

# State of Arizona Text-to-9-1-1 Implementation Plan

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#### INTRODUCTION

The State of Arizona strongly encourages Public Safety Answering Points ("PSAPs") to deploy Text-to-9-1-1 services in order to ensure that members of the public who are limited in their ability to use voice communications are able to communicate with PSAPs. Technological advances have made it possible to send and receive text messages to 9-1-1. There are now three ways that a PSAP can send and receive text messages: (1) an ESInet/IP Network Service Interface; (2) a web service; or (3) text to TTY. In 2014, the Federal Communications Commission implemented regulations requiring telephone companies to deliver text messages to PSAPs that request to receive them.

Regulations issued to implement the Americans with Disabilities Act require that a public entity "shall take appropriate steps to ensure that communication with . . . . members of the public . . . with disabilities are as effective as communications with others." 28 C.F.R. § 35.160(a). Accordingly, public entities must "furnish appropriate auxiliary aids and services where necessary to afford individuals with a disability . . . an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity of a public entity." 28 C.F.R. § 35.160(b)(1). While Arizona PSAPs have historically met these requirements by providing TTY accessibility, new and emerging technologies and networks have expanded a PSAP's ability to effectively communicate with people who are deaf and hard of hearing, or who otherwise are limited in their ability to use voice communications.

#### **AUTHORITY**

In August 2014, the Federal Communications Commission (FCC) adopted an order requiring all wireless carriers and other providers of interconnected text messaging applications to deliver emergency texts to PSAPs that request them. As with wireless voice enhanced 9-1-1 service (Wireless Phase II), Text-to-9-1-1 service is treated as a requested service from public safety, generally a Public Safety Answering Point (PSAP), to the wireless carrier through the Request for Service process.

Per 47 C.F.R. § 20.18(q)(10),

# (iii) Valid Request means that:

- (A) The requesting PSAP is, and certifies that it is, technically ready to receive 911 text messages in the format requested;
- (B) The appropriate local or state 911 service governing authority has specifically authorized the PSAP to accept and, by extension, the covered text provider to provide, text-to-911 service; and

(C) The requesting PSAP has provided notification to the covered text provider that it meets the foregoing requirements. Registration by the PSAP in a database made available by the Commission in accordance with requirements established in connection therewith, or any other written notification reasonably acceptable to the covered text provider, shall constitute sufficient notification for purposes of this paragraph.

The covered carriers are to deliver text services within six months of receipt of a "Request for Service" letter from the Public Safety community, or their representative.

The criteria for deployment of Text-to-9-1-1 services will be the readiness of the PSAP, as well as the availability of 9-1-1 funds.

#### **CONSIDERATIONS**

In order to deliver Text-to-9-1-1 service to Arizona's public safety community there are a number of factors that need consideration.

# **Funding**

First and foremost, funding must be available to cover the projected costs.

The authorization of funds for the deployment of and continued support of Text- to-9-1-1 services must be sought and approved by the Arizona 9-1-1 Program prior to the initiation of a deployment project. The Arizona 9-1-1 Program interprets eligible costs to include the cost of deployment of Text-to-9-1-1 and continued support of Text-to-9-1-1 services.

Of note, Text-to-9-1-1 services are not limited to cell towers that provide enhanced services (Wireless Phase I or Wireless Phase II). A cell tower that is Phase 0 (basic 9-1-1 service with no ANI/ALI) can deliver text messages to the 9-1-1 PSAP via tendigit routing.

# Technology Platform

A second consideration is ensuring that, within budget parameters, the most effective and efficient method for delivery of services is deployed. PSAPs should ensure that all 9-1-1 calls, along with their associated data, can be transferred without delay to other text-enabled PSAPs in the state. Further, it is necessary that the systems have the ability to transfer the 9-1-1 emergency request for service to another PSAP's wire line and/or wireless 9-1-1 network.

