Part One:
Overview of Text-to-9-1-1
This Next Generation 9-1-1 course is designed to provide current Commonwealth of Massachusetts telecommunicators, certified in Next Generation 9-1-1, with the knowledge, and skills they need to process requests for emergency assistance through a new payload, or media, text message.

The information gained in this course will help you to understand the technology behind text-to-9-1-1, and provide guidance to you on how to process calls when they are received by your PSAP.
The goal of this training is to prepare you for managing text-to-9-1-1 sessions.

Prior to taking this training, we strongly encourage you to review the documents provided to your PSAP, including the State 911 Department's Call Handling Protocol and the job aid for use of the Next Generation 9-1-1 applications.

There are two key components of this training.

First is your understanding of the State 911 Department's protocol when handling text-to-9-1-1 sessions received by your PSAP.

Second is your understanding of the Next Generation 9-1-1 applications and how they will be used to process a text-to-9-1-1 emergency request.

In this training, you will learn the fundamentals behind text-to-9-1-1 communication, including texting technology.

In addition, this training will also provide you guidance on use of the call handling protocol and Next Generation 9-1-1 applications for processing a text-to-9-1-1 session.

As you learn how text-to-9-1-1 session will be received by your PSAP, your existing familiarity with the Next Generation technologies will improve your overall understanding of how you will handle these emergency calls, as well as your ability to use the applications to properly and efficiently process them.
Upon completion of this course, you will be able to do the following:

First, define the characteristics of text-to-9-1-1 technology, its' benefits for the general public and for individuals with a disability, such as those who are deaf, hard of hearing, or speech-impaired.

Second, given standard operating procedures, correctly list the call intake protocol for handling text-to-9-1-1 sessions to gather critical incident information.

Third, describe the special considerations when handling text-to-9-1-1 sessions, which will include such areas as handling voice callbacks, handling misdirect text messages, and exigent circumstances which may require a trace.

Lastly, use the Next Generation 9-1-1 technology to successfully process a text-to-9-1-1 session, including receipt of and managing an emergency text session using CallStation, and identifying the texter location using the tools of ResponseAssist.
So, let’s get started!

There is no doubt that the use of instant messaging, through a variety of different platforms, is changing how people communicate.

Recent statistics show that approximately 8.5 billion text messages are sent daily in the United States, with approximately 81 percent of the United States population using text message as a communication method.

While the overall best way to contact 9-1-1 will continue to be using voice communications whenever possible, the 9-1-1 community strives to meet the evolving needs of the public. Text-to-9-1-1 is an integral part of Massachusetts’s Next Generation 9-1-1 system.
Text-to-9-1-1 refers to the ability to send text messages to PSAPs during an emergency.

As mentioned, the purpose of text-to-9-1-1 is to provide means of communications between the caller and emergency responders in lieu of voice communications.

Text-to-9-1-1 may be used by anyone unable to make a voice 9-1-1 call, including those with a disability, or for medical reasons.

It may also be used by callers who find themselves only able to text, such when a voice call might otherwise be too dangerous to make, or impossible, due to the emergency circumstance, or when there are service restrictions by the carriers, such as roaming scenarios.
Text-to-9-1-1 is a viable alternative to a voice call, and its flexibility makes it useful to various groups and for various situations.

For those who are deaf, hard of hearing, or speech-impaired, it provides an alternative to traditional TTY communications and much needed accessibility.

In addition, for everyone in Massachusetts, text-to-9-1-1 allows the texter to send a written message in an emergency, when a voice call may not be possible.

Some situations may include:
- a crime is in progress;
- when a texter is injured and cannot speak;
- when a texter is faced with a domestic abuse situation, where a voice call could endanger the victim further;
- when the texter is a passenger in vehicle, where someone is under the influence;
- Or where technology limits the texter’s ability to make a voice call, such as when they are in a low service signal area, or when there is a very high volume of cellular traffic.

In compliance with Public Law, 101-336, also known as the Americans with Disabilities Act, Title II, Section 202, procedures outlined allow anyone using SMS technology to communicate with a telecommunicator.
Text-to-9-1-1 sessions will be delivered through carrier-native Short Message Service, referred to as SMS.

SMS is a national service provided by the carrier, and is available on nearly all mobile devices. SMS texting is the most common texting technology available to all carriers.

To communicate with a PSAP, a wireless subscriber will send a SMS text messages, using the single address code of 9-1-1 as the destination address of the message. The subscribers will receive text replies from 9-1-1 PSAPs in SMS format.

SMS allows for only one recipient of the text message. It does not support multiple recipients, or multi media, such as photos or videos.

Multimedia Messaging Service or MMS messages, are those that include multiple recipients, photos or videos. When MMS messages are sent to 9-1-1, the carrier’s network will identify the MMS message, and send back an error message, or in some cases, not deliver the messages.

In the future, technologies may allow for simultaneous use of multimedia content, including live texting, pictures, and videos between an emergency caller and a PSAP.
In order to reach 9-1-1 via text, the emergency texter’s wireless device must be connected to a cellular network and must have texting capability. Text-to-9-1-1 is a best effort service, with no guarantee a text message will be sent, delivered, or received in a timely manner or at all.

The availability of text-to-9-1-1 varies greatly across the country, with it being sprinkled in various cities, counties and states. As text-to-9-1-1 is not yet available in all areas of the United States, texters who attempt to send messages in areas without this service will receive an automatic “bounce-back” message, established by the carrier’s. The messages generally indicate that text-to-9-1-1 is not available, but do not have standard scripting, and advise the texter to use another method to contact emergency authorities.

These circumstances may include when no text-to-9-1-1 service is available for an area, or when a “roaming” condition exists, where service by your carrier may not be available.

For Massachusetts PSAPs, a bounce-back message will also be received when no one is logged in to a Next Generation application capable of receiving a text session.

The use of text-to-9-1-1 also varies greatly as well, and we will not know what the usage is for Massachusetts until we begin processing sessions.

In working with other areas of the country, the State 911 Department has found that only a small percentage of the overall call volume has changed from voice to text, and voice is still the preferred way to reach emergency assistance.
It is important to note that, overall, text-to-9-1-1 service is consistent among the various carriers. However, there are four main cell phone providers, who are managed by two different Text Control Centers or TCC. The TCC that manages each carrier’s text-to-9-1-1 sessions helps to determine the wording of the automatic bounce back message notifications, which are sent to a texter throughout the text-to-9-1-1 process, and sets various session timer settings.

