amendments to or editions of these standards. A certified copy of these standards is maintained at the Public Utilities Commission, 1560 Broadway Street, Suite 250, Denver, Colorado 80202 and available for inspection during normal business hours. Certified copies of the incorporated standards shall be provided at cost upon request.

The Director or the Director's designee will provide information regarding how the incorporated standards may be obtained or examined. These incorporated standards may be examined at any state publications depository library.

| Doc Number                              | Doc Name   | Committee     | Approved Date                       |
|---|--|---------------|-------------------------------------|
|   | <b>ACCESSIBILITY DOCUMENTS</b>   |               |                                     |
|   |  |               |                                     |
|   | <b>DATA STRUCTURES &amp; MANAGEMENT DOCUMENTS (including NG9-1-1)</b>  |               |                                     |
| 02-010                                  | Standard Legacy Data Formats For 9-1-1 Data Exchange GIS Mapping   | Core Services | 2011/03/28                          |
| 02-011                                  | Data Standards For Local Exchange Carriers, ALI Service Providers & 9-1-1 Jurisdictions                                      | Core Services | 2012/05/12                          |
| 02-013                                  | Data Standards for the Provisioning and Maintenance of MSAG Files to VDBs and ERDBs  | Core Services | 2008/06/07<br>Reviewed<br>9/12/2014 |
| 02-014                                  | GIS Data Collection and Maintenance Standards  | Core Services | 2007/06/17                          |
| 02-015                                  | Standard for Reporting and Resolving ANI/ALI Discrepancies and No Records Found for Wireline, Wireless and VoIP Technologies | Core Services | 2009/06/06                          |
| 02-501                                  | Wireless (Pre-XML) Static and Dynamic ALI Data Content Information Document  | Core Services | 2006/10/16                          |
| 02-502                                  | NENA Company ID Registration Service Information Document  | Core Services | 2008/11/12                          |
| 02-503                                  | XML Namespaces Information Document  | Core Services | 2007/02/23                          |
| 04-005                                  | ALI Query Service Standard   | Core Services | 2006/11/21                          |
| 06-001                                  | Standards for Local Service Provider Interconnection Information Sharing   | Core Services | 2004/08/01                          |
| NENA-STA-008.2-2014 (originally 70-001) | NENA Registry System (NRS) Standard  | Core Services | 2014/10/06                          |

|                       |   |                            |            |
|-----------------------|---|----------------------------|------------|
| 71-001                | NG9-1-1 Additional Data Standard  | Core Services              | 2009/09/17 |
| 71-501                | Synchronizing Geographic Information System Databases with MSAG & ALI Information Document              | Core Services              | 2009/09/08 |
| 71-502                | An Overview of Policy Rules for Call Routing and Handling in NG9-1-1 Information Document               | Core Services              | 2010/08/24 |
| NENA-INF-011.1-2014   | NENA NG9-1-1 Policy Routing Rules Operations Guide  | Core Services              | 2014/10/06 |
| NENA-STA-003.1.1-2014 | NENA Standard for NG9-1-1 Policy Routing Rules  | Core Services              | 2014/12/01 |
| NENA-STA-004.1-2014   | NENA Next Generation United States Civic Location Data Exchange Format (CLDXF)                          | Core Services              | 2014/03/23 |
|                       |   |                            |            |
|                       | <b>MULTI LINE TELEPHONE SYSTEM (MLTS) and PRIVATE BRANCH EXCHANGE (PBX) DOCUMENTS</b>                   |                            |            |
| 03-502                | Trunking for Private Switch 9-1-1 Service Information Document  | Interconnection & Security | 2003/04/11 |
| 06-003                | Private Switch (PS) E-9-1-1 Database Standard   | Core Services              | 2004/08/01 |
| 06-502                | Industry Common Mechanisms for MLTS E9-1-1 Caller Location Discovery and Reporting Information Document | Core Services              | 2008/10/25 |
|                       |   |                            |            |
|                       | <b>NETWORK DOCUMENTS</b>  |                            |            |
| 03-003                | Implementation of Inter-Networking, E9-1-1 Tandem to Tandem Reference                                   | Interconnection & Security | 2000/02/01 |
| 03-004                | E9-1-1 Functional Entity Model Standard   | Interconnection & Security | 2008/01/19 |
| 03-006                | E9-1-1 Call Congestion Management Standards   | Interconnection & Security | 2003/03/06 |
| 03-008                | E9-1-1 Default Assignment and Call Routing Functions Standard   | Interconnection & Security | 2008/01/19 |

