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Interim Text to 911 Working Group Report January 11, 2013

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Interim Text to 911 Subcommittee

- This group is charged with developing a recommendation and draft language for the full committee with regard to Pre-NG911 Mobile Text to 911 Solution(s).
- Here are the provisions from the EAAC recommendations that relate to our work.
 - Text-to-911 before NG911 enabled
 - Recommendation T1.2: Interim Mobile Text Solution:
 - The EAAC recommends that the FCC work with Department of Justice, industry, academia, consumer groups and public safety entities to develop an interim solution that can be rapidly deployed to provide nationwide access to 9-1-1 services through industry standards-based mobile text communications solution(s) to provide critical coverage for this important constituency during the transition to NG9-1-1.



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Work Group Progress

- Calls have been held by Interim text to 911 subcommittee
 - Focus areas:
 - User/Originating Device
 - Originating Networks
 - Transport Networks
 - PSAP End
- What is delivered today:
 - The Subcommittee/Working Group is delivering to the full EAAC its draft consensus report as completed by the working group
 - **This report is a consensus report from the working group and submitted to the EAAC as a draft report for consideration**



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Summary of Subcommittee Draft Report

- The ability to text 9-1-1 is key to ensure that 9-1-1 remains accessible to people with disabilities, who are unable to make a voice call to 9-1-1, and to address situations where making a voice call is not possible
- Considered questions around:
 - user needs and constraints for text-to-9-1-1, the role of originating networks and devices
 - characteristics of the transport networks between the originating networks and the 9-1-1 PSAPs
 - PSAP administrative and operational considerations



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Summary of Subcommittee Draft Report

- Based on a detailed investigation of these questions, the Working Group developed a set of recommendations for accessible Text-to-911 in the following areas:
 - General recommendations for Text-to-911
 - Recognized Features of SMS-based Text-to-911
 - Policy Considerations for Near-term Text-to-911 Service
 - Public Education
 - Future Considerations – Next Steps



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Summary of Subcommittee Draft Report

- Adoption and application of these recommendations will need to be determined through the appropriate rulemaking and standards development processes
- Some of the recommendations may require further research and development of technical standards, best practices or guidelines, before they can be applied
 - Public expectations, including individuals with disabilities, for 9-1-1 emergency communications should be taken into consideration where further research and development may be necessary



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Draft Working Group Report

- **Executive Summary**
- **1 Overview**
- **2 User Needs and Constraints**
 - 2.1 User experience
- **3 Originating Devices and Network**
- **4 Transport Networks including TCC**



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Draft Working Group Report

- **5 PSAP end**
- **6 National Interim Text and Vendor Proprietary Solutions**
- **7 Education and Outreach**
- **8 Recommendations**



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Draft Working Group Report

- **Appendix A: Glossary**
- **Appendix B: Use Cases for SMS-based text-to-911**



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General Recommendations

- As a near term and interim solution, users prefer direct access to a PSAP (i.e. “Text-to-911” without third party involvement) via native mobile short message service (“SMS”). Other text-based communication technologies, such as e-mail, real-time text (“RTT”) and instant message (“IM”) (i.e. “Over the Top”/third party text messaging services), should be evaluated for feasibility of providing direct access to a PSAP
- Utilizing the existing standards-based mobile SMS network architectures and capabilities currently offered by wireless service providers to wireless subscribers, with minimal modifications or alterations, would be the most technically and economically feasible way to ensure rapid deployment of SMS-based Text-to-911.



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General Recommendations

- All Text-to-911 solutions, including native SMS-based and “Over the Top”/third party text messaging services, should utilize a standards-based approach based on the C/E gateway architecture in order to minimize implementation challenges for industry and PSAPs and ensure the consistent availability of Text-to-911 service for industry, PSAPs and consumers. Industry, PSAPs and consumers should not be expected to utilize non-standards based Text-to-911 solutions. PSAPs can voluntarily choose to select a non-standards based Text-to-911 solution, but industry should not be expected to support these non-standards based solutions.

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General Recommendations

- As a near term and interim solution, Text-to-911 should not be subject to the all of the existing 9-1-1 requirements for telephone calls (e.g. voice calls to 9-1-1) or long-term solutions (e.g. NG9-1-1) if such requirements would require significant modifications to existing industry or public safety networks, equipment or standards.