Bounce back messages are sent by the carriers for a variety of scenarios, including when text-to-9-1-1 is not available, when a session has been released, when emojis, pictures or videos have been used, and when a timer setting has been reached. Several examples of messages are provided in Appendix D of the State 911 Department’s SOP.

Telecommunicators must also be aware of two main timer controls.

First is the ring-no answer timeout. This is a timeframe, set by the TCC, where delivery of a text-to-9-1-1 session is withdrawn, by the carrier, because it goes unanswered by the PSAP. For our purposes, this will be referred to as “Ring No Answer” or RNA. This timer limit is consistent for all carriers at 30 seconds. When the timer is reached, a standard message notifying the texter that text-to-9-1-1 is currently unavailable is sent automatically by the TCC to the texter.

The second timer to be aware of is the Message Idle Timer. This is a timeframe, set by the carriers, when there is no message activity occurring between the texter and the telecommunicator, for an active text session. This timer limit varies for each TCC. When the timer is reached, a standard message is automatically sent, by the carrier, to the texter that the session has been disconnected.

The image on the slide shows you the TCC for the four main carrier providers, as well as the timeframes set for the RNA timer and Message Idle timer.

You will find detailed information on these timers and messages in Appendix C and D of the State 911 Department’s SOP.
The initial deployment plan for text-to-9-1-1 in Massachusetts includes a soft-rollout to allow all PSAPs to begin processing text messages, followed by a Public Education campaign from the State 911 Department.

The Public Education program will include printed materials, radio and TV public service announcements, as well as a social media campaign over several platforms.

“Call if you can. Text if you can’t” will be predominant tagline in all our communications. If you are in an emergency situation and it is unsafe to place a voice call to 9-1-1, or you are unable to place a voice call, you can send a text-to-9-1-1 to request emergency assistance throughout Massachusetts.
Now, that you have an understanding of the text-to-9-1-1 technology, we will discuss the Call Handling Protocol for Text-to-9-1-1 Sessions.
When an incoming text-to-9-1-1 session is delivered to a Primary or Regional PSAP, or RECC, on the 9-1-1 equipment, provided by the State 911 Department, the text session shall be processed as an emergency call for service, and all appropriate actions taken regarding the reported incident.

Emergency incidents received through SMS text messaging will arrive at the PSAP on the Next Generation 9-1-1 application.

When a text-to-9-1-1 session is received, the telecommunicator shall to the following:

1. First, answer and greet the texter.
2. Second, accept the report of the emergency incident, and take all appropriate actions regarding the reported incident.
3. Third, process the report using emergency call handling procedures.
4. Forth, determine the dispatchable location and retransmit for an updated location.

Please note that the Dispatchable Location is the verified or corroborated street address of the reporting party, plus additional information, such as floor, suite, apartment, or similar information that may be needed to adequately identify the location of the reporting party or incident.

We will speak more about text-to-9-1-1 locations later in this course.
In addition, when a text-to-9-1-1 session is received, the telecommunicator shall, to the extent practical, ensure:

- That the texter is provided appropriate emergency service, which may include relaying the request for assistance to another jurisdiction;

- That the session remains connected until such time as the nature of the incident and dispatchable location of the caller is ascertained;

- And lastly, that the session remains connected until emergency services are confirmed to have reached the texter/incident location.

The call handling protocol for a text-to-9-1-1 session is very similar to that of a landline or wireless voice call.
As with voice calls, on occasion, a text-to-9-1-1 session received by PSAPs and RECCs may not be physically occurring within the area of jurisdiction, or the texter may need assistance from a service that is not capable of processing a text request. This can include other Massachusetts PSAPs, other Massachusetts Public Safety agencies, or even out-of-state agencies.

PSAPs and RECCs will not have the ability to transfer the text-to-9-1-1 session to another PSAP at this time. All incident information is relayed through a voice call to the proper agency. In these circumstances, the PSAP which received the text session will be responsible to ensure the texter’s request is relayed to the appropriate agency.

If the incident reported is outside of the PSAP or RECC jurisdiction, the telecommunicator will establish a voice communication with the local PSAP of jurisdiction and operate as a “relay service”. The telecommunicator will verbally assist the texter and the PSAP of jurisdiction by relaying all matters related to the emergency incident. This will require continued voice communications with the PSAP of jurisdiction, as well as written communications with the texter.

In these cases, the PSAP or RECC will maintain the text session and a voice relay call simultaneously, to continually do the following:
1. One, provide updates between the involved participants; and or
2. Two, assist with performing Retransmits for updated location; and/or
3. Three, provide such location information to the out of state PSAP

Should a texter be directed to contact 9-1-1 by another method, such as a voice call, the voice call may be routed to a PSAP different than the text session. PSAPs should be aware of jurisdictional boundaries for wireless 9-1-1 voice calls within their area, and have available contact numbers for those PSAP locations.

Later in the training, we will talk about how to use the dialing features of CallStation to place these calls, and what to look for on the application.
It is not uncommon for a telecommunicator to receive an emergency notification where the device inadvertently texted and the individual is not seeking emergency assistance. It is most important to ensure that all efforts are made to determine if a texter needs assistance or not.

Until the procedure outlined in the State 911 Department’s SOP is completed, all text-to-9-1-1 sessions are to be regarded as legitimate emergencies, and processed in accordance with the policy. After all procedures have been vetted, a text, which is determined to be accidental or inadvertent in nature, can be classified as an Unintentional text.

An Unintentional Text is defined in the SOP as “a text-to-9-1-1 session, received by a PSAP, that is determined to be accidental or inadvertent in nature after it:

1. One, shows no immediate need for emergency services; and
2. Two, does not indicate an emergency situation, after being thoroughly investigated by a telecommunicator; or
3. Three, is confirmed as a test of the text-to-9-1-1 solution, or misdial by the texter.
Part Two:
Processing a Text Session
Now that you have an overview of the protocol, let’s use that as a guide as we discuss use of the CallStation and ResponseAssist applications for processing a text-to-9-1-1 session.
The login procedures for handling text-to-9-1-1 sessions is similar to voice calls for the majority of PSAPs in Massachusetts. For most ring-all PSAPs, text-to-9-1-1 sessions, which will be referred to as SMS, or text sessions throughout this training, will be received in a similar fashion as voice calls.