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| 03-501                                  | Network Quality Assurance Information Document   | Interconnection & Security | 2005/10/03                          |
| 03-503                                  | SS7 Guidelines for Wireline and VoIP Emergency Services Gateway Interconnection to 9-1-1 Selective Routers Information Document    | Interconnection & Security | 2005/10/2<br>Reviewed<br>9/12/2014  |
| 03-506                                  | E9-1-1 Voice Circuit Requirements, Providing a P.01 Grade of Service Information Document  | Interconnection & Security | 2007/04/13                          |
| 03-507                                  | ESQK Guidelines for VoIP to E9-1-1 Connectivity Information Document   | Interconnection & Security | 2009/03/09                          |
| 03-508                                  | Impacts of Using a Common Trunk Group to Carry Calls of Multiple Service Types into a Legacy Selective Router Information Document | Interconnection & Security | 2010/03/15                          |
| 03-509                                  | Femtocell and Universal Mobile Access (UMA) Information Document and UMA Appendix  | Interconnection & Security | 2011/01/27                          |
| 05-501                                  | SS7 Guidelines for MSC to Selective Router Connectivity Information Document   | Interconnection & Security | 2002/10/16<br>Reviewed<br>9/12/2014 |
| NENA-INF-002.1-2012                     | The Effect of Mass Calling Events on Legacy SR to PSAP Trunking Information Document   | Interconnection & Security | 2012/08/28                          |
|   |  |                            |                                     |
|   | <b>NG9-1-1 TRANSITION PLANNING DOCUMENTS</b>   |                            |                                     |
| NENA-INF-008.2-2014 (originally 77-501) | NG9-1-1 Transition Plan Considerations Information Document  | NG Transition Planning     | 2013/11/20                          |
|   |  |                            |                                     |
|   | <b>SECURITY DOCUMENTS</b>  |                            |                                     |
| 04-503                                  | Network/System Access Security Information Document  | Interconnection & Security | 2005/12/01                          |
| 75-001                                  | Security for Next-Generation 9-1-1 Standard  | Interconnection & Security | 2010/02/06                          |
| 75-502                                  | Next Generation 9-1-1 Security Audit Checklist Information Document  | Interconnection & Security | 2011/12/14                          |

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|        |  |                            |            |
|        | <b>VOICE OVER INTERNET PROTOCOL (VoIP) DOCUMENTS</b>   |                            |            |
| 08-001 | Interim VoIP Architecture for Enhanced 9-1-1 Services (i2) Standard  | Interconnection & Security | 201008/11  |
| 08-503 | VoIP Characteristics Information Document  | Interconnection & Security | 2004/06/10 |
| 08-504 | VoIP Standards Development Organization Information Document   | Interconnection & Security | 2004/06/08 |
|        |  |                            |            |
|        | <b>NEXT GENERATION 9-1-1 (NG9-1-1) DOCUMENTS</b>   |                            |            |
| 08-002 | Functional and Interface Standards for Next Generation 9-1-1 Version   | Interconnection & Security | 2007/12/18 |
| 08-003 | Detailed Functional and Interface Standards for the NENA i3 Solution   | Interconnection & Security | 2011/06/14 |
| 08-501 | Interface between the E9-1-1 Service Provider Network and the Internet Protocol (IP) PSAP Information Document | Interconnection & Security | 2004/06/15 |
| 08-502 | E9-1-1 Requirements Information Document   | Interconnection & Security | 2004/07/23 |
| 08-505 | Methods for Location Determination to Support IP-Based Emergency Services Information Document                 | Interconnection & Security | 2006/12/21 |
| 08-506 | Emergency Services IP Network Design for NG9-1-1 Information Document  | Interconnection & Security | 2011/12/14 |
| 08-751 | NENA i3 Requirements Document  | Interconnection & Security | 2006/09/28 |
| 08-752 | Location Information to Support IP-Based Emergency Services Requirements Document                              | Interconnection & Security | 2006/12/21 |
| 73-501 | Use Cases & Suggested Requirements for Non-Voice-Centric Emergency Services Information Document               | Interconnection & Security | 2011/01/11 |

|                     |  |                            |            |
|---------------------|--|----------------------------|------------|
| NENA-INF-003.1-2013 | Potential Points of Demarcation in NG9-1-1 Networks Information Document     | Interconnection & Security | 2013/03/21 |
| NENA-INF-006.1-2014 | NG9-1-1 Planning Guidelines Information Document                             | NG Project Lead Team       | 2014/01/08 |
| NENA-INF-009.1-2014 | Requirements for a National Forest Guide Information Document                | Interconnection & Security | 2014/08/14 |
|                     |  |                            |            |
|                     | <b>NON-TRADITIONAL DOCUMENTS</b>   |                            |            |
| 07-501              | Future 9-1-1 Models Information Document                                     | Interconnection & Security | 2004/06/01 |
| 07-502              | Non-Traditional Communications for E9-1-1 Information Document               | Interconnection & Security | 2001/03/20 |
| 07-503              | Network Interfaces for E9-1-1 and Emerging Technologies Information Document | Interconnection & Security | 2002/09/11 |
| 07-504              | Automatic Collision Notification & Vehicle Telematics Information Document   | Interconnection & Security | 2007/06/01 |

