

EMERGENCY MEDICAL SERVICES AUTHORITY

10901 GOLD CENTER DR., SUITE 400
RANCHO CORDOVA, CA 95670
(916) 322-4336 FAX (916) 324-2875



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TO: Commission on EMS

FROM: Howard Backer, MD, MPH, FACEP
Director

PREPARED BY: Adam Davis
Analyst, EMS Systems Division

SUBJECT: Wireless 9-1-1 Routing

RECOMMENDED ACTION:

No recommended action. More information is needed.

FISCAL IMPACT:

Unknown at this time.

DISCUSSION:

All 9-1-1 calls from cell phones go through the California Highway Patrol rather than going directly to a Public Safety Answering Point (PSAP) for EMS related calls. This means that all EMS related calls must be transferred to the appropriate PSAP. This results in significant delays in routing, dispatch, unanswered calls, and inaccurate information transfer, all resulting in critical time lost to respond and treat patients. For medical emergencies, this time is critical to improve outcomes and save lives.

BACKGROUND:

The current 9-1-1 system was developed when cell phones were primarily hard wired into cars and represented a very small fraction of the total volume of wireless 9-1-1 calls. About 80% of all 9-1-1 calls are wireless. The existing system was not designed to accommodate this level of calls and this has led to significant problems faced today.

For wireless 9-1-1 calls, in many areas (California Highway Patrol) CHP is the first answer point for requests for response. The CHP then routes the call to the entity they feel is appropriate to handle the request. This transfer process can lead to a significant delay in the response of EMS resources. In addition, issues such as busy signals, holds, dropped calls, and routing to PSAPS that do not have dispatching of EMS resource responsibility can occur.

In response to this issue, some local jurisdictions have instructed their residents not to call 9-1-1 but rather use a 7-digit number to contact their local PSAP. This defeats the purpose of a 9-1-1 system which provides one number for emergency calls.

The Public Utilities Code (PUC) Section 2892 states that wireless 9-1-1 calls will be routed to the CHP. The CHP can agree to allow such calls to go to a PAP in a given county if the County and the CHP both agree to such an arrangement. However the CHP remains ultimately in control of this function in the absence of such an agreement.

In 2008, the Routing on Empirical Data (RED) Project was introduced by CAL OES to determine the most efficient routing of call by utilizing cell sectors. Through the use of satellite imagery, the call origin was plotted on a map to help determine if the call should be routed to CHP or to a local PSAP. Additionally, it allowed callers to reach the correct PSAP and receive EMS care in a timelier manner. Unfortunately this project was terminated in 2011 due to lack of funding.

There are opportunities in the future for improvement of the handling of wireless 9-1-1 calls with the implementation of Next Generation 9-1-1 (NG9-1-1). NG9-1-1 is aimed at updating the 9-1-1 service infrastructure to improve public emergency communications services in a growingly wireless mobile society. The new infrastructure envisioned by the NG9-1-1 project will support national internetworking of 9-1-1 services and facilitate the transfer of emergency calls to PSAPs based on global positioning location of the cellular device. There are trial applications of NG9-1-1 in operation in Canada as of late 2013. Implementation in the United States is a work in progress with no confirmed timeline.

SUMMARY:

The EMS System has oversight of EMS patient care, including medical dispatch from the time a given incident is identified as being a medical emergency. However, EMSA does not have control of how the 9-1-1 routing of calls for service operates. EMS Authority has met with CAL OES to gather more information on the current wireless 9-1-1 system. EMS Authority will continue to have discussions with our EMS system partners to evaluate possible remedies to the situation.

The Commission will be kept informed of the progress on this issue.