The delivery of Text-to-9-1-1 services can be facilitated over three (3) types of networks: ESInet/IP Network Service Interface, Web Service or text to TTY/TDD.

# ESInet/IP Network Service Interface

This option requires the PSAP to have both IP capable equipment and IP connectivity to the wireless service provider or to a Text Control Center (TCC) provider. Where possible, it is the desire of the Arizona 9-1-1 Program to utilize this delivery solution. However, the Web Service option may be used as an interim solution until this option is available.

#### Additional Considerations:

- This solution would be compatible with a full NG9-1-1 (i3 compliant) network.
- Emergency requests for service are delivered over the 9-1-1 network.
- Allows for existing default and overflow protocols as well as logging solutions to be utilized consistent with other 9-1-1 calls.
- Allows for ALI display that contains information similar to a Wireless Phase
  I call today including the x/y coordinates of the cell site or sector centroid.
- Emergency requests for service are handled by the PSAP 9-1-1 customer premise equipment (CPE) lessening the need for additional training.
- Allows for the transfer of Text-to-9-1-1 requests to another text capable PSAP.

#### Web Service

Also known as an Over-the-Top (OTT) solution, this option requires that a PSAP have IP connectivity, either provided by their local agency or over the public internet. The State of Arizona encourages PSAPs who have not yet deployed NG911 to use Web Service as an interim Text-to-9-1-1 solution.

#### Additional Considerations:

- This solution does not have connectivity with the existing 9-1-1 network.
- Support of IP connectivity may need to be provided by local resources.
- While most solutions have the ability to utilize the existing PSAP equipment for the processing of text services, not all solutions are integrated and may require the monitoring of another window and/or monitor.
  - May not connect to existing logging solutions.
- Allows for ALI display that contains information similar to a Wireless Phase
  I call today including the x/y coordinates of the cell site or sector centroid.
- Not all OTT solutions have the ability to transfer.
- This solution is eligible for funding under the State 9-1-1 Fund.

#### Text to TTY/TDD

This option allows the PSAP to receive incoming text messages over the existing 9-1-1 network and to process the emergency request for service with their current TTY/TDD system. This option is the least effective in providing reliable Text-to-9-1-1 services. The Arizona 9-1-1 Program Office encourages implementation of ESInet/Network Service Interface if available, and Web Service until ESInet/Network Service Interface is available.

#### Additional Considerations:

- This method utilizes the existing path and has the potential to cause congestion with existing 9-1-1 lines.
- The text would display similar to a TTY call received today.
- Allows for existing default and overflow protocols to be utilized consistent with other 9-1-1calls.
- Allows for ALI display that contains information similar to a Wireless Phase
  I call today including the x/y coordinates of the cell site or sector centroid.
- Emergency requests for service are handled by the PSAP 9-1-1 customer premise equipment (CPE) lessening the need for additional training.
- Allows for the transfer of Text-to-9-1-1 requests to another text capable PSAP.
- TTY and texting do not function the same way. TTY does not allow the transmission of two signals simultaneously; therefore, only one person can send a text message at a time.

## **HOW SMS TEXT-to-9-1-1 WORKS**

A wireless customer with SMS service, a valid wireless subscriber with a text-capable phone and service plan, is able to send emergency SMS messages to a text-enabled PSAP by dialing "9-1-1." After Text-to-9-1-1 is deployed, a PSAP can accept SMS messages and respond to SMS messages from members of the public. Contrary to the delivery of a voice wireless enhanced 9-1-1 call, the interim solution will only process SMS messages via the carrier's native SMS; hence, only over their native cell tower network. The interim solution will not support a wireless subscriber who is roaming. A roaming subscriber who attempts to request a Text-to-9-1-1 service will receive a bounce- back message.

