

AT&T Testimony – as prepared
California Senate Energy, Utilities and Communications Committee
Informational Hearing
Chair: Senator Alex Padilla
February 11, 2013

Good afternoon. My name is Peter White, and I am an Executive Director for Global Public Policy at AT&T. In that job, I have been working on wireless E911, emergency alerting, and other public safety communications issues for the past 15 years.

I want to thank Senator Padilla, his staff, and the other participants for the opportunity to be here today to discuss recent developments in public safety communications.

I am going to speak from my prepared remarks, and then will be happy to answer any questions from Senator Padilla and the other participants.

As the breadth of your agenda suggests, there are many aspects of public safety communications.

Because of the massive investments AT&T and others have made in new wireless and IP-based infrastructure and the incredible amount of technological innovation, we have a great opportunity to improve and enhance emergency communications and public safety.

Everyone here has the same goal – to use technology to keep our communities safe and provide people with the help they need in an emergency.

My remarks today will focus on two main categories of public safety communications.

Messages from government entities - Federal, state, or local - to the public - about potentially dangerous or emergency conditions in their area

And Communications – both voice and other formats -- from the public to 911.

These are two different types of communications that play an important role in the safety of California communities and how government and public safety personnel interact with the public at a time of crisis.

Because of the importance of these emergency communications, I'd ask everyone to keep in mind an essential principle as we talk today:

All technology evolves.

It is essential to understand and separate any technology's present-day capabilities from the potential of those technologies when they are fully developed and implemented.

I often describe it as a "crawl – walk -- run" continuum.

That distinction is critical not only for our industry, but equally important for California's policy makers, for the agencies who have to implement new policies, and for the general public who use these technologies to get emergency aid for themselves, their families, and their communities.

With those thoughts in mind, let's discuss the first situation – the delivery of emergency messages from government to Californians' cell phones.

This service is commonly known as the Commercial Mobile Alerting System, or "CMAS".

As the technology evolved, it was agreed that a more consumer-friendly name was needed, so the term "Wireless Emergency Alerts" or "WEA" was coined and is used as well.

This system was born from the recognition that there was a need for a "government to the public" emergency text message service, and that the existing SMS (or "short message service") technology would not be adequate for that important job.

Congress passed legislation in 2006 creating the Commercial Mobile Alerting System, and a cross-functional technical team of industry, vendor, public safety, and other stakeholders was formed to create the framework recommendations for CMAS.

The FCC set the framework not only for the wireless carriers but for who and how Government agencies would handle alerts.

Nationwide deployment of the alert system – with **most** wireless carriers participating - was completed at the end of 2012.

There are three major components:

- The public safety organization that initiates the alert message and designates the coverage area;
- The Federal Emergency Management Administration (FEMA) gateway and network that authenticates alert initiators, aggregates alerts from all initiators, and then carries those alert message to the applicable wireless carriers;
- The wireless carriers who deliver those alerts to mobile devices that are capable of receiving the alerts and are operating in the area designated by the emergency originator.

Where are we in California today on this alert system?

Remembering my “crawl-walk-run” principle from earlier, I’d say we are comfortably in the “walk” phase, based on the following facts:

As of the most recent update from FEMA, 10 California public safety agencies have been approved by FEMA as alert originators, with another six agencies, including CalEMA, in queue for approval.

Participating wireless carriers, including AT&T Mobility, Verizon, Sprint, and T-Mobile have deployed CMAS in their networks and have been offering Alert capable cell phones since 2011.

Overall, it's a "good news" story.

The focus now is on:

- Increasing the number of alert initiators, both in California and across the country.
- Continuing to get CMAS-capable handsets to consumers as they replace their old cell phones.
- Improving consumer awareness of the alert system – and wireless text alerts - so they understand what it does, and what it does not do.

The bottom line?

CMAS is real, it's working today, and California is well on the way to having a purpose-built, dedicated emergency message service for California's emergency managers to provide information and to inform people in a variety of crises.

Turning to my second topic, what is commonly called texting to 911.

As I mentioned both earlier today and in previous briefings last year here in Sacramento, Short message Service "texting" was originally designed in wireless standards as a way to use temporarily-available network resources to send short, non-urgent, alphanumeric messages from cellular user to cellular user.

SMS was designed for applications such as teenagers' chitchat -- and while that chitchat is totally important to the sender, it's not the kind of urgent information requiring a purpose-built, dedicated network.

That's why the wireless companies have told consumers in our service agreements that SMS is a "best efforts" grade of service product – we do our best to deliver those texts, without significant delays, hopefully in the order that they are sent -- but the delivery is not guaranteed.

