



FCC Workshop

(11-20-09)

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Legislative Problems

- There are over **200** pieces of legislation pending at the federal, state and local levels to address texting and driving.
- The real challenge for every level of government is to pass legislation that includes measures that will allow **enforcement** of anti-texting measures.



Enforcement Flaws

- **Direct Visualization By Police**

- Requires enormous dedication of resources
- **Summit** – Major Salomon NYS Police
- Requires corroboration to ensure that the user was texting as opposed to placing a telephone call

- Police Officer retrieval of cell phone – **Unconstitutional**

- **Voice Recognition Software**

- Development Issues
- Easily disabled
- Privacy issues – passengers hear messages



Education

- An Absolute **MUST**
- Empirical data suggests that it takes a **generation** for measureable results.
- Teenagers:
 - Physiologically wired to disregard and fully appreciate the consequences of their actions. It is simply a matter of immaturity of their brains' development.



SAFe Product Suite

Drive Safely Corporation has a number of products aimed at eliminating all distracted-driving behaviors. Drive Safely Corporation offers its "Stay Alert Features" (SAFe), a suite of products which include:

- Anti-Messaging Technology (AMT) – comprised of 3 distinct products:
 1. Anti-Texting Technology
 2. Anti-Email Technology
 3. Anti-Multi-Media Technology
- Anti-Browsing Technology (ABT)



Anti-Texting Technology

Anti-Texting Technology Basics:

- Uses the existing GPS (A-GPS) features of the phone
- Uses the existing keyboard of the phone
- Uses the existing internal clock chip data of the phone
- Uses the existing SMS Port of the phone

Critical Aspects of Anti-Texting Technology:

- There are no unproven components in ATT
- There is no change to the infrastructure of the phone
- Not optional and not an application



Anti-Texting Technology Events

Anti-Texting Technology Events:

First event on the phone

AMT recognizes that SMS is being received or authored, by monitoring the phone's SMS port.

Second event on the phone

AMT recognizes that the phone is moving at a high rate of speed by analyzing GPS data, which is available on every phone.

Third event on the phone

AMT separates drivers and passengers in a moving vehicle by using an "Attention Validation Sequence" to measure cognitive responses and levels of distraction.

AMT Initiation

If AMT senses that your vehicle is moving above a threshold speed (e.g., 12 mph), and you attempt to access your text service (to read or send a text), AMT will initiate a warning screen that advises that "Driving and Texting is Illegal." AMT then initiates a screen that asks whether you are a driver.



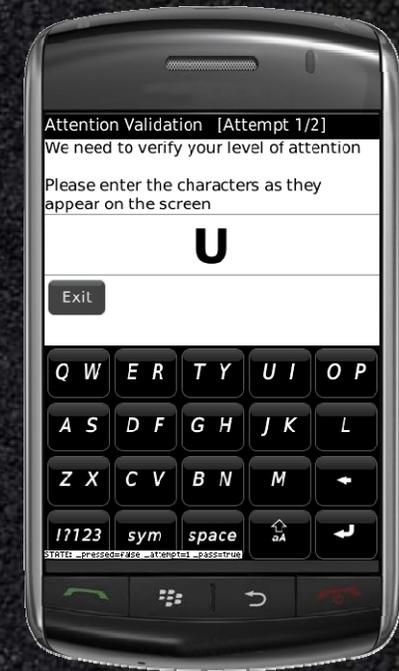
If you answer "YES" that you are driving, then your ability to send and receive texts is disabled until your phone has been at rest for a designated period of time (e.g., 3 minutes)



Ensuring The User Is Not Driving



If you answer **"NO"** that you are not driving (passengers and drivers who attempt to bypass AMT) then AMT initiates attention-validation questions (similar to the image on the right) that ensure you have answered honestly that you are not attempting to drive and text.





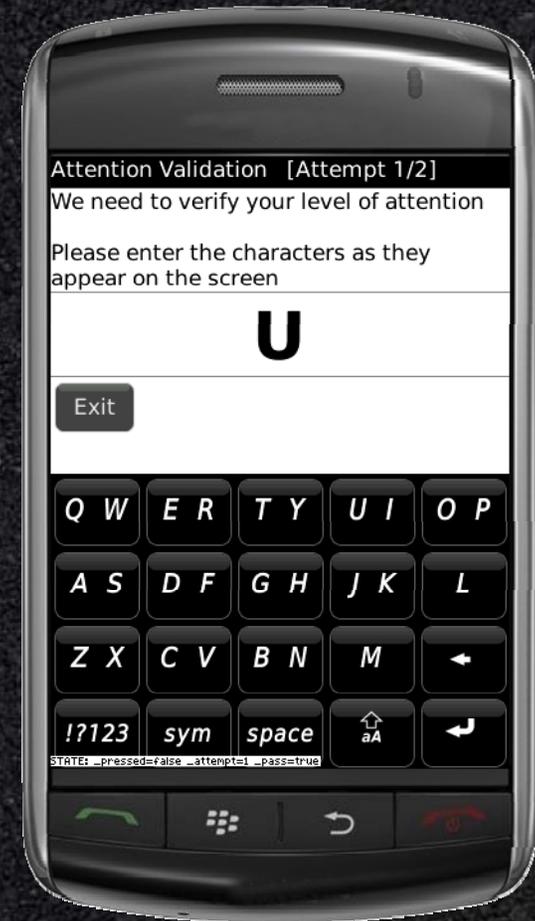
VALIDATION SCREENS

Each State or Cell phone carrier can customize its own questions to ensure validation. By way of example, the first screen a user encounters if he is texting while in a moving vehicle (after he affirms that he is not driving) would be:

“Please enter the following letters (capitalize where indicated): A Z p”

Thereafter, further screens appear randomly that require the user to input a different series of keystrokes (numbers, letters, symbols).