Additionally, the PSAP should be aware that SMS texting is not real-time and delays may be experienced in sending and receiving text messages especially during times of congestion. As stated in the NENA Informational Document, INF- 007.1-2013, NENA Information Document for Handling Text-to-911 in the PSAP:

Text messages are not delivered to its recipient in the same manner as a voice call. Texting, and in particular SMS, was designed as a secondary service within a carrier's network while voice traffic remains the primary service. As a secondary service, it utilizes the carrier's signaling channels and other resources when they are not being used for voice calls, essentially storing the message until network resources are available, then forwarding the text message on to its recipient. This may cause a significant delay in the delivery of a Text-to-9-1-1 message to a PSAP. During periods of congestion, e.g. due to severe weather, a text message may be delayed by several minutes, or potentially hours. Additionally, PSAPs should be aware that texting is not a real-time two-way messaging service. When handling a 9-1-1 text message, communications can be delayed due to waiting for the message sender and PSAP call taker to acknowledge receipt of the message and respond.

While location-based routing is available, today's environment only supports Wireless Phase I delivery based on the cell site and sector. While a more precise location may be available, it is carrier and/or vendor implementation specific and may not apply to all 9-1-1 requests.

The ALI will display the same information that is received with a Wireless Phase I 9-1-1 voice call. Standards are being addressed to support a new class of service (TEXT) to assist the dispatcher in determining the type of 9-1-1 call received.

As with Wireless Phase I routing, a cell sector coverage area may not be limited to one community, county, or jurisdictional boundary. For this reason, a county-wide or county-oriented service is preferred, in which two PSAPs in each county support Text-to-9-1-1. County-wide support allows for less confusion about where Text-to-9-1-1 services are available.

Agreements may need to be created recognizing the impact of Text-to-9-1-1 for primary and back-up PSAP routing.

# **PSAP CONSIDERATIONS/TRAINING**

It is strongly recommended that each PSAP review the resources provided by the National Emergency Number Association (NENA) prior to deployingText-to-9-1-1 services for their community. In addition, all deployments must be coordinated with the 9-1-1 System Administrator and 9-1-1 Wireless Administrator.

Information regarding training, template standard operating procedure(s), canned messages for responding to emergency requests and other important information can be found on the NENA website at <a href="http://www.nena.org/?text\_training\_docs">http://www.nena.org/?text\_training\_docs</a>. In addition, NENA INF-007.1-2013, NENA Information Document for Handling Text-to-911 in the PSAP, is available to assist in PSAP preparations for Text-to-9-1-1 services.

#### **PUBLIC EDUCATION**

Educating the public regarding the capabilities and responsibilities of 9-1-1 is essential, especially when new services become available for their use. At the completion of the deployment of Text-to-9-1-1 services, the 9-1-1 system is highly encouraged to inform and educate the public about the services, how they work and what to do during an emergency. Each 9-1-1 region is encouraged to use the NENA messaging, "Call if you can, text if you can't," in their public education efforts. Public education resources can be found at (<a href="https://www.fcc.gov/consumers/guides/text-911-quick-facts-faqs">https://www.fcc.gov/consumers/guides/text-911-quick-facts-faqs</a> and <a href="https://www.nena.org/?page=textresources">https://www.nena.org/?page=textresources</a>.

#### **FCC MANDATED PREREQUISITES**

The FCC has ruled that a PSAP shall document its ability to receive and utilize the Text-to-9-1-1 data being requested. Therefore, the PSAP must meet the prerequisites set forth.

# **PROJECT MANAGEMENT**

The State of Arizona's 9-1-1 Office has resources available to provide project management for Text-to-9-1-1 projects.

Should a County/9-1-1 jurisdiction choose to manage the project themselves, that is acceptable. The rules and requirements stated in this document still apply.

Should a County/9-1-1 jurisdiction reject the rules and/or requirements stated in this document, the State of Arizona's 9-1-1 Office will <u>not</u> provide project management support. Penalties, defined or not defined, fiscal and otherwise, will be borne by the County/9-1-1 jurisdiction.

