Section 1: Policy Purpose

It is the policy of the Oregon Office of Emergency Management, 9-1-1 Program (OEM 9-1-1) to assist the Public Safety Answering Points (PSAPs) in their effort to provide Text-to-9-1-1 service for the citizens of and visitors to the State of Oregon.

At this time, OEM 9-1-1 is not requiring all PSAPs to provide this service. PSAPs who wish to provide this service should do so based on their capabilities now and in the immediate future. The solutions available for interim Text-to-9-1-1 are those currently available to respond to the immediate need for this service. These solutions are temporary until such time that the full complement of Next Generation 9-1-1(NG9-1-1) services and standards are realized and available in the state.

In order to bring forth an interim solution, there are three options available to each PSAP in order to provide Text-to-9-1-1. A PSAP must notify the Federal Communication Commission (FCC) of its intent and readiness to receive Text-to-9-1-1. The prerequisites of the option chosen should be in place, before such notification. Once the request is received by the carrier, the carrier has six months to comply with the request.

Section 2: INTERIM Text-to-9-1-1 DEPLOYMENT

Each PSAP may provide interim Text-to-9-1-1 based on one of the options available in Section 4. The chosen option by the PSAP defines the network elements, CPE upgrades, and/or ancillary workstations that are required for a complete service deployment. Short Message Service (SMS) message overflow and alternate routing schemes must be defined and approved by OEM 9-1-1. All associated equipment and network elements must be installed and testing of the service must be scheduled.

OEM 9-1-1 recommends PSAPs reference the following resources for additional information. The NENA Service Coordination Group has created the ñInterim SMS Text-to-9-1-1 Information and Planning Guideò In addition the NENA NG9-1-1 Education and Training working group created a list of consideration points, ñIs Text-to-9-1-1 Right for My PSAPò Links are available in Appendix A.

PSAPs must be aware of the unique requirements associated with Text-to-9-1-1. This may include additional expenses or requirements related to equipment, training, education, and public perception.

Section 3: DETERMINATION AND REQUIREMENTS

Each PSAP in the state that chooses one of the three options for interim Text-to-9-1-1 as shown in Section 4.0 shall provide notification to OEM9-1-1. Such notification shall be sent to the OEM NG9-1-1 Project Manager or NG9-1-1 Deputy Project Manager by email, of option chosen.

The PSAP must then begin working to meet the prerequisites as shown or determined for the chosen option. The OEM 9-1-1 / PSAP Advisory Committee, Operations and Technical Subcommittee members, as applicable, may make themselves available to either provide information and recommendations to the PSAP in meeting the prerequisites.

Once a PSAP has met the prerequisites of the option chosen, the PSAP shall notify the FCC utilizing form OMB 3060-1204 (link to form in Appendix A). This notification is required by United States Code of Regulations 47 CFR 20.18(n) (10) (iii) and shall be completed. FCC shall then notify the carrier of the PSAP request to receive Text-to-9-1-1.

Section 4: INTERIM OPTIONS AVAILABLE

NOTE: *It is recommended that the PSAP Director seek guidance from the NENA links provided in Appendix A in regards to all options.*

4.1 TDD / TTY Interface Option 1

This option allows the PSAP to receive incoming text messages via E9-1-1 trunks based on the current TDD/ TTY System. The text would display on the 9-1-1 call taking equipment similar to a TTY call. The ALI display will show the caller's text number in the location where the wireless caller's call back number is displayed on voice calls, and the X Y coordinates of the cell site or the sector centroid associated with the texting device. See Appendix A for additional information and prerequisites.

Based on current statute and rules, OEM 9-1-1 would be able to fund from the Enhanced Subaccount the cost of the transport, which is presently in place.

4.2 Web-based portal Option 2

This option requires that a PSAP have IP-based access, either through a Private IP Network or over the public Internet. A separate web portal must be available and would need to be monitored for incoming text messages.

This solution currently requires a separate monitor for the web portal; however, some equipment manufacturers are working to incorporate the portal into the 9-1-1 CPE display. Until incorporation into the 9-1-1 call taking equipment is complete/available the information provided may be significantly different then what is provided in a typical 9-1-1 call. This "call" will be coming in on equipment that is not 9-1-1 call taking

equipment, so the information provided about the call ***may*** be limited. It is expected that total information provided with the call may be limited to just the number associated with the text and location information similar to a Phase 1 wireless caller today. See Appendix A for additional information and prerequisites.