Your current login ID will work to allow you to receive both voice and SMS call types.

In select locations, such as PSAPs with an automatic call distributor, or ACD, a distinct login IDs will be established to coincide with the configuration of particular dispatch groups assigned to receive text.

If different login information is required to receive text session at your PSAP, it will be provided to you by your PSAP Administrators.

Please remember that if no one is logged into the dispatch group for SMS, the texter will receive a bounce back message, advising that text-to-9-1-1 service is not available at this time.
Text-to-9-1-1 sessions will be sent by any texter one who has texting capability and or service. Please note that a Non-Service Initialized Device or NSI Device, commonly referred to as “9-1-1 only” or “burner phones” cannot text 9-1-1 unless there is a texting service enabled.

While phones not registered for service still have the ability to contact 9-1-1 by voice, it is not possible to send a text message to 9-1-1 from a NSI device for which there is no texting service.

Remember that a NSI device is a mobile device for which there is no valid service contract with any cellular provider. As such, NSI devices have no associated subscriber name and address, do not provide a dialable call-back number, most starting with 9-1-1, and may not provide any location information.

Please note as well that throughout testing, we have seen that devices connected to WiFi sporadically transmit when a text-to-9-1-1 session is attempted. In some cases, the text-to-9-1-1 sessions may not be sent until the phone is taken off of a WiFi network.

As we work with text-to-9-1-1 more, we will be able to better understand all its behaviors.
When a text session is received by a PSAP or RECC, a different audible alert tone will be heard through the speaker bar under the monitor. This is to distinguish it from a voice call.

Text sessions are delivered in a “ring-all” style, and will appear to all telecommunicators logged into the dispatch group simultaneously in the Softphone Call Table.

A new call type will be seen in addition to E9-1-1 and E7-digit, which are seen now. Text-to-9-1-1 sessions will be identified by a “SMS” type in the Call Table.

The SMS, or text, session is outlined in orange on the slide image.

Please note that ringing and/or connected voice calls will remain visible in the same Softphone Call Table.
Please note that a few unique configurations and behaviors exist for PSAPs using the Automatic Call Distributor, or ACD, version of CallStation.

First, based on your PSAPs use of the jackbox, and the position of the jackbox’s switch, the alert tone sound output may be different.

If the jackbox switch is positioned on speaker, it will play on the speaker sound bar.

If the jackbox switch is position on headset, it will play through the headset, and may be heard by a caller when on a voice call.

Second, there are three configurations of the Dispatch groups that may exist for your PSAP.

• First is a VOICE ONLY dispatch group. This is the configuration which exists today. In this group, voice calls will continue to be automatically delivered by the ACD, based on your “Ready” and “Not Ready” status. You will have no visibility to text sessions being received or processed in the PSAP when you are logged into this group.

• Second is a TEXT ONLY dispatch group. In this group, text sessions will appear in the Group Calls section to be answered. Your “Ready” and “Not Ready” status will have no effect on session delivery. You will have no visibility to voice calls being received or processed in the PSAP when you are logged into this group.

• Last is the VOICE and TEXT dispatch group. In this group, voice calls will continue to be automatically delivered by the ACD when in a “Ready” status. If you are in a “Not Ready” status, you must manually answer voice calls.

• You must manually answer text sessions.

• In this group, you will have visibility to voice calls and text sessions being received or processed in the PSAP.
So, if you are logged into a dispatch group which is able to receive BOTH text and voice in an ACD PSAP, text sessions will not be automatically assigned by the ACD.

SMS sessions are delivered in a ring-all style to all telecommunicators logged into that dispatch group. Your ACD “Ready” and “Not Ready” status will only apply to the voice calls.

If your PSAP uses auto answer for voice calls, it will not work with text sessions. SMS sessions will need to be manually answered.

Therefore, in this dispatch group, you can connect with both a voice call and a text session at the same time, and process both, as applicable.
In addition, in an ACD PSAP, new ringing text sessions will only appear in the Group Calls section of the Call Table.

While text sessions are ringing, the Group Calls section can be sorted to display all SMS call types together. The default sorting status for the Call Table is by longest duration.

Once answered, the text session will move to the My Calls section of the Call Table.

The ACD also has what is called the “30 minute foot print” rule. This applies to situations when you handled a text session from a specific ANI, and then released. If the texter establishes a new session with your PSAP within 30 minutes, CallStation remembers who participated in that session and automatically delivers the session to the My Call section of the Call Table, as long as you are logged in. Everyone else in that dispatch group will see it appear in the Group Call section.

If it is outside the 30 minutes window, the text session will ring as though it is a new session to all logged in workstations.
Text sessions are manually answered using the CallStation application or Genovation keypad.

You can use any of the following three methods to answer a text session, based on your preference.

1. First method is to click the Answer button on the dial pad of the CallStation application.
2. Second method is to hit the Answer button on the Genovation keypad.
3. Third method is to right click the SMS session within the Softphone Call Table and select Answer.

A few important behaviors to take note of.
- Picking up the Polycom phone handset will not answer a text session.
- Also, if you are logged into a dispatch group which is able to receive BOTH text and voice, clicking the Answer button on the Dial Pad, or hitting the Answer button on the Genovation will answer the longest ringing voice call or text session automatically.

The best way to ensure you are answering the desired SMS session is to use the right click menu option.
Once connected, the SMS tab on the right side of the screen becomes active and the texter's initial message appears.

In the ALI Results tab of CallStation, the ANI and related ALI data associated with this session will be received. An Incident Tile will also be created in ResponseAssist. We will speak more about text-to-9-1-1 locations in just a few slides.

Next, you will need to greet the texter. The standard SMS greeting used for text session is “9-1-1, this session is recorded. What is the address and town of your emergency”.

The standard message must be manually sent each time a text session is connected and will not be automatically sent by the system after connecting.

This standard greeting for text is available within the predefined message list of the SMS tab, highlighted in orange on the slide image.

To send the greeting message, click the drop down arrow of the message list, highlight the desired messages and click to send it.

The message will appear within the conversation string of the SMS tab after being sent.

As you communicate with the texter, the SMS conversation string will continue to fill the conversation log. The conversation is recorded with the call detail record for the session.
There will be times when it becomes necessary to handle more than one voice call and/or text session.

