ROUTING ON EMPIRICAL DATA PROJECT

Description
The Routing on Empirical Data (RED) Project utilized the analysis of historical empirical call data by cell sector to determine the most efficient delivery of wireless 9-1-1 calls.

Background
In 2007, the California 9-1-1 Emergency Communications Branch (CA 9-1-1 Branch) identified that 42.4% of the 11.6 million wireless 9-1-1 calls made in California received busy signals or failed to go through the system.

Timeline

Project Goal
Using historical empirical call data, determine the most efficient routing for wireless 9-1-1 calls to reduce the number of busy signals in the 9-1-1 network. Shaving time and saving lives!

Key Information
- In 2011, the number of initial wireless 9-1-1 calls receiving a busy signal or failing to be delivered to Public Safety Answering Points (PSAPs) decreased from 4.9 million or 42.4% in 2007 to 356 thousand or 2.4% in 2011. This was accomplished by reducing call transfers and optimizing call taker availability.
- The total number of initial wireless 9-1-1 calls went from 11.6 million in 2007 to 15.0 million in 2011.
- By reducing call transfers and sending more wireless 9-1-1 calls directly to the appropriate local PSAPs, the project assisted the California Highway Patrol (CHP) in increasing their call taking ability.
- In 2007, local PSAPs processed 3.1 million initial wireless 9-1-1 calls and have now more than double their call volume to 7.6 million in 2011.

INITIAL WIRELESS CALL TOTALS (showing No CDR Percent Change)
The RED Project utilized satellite imagery to plot wireless 9-1-1 call origination, assisting stakeholders to determine whether the calls should be routed to the local PSAP or to CHP.