This option does not allow for any funding from the Enhanced Subaccount by OEM 9-1-1 as it does not meet the definitions of a 9-1-1 call as found in ORS Chapter 403. All funding for this option shall be the responsibility of the PSAP.

4.3 ESInet / IP Network Service Interface Option 3

This option requires that the PSAP has IP capable 9-1-1 call taking equipment and IP connectivity to the carrier's TCC provider. If the PSAP Director is unsure of their call taking equipment IP capabilities, it is recommended that they contact the LEC provider for their PSAP. The text message will be delivered into the 9-1-1 PSAP CPE interface. The ALI will display the number associated with the text and information similar to a Phase 1 wireless caller today. See Appendix A for additional information and prerequisites.

Based on current statute and rules, OEM 9-1-1 would be able to fund from the Enhanced Subaccount the cost of the transport, which is presently in place.

NOTE: *Funding for Options 1 and 3 from the Enhanced Subaccount by OEM 9-1-1 shall first be approved by OEM 9-1-1 and on a not-to-exceed basis, before any expenditure is authorized.*

Section 5: IMPLEMENTATION CONSIDERATIONS

It is recommended that the PSAP make their option decision for the Text-to-9-1-1 solution based upon the current or near future capabilities of the PSAP, including but not limited to:

- Access to IP services now or expected in the near future, which are secure and provide the needed bandwidth.
- The 9-1-1 call taking CPE capabilities to receive and process Text-to-9-1-1 through an IP solution.
- The facilities and space available to provide for the additional equipment requirements of a Web based portal option.
- Local funding, training and personnel considerations.
- Flexibility to meet all requirements of the chosen option, subject to change by evolving technologies.

Section 6: LIMITATIONS OF ALL OPTIONS

Interim texting solution

- Will only deliver SMS, no other forms of text messaging.
- A text that is too long (over 160 characters) or is sent to more than one recipient it becomes a Multimedia Messaging Service (MMS) automatically and will not be delivered.

Transfer of Interim SMS Text-to-9-1-1 sessions

- Within the interim SMS Text-to-9-1-1 solution it is possible for neighboring PSAPs to deploy different interfaces. This prevents the transfer of the text session in some cases if the interface does not support a transfer. The PSAP will need to coordinate with the TCC to determine when and how transfers will be possible.

Tracing anonymous text

- Currently no anonymous text can be sent as there will be a phone number associated with the text. Any traceable information provided should be handled as it would be for voice calls.

TDD / TTY option

- Text sessions will likely tie up 9-1-1 trunks for a longer period of time than a normal 9-1-1 call.

The interim Text-to-9-1-1 solution utilizes the most commonly available texting technology of carrier native of SMS texting. Carrier native SMS is that feature provided by the carrier, and not third party texting or messaging applications that may be installed on the mobile device.

Section 7: PUBLIC EDUCATION

Public education for Text-to-9-1-1 will be instrumental in making the interim and eventual full time Text-to-9-1-1 work best. PSAPs should develop local education either through PSAP website information, attending local meetings or setting up local meeting with persons most affected by the capability. Initial contact and education should be made with the deaf and hard of hearing citizens. It is expected that the OEM 9-1-1 / PSAP Advisory Technical and Operations Subcommittee will be able to provide information and assistance to all PSAPs.

NENA's message for Text-to- 9-1-1 is: ***"Call if you can text if you can't."*** Citizens should be encouraged to text only when a voice call to 9-1-1 is not an option. If Text-to-9-1-1 is the only option, stress that the first thing 9-1-1 will need is location information and nature of the emergency. Text abbreviations or slang should never be used so that the intent of the dialogue is as clear as possible.