Both voice calls and SMS sessions can be connected and processed simultaneously.

On the right side of the screen, multiple sub-tabs will be created for each connected call or session, displaying the ANI.

As you toggle between the sub-tabs, the bolded call in the Call Table will change. Operations on the screen will effect only the bolded call or session.

Remember that you must place voice calls on hold to answer other voice calls. This can be done from multiple locations within the CallStation application or by using the Genovation keypad. The Auto Hold feature can also be used for voice calls.

SMS sessions, however, will never be placed on hold and will remain connected and active on the screen simultaneously, even while you are processing a voice call. This will allow you to continue to receive and send messages to the texter.
If the texter send a message when the SMS tab is not selected, the tab will turn red to indicate there is activity on it, as seen in the image on this slide.

To view the message, click the SMS tab.

If you have multiple calls and texts ringing into the PSAP at the same time, alternate routing and ring no answer timer settings will become applicable.

Voice calls will route to your alternate PSAP just as they do today, and, as previously discussed, unanswered text sessions will be withdrawn by the TCC at 30 second, when the ring no answer timer is reached.

When this happens, a standard bounce back message is sent to the texter, advising that text-to-9-1-1 is not available.

Text sessions which fall under the Ring No Answer scenario are not abandoned, so no abandoned call indicator will be seen or heard. A message will appear in the event log under the Event tab, indicating that an SMS session was released by the TCC due to timeout. The ANI will be provided.

Ring No Answer text sessions will not follow an alternate route to another PSAP like a voice call will.
Once the SMS session is connected, you will be able to observe the text conversation from another workstation, but you will not be able to participate in the conversation.

If you notice, the right click menu available for text sessions, pictured here, has less options available than the menu for voice calls.

Please notice that silent monitor and barge-in are not available options.

If you need to view the active text session conversation from another workstation within the PSAP, you will:
• Right click the SMS session within the Softphone Call Table, and select View Details from the menu.

This will allow the conversation log and details of the text session to appear on the workstation, including a mapped location and Incident Tile on ResponseAssist.

The conversation, however, will appear on the Event tab, not the SMS tab, and you will not be able to send messages to the texter.

Please also note that while there are options listed pertaining to conference and transfers, those are not available at this time.
Upon the SMS session being connected, ANI and related ALI data associated with this session will be received in the ALI Results tab of CallStation.

The information that appears will be more limited than what is commonly seen with voice calls, either landline or wireless.

The ANI and callback field will populate with the phone number the text originated from.

This ANI should be used in the event a voice callback is necessary. We will talk discuss voice callbacks to texters later in the training.

Please note that an outbound text to this ANI cannot be initiated using the CallStation application.

The other ALI information available in the ALI Results tab is what is known as a coarse location.
Coarse Location is the location information, specifically latitude and longitude, received during a text-to-9-1-1 session.

The latitude and longitude received is the center point for the area the texter may potentially be in, and is determined using commercial obtained location services. It is not the same latitude and longitude information that is received with Phase 2 wireless calls, and may not be as accurate.

From the coarse location that is received, ResponseAssist will create an Incident Tile for this SMS session and a map for the texter’s approximate area. This information will assist you as you verify the address or incident location information with the texter to confirm the dispatchable location.

Please note that there is currently no class of service for text and no carrier information will be displayed for a SMS session in the ALI Results tab for this session.
On this slide, you can see a larger view of the ResponseAssist results.

The image shows the mapped location and the Incident Tile that will provide the nearest address for this point.

Some important things to make note of in this image.

- First is the new map icon, called out in the orange box, which represent the center point of this text coarse location.
- Second is the size of the Probable Location Circle displayed around a geographical location. This circle and shaded area is in direct relation to the distance of uncertainty provided at the time a text is answered or a Retransmit is performed.

It should be noted that the larger the uncertainty distance, the larger the circle, and the smaller the uncertainty distance, the smaller the circle.
The Incident Tile created will display similar information to voice calls and includes:
- the location data, shown by latitude and longitude,
- confidence factors,
- the nearest address to the coordinates received,
- as well as geographic town and response agency information.

Please note the ANI is not displayed within the Incident Tile.

This information should be used to assist you with determining the dispatchable location and questioning the texter about their location.
Using the tools just described, you must verify the address or location information for the incident.

This should be provided by the texter, and then compared to the coarse location displayed on the Incident Tile and ALI Results to determine the dispatchable location.

As mentioned earlier, dispatchable location this is the formal term for the verified or corroborated street address of the reporting party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the reporting party or incident.
If the dispatchable location is within your PSAP's jurisdiction, you must:

- Determine and confirm the nature of the incident with the texter,
- Process the session using known emergency call handling procedures, and
- Follow your PSAPs associated procedures.

If the dispatchable location is determined to be outside of your PSAPs jurisdiction, proceed to Step 4, and contact the PSAP of jurisdiction.

If the dispatchable location is within your PSAP's jurisdiction, you must:

- Determine and confirm the nature of the incident with the texter,
- Process the session using known emergency call handling procedures,
- and follow your PSAPs associated procedures to handle the incident being reported by the texter.

If the dispatchable location is determined to be outside of your PSAPs jurisdiction, you will proceed to Step 4 of the protocol, which will require you to contact the PSAP of jurisdiction.
If you are unable to verify the dispatchable location, rebid the location information using the Retransmit button contained within the ALI Results tab.

Retransmits can occur once every 20 seconds until one of the following occurs:

- a better location is received;
- or the probable location circle size decreases;
- or help arrives; or the session is released.

The Retransmit feature can also be used to track moving texter locations, similar to wireless voice calls.

Please note that due to the technology, retransmitting a SMS coarse locations takes much longer compared to rebidding a wireless voice call.

Do not continue to click the button if nothing happens immediately.

You must wait at least 20 seconds before Retransmitting coarse location again.
If the dispatchable location is outside of your PSAPs jurisdiction, you must place a voice relay call to the appropriate local PSAP.

As mentioned previously, PSAPs and RECCs will not have the ability to transfer the text-to-9-1-1 sessions. Therefore, all incident information is relayed through a voice call. This will ensure the texter’s request is relayed to the appropriate agency. The voice relay will require continued voice communications with the PSAP of jurisdiction, as well as written communications with the texter.