Just as CMAS was created as a brand-new service to answer those limitations of SMS when used for time-critical emergency communications from Government to the public, this same development is needed for a fully functional tex-to-911 service.

That development is being done for Next Gen 911.

As I said earlier, understanding technology's present-day capabilities is critical. It may seem like a simple task to support text to 911, but there are important processes and capabilities that need to be addressed.

There is a widespread, but mistaken belief among **some** wireless users that “of course” if you sent a text to 911, it would be received by the correct public safety answering point (PSAP).

That capability does not exist on a widespread scale today.

And, because SMS to 911 was NOT designed or developed as a mission critical service or as a means to reach emergency services, even when it is available, the “best effort” may mean the text is not delivered or is not delivered immediately.

Secondly, the Public Safety Answering Points –the 911 centers- may not have the capability to receive or respond to a text.

And finally, the widespread consumer use of texting apps, which deliver text messages outside of SMS messaging pose additional technical and consumer confusion issues.

Just as the processes and networks have evolved and been upgraded to handle 911 calls from mobile devices, upgrading needs to be done to allow for the 911 operators to receive and communicate with a text-to-911.

However, after extensive discussions with the hearing and speech-impaired community and within the industry, and among regulators and vendors, it was agreed that texting was the simplest, most available tool to improve access to 911 services for this community.

Recognizing that the deployment of a purpose-built, dedicated text-to-911 service would need to await the more-widespread deployment of NG-911 networks, an interim solution is being developed to deploy some text-to-911 capability in the near term.

In December of 2012, in association with the public safety organizations NENA and APCO - AT&T Mobility, Sprint, T-Mobile, and Verizon Wireless filed a voluntary agreement with the FCC to provide interim text-to-911 service with some key conditions.

I have copies of that agreement for anyone who's interested.

Let me give you the highlights:

- The companies will use SMS to provide text-to-911 on an interim basis, in accordance with new technical standards, to requesting PSAPs
- This interim service will be on a “best-efforts” basis, which is consistent with the capabilities of the network
- Location information will be very approximate – cell site level.
- The first step in this process is to implement an auto-reply message (“bounce back”) to alert subscribers when text to 911 is unavailable, and indicating that they must make a voice call to 911. A bounce-back message will be available no later than June 30, 2013
- This interim “Text to 911” service will be made available in our networks no later than May 15, 2014.
- Once the wireless carrier begins offering a text-to-911 solution in their network, the PSAPs will still have to request the service and may need to upgrade equipment to be able to receive and respond to these texts.
- PSAPs will need to select a standards-consistent format for how messages are to be delivered.

- The service providers have agreed to support APCO, NENA and the FCC as they develop an outreach effort to educate consumers about the realities of this interim technology.
- California government likely has a role here too.

As part of our commitment to advancing emergency communications, AT&T is conducting a trial of test-to-911 in Tennessee. We will be happy to keep you informed of the results of the trial as we move toward nationwide implementation.

Again, because we are so early in the process of deploying this interim text-to-911, we want to make sure that both California's leaders and the public understand the reality of that upcoming new service.

"Upcoming new service" is a good way to describe and segue to my final topic for today:

"NG", or "next generation", 911 service.

Some may remember the time when if you needed help and you were lucky enough to be near a phone, you dialed an operator.

As time progressed, you would direct-dial one seven-digit number for police, another for fire, and maybe another for medical assistance.

The innovation of dedicated "911" dialing was a public safety milestone, as was the subsequent automatic delivery of your callback number and your address when you made that 911 call.

Today, when someone calls 911 from their home phone, they don't even think of the technology that makes that call possible. It just works.

That same "crawl-walk-run" evolution happened with wireless 911 service, as well.

Once upon a time, there were no cellular phones. The first ones then appeared, but they were few, big, heavy, and when you dialed 911, you really didn't know what would happen.

Over the next twenty years, the technology evolved to be smaller, lighter, unbelievably better, and in everybody's pocket.

Today, when you dial 911, you get routed to a PSAP that receives your callback number and your estimated location automatically.

Wireless voice and data, too, has become a service that just works – not perfectly every time and every place, but nonetheless, a modern-day miracle.

In fact, more 911 calls are placed today from wireless phones than over traditional landline service. People can seek help for themselves and for others wherever they are.

Next Gen 911, with its vision of providing not only 911 operators but first responders, emergency room doctors and other players in the emergency equation with unprecedented types and sources of information, is another modern-day miracle in its early stages, both nationally and here in California.

For example, imagine a system where after you are in a car accident, emergency help is summoned and information regarding the crash is sent to both first responders and medical personnel – all automatically.

NG911 very simply is a capability where 911 calls placed on the wireless network are all IP-enabled, can carry all types of content AND that content can be carried in the 911 Networks, can be received and used by PSAP call taking positions, and can also be received by other parts of the treatment team.