Section 8: INTERIM Text-to-9-1-1 RECOMMENDATIONS

All PSAP Directors and Managers should make themselves familiar with the interim Text-to-9-1-1 requirements or recommendations made by the following entities:

Federal Communication Commission (FCC)
Federal Department of Justice (DOJ)
Americans with Disability Act (ADA)
NENA & APCO Standards

All PSAP Directors and Managers should build policy and procedures based on these requirements and recommendations. All PSAP Directors and Managers should provide proper training of PSAP personnel to recognize, answer, and respond to the interim Text-to-9-1-1 solution that was chosen.

APPENDIX A

NOTE: *All PSAPs should provide for the training of all applicable PSAP personnel as to the unique requirements of Text-to-9-1-1. To include equipment maintenance personnel and call takers to receive and respond to a Text-to-9-1-1 call for service, regardless of which option is chosen.*

OPTION 1 TDD / TYY Interface

The text messages would be delivered via the existing 9-1-1 trunks as a typical 9-1-1 TDD/TTY call. Expect that any text session will require longer periods of time than a normal 9-1-1 call.

The Prerequisites are:

- Proper setup, prior to deployment, is required in the interconnecting networks and elements and at the PSAP to minimize Bit Error Rate.
- Works with existing legacy 9-1-1 standards.
- Text calls forwarded to legacy selective routers as TDD / TTY calls.
- Short Message Service (SMS) converted to TTY (Baudot code) before sent to the public safety 9-1-1 network.
- PSAP CPE answers call and detects TDD tones.
- SMS text as TTY messages are delivered directly to the PSAP, and MIS and recording capability are included if TTY functions are integrated with CPE.
- Call taker converses with SMS caller via TDD functions.
- Garbling with SMS sent as TTY is expected to be no different than TTY at a PSAP today.

OPTION 2 Web-based portal

The Prerequisites are:

- PSAP must have public Internet or Private IP Network connectivity into workstations readily available.
- PSAP workstations must have web browser capability (IE8 or higher, Chrome, or Firefox).
- PSAP is responsible for any equipment required, to include; upgrades / maintenance / technical support and firewall configuration (if applicable).
- Text is not delivered to 9-1-1 directly; it is delivered through a web server via the Internet or a Private IP Network.

- MIS / RMS and PSAP logging / recording functions are not active during the text session, and data is obtained from the Text Control Center (TCC) separately.
  NOTE: *This may require determination of whether this meets local legal requirements for recording or documenting "9-1-1 calls" into the PSAP.*
- PSAP must provide immediately available point of contact to the TCC for customer support.
- PSAP needs to be logged into the web portal in order to receive text messages. It will be important that the telecommunicators know how the portals work and the PSAP establish internal processes to monitor activity.
- If PSAP is not connected to web server, messages are alternately routed or bounced back by gateway.

OPTION 3 ESInet / IP Network Service Interface

The Prerequisites are:

- Each PSAP must have dedicated IP circuits to the TCC or part of an ESInet that is in place. It is recommended that the PSAP have redundant IP circuits.
- PSAP CPE must be capable of receiving IP messages on standard (NENA i3 and ATIS J-STD-110 defined) IP interfaces (SIP / MSRP).
- Call taker workstations must have integrated text handling software.
- PSAP CPE equipment must be maintained to include upgrades, maintenance, technical support, firewall configuration.
- PSAP must provide immediately available point of contact for CPE and IP / ESInet customer support.

Helpful Links:

OMB 3060-1204: PSAP Text-to-9-1-1 Readiness and Certification Registry
http://www.fcc.gov/encyclopedia/psap-text-911-readiness-and-certification
SMS Text-to-9-1-1 Information and Planning Guide
http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/Docs/SMS_Text_Info_and_Planning.pdf
PSAP Interim Text-to-9-1-1 Training Documents
http://www.nena.org/?text_training_docs
FAQ for Interim Text-to-9-1-1 Solution
http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/standards/faq_for_interim_text-to-9-1-.pdf
Is Text-to-9-1-1 Right for My PSAP? A Consideration Document
http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/standards/is_text-to-9-1-1_right_for_m.pdf

Media & Public Questions and Answers about Text-to-9-1-1

http://www.fcc.gov/encyclopedia/psap-text-911-readiness-and-certification

Text-to-9-1-1 Media Tips

http://c.ymcdn.com/sites/www.nena.org/resource/resmgr/Docs/Text_to_911_Media_Talking_Po.pdf