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General Recommendations

- Text-to-911 should generally be available to subscribers of SMS-based and “Over the Top”/third party text messaging services. Text-to-911 should not be limited to individuals with disabilities because any limitation in this manner may create public confusion and unnecessary risk for all entities.
- Further research including standards development for the transition of Text-to-911 to NG9-1-1 is necessary to maintain consistency of text based communications to 9-1-1 services in order to avoid public confusion.
- Additional liability protection may be necessary for all entities involved in the support of Text-to-911.



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Recognized Features of SMS-based Text-to-911

- Direct Access: SMS-based Text-to-911 should ensure a message originator has direct access to an appropriate PSAP without initially contacting a relay service.
- 911 digits: Using any number besides “911” to originate SMS-based Text-to-911 will create public confusion and add uncertainty to an emergency communication. Alternative technical or educational solutions may be necessary if the three digit code “911” is not supported by existing wireless handsets or SMS network architectures or standards.
- Wireless subscribers with SMS capable handsets: Message originators must not be required to pre-register to initiate SMS-based Text-to-911, but a valid SMS service subscription is required.



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Recognized Features of SMS-based Text-to-911

- **Voice and Text:** Use of a voice and text communication in the same “call” should be supported in NG9-1-1 and should be further researched for non-SMS based solutions. However, this capability will not be feasible for near-term implementation of SMS-based Text-to-911.
- **SMS Roaming:** Due to existing SMS network standards and architectures, SMS-based Text-to-911 may not be available when a text message is originated on a wireless network other than the home wireless network to which a message originator has a valid subscription (i.e. roaming on a wireless network). Additional research by appropriate technical and standards organizations may be required to provide a “bounce back” notification in this situation.



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Recognized Features of SMS-based Text-to-911

- Continuous Connection and Chronological Communications: Recognizing that SMS is a store-and-forward service, the transport networks used for SMS-based Text-to-911 should maintain continuous and to the extent feasible chronological communications between the message originator and PSAP.
- Feedback on Progress of Communication: Appropriate technical and standards organizations should research the feasibility of the transport network used for SMS-based Text-to-911 or the PSAP to provide a message originator with feedback on the progress of a SMS-based Text-to-911 communication. Appropriate technical and standards organizations, in consultation with appropriate stakeholders such as representatives of Public Safety and individuals with disabilities, should research and recommend a standard time for PSAPs to “release/terminate” an SMS-based Text-to-911 communication (e.g. ending a communication due to inactivity).

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Recognized Features of SMS-based Text-to-911

- “Bounce Back” Notifications: An automatic response should be provided if Text-to-911 service is unavailable due to lack of network or PSAP support. Additional research by appropriate technical and standards organizations may be required to provide a “bounce back” notification when service is unavailable in certain technically challenging situations, such as roaming or “feedback on progress.”

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Policy Recommendations

- Originating service providers should utilize a standards-based approach (e.g. ATIS-TIA JSMS-to-911) based on the C/E gateway architecture in order to minimize implementation challenges for industry and PSAPs and ensure the consistent availability of Text-to-911 service for industry, PSAPs and consumers and independent of the originating network capabilities. Originating network, device and service providers should not be expected to support third-party proprietary services or solutions.
- Consistent with recognized standards (e.g. ATIS-TIA JSMS-to-911), Public Safety Authorities and PSAPs should choose whether to request and the method of delivery of Text-to-911 communications. If a PSAP chooses not to accept Text-to-911 communications (“non-participating PSAP”), an alternative PSAP (“designated PSAP”) shall be chosen to accept and handle Text-to-911 communications.



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Public Education Recommendations

- Under the coordination of the FCC, national Public Safety organizations and state and local public safety entities along with leading deaf, deaf-blind, and hard of hearing organizations should lead the education efforts with their citizens about the availability and limitations of Text-to-911 services.
- Other stakeholders, such as industry and other organizations representing individuals with disabilities, should provide support where appropriate and consistent with FCC and public safety public education efforts.
- The FCC should provide information about the availability of Text-to-911 consistent with open government policies (e.g. make data available for third parties to utilize).



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Next Steps

- Working Group Draft Report is delivered to the full EAAC today
- Next steps are dependent upon the future of the EAAC
 - Full EAAC review and comment on the working group draft report
 - Address Future Considerations section of the draft report



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Thank You!

- The Working Group leadership wishes to sincerely thank the members and invited experts for their contributions to this draft report and working to further the spirit of collaboration and purpose that has sustained the EAAC