# **RULES & PSAP/COUNTY REQUIREMENTS**

Although the State's 9-1-1 Office will manage the Text-to-9-1-1 projects, the public safety community has a role and responsibilities as well. Following are the PSAP/county requirements that will be used to administer the project.

# **Qualified Applicants**

Since Text-to-9-1-1 technologies are capable of an ALI display, deployment will be offered only to those PSAPs that are fully enhanced (receiving both ANI and ALI). PSAPs that have Basic or Enhanced with ANI Only service will not qualify for Text-to-9-1-1 service until they are upgraded to support Wireless Phase II calls.

#### 9-1-1 Wireless Administrator

Since Text-to-9-1-1 is deployed through the use of wireless technology, the responsibility of this type of service will fall under the duties of a 9-1-1 Wireless Administrator. The 9-1-1 Wireless Administrator will have the responsibility to:

- Work with PSAPs within their wireless system, and as necessary with 9-1 1 Wireless Administrators from adjoining counties, to ensure that the needs of all PSAPs are being met.
- Organize and attend related project meetings.
- Drive/make the decisions relevant to the project, including routing and network design.
- Serve as the "single point of contact" to the Arizona 9-1-1 Program Office, wireless service providers (WSPs), and other individuals/organizations involved in delivery of Text-to-9-1-1 services.
- Determine whether service agreements are appropriate; and if so, negotiate contacts.
- Ensure that PSAP personnel are provided the information necessary to handle Text-to-9-1-1 emergency requests for service.
- Complete a Wireless 9-1-1 Service.
- Continue to manage, on a going forward basis, the relationship with the wireless service providers.

Some of the aforementioned tasks will need input from the respective PSAPs in the county. It will be the 9-1-1 Wireless Administrator's responsibility to work with the PSAPs to ensure decisions are made, and tasks are performed.

Note: The 9-1-1 system must have a 9-1-1 Wireless Administrator, otherwise the Arizona 9-1-1 Program Office will not provide project management support. If the 9-1-1 system does fill that position, but the person fails to perform the assigned tasks, the 9-1-1 Office will stop project management of that system's Text-to-9-1-1 deployment until another person is named and has engaged in his/her assigned responsibilities. In the event that the 9-1-1 Office does not provide project management support, all responsibilities will fall to the PSAP(s)/9-1-1 system. Additionally, any costs incurred because of non-performance or unreasonably slow performance by the 9-1-1 Wireless Administrator, and/or their representatives, will be the responsibility of the county (versus Arizona's 9-1-1 Office).

#### Countywide Deployment

All applicable PSAPs within a given county will work together so that:

- Decisions regarding routing are agreed to by all involved, and
- Implementation of Text-to-9-1-1 service can be accomplished at the same time, countywide.

To facilitate this, the State encourages that the 9-1-1 Wireless Administrator head a working group represented by all applicable PSAPs.

#### Routing

The 9-1-1 Wireless Administrator will facilitate decisions concerning routing to include any collective agreement(s) between all PSAPs in the county regarding:

- The number of PSAPs within each county that will receive and send Text to 9-1-1 messages.
- Designate whether PSAPs will be a "primary" Text-to-9-1-1 PSAP, and which will serve as "secondary" Text-to-9-1-1 PSAP. The choice of primary or secondary does not need to follow suit with the choices made in the wire line or wireless environment.
- For a single, county-oriented PSAP deployment, designate which PSAP will function as the appropriate back-up PSAP. This PSAP may or may not be within the same 9-1-1 system but may need to be on a similar network to limit complications in routing.
- Designate which PSAP will receive the text for each cell site and/or each cell sector.

# Maintenance of GIS Integrity

Arizona's 9-1-1 Program Office is very interested in ensuring that the GIS data is correct and complete. Before agreeing to reimburse the associated costs or requesting Text-to-9-1-1 services from the wireless carriers, the data must be analyzed for accuracy. Specifically, the GIS file and ALI (Automatic Location Identification) databases are compared and a match rate of 98%, or higher, must be reached. Additional information regarding GIS accuracy requirements can be found within the Arizona NG9-1-1 User Guide.