This process continues until AMT is satisfied that the user is not driving.



VALIDATION SCREENS

Any time the user fails to enter the correct data, the texting ability of the phone is disabled until the vehicle stops moving for a designated period of time.

It is important to note that each State can set its own parameters for enforcement. For instance, each State can set the time that elapses between each validation screen, the type and amount of data that assures user compliance (randomized letters, numbers, capitalizations, symbols, punctuation, etc.), the length of time the phone is disabled when the user fails, etc.





Placing or Receiving Calls

Drive Safely Corp.'s SAFE Technology has **NO** effect on a user's ability to place and receive voice services or to send and receive emergency 911 text messages.



www.drivesafelycorp.com



Other Messaging Services

- EVERY product offered by Drive Safely Corp. is compatible with ALL hand-held devices and ALL cell-phone carriers.
- The wireless industry projects that by 2013 “smart phones” – phones capable of e-mailing, browsing, viewing videos – will comprise 45% of all phone sales (they make up only 9% of current sales). Clearly, Distracted Driving legislation needs to address all forms of messaging as smart phones continue to proliferate.
- SAFe has no effect on a user’s ability to call and send or receive an emergency 911 message.



AMT Variables

1. Once SMS port is closed by AMT, all texts received by user while the feature is disabled reside on the carrier's network.
2. Once validation is completed by passengers, AMT keeps SMS text port open and passengers can text unimpeded.
3. AMT has a 'Done Driving' discontinuance option:
 - AMT monitors device perpetually for 90 seconds
 - If device stays below velocity threshold for that time, AMT will open SMS port and allow texting
 - AMT will return to dormant state until vehicle reaches threshold again



AMT - Technical FAQs

What does 911 have to do with AMT?

Most phones are equipped with a GPS chip. The phone need not be powered on in order to broadcast to the cell tower. The cell network (with GPS information) can publish very accurate phone position data.

Most carriers offer '911 Only' and 'All Locations' GPS settings in the phone. By law, the network must supply location information when making 911 calls.

GPS uses very little battery resource by itself as it requires (in most cases) cell tower information to pin-point location.

The AMT technologies would have no impact on resources but would require a mandate to broadcast on the e911 channel. The e911 channel **cannot** be blocked or shut off by the user.



AMT - Technical FAQs

What are AMT's potential parameter settings?

- Velocity Threshold: Can be set from 5 mph – 65 mph
- Validation Sequence Duration: Can be set from .2 seconds to any end time
- Speed Variance: If a driver reduces speed then the Validation Sequence Duration decreases
- Validation Character Rendering Duration: The character will display for a very short period
- Character Response Limit: The user has a very short period to echo the characters displayed
- Multiple Characters: Validator is made of a random series of number, letters and symbols
- Lock out Duration: A user who fails the Validator will have the SMS port locked for 3 minutes
- Open Port Duration: If user passes the validator then AMT disengages
- "Done Driving" Mode: A user must stay below threshold speed for 3 minutes to unlock



AMT - Technical FAQs

Can AMT be shut off or bypassed?

A: No, It is the intent that the application becomes part of the devices system files and not a removable application.

Will GPS or AMT drain the phone's battery?

A: GPS has very little impact on battery life. Other GPS-reliant applications are 'resource heavy' due to their active screen rates use and open radio signals. AMT only uses bursts of active screen resources during the 'Attention Validation Sequence.' When AMT is dormant it uses no appreciable resources.



Frequently Asked Questions

1. Can a teenager disable DSC's technology?
2. Can a mobile-phone user opt out of DSC's validation technology?
3. How will DSC's technology be able to distinguish between a mobile-phone user who is walking or driving?

1. No. DSC's technology is not a software application that is loaded on the mobile phone. Instead, it is middleware that is broadcast by the carriers.
2. No. DSC's technology is intended to be broadcast by the cell-phone carriers and the user cannot opt out of the technology.
3. Each State has the ability to set a threshold velocity, which means that in order for the technology to initiate a certain minimum speed would need to be reached (e.g., 12 mph).



Frequently Asked Questions

4. Who pays for this technology?

4. DSC can license the technology to each State, which can re-license the technology to the cell-phone carriers. The carriers can then charge each end user (only those who have messaging plans) a surcharge that recaptures the licensing fee that the State passes along to the carrier. In other words, neither the government nor the carrier will incur any cost. Rather, at a rate of only PENNIES per customer, the end users themselves bear the cost.

5. Will insurance rates be affected by DSC's technology?

5. Once Distracted Driving legislation is adopted that incorporates *real enforcement provisions*, the insurance companies will pass along to those customers who use DSC's products the billions of dollars they save related to distracted driving accidents, injuries and deaths.



Frequently Asked Questions

6. Will mobile-phone users on public transportation systems be able to use their phones to send and receive messages?
 6. Yes. DSC's unique technology will allow municipal entities to employ technology that will allow riders on fixed public transportation systems to use their mobile phones unimpeded.
7. Will DSC's products drain my phone's battery?
 7. No. DSC's products only use bursts of active screen resources during the "Attention Validation Sequence". When dormant the products use no appreciable resources.



Conclusion

- Coordination with DOT & FCC
- Legislative integration of technological enforcement solutions
- Carrier integration of SAFe