To get there will take planning, funding, and execution, and remember - at the same time, the current 911 system must be maintained. Next Gen 911 requires interfaces to the existing wireline and other legacy services during the transition.

But progress is being made. It's important to understand that many PSAPs are currently capable of receiving IP based voice calls at dedicated call taking positions today.

NG911 will enhance the capabilities to allow receipt of **other** content like video.

IP networks exist, and the Emergency Services IP Network (aka ESInet), as envisioned by NENA, and supported by AT&T, is beginning to take hold, with deployments taking place throughout the country.

AT&T affiliates provide such networks and capabilities. AT&T strongly supports the NENA i3 standards-based approach to NG911.

The transition to next gen 9-1-1 requires significant planning and resources. AT&T is engaged with the State 9-1-1 Office and is very supportive of their efforts to move California toward NG911.

There are a number of projects underway in California testing various aspects of Next Gen services and capabilities.

These projects are in urban and rural areas around the state and are testing various aspects of Next Gen capabilities.

So where is NG911, both nationally and in California?

It's not at "run", and despite all of the progress that has been made at transitioning from concept to reality, I think it's fair to say that NG911 is not fully at "walk" yet.

But a good, solid "crawl/walk", with both the desire and the technical development to build on those first steps soon?

Absolutely.

How do we get from where we are on NG911 to where we all want to be?

First it's important to initiate and complete NG911 trials and proofs-of concept in California, while learning from trials elsewhere in the country.

We believe it is good public policy to continue to develop a statewide deployment of NG 911 to avoid creating "haves" and "have nots" across the state

And lastly, that there needs to be funding to support the costs of a statewide Next Gen 911 deployment – that all of the 400+ PSAPS in California must upgrade for IP based contacts and that a source of funding is needed.

In closing, I'd like to recognize the work of the State 911 office and all of the other organizations involved in emergency response. I think we would all agree that today's e911 service is working and is providing critical emergency response to Californians.

There is an enormous amount of industry and government cooperation and commitment as we transition to new capabilities and services brought about by the investments made in new digital networks AND the tremendous technological innovation continuing right here in California.

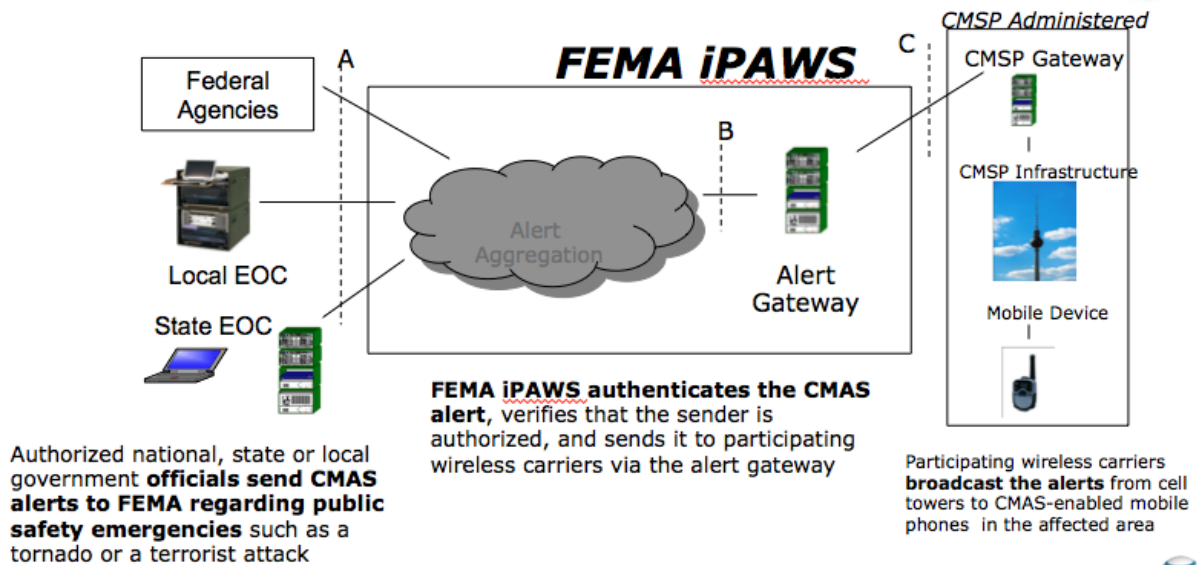
Our challenge is to understand the capabilities of the technology, what's needed to make it mission critical and ubiquitous and to continue to work together to educate the public on this transition.

And with that, I'll thank each of you for your time and the opportunity to speak today.

Questions?

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CMAS Architecture



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