In addition, if the Text-to-9-11- service boundary differs from the current wireline and/or wireless PSAP services boundaries, the 9-1-1 system will need to develop and provide a GIS boundary layer that depicts the Text-to-9-1-1 PSAP boundary(s).

#### Text-to-9-1-1 Service Agreements

Each 9-1-1 Wireless Administrator will be responsible to work with the appropriate people within their county to pursue service agreements with the WSPs. The responsibilities of presenting, negotiating, and finalizing those agreements are the total responsibility of the 9-1-1 Wireless Administrator. The Arizona 9-1-1 Program Office will serve as a resource to the 9-1-1 system; however, it will <u>not</u> manage nor negotiate the contracts. Indemnity protection has been provided to the PSAPs under federal and state legislation. Arizona Revised Statute § 12-713 is provided, in part, in Attachment A.

# Non-Disclosure Agreements (NDA)

As with the service agreement, the Arizona 9-1-1 Program Office will not manage nor negotiate a NDA on behalf of the county – that will be the responsibility of the 9-1-1 Wireless Administrator.

# Funding Authorization/Payment Responsibility

All requests for payment require prior funding authorization. In order to determine whether funds are available to support the project (both non- recurring and subsequent recurring costs) a Text-to-9-1-1 project requires a formal request to the Arizona 9-1-1 Program Office Project Manager who will inquire as to any appropriate charges that may be assessed by the local exchange carrier (LEC), Text Control Center (TCC) provider or the Wireless Service Providers (WSP).

If funding authorization is approved, the 9-1-1 system and/or county will be responsible to receive and process bills with the Arizona 9-1-1 Program Office in the same manner as they manage their wire line and wireless 9-1-1 services.

If funding authorization is not approved, the costs associated to the deployment (non-recurring costs) and subsequent support (recurring costs) of Text-to-9-1-1 services will be the responsibility of the 9-1-1 system and/or PSAP. Prior to project initiation, the requesting agency will need to assure that proper funds and/or budget have been allocated for the costs associated with the Text-to-9-1-1 deployment and services.

#### Wireless Service Plan

Arizona's Administrative Code states that a service plan shall be submitted as part of the County/9-1-1 jurisdiction application for funds. This process holds true for both wire line and wireless funding. The wireless service plan will need to be updated and should continue to be developed (as information becomes available) throughout the project. Completion of the plan should coincide with the completion of the project.

# **Equipment Requirements**

In order for a PSAP to qualify for Text-to-9-1-1 service, that communications center must ensure that:

- Their PSAP equipment is capable of receiving Phase II ALI fields. (If on the CenturyLink Communications platform, 30W ALI format meets the requirements.)
- Their PSAP equipment is capable of receiving 10-digit ANI.
- Their PSAP equipment is equipped to receive the network necessary to support the type of deployment requested (ESInet, Web, or TDD).
- GIS (Geographic Information System) datasets and mapping equipment are in place.

#### Meeting FCC Mandated Prerequisites

Since the FCC has determined that Text-to-9-1-1 services will fall under the same requirements and rules that govern wireless enhanced services, Arizona will only deploy Text-to-9-1-1 services to a PSAP that is currently capable of receiving Wireless Phase II services. The requirement of Wireless Phase II capability will help to ensure that a Text-to-9-1-1 PSAP is properly equipped to receive the text emergency request location information (cell tower/sector and/or caller) should future enhancements to text services allow the transmittal of that information.

#### **NETWORK DESIGN**

# Non-Call Path Associated Signaling

The network technology that is utilized to deliver wireless calls in Arizona is a form of the Non-Call-Path Associated Signaling (NCAS solution) although the specific solution will be the discretion of the WSP. Arizona's PSAPs are not provisioned to receive a CAS (Call-Path Associated Signaling).