**2143. Applications by the Governing Body for Approval of a 9-1-1 Charge in Excess of Seventy Cents per Month.**

- (a) A governing body requesting approval pursuant to § 29-11-102(2)(b), C.R.S., for a charge in excess of seventy cents per month shall file an application with this Commission pursuant rule 2002. Included in the application shall be supporting attachments or exhibits of budget information, cost information and such other information the Commission may rely upon for justification of the proposed increase in surcharge. The attached information should include present and proposed surcharge remittance estimates, all other revenue sources and amounts, and any other information such as audit reports that may be used to justify the proposed increase in the 9-1-1 charge above \$0.70 per month.
- (b) Notice. Within three days after filing the application, the applicant shall publish a notice of the application in at least one newspaper of general circulation in the area of applicability for at least two weeks. The newspaper notice shall contain:
- (I) the name, address and telephone number of the requesting governing body and the Colorado Public Utilities Commission;
  - (II) a statement that the governing body has filed with the Colorado Public Utilities Commission an application to change its currently effective surcharge to a charge in excess of \$0.70 per month;
  - (III) the date the application was filed with the Commission and the assigned proceeding number;

- (IV) the proposed effective date of the new charge;
  - (V) a statement of the purpose of the application, including an explanation of the proposed changes;
  - (VI) a statement that the application is available for inspection at the office of the governing body utility and at the Colorado Public Utilities Commission;
  - (VII) a statement that any person may file with the Commission a written objection to the application, or an intervention to participate as a party, and an explanation that a mere objection without an intervention shall not be adequate to permit participation as a party;
  - (VIII) a statement that any person filing a written objection within 60 days of the date the application was filed or a person may file an intervention within 30 days of the date the application was filed; and
  - (IX) a statement that any person may attend the hearing, if any, and may make a statement under oath about the application, even if such person has not filed a written objection or intervention.
- (c) The applicant shall, within 15 days of providing notice, file an affidavit with the Commission stating the date notice was completed, and the method used to provide it. This affidavit shall be accompanied by a copy of the notice or notices provided.

**2144. ALI Services**

- (a) If any person provides an ALI service to a PSAP or governing body as a separate service or in combination with other components or functionalities of a 9-1-1 service, or if any TARP transitions to or uses an ALI database system or ALI service, including self-provisioning, different from any ALI database system or ALI service used by the TARP in the providing of 9-1-1 services to any PSAP or governing body as of June 1, 2014, then that person or TARP must file an application for and obtain prior authorization from the Commission. The authorization may be subject to terms and conditions as the Commission may prescribe to promote the public interest and will be based upon the following criteria:
- (I) accuracy of the ALI database during the provisioning of the ALI service;
  - (II) reliability of the ALI service, including, without limitation, compliance with the obligations placed upon TARPs in rule 2139;
  - (III) non-discriminatory, statewide averaged, and affordable pricing of 9-1-1 services;
  - (IV) processes and mechanisms required by originating service providers for the furnishing and management of the names, addresses, telephone numbers, and other necessary information for all customers for the ALI database;
  - (V) adequacy of information exchanged with the PSAP or governing body;
  - (VI) adequacy of information exchanged and sufficient testing with originating service providers, TARPs, and any service providers certified to offer service pursuant to rule 2132 to ensure the accuracy and reliability of the ALI service;

- (VII) adequacy of the testing of the ALI service, including testing of the delivery of ALI service to each subscribing PSAP; and
  - (VIII) any other matter affecting public safety, reliability, pricing, and the public interest.
- (b) Commission authorization under this rule is not required for a TARP to continue providing a PSAP or governing body the same ALI service, database, database management service, connectivity, and functionality, and using the same subcontractors as part of an integrated E9-1-1 service as of June 1, 2014, or for the updating of the ALI database in the normal course of business.

**2145. – 2159. [Reserved].**

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[indicates omission of unaffected rules]