To perform a voice relay, you will:
First, place a voice call to the appropriate local PSAP or RECC using the PSAP Directory or other speed dial options available in CallStation.
If the agency you require is not available within your speed dial options, you can manually dialing using the dial pad of CallStation.
The voice call will occur simultaneously and appear as a second connected call in the Softphone Call Table.

You will not put the text session on hold.
Instead, you will be talking with the local PSAP or RECC, and continuing to type with in the texter simultaneously.
The top left image on the slide shows the outbound call being made to the PSAP of jurisdiction, which has been outlined in orange.

The image on the right side shows the continuous SMS conversation occurring while the voice relay call is being established.

In the cases where a voice relay call is needed, you will maintain the text session and a voice relay call simultaneously to:

- One, provide updates between the involved participants, and/or
- Two, assist with performing Retransmits for updated location, and/or
- Three, provide such location information to the out of state PSAP.

As noted previously, should a texter be directed to contact 9-1-1 by another method, such as a voice call, the voice call may be routed to a PSAP different than the text session. PSAPs should be aware of jurisdictional boundaries for wireless 9-1-1 voice calls within their area and have available contact numbers for those PSAP locations.
After the nature of the incident and dispatchable location is determined, services will be dispatched.

Once dispatch has occurred, by either your PSAP or another local PSAP of jurisdiction, you must inform the texter that the requested assistance is being sent.

To do this, you can click within the SMS command line at the bottom of the SMS tab, outlined in orange on this slide, and type freely the message you would like to send. Once completed, you will click Enter to send the message.

An example of a confirmation message which could be sent to the texter is seen here.

“Help is on the way. (Police) (Fire) (Ambulance) is being sent to (address).”

You can type the appropriate agency and address as applicable.
While the first responders are en route, you will maintain two-way communications with the texter to collect pertinent information regarding the incident. This is when it is possible and as call volume permits.

You can communicate with the texter using predefined messages from the SMS drop-down list, or by typing free-text into the SMS Command Line.

There are a total of thirty messages predefined messages available. The first nine messages displayed, which are shown on this slide, are those which might be used most often and for all types of incidents.
The subsequent predefined messages can be accessed from the drop-down list by using the scroll arrows at the bottom of the dialog box, outlined in orange on this slide.

For a complete list of predefined messages, please refer to Appendix A of the Call Handling protocol.

The predefined SMS message list also has a soundex feature which allows you to narrow down messages. You can type letters or numbers within the SMS drop-down box. Messages STARTING WITH the identified text will display. For example, by typing the number “9”, you will quickly display the text greeting message and then can send it.

The other option to communicate is by sending free-text messages from the SMS command line at the bottom of the SMS tab.

Remember, in this area, you can type freely. You must click the Enter button on the screen to send the message.

Please note that if the command line does not start with SMS, outlined in green on this slide, you are not communicating with the SMS tab, and may receive an error message. If you see CLC or TTY, you must click the SMS tab at the top again.

All messages sent and received will appear in the conversation string of the SMS tab after being sent.

When the messages exceed the visible area of the screen, a scroll bar will appear on the right hand side.
A few important items to note about communicating with a texter.

First, text sessions are going to take longer to complete. You will be required to type everything in order to communicate, and wait for the texter to type and send back a complete message. Be patient.

Second, text-to-9-1-1 sessions are going to be different in nature than voice. With a voice call, we use not only the spoken word to help us with processing the emergency request, but a combination of voice, tone and fluctuation, as well as background noise. With a text-to-9-1-1 session, we lose many of those subtleties, and we must rely on the written word of the texter to best handle the emergency incident. In addition, text-to-9-1-1 is not real-time communication, and we must wait for the responses. There is no real time typing.

Third, a text session is considered to be an active text-to-9-1-1 session when the texter is responding to questions and messages of the telecommunicator in a consistent manner, and, or the telecommunicator is verbally relaying between a local PSAP of jurisdiction and texter, as applicable.

It is important to note that if a silent text or no response scenario exists, as will be explained in detail shortly, you will handle this session using the Silent Text No Response Procedure.

Exactly how you handle a non-responsive texter will depend upon the initial message received; and or if there is no response from the texter after the session is connected; and or the conversation stops suddenly after having been active.
Also, please remember these tips when communicating with a texter.

Messages you send will appear on the texter's phone as coming from "9-1-1".

When the session is active and connected, a tone, similar to the abandoned call tone, will sound every 30 seconds to remind you that a session is still active.

You will not hear a tone every time a new text message is received and you must monitor the active session closely for new information sent.

Remember that when a session is still connected, but there has been no message activity on the part of the texter or you, the TCC will automatically disconnect the session once the message idle timer has been reached. This timer setting will be either 30 minutes or 24 hours, but does vary by TCC.

Once a SMS session is released from CallStation, you cannot initiate an outbound text session to the texter.

If, after the session is released, a texter initiates another SMS session with your PSAP, CallStation will retrieve the previous conversation and display it to you with the conversation log of the SMS tab. This occurs when the new session is from the same ANI and happens within 30 minutes of the release. You will notice that the duration timer within the Softphone Call table will continue, and include the time of the last session with your current session. So, do not be surprised to see a long duration.

If more than 30 minutes has passed, the previous conversation can be accessed from the Call Logs. When it is reviewed, it will display on the Event tab.
Also, a single text conversation “bubble”, as they are called, can hold up to 150 characters. Messages which exceed the character limit will be broken into multiple conversation bubbles when received in CallStation.

When a conversation bubble is sent, it can, on occasion, appear out of order. You should make sure to confirm all information you receive with the texter.

In the images on the slide, the left represents the texter’s wireless device, and the right is what will appear on the SMS tab with CallStation.

As you can see, the first message sent by the texter exceeded the 150 character limit, and was split into two bubbles within the SMS conversation log.
In addition, we discourage the use of 'texting' lingo, shortcuts, or acronyms on your part. Correspondences from you should be in full simple words, using either predefined messages or through typing within the SMS command line.

The texter should also be encouraged to not use 'texting' lingo, shortcuts, or acronyms, so as to help eliminate any confusion on behalf of both parties. Texters, however, are not required to oblige. A standard message from the predefined message list may be sent, helping to explain this.

It is important to also note that emojis, pictures and videos are not accepted into text-to-9-1-1. When these items are sent, random characters, blank conversation bubbles, or even system errors, may be received within the SMS conversation log.

