

## **E911: The MLTS Problem Gets More Complicated with New Legislation and New Technology**

Network managers have more to worry about than complying with multiple state E911 laws which are being adopted across the country with increasing frequency. Rapidly-changing technology may also affect the proper delivery of 911 calls, and that can expose your business to significant liability.

Technology professionals are familiar with the widely reported E911 problem for multi-line telephone systems (“MLTS”): Calls to 911 emergency services made by users located behind a PBX may not accurately or sufficiently transmit the caller’s detailed location and call-back information to the correct local public safety answering point (“PSAP”) responsible for dispatching emergency services.

Nearly one-third of the states have adopted E911 laws or regulations. Many of these rules, particularly the most recently passed, impose obligations upon MLTS operators to transmit accurate and detailed call-back information for 911 calls originating from their MLTS. But the rules (and their applicability to any particular business) vary widely from state to state, and the absence of a single national standard makes compliance a real challenge for businesses with locations in multiple states.

This problem is only going to get worse. In the next few years, you can expect more states to adopt E911 rules on MLTS. The California Public Utilities Commission opened a rulemaking in June to address this issue, and draft legislation has been proposed in several other states. Given the pace at which states have recently adopted E911 legislation, we may have reached a tipping point--expect the next 15 states to adopt legislation at a much faster rate than the first 15 did. And because of its size and the number of employers and workers affected, when California adopts E911 legislation, it may set the standard for E911 requirements adopted by other states.

Understanding and complying with the rules in many states is just part of the E911 problem for businesses. Disruptive technologies that promise great savings and increased functionality, like VoIP (in both its fixed and nomadic flavors) and its full-scale implementation via SIP Trunking, as well as UC applications (like Microsoft’s Lync ), create additional challenges for network managers.

The double-whammy of voice-data convergence (where voice calls are treated like “just another” stream of packets on the data network) and increased mobility of employees (and their devices) accessing the network remotely, makes delivery of 911 calls to the appropriate PSAP and transmission of required location and call-back information even more challenging. Not all E911 rules currently applicable to businesses take into account how technology changes may affect an enterprise’s ability to deliver 911 calls with the required information, and the content of future legislation, of course, remains a big unknown.

### **Legal requirements matter a lot, but don’t forget to use common sense as well.**

While compliance with existing state E911 laws is essential, it probably is not sufficient for most organizations. Two-thirds of the states have not (yet) adopted E911 requirements for businesses. And the requirements in many states do not effectively address new technologies that are replacing traditional TDM PBXs and POTS, if they address them at all.

But an organization that does *nothing* to ensure access to 911 emergency services, or does not take reasonable efforts to transmit accurate automatic number identification (ANI) and automatic location information (ALI) with calls made from its premises, or replaces legacy technology with newer technologies not covered by the letter of the law — even in the absence of statutory requirements to do so — exposes itself to significant and potentially avoidable liability.

As a first step, businesses should understand the basic requirements incorporated into most pieces of recently passed E911 legislation. Then, they need to develop a compliance plan for their organization that satisfies the minimum legal requirements of the jurisdictions where they operate. They should also adopt measures that minimize the likelihood that an employee won't be able to obtain assistance in an emergency. With that in mind, consider these five suggestions:

- 1. Understand and incorporate requirements common to E911 legislation:** Nearly every piece of recently enacted E911 legislation requires that a business: (a) maintain connectivity to 911 emergency services (i.e., don't block outgoing 911 calls) or have a permissible alternative; (b) transmit a certain level of ANI of the calling party, sometimes as detailed as the number of the station from which the call originated; and (c) transmit ALI, the granularity of which varies from state to state. In states where legislation does not impose specific guidance on these issues, adopting some form of these principles into your workplace safety plan is a sensible first step.
- 2. Maintain reasonable flexibility:** New legislation will be passed, and existing legislation may change as industry and legal standards become more rigorous, so any compliance plan must be reasonably flexible and adjust when changes are made. If a decade ago your business implemented a plan to transmit ALI for every 40,000 square feet of workspace to comply with the requirements in Illinois, you will need to be able to adjust that standard when another state adopts a stricter requirement to transmit ALI for, say, every 22,500 square feet of workspace, like Massachusetts did two years ago. Determine whether your organization should comply with a single standard across your entire organization or with standards on a state-by-state basis after careful consideration of the operational, technical and legal issues associated with the choice.
- 3. Balance potential cost savings with accessibility limitations for 911 services:** New carrier offerings like SIP trunking will reduce the number of local connections to the PSTN. In theory, SIP trunking solutions are generally compatible with E911. In practice, however, any specific carrier's offering may not have access to local facilities where your business or employees are located and where you need to terminate 911 calls. Make sure you find out exactly what the carrier can provide and have a reliable workaround or alternative, such as keeping a local ILEC-provided trunk in place that can be used for 911 calls. It may reduce some of the cost savings and engineering purity of a purely WAN-based solution—not to mention the thrill of telling your ILEC that you are no longer doing business with them—but assured access to 911 is worth the relatively small cost.
- 4. Be careful about relying on alternative 911 calling solutions:** Some organizations think they can shortcut their E911 MLTS obligations by relying on employees' wireless phones to contact 911 in the event of an emergency. Wireless E911, while much improved from a decade ago, still has significant limitations that make it a poor alternative (and potential source of liability) for businesses. The problems include

inaccuracy in ALI transmission (including the inability to provide a vertical location coordinate for callers in multi-story buildings) and possible dead zones or poor reception in areas within the business premises resulting in the inability to connect, dropped and/or interrupted calls to 911. In addition, particularly for employers that do not provide wireless phones and service to their employees, businesses expose themselves to liability by failing to provide employees with access to emergency services, essentially requiring employees to “bring their own access” in the form of a wireless device.

- 5. Think about implementing non-technology based solutions to reduce liability:** In many cases, education and notification of employees and guests about specific requirements or limits to 911 access can further reduce the risk of unfortunate incidents occurring on your premises. For example, stickers or tent cards near phones can be used to provide clear dialing instructions in the event of an emergency, including applicable prefixes or alternative numbers, as well as specific location information, like the building address and floor, along with the call-back number. In addition, employees should be notified in writing of 911 limitations on any VoIP solutions they are required or permitted to use, including softphone clients on laptops. Require them to acknowledge they understand the limitations, either in writing at the time the laptop is issued or when the client is installed, or through a click through, pop-up window that appears at the initiation of each call. In addition, pop-up windows can be used to require users to update their location information prior to completion of each call using the client.

As legislation, advanced technologies, and new carrier offerings proliferate, E911 compliance should be part of an overall plan to reduce exposure to liability for failing to take reasonable steps to ensure a safe workplace. Make sure all parts of your organization are kept up-to-date and understand the implications that any change in law or proposed migration of services will have on your obligations to provide employees with access to E911 emergency services.

*Andrew M. Brown is a partner in Levine, Blaszak, Block & Boothby, LLP (“LB3”), a Washington, D.C.- based law firm dedicated to the representation of enterprise customers, including nearly half of the Fortune 100, engaged in the procurement of network services and related technologies. Andrew can be reached at [abrown@lb3law.com](mailto:abrown@lb3law.com).*