



E911 Compliance

Why be concerned with E911?

On August 1, 2019, the Federal Communications Commission (FCC) adopted two new laws that create unanticipated liabilities for many multi-unit resident communities. The first being Kari's Law, which requires facilities operating multi-line telephone systems, or MLTS, to enable direct access to a 911 operator without the need first to dial a number to reach an outside line. The second is a requirement of RAY BAUM'S Act, which requires the FCC to ensure a 911 caller's "dispatchable location" is conveyed with every call, along with an instant electronic notification component, "regardless of the technological platform used."

The FCC rulings requires all MLTS owners (PBX owner/operators) to consider the need to purchase or upgrade existing phone systems, or risk liability exposure due to inadequate E911 systems. Affected businesses and institutions include schools, hotels, multi-unit residential properties, and senior living communities.

One of the most basic protections you can provide residents of any property is the availability of enhanced 911. Many are not E911 compliant, creating a challenge for 911 emergency responders. Campus buildings, floors, and resident unit details are often omitted from records relayed to the emergency responders, and they may only see the address used to install service to the property, causing potentially life-threatening delays. Today, property owners can be held legally responsible for E911 performance.

Traditionally, It is the responsibility of a PBX owner/operator to transmit accurate Emergency Location Information Number (ELIN) to their voice service provider for each Emergency Response Location (ERL).

What does this mean? A PBX will have a list of DIDs, or telephone numbers, provided by the voice service provider, that route to the PBX platform. The PBX operator then assigns each of these DIDs to a phone at a location. It is up to the PBX operator to decide if they want specific 911 address information for EACH phone (aka PS/ALI¹), or if they want just one 911 address for all phones at a location.



In some cases, especially for larger PBX installations, there may be a need for multiple 911 addresses – say 1 per building, or 1 per floor. Each of these locations is called an ERL, or Emergency Response Location. This is the location where you want emergency services to come to if called. Each ERL is assigned a specific number (or ELIN – Emergency Location Information Number) that is used to relay the address and caller data to emergency services.

Think of this as 3 different levels of 911 service:

Simple	Complex	PS/ALI
Residential	Multiple buildings	Schools
Small businesses	Multiple floors	Government buildings
	Multiple public entrances	Nursing homes
	Large floor space	Assisted Living Communities

For “Simple 911” installations, there would be a smaller business with one 911 response address (ERL) for the entire location. In this case, the PBX operator would send just one ELIN, often the Pilot DID, for all phones at the location. The number used as the ELIN must be able to be called by the PSAP and reach a live person.

For “Complex or PS/ALI 911” installations, the PBX would serve a larger business with multiple buildings, floors, public entrances, or have a large floor space. These installations must be equipped to transmit adequate ELIN information for each ELR, as well as include an instant electronic message to an appropriate help desk in order to satisfy new E911 laws designed to insure emergency responders receive better location information so they can provide assistance more quickly. Both Complex and PS/ALI levels of 911 service require the PBX operator provision multiple ELINs for multiple ERLs. For example, a senior community might provide one ELIN for each resident unit, each building common area, and other applicable areas throughout a campus. When 911 is dialed from any ELIN, the PSAP must receive the ELIN, the associated address for the ERL, and a call-back number. The DIDs assigned as ELINs for Complex 911 installations must be able to be called by the



PSAP to reach a live person. To meet these requirements, effected PBX owner/operators may need to replace or upgrade existing PBX systems.

Alternatively, PBX owner/operators can become and remain E911 compliant without the need to replace or upgrade existing PBX systems with the help of Single Source.

PBX's generally only pass on the ANI of a single location (one ELIN, one ERL) or one building with one address (see above Complex example). PS/ALI provides specific employee or tenant location (multiple ELINs & multiple ERLs). The PS/ALI information will include details on the building, floor, and/or room number. In the case of PS/ALI, every ELIN has a unique ERL. With Single Source's E911aaS inherent ability to provision complex 911 environments similar to legacy PS/ALI systems, PBX owner/operators avoid costly upgrades and extend the life of existing PBX systems.

For example, instead of one ELIN for Centennial Hall in the Complex example, there would be ELINs for Centennial Hall, Room 100; Centennial Hall, Room 101; Centennial Hall, Room 102, etc., etc. Each of these ELINs would call back to the specific phone when called by the PSAP. The ELIN is often the same number as what's on the phone (the DID), but it doesn't have to be. PS/ALI is often needed at assisted living communities, schools, government buildings, etc. It is up to the PBX operator to determine if PS/ALI is required.

Definitions

- ANI - Automatic number identification
- DID – Direct Inward Dial number, or telephone number, on a specific phone behind the PBX
- ELIN – Emergency Location Identification Number
 - Like an ANI, and can be the same as the ANI, but there may also be several ELINs or many ANIs with the same ELIN
- ERL – Emergency Response Location
 - 911 address where the emergency responders are sent
- MLTS - Multi-Line Telephone Systems
- PBX – Private Branch Exchange
- PS/ALI - Private Switch/Automatic Location Identification
- PSAP – Public Safety Answering Point
- PSTN - Public Switched Telephone Network

By design and default, *Single Source* empowers properties to maintain optimal E911.