In the images on the slide, the left represents the texter's wireless device, and the right is what will appear on the SMS tab with CallStation.

As you can see, the first two text messages are received by CallStation, but when the emoji is sent, it produces random characters within one bubble and a SYSTEM error notification from the carrier in the next.

The telecommunicator here responded with a standard message from the predefined message list.
When a picture or video is sent, each carrier and TCC handle it differently. The texter may receive a bounce-back message advising them that the last message attempted was not transmitted. In some cases, you will receive a system error message on the screen advising you that additional media was included with this message, but is not supported.

In the images on the slide, the left represents the texter’s wireless device, and the right is what will appear on the SMS tab with CallStation.

As you can see, the first text message is received by CallStation. But when the picture is sent, it a blank bubble appears on the conversation log.

The texter, however, receives a TCC error message, notifying them that the last text did not go through, and to make a voice call to 9-1-1 if they can or send a new text without attachments.

This message is not visible on the CallStation screen. But in this scenario, the telecommunicator notices the blank bubble and responds to the texter with a standard message from the predefined message list.

“Emojis pictures and videos cannot be received by text-to-9-1-1”

The bounce back message sent by the carrier also reminds the texter to send the text again without other recipients. As we mentioned that the beginning of training, text-to-9-1-1 does not use MMS technology, and will not send the text messages to multiple contacts if they are entered as part of the initial address field.
A few other important items to mention are:

- The use of American Sign Language,
- Language Interpretation, and
- Processing medical calls with Emergency Medical Dispatch for EMD.

Text-to-9-1-1 will be very important and useful to anyone who is deaf, hard of hearing, or speech-impaired, by broadening their accessibility to emergency services, and limiting the need to use equipment such as a TTY or ancillary wireless device equipment, or seeking a third party for access to 9-1-1.

It is important to remember that individuals with a disability may use American Sign Language.

As you are already aware, ASL is formally recognized as a unique and visual independent language. Because anyone can use text-to-9-1-1, it is important for those of us receiving these emergency requests to be able to recognize when ASL is being used.

ASL is "visual grammar" and does not have a written form.
ASL has rules for sentence structure, time references, and use of grammar.
ASL must "borrow" written English words to express ideas, thoughts and comments.
In addition, the use of punctuation is not needed. You will notice that much of the punctuation has been removed from the predefined SMS messages available in CallStation.

As you process text session, please keep in mind the basic principles of ASL discussed here.
In regards to texting in other languages, presently language translation for text-to-9-1-1 is unavailable or limited. If such translation is available, it shall be utilized.

If a text is received which appears to be in another language, or there is a language barrier, make the best effort to process the text-to-9-1-1 session.

If sufficient location information is available, consideration should be given at this point to start an initial response for an unknown emergency or an open 9-1-1 communication.

After greeting the texter, it should first be determined if the communication barrier is due to the use of “texting lingo”. This can be done by sending a predefined message from the list to the texter.

“Do not use abbreviations Please use full simple words”.

When appropriate, non-English text-to-911 messages should be handled in the same manner as voice calls. If possible and safe to do so, you may advise the texter to make a voice call to 9-1-1 for an interpreter.

At the discretion of the PSAP, alternative translations methods may be used to aid the telecommunicators when a non-English text session is received. Please note however, some special characters in another language may not be received by CallStation.

In the images on the slide, the left represents the texter’s wireless device, and the right is what will appear on the SMS tab with CallStation.

As you can see, the first text message received by CallStation does not appear to be English. The telecommunicator sends out the standard greeting message. But the texter responds back with a question. Please note that the texter’s message, and the CallStation conversation bubble, do not exactly match. Certain special Spanish characters are missing.
When it comes to Emergency Medical Dispatch, telecommunicators will follow the same protocol as is established for voice calls by:

1. One, gathering the information, dispatching the appropriate units and providing pre-arrival instructions; and/or

2. Two, contacting a Certified EMD Resource or Emergency Medical Services (EMS) and operating as a “relay center”.

The use of EMD protocols for pre-arrival instructions with a texter is a best effort action taken by the telecommunicator and/or the certified EMD Resource through a voice relay.
A session can be ended and released once confirmation is received that continued communication with the texter is no longer needed and upon confirming one of the following:

- That the dispatchable location is within your PSAP jurisdiction, the nature of the incident is confirmed, and the request for assistance is processed following the PSAP’s associated procedures.
- Texters request for assistance is successfully relayed to the PSAP of jurisdiction.
- Previously listed and necessary actions of this procedure have been completed, and session can be classified as a Silent Text/No Response session or Unintentional Text session.
Every text session is ended by you sending the texter the standard closing message from the predefined message list of the SMS tab, which is “Ending text session, if you need more help contact 9-1-1”. Then releasing the session.

It is important to send a predefined closing message prior to releasing to ensure the texter knows the session is ending. Once you release the session, the texter will receive a message from the TCC advising that the 9-1-1 operator has ended the text session, or something similar. This message is automatic by the carrier and the message wording may vary.

It is important to note that the TCC’s message DOES NOT appear to you and IS NOT part of the conversation log for the text session.

In the images on the slide, the left represents the texter’s wireless device, and the right is what will appear on the SMS tab with CallStation.

As you can see, the telecommunicator confirmed the dispatchable location and advised that help was on the way. The telecommunicator then sent the standard closing message from the predefined SMS list, “Ending text session, if you need more help contact 9-1-1.” Moments later the telecommunicator releases the session.

On the texter’s screen, both of the telecommunicator’s messages were received, followed by a message, outlined in orange, advising that the telecommunicator has ended this session. This message was sent by the TCC after the telecommunicator released.

Please note that the last message IS NOT visible on the CallStation screen.

By sending a predefined closing message prior to releasing, the call detail record will reflect the ending of the conversation by the PSAP.
Every text session must be released. You can not log out without releasing a session. Otherwise, it will be attached to your login ID and no one on the PSAP will be able to take control of the text session.

You can use any of the following three methods to release a text session, based on your preference.
1. First method is to click the Release button on the dial pad of the CallStation application.
2. Second method is to hit the Release button on the Genovation keypad.
3. And third method is to right click the SMS session within the Softphone Call Table, and select Release from the menu.

Texters are unable to release from connected text-to-9-1-1 sessions.

