



The Leader in E911 Solutions

## Case Study: U.S. Air Force Base

***“With E911 in place at Buckley Air Force Base, our facility is better protected. For visitors, working personnel and residents, prompt emergency response is better than ever.”***

Thomas Jefferson, Telecom Manager, Buckley AFB

### The Facility

Buckley Air Force Base located in Aurora, Colorado is a vibrant place, home of the 460<sup>th</sup> Air Base Space Wing and many distinctly different organizations including the field office for the Air Force Ballistic Missile Division, the Army Corp of Engineers, the Army National Guard, the Colorado Air National Guard, many civilian sub-contractors and more. Making sure that emergency responders have distinct location information for 9-1-1 callers from each of these facilities is a very important part of a comprehensive emergency response program for a large Air Force Base.

Buckley Air Force Base has 142 buildings and more than 5,000 phones all being managed by the internal telecommunications department on the latest Avaya communications system. As part of this system, Emergency responders, including fire and medical reside on base and are equipped to receive and respond to emergency 911 calls from anywhere on the sprawling campus. It is the responsibility of the telecommunications department to maintain an accurate E911 location database so that the on-base emergency responders know the exact location of the caller automatically. Up until they installed an integrated E911 management solution, the telecommunications department was manually updating all moves, adds and changes to keep location information current.

### The Opportunity

Providing distinct location information for 9-1-1 callers on a facility of the size and complexity of an air-force base requires attention to many details and a strict project plan. As Buckley AFB has grown over the years, it has become readily apparent to the telecom managers that a systematic process for managing caller location information was necessary to provide effective emergency response. This case study addresses the steps that were taken to establish the system and maintain Automatic Location Identification (ALI) records for each phone capable of dialing 9-1-1.

The complete building address and description of the location within the building traditionally make up the ALI record for the caller. The level of detail for each description is dependent on the layout of each building and the capabilities of the phone system. The ultimate objective in defining emergency response locations is to provide detailed information to emergency responders so they know exactly where to go. For example, a warehouse facility will have larger emergency response locations than a multi-story building that may require a more granular definition to clearly identify the caller's location. Defining requirements for each facility ahead of time helps expedite the process, which is exactly what the project manager at Buckley did.

The first step was to define the official street address of each building. This can be a challenge for military bases because buildings are typically characterized by building number, not by a detailed street address. Each address must adhere to the Master Street Address Guide (MSAG), which has specific requirements regarding the characterization of street names, abbreviations and directionals. Along with the building address, Buckley also wanted to include a building name in the definition, ie; commissary, dormitory, warehouse, etc.

Once building addresses were established and validated, an inventory of phones and their assigned Automatic Number Identifiers (ANI) were assembled for each building. These correlations were programmed into the call server to ensure that when 9-1-1 is dialed, the ANI that is out-pulsed to the 9-1-1 dispatcher will automatically be associated to the correct building and distinct location within the building.

One last and vitally important challenge was to define and establish an ongoing process to update the relevant databases when phone moves, adds or changes occur. With an average of 20% of phones moving per month (approximately 1,000 moves), and with the growth the base was undergoing, keeping location information up to date would clearly require additional administrative resources or an automated system. At one time the telecom manager was able to update location databases manually, however as the base continued to grow an automated system became necessary.

## **Solution**

Managing the basic requirements to administer an average of 1,000 changes per month is time consuming. Layer onto this the process of keeping E911 databases up to date, and the risk of databases becoming out of synch can quickly become a reality. To avoid adding additional administrative resources, Buckley AFB made the choice to utilize E911 Manager, an automated software solution that integrates with the phone system to manage the day-to-day process of keeping ALI records up to date. Some of the most important drivers for Buckley in choosing an E911 system were integration with the phone system to automatically capture changes, scalability to support growth and reliability to ensure up-to-date records are maintained.

RedSky's E911 Manager is tightly integrated with Buckley's phone system to automatically detect all moves, adds and changes and update the designated ALI database with the new location information. Now emergency responders will always have very detailed and up-to-date location information when someone dials 911. E911 Manager also provides a daily report of activity so that Buckley administrators can manage by exception for any missing records or incomplete information. E911 Manager enables Buckley administrators to focus on other business issues and remain confident that they are providing accurate and detailed caller location information to those that need it most.

## **Impact**

Buckley Air Force Base will continue to grow. Base housing is being built now to support the families of Air Force personnel stationed there. The E911 Manager system in place is scalable to support this growth and will continue to build on the technology in the phone system to accommodate location tracking for traditional and IP phones. Moving to this automated system, Buckley saves thousands of administrative hours and helps ensure that location information is kept up to date and accurate.

Since 9/11, every Department of Defense facility in the U.S. strives to have a solid emergency preparedness plan. Having E911 as part of the plan not only improves emergency response to those in need, it protects first responders by providing accurate detail about the location of an emergency. The result? Emergency responders know exactly where to take action which helps save lives, save tax dollars and maximize resources.