



2010-2011 SANTA CLARA COUNTY CIVIL GRAND JURY REPORT

“CAN YOU HEAR ME NOW?” EMERGENCY DISPATCH IN SANTA CLARA COUNTY

Introduction

When a resident of Santa Clara County (SCC) calls 9-1-1, certain basic expectations follow: that the call will be answered promptly, and that it will result in help being sent as soon as possible. What that caller does not think about, but what the Grand Jury undertook to explore, are the procedures, mechanics, city boundaries, political and economic interests that directly affect the response to any given call.

One of the fundamental obligations of County government is to maintain adequate levels of public safety and security by ensuring that citizens receive an appropriate and speedy response to emergency calls. The role of the emergency dispatch in delivering this service is vital to the quality of emergency response in Santa Clara County. Nevertheless, the Grand Jury has concerns regarding the effectiveness of the emergency dispatch system as it is now configured. These concerns include the apparent duplication of services among Santa Clara County Communications (County Comm) and individual municipalities, incompatibility of technology and dispatch protocols. Each raises serious issues relating to cost efficiency, given existing and projected reductions in revenue to government agencies in light of the economic downturn. The Grand Jury inquired into the existing dispatch system and sought to explore different or better ways in which this vital service can be provided.

Background

During the Grand Jury’s exploration of possible changes in fire departments, it became clear that the manner in which emergency personnel and equipment are dispatched in response to 911 calls was a matter of broad concern that extended beyond the deployment of fire equipment and crews to include police, sheriff, and medical dispatch. These concerns can be summarized as follows:

- Basic dispatching functions and costs are being duplicated among a number of different agencies and jurisdictions, which wastes resources
- Duplication of dispatching functions may lead to a delayed, inadequate, or “over-adequate” response, i.e., too many units from too many jurisdictions are responding to a single incident

- The presence of a “middle-man,” i.e., in jurisdictions where 911 calls first go to a local dispatch center before being transferred to County Comm, delays response anywhere from 20 seconds to 3 minutes or more, depending on the state of the local agency’s communications equipment
- Regional radio communications equipment is not in place, meaning local jurisdictions cannot easily communicate with each other, local agents cannot communicate with their “home” area when the agent is out of range, and the entire network of county emergency responders cannot easily communicate in the event of a regional need, such as following a major earthquake or PG&E gas line rupture.

Methodology

In conjunction with its inquiry, the Grand Jury interviewed the following:

- All 15 SCC City and Town Managers
- All SCC County Fire Chiefs
- Presidents of both the Saratoga and Los Altos Hills Fire District Boards
- Selected Police Chiefs in SCC jurisdictions which maintain local dispatching centers

The Grand Jury also received and reviewed budget information for SCC cities, dispatch and response time reports, and information from County Comm regarding response protocols.

Discussion

In order to dispatch emergency personnel in response to a 911 call, four basic components must come together:

- The call must be answered (a dispatch center)
- The nature of the emergency must be assessed and prioritized (response protocols)
- The information received in the call must be transmitted (radio technology)
- The location from which emergency fire and medical responders are dispatched must be determined (jurisdiction).

These building blocks and how they affect response effectiveness are discussed below. The overall flow of a 911 call through dispatch is illustrated in Figure 1.