If you do not release the session, and no additional message activity on the part of the texter or you occurs, the session will eventually be released by the TCC when timeframe of the message idle timer has been reached.

Remember that once a session is terminated, you cannot initiate a new outbound text session, and only a voice callback could be made.
As mentioned before, it is important to note that if a silent text or no response scenario exists, you will handle this session using the Silent Text No Response Procedure.

Exactly how you handle a non-responsive texter will depend upon the initial message received, and/or if there is no response from the texter after the session is connected, or the conversation stops suddenly after having been active.

If any of the following silent text or no response scenarios exists, you shall handle this session as a silent text no response:

- Is there language within the initial SMS messages indicating the need for emergency assistance, but no continued response?
- Is the language within the text garbled and or does it possibly indicate a “misdialed or accidental text”?
- Was the texter was actively communicating, but has now “gone dark”, meaning the texter is no longer actively sending text messages or responding to your efforts?

If any of these scenarios present themselves, either initially after answering the text session or anytime throughout it, you will handle the session using the silent text no response procedure as outlined on the next few slides.
The following procedures, similar to that of the Silent Call Procedure, should be followed if one of the silent text or no response scenario exists from the previous slide.

First, you must confirm that the need for assistance does not exist by sending the standard message from the predefined message list TWICE. “Do you need Police Fire or Ambulance”

If there is still no response to either of these two requests, you will then send the standard message “Text to 9-1-1 is available. Call if you can - Text if you cant” to the texter.

You will need to wait a minimum of ten seconds between sending messages, without receiving a response, before you send subsequent messages or proceed to additional steps of this procedure.

It may take the texter longer to type a response and you do not want to cut any messages being sent off.
If, while waiting for a response from the texter, you determine that a dispatchable location is available and/or is confirmed, you will handle the session following your PSAP’s associated procedures.

For example, if you had confirmed the dispatchable location with the texter, and then they went dark and stopped responding, you will follow your PSAP’s procedures, and potentially dispatch a first responder to that address to investigate.

If the dispatchable address is not confirmed, your PSAP may choose to handle this request in a similar fashion to a silent 9-1-1 call, abandoned call or hang-up call. Please follow your PSAPs associated procedures to determine the best actions.

If the dispatchable address is outside of your PSAPs jurisdiction, notification to the local PSAP of jurisdiction will be required.

If the dispatchable address is not confirmed, but the coarse location information available indicates that this text session, or possibly the incident, may be located outside of the PSAPs jurisdiction, you will use any available location information to contact the local PSAP of jurisdiction, make notification of the text-to-9-1-1 session, and as necessary, operate as a voice relay for the session.
If you believe this text session to be an emergency situation which requires swift action to prevent imminent danger to life or property, it is exigent circumstance, and you shall initiate the Exigent Circumstances and Trace procedures, as is outlined in the State 911 Department’s SOP.

As many of you know, an exigent circumstance is an emergency situation which requires swift action to prevent imminent danger to life or property. Under these circumstances, when no additional information is available from the reporting party, the telecommunicator or PSAP shall initiate a Trace, similar to that of a Call Trace.

Exigent circumstance may sometimes be clear within the first message received from the texter, or may be determined based on the totality of the circumstances surrounding this text session.

Exigent circumstance should follow your PSAPs associated procedures.

If this text session is NOT believed to be an exigent circumstance, and the PSAP has active 9-1-1 calls, or additional text-to-9-1-1 sessions pending, which have not been answered, you can temporarily proceed to answer calls/text sessions, until such time that pending calls have been answered and processed. Once pending calls have been serviced, previous Silent Texts/No Response sessions should be re-examined, when possible and as call volume permits.

Please note that a device initiating a text session may or may not have the ability to be traced. In order to be traced, the text must be sent over a carrier network, and not through Wifi.

All text messages will be accompanied by a callback number, and currently no anonymous texts can be sent. Subscriber information may be limited when performing a trace, especially on some pre-paid devices that have an active text plan.

If carrier information is received with the text session, any traceable information provided should be used in the same fashion it would for a voice call.

Information regarding the Trace Procedure can be found within the State 911 Department’s Text Session Protocol, as well as the Wireless Call Handling Protocol.
If the text messages indicate that the text was an Unintentional Text, or otherwise states there is no emergency, AND based on the totality of the circumstances, you have determined that this is a non-emergency text session, you may release the session after the necessary actions of this procedure have been completed.

Remember that an Unintentional Text is a text-to-9-1-1 session received by a PSAP that is determined to be accidental, or inadvertent in nature after it, shows no immediate need for emergency services; and does not indicate an emergency situation after being thoroughly investigated by a telecommunicator; or is confirmed as a test of the text-to-9-1-1 solution or misdial by the texter.

If there has been no additional response made after all steps of this procedure have been followed, and at least 15 minutes of time has passed, you may release the session.

Please remember that if the text session is not released by you, the TCC will terminate a session when the message idle timer limit is reached.
It is important to note that due to the limitations of service plans for some deaf, hard of hearing and speech impaired individuals, as well as the safety of the texter or others involved in the incident, **a voice callback to a texter should not be attempted** until all other resources for communicating have been exhausted.

At the discretion of the PSAPs local policies, exceptions are acceptable, such as when no other communication option is available, and/or it is believed that texter’s safety, or the safety of another, is in question.

Voice callbacks should be used with extreme caution. The texter chose to contact 9-1-1 in this fashion, as opposed to making a voice call, and we do not know the circumstances as to why.

If the texter is deaf, hard of hearing, or has a speech impairment, and a voice callback is attempted, they may not answer the call due to their disability.

**To place a voice callback using the CallStation application:**

1. From the Call Logs tab, select the My In tab.
2. Right click the appropriate SMS session/ANI and select Redial from the menu.
On occasion, just like the audio for a voice call, you may need to review the written conversation with the texter.

To do this, you will use the Call Logs tab of CallStation.

To review a text conversation, from the Call Logs tab,
1. select the My In or Group In tab.
2. Right click the appropriate SMS session/ANI, and select Call Review from the menu.
3. The conversation from the text session will appear the Events tab.

Remember that if the texter sends another message from the same ANI within 30 minutes of being released, the Next Generation 9-1-1 application retrieves the previous conversation, and displays it within the active session of the SMS tab.

If the next text session was initiated after 30 minutes, a new session conversation is created and a new call logs record will be created for it.
Another important aspect of this protocol is the receipt of a voice relay call from another PSAP, who has an active text session.