#### Wireless Service Providers Network

The wireless service providers will have the option of connecting to the selective router with Signaling System Seven (SS7) or with CAMA Enhanced MF trunks. They will also be free to elect the Service Control Point (SCP) vendor and database vendor of their choice.

## Routing

Routing for Text-to-9-1-1 follows the same routing practices as Wireless Phase II primary call routing by utilizing the location of the tower and the sector orientation to determine the proper PSAP routing. The call will be routed to a pre- determined PSAP based on location of the tower within an E9-1-1 area.

It will be responsibility of the public safety community to work with the carrier to designate the appropriate routing and response boundaries.

#### **GLOSSARY**

Following is a listing of relevant definitions and abbreviations that are contained in this plan.

**9-1-1 Call** - means any telephone call that is made by dialing the digits 9-1-1.

**9-1-1 System** - means a telephone system that automatically connects a caller, dialing the digits 9-1-1, to a PSAP.

**Automatic Location Identification (ALI)** - means a system capability that enables an automatic display of information defining a geographical location of the telephone used to place the 9-1-1 call.

**Automatic Number Identification (ANI)** - means a capability that enables the automatic display of the number of the telephone used to place the 9-1-1 call.

**Call Attendant** - means the person who initially answers a 9-1-1 call.

**Call Transfer** - means the call attendant determines the appropriate responding agency and transfers the 9-1-1 caller to that agency.

**Central Office (CO)** - means a telephone company facility that houses the switching and trunking equipment serving telephones in a defined area.

**Centralized Automated Message Accounting (CAMA)** - An MF signaling protocol originally designed for billing purposes, capable of transmitting a single telephone number.

**Customer Premises Equipment (CPE)** - Terminal equipment at a PSAP.

**Emergency Call** - means a telephone request for service which requires immediate action to prevent loss of life, reduce bodily injury, prevent or reduce loss of property and respond to other emergency situations determined by local policy.

**Emergency Service Number (ESN)** - A three to five digit number representing a unique combination of emergency service agencies designated to serve a specific range of addresses within a particular geographical area. The ESN facilitates selective routing and selective transfer, if required, to the appropriate PSAP and the dispatching of the proper services.

**Enhanced 9-1-1 (E9-1-1)** - means the general term referring to emergency telephone systems with specific electronically controlled features, such as ALI, ANI, and selective routing.

**Implementation** - means the activity between the formal product/delivery agreement reached by the PSAPs and the carriers, and commencement of operations.

**Integrated Services Digital Network (ISDN)** - A digital interface providing multiple channels for simultaneous functions between the network and CPE.

**Local Exchange Carrier (LEC)** – A telecommunications carrier under the state/local Public Utilities Act that provide local exchange telecommunications services.

**Mobile Directory Number (MDN)** - The callback number associated with a wireless phone.

**Mobile Switching Center (MSC)** - The wireless equivalent of a Central Office, which provides switching functions from wireless calls.

**Multi-Frequency (MF)** - A type of signaling used on analog interoffice and 9-1-1 trunks.

**Nonrecurring Costs** - means one-time charges incurred by a joint E9-1-1 service board or operating authority including, but not limited to, expenditures for E9-1-1 service plan preparation, surcharge referendum, capital outlay, installation, and initial license to use subscriber names, addresses and telephone information.

**One-Button Transfer** - means another term for a (fixed) transfer which allows the call attendant to transfer an incoming call by pressing a single button. For example, one button would transfer voice and data to a fire agency, and another button would be used for police, also known as "selective transfer."

**Phase I, Wireless 9-1-1 Service** - means an emergency wireless telephone system with specific electronically controlled features such as ANI, specific indication of wireless communications tower site location, selective routing by geographic location of the tower site.

**Phase II, Wireless 9-1-1 Service** - means an emergency wireless telephone system with specific electronically controlled features such as ANI and ALI and selective routing by geographic location of the 9-1-1 caller.