It shall be the policy of the Massachusetts State 911 Department that all Primary or Regional PSAPs, or Regional Emergency Communications Centers, accept the report of an incident, that was received through text-to-9-1-1 by another PSAP, as a voice relay call and handle the request for emergency services in a similar fashion to voice call.

The telecommunicator will maintain communications with the relay PSAP, as long as is necessary to collect pertinent information, or until a response unit has arrived at the incident, when possible and as call volume permits.

Upon receipt of a voice relay call, the telecommunicator from the relaying PSAP will:

- identify them self,
- explain that an emergency incident in your jurisdiction is being processed with an active text session,
- and then relay the incident location and the nature of the incident reported by the texter to you.

The call will continue as a voice relay between the two PSAPs, and the other telecommunicator will keep the text session connected to continually:

- Provide you updates from the texter and relay important information to them at your request, which may include EMD, and or
- To assist you by performing Retransmits for updated locations, especially if the texter is moving, and or
- To provide location information to the out of state agency.

The last few pages of the State 911 Department’s SOP speak to the protocol for handling a voice relay call at your PSAP. It is important to review and understand this aspect of the protocol as well.
Please remember that at any time, should you have an issue with the Next Generation 9-1-1 equipment, or any text-to-9-1-1 sessions or voice calls you receive, please contact the General Dynamics or GDIT Help Desk.

The Help Desk is Massachusetts’ primary monitoring and service center for all PSAPs and RECCs. All problems with the system must be referred to the Help Desk for corrections.

Telecommunicators have a responsibility to report problems seen with the equipment, call routing, call delivery and map display. And this now includes text sessions.

Please remember that when you contact the Help Desk, be prepared to provide following information:

The city/state and P Sap name you are calling from,
A description of the trouble and time it began happening,
For a hardware issue, explain exactly what is happening with the equipment.
For a software issue or network error, provide the exact verbiage of the error message that is displayed on the screen.

Prior to disconnecting, gather and record, per your Agency’s policies, the following information from the Help Desk:
The name of Help Desk call taker
The trouble ticket number assigned by the Help Desk
And an expected date/time for service of the trouble, as applicable.

The GDIT Help Desk is here to help you troubleshoot, and provide service and support to Massachusetts PSAPs.
9-1-1 is changing. It is important to recognize how changes in technology, and reporting methods, will effect your PSAPs call handling procedures.

The goal of this training is to prepare you for managing text-to-9-1-1 sessions.

Your understanding of the State 911 Department’s protocol when handling text-to-9-1-1 sessions received by your PSAP, as well as your understanding of the Next Generation 9-1-1 applications and how they will be used to process a text-to-9-1-1 emergency request, is important to text-to-9-1-1 in Massachusetts.

We strongly encourage you to review the documents provided to your PSAP, including the State 911 Department’s Call Handling Protocol and the job aid for use of the Next Generation 9-1-1 applications.

As you process text-to-9-1-1 session, use these documents and training as your guide, paired with your PSAPs policies and procedures, to properly and efficiently process these emergency requests.

If you have any additional question regarding text-to-9-1-1 in Massachusetts, please contact the State 911 Department’s Training Division.

Thank you.
Part Three:
Review – What Did You Learn?
Text-to-9-1-1 Review: What Did You Learn?

1. From the list below, select all of the situations where text-to-9-1-1 could be a viable alternative to a voice call.
   - For those who are deaf, hard of hearing, or speech-impaired, who traditionally used a TTY
   - A crime in progress
   - An injury or medical condition where someone cannot speak
   - Domestic abuse situation, where a voice call could endanger the victim further
   - Technology limitations such a low service signal area
   - When there is a very high volume of cellular traffic

2. Text-to-9-1-1 in Massachusetts uses which texting technology?
   - Short Medium Service
   - Short Messaging Service
   - Multimedia Messaging Service
   - Multimedia Message Format

3. Text-to-9-1-1 in Massachusetts will allow for the receipt multimedia content, including live texting, pictures, and videos?
   - True
   - False

4. When a telecommunicator is not logged a dispatch group capable of receiving a text session within CallStation, which of the following will occur?
   - The text-to-9-1-1 session will ring continuously until a telecommunicator logs in.
   - The text-to-9-1-1 session will be delivered to an Alternate PSAP.
   - The texter will receive a bounce-back message advising that there is no text-to-9-1-1 service available at this time, and to make a voice call to 9-1-1.
   - The texter will receive a bounce-back message advising to stand-by and someone would be with the shortly.
5. The Dispatchable Location is the:
   - Latitude and longitude received when a text-to-9-1-1 session is answered.
   - Latitude and longitude of the center point for the area the texter may potentially be in.
   - Verified or corroborated street address delivered with the answering of a text session.
   - Verified or corroborated street address of the reporting party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the reporting party or incident.

6. If a text-to-9-1-1 session’s dispatchable location is determined to be outside of your PSAPs jurisdiction, you will relay all incident information to the proper agency through a voice call.
   - True
   - False

7. After answering a text-to-9-1-1 SMS session, the CallStation application will automatically send the text-to-9-1-1 standard greeting.
   - True
   - False

8. Coarse Location is the latitude and longitude received during a text-to-9-1-1 session, and shows as accurately on ResponseAssist as a wireless Phase 2 latitude and longitude.
   - True
   - False

9. Select all statements below which best describe a silent text, no response scenario:
   - If there is language within the initial SMS messages indicating the need for emergency assistance
   - If the language within the text is garbled and/or might indicate a “misdialed or accidental text”.
   - If there is language in the initial SMS message indicating the need for a ride
   - If the texter was actively communicating, but has now “gone dark”, meaning the texter is no longer actively sending text messages or responding to the efforts of the telecommunicator.
10. **Select all that apply.**
A text-to-9-1-1 session can be released once confirmation is received that continued communication with the texter is no longer needed, and upon confirming that:

- The dispatchable location is within your PSAP jurisdiction, nature of the incident is confirmed, and request for assistance is processed following PSAP’s associated procedures.
- The texters request for assistance is successfully relayed to the PSAP of jurisdiction.
- The necessary actions of this procedure have been completed, and session can be classified as a Silent Text/No Response session
- The texter sent a message accidentally and it can be classified as an Unintentional Text session