**Political Subdivision** - means a geographic or territorial division of the state that would have the following characteristics: defined geographic area, responsibilities for certain functions of local government, public elections and public officers, and taxing power. Excluded from this definition are departments and divisions of state government and agencies of the federal government.

**Provider** - means a person, company or other business that provides, or offers to provide, 9-1-1 equipment, installation, maintenance, or access services.

**Pseudo Automatic Location Identification (pALI)** - An ALI record associated with a pANI, configured to provide the location of the wireless cell of sector and information about its coverage or serving area.

**Pseudo Automatic Number Identification (pANI)** - A telephone number used to support routing of wireless 9-1-1 calls. It may identify a wireless cell, cell sector of PSAP to which the call should be routed.

**Public or Private Safety Agency** - means a unit of state or local government, a special purpose district, or a private firm, which provides or has the authority to provide firefighting, police, ambulance, or emergency medical services.

**Public Safety Answering Point (PSAP)** - means a 24-hour, state, local, or contracted communications facility, which has been designated by the local service board to receive 9-1-1 service calls and dispatch emergency response services in accordance with the E9-1-1 service plan.

**Public Switched Telephone Network** - means a complex of diversified channels and equipment that automatically routes communications between the calling person and called person or data equipment.

**Recurring Costs** - means repetitive charges incurred by a joint E9-1-1 service board or operating authority including, but not limited to, database management, lease of access lines, lease of equipment, network access fees, and applicable maintenance costs.

**Selective Routing (SR)** - means an enhanced 9-1-1 system feature that enables all 9-1-1 calls originating from within a defined geographical region to be answered at a pre-designated PSAP.

**Service Control Point (SCP)** – means a centralized database system used for, among other things, wireless E9-1-1 service applications. It specifies the routing

of 9-1-1 calls from the cell site to the PSAP and includes all relevant cell site location information.

**Signaling System 7 (SS7)** - An inter-office signaling network separate from the voice path network, utilizing high-speed data transmission to accomplish call processing.

**Subscriber** - means any person, firm, association, corporation, agencies of federal, state and local government, or other legal entity responsible by law for payment for communication service from the telephone utility.

**Tariff** - means a document filed by a telephone company with the state telephone utility regulatory commission that lists the communication services offered by the company and gives a schedule for rates and charges.

**Telecommunications Device for the Deaf (TDD)** - means any type of instrument, such as a typewriter keyboard connected to the caller's telephone and involving special equipment at the PSAP which allows an emergency call to be made without speaking, also known as a TTY.

**Trunk** - means a circuit used for connecting a subscriber to the public switched telephone network.

Wireless Communications Service - means cellular, broadband PCS, and SMR that provide real-time two-way interconnected voice service, the networks of which utilize intelligent switching capability and offer seamless handoff to customers. This definition includes facilities-based service providers and non-facilities based resellers. For purposes of wireless 9-1-1 surcharge, wireless communications service does not include services whose customers do not have access to 9-1-1, or a 9-1-1-like service, a communications channel utilized only for data transmission, or a private telecommunications system.

**Wireless Communications Surcharge** - means a surcharge imposed on each wireless communications service number provided in this state and collected as part of a wireless communications service provider's monthly billing to a subscriber.

Wireless Service Provider (WSP) – a communications carrier who provides wireless service.

#### **ATTACHMENT A**

#### § 12-713. Providers of emergency services; civil liability

In the provision of 911 services, a person, a provider as defined in section 42-5251 or a public entity or any employee of the public entity is not liable for damages in any civil action for injuries, death or loss to a person or property that are incurred by any person with respect to all decisions made and actions or omissions taken that are based on good faith implementation except in the cases of wanton or wilful misconduct, regardless of technology platform including a public safety radio communications network, that receives, develops, collects or processes information for the service's location information databases, relays, transfers, operates, maintains or provides emergency notification services or system capabilities, or provides emergency communications or services for ambulances, police and fire departments or other public safety entities.