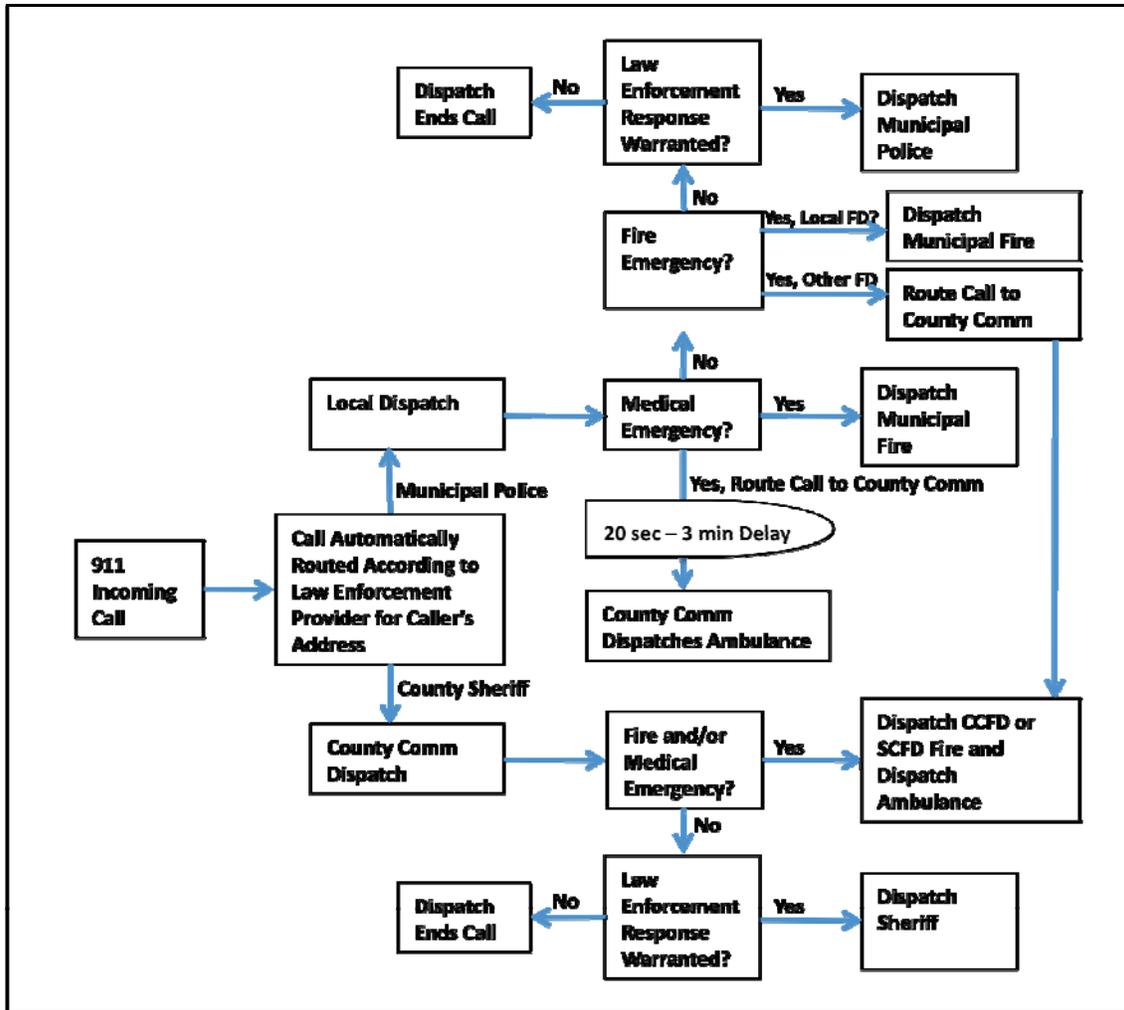


Figure 1: Overview of 911 Dispatching. Duplication of dispatch among municipalities and County Comm results in potential delay of fire and ambulance response, as well as duplication of equipment deployed.

Dispatch Centers

911 calls are automatically routed to the agency with jurisdiction over the permanent address associated with the caller's landline phone number (calls from cell phones are not addressed in this report). As shown in Figure 1, municipalities with police departments see 911 calls routed to their own local dispatch centers, which are operated by their police departments. For municipalities whose law enforcement needs are provided by the Sheriff, 911 calls are routed to County Comm. County Comm dispatches the county-contracted Emergency Medical Service (EMS), or ambulances; therefore, medical emergency calls that first route to a local dispatch must be transferred to County Comm for ambulance dispatch. Table 1 shows those municipalities that have local dispatch centers and those that use County Comm dispatch.

Table 1: Initial Response and Routing of 911 Calls to Dispatch*

Agency	911 Call Routing	Law Enforcement Dispatch	Fire Dispatch
Campbell	Campbell Police	Local	County Comm
Cupertino	County Comm	County Comm (Sheriff)	County Comm
Gilroy	Gilroy Police	Local	Local
Los Altos	Los Altos Police	Local	County Comm
Los Altos Hills	County Comm	County Comm (Sheriff)	County Comm
Los Gatos	Los Gatos Police	Local	County Comm
Milpitas	Milpitas Police	Local	Local
Monte Sereno	Los Gatos Police	Local	County Comm
Morgan Hill	Morgan Hill Police	Local	County Comm
Mountain View	Mountain View Police	Local	Local
Palo Alto	Palo Alto Police	Local	Local
San Jose	San Jose Police	Local	Local
City of Santa Clara	Public Safety Dispatch	Local	Local
Saratoga	County Comm	County Comm (Sheriff)	County Comm
Sunnyvale	Sunnyvale Public Safety	Local	Local
SCC	County Comm	County Comm (Sheriff)	County Comm

* All ambulance dispatching is done by County Comm.

Local dispatch centers are staffed by seven to fourteen city employees, which can create a significant liability to city budgets. For example, the Town of Los Gatos budgets 12 full-time equivalent Police Administration Services employees—which includes dispatch and records—with a budget of ~\$1.8 million for the 2010/2011 fiscal year. Further, in 2010, Milpitas considered consolidating its dispatch center with other SCC cities, citing the potential \$1 million cost savings by eliminating 12 city employees as a reason to do so. Overtime is an additional cost factor, as is coverage for sick and vacationing employees—a particularly significant factor in maintaining a round-the-clock emergency dispatch service for small centers. In a small center, employees may also be hampered professionally due to limited advancement or learning opportunities.

An added expense for local dispatch is maintaining back-up power in the event of a power outage. Failure might occur due to a simple power outage, or be caused by a catastrophic event such as an earthquake. Personnel back-up, which is needed if an event overwhelms a local dispatch center, is typically provided by routing calls to a neighboring municipality or to County Comm. In many cities, needed back-up is provided by County Comm; in fact, County Comm is the 911 “Alternate Answer Point” (AAP) for all but two SCC cities. The fact that such redundancy exists and is called upon from time to time also is an indication that some form of permanent regionalization can be accomplished.

In addition to the expense associated with maintaining local dispatch centers, the risk of a delayed emergency response resulting when calls are transferred to County Comm must be considered. When a call comes into a local dispatch facility, if it is requesting a law enforcement response, there is no delay. However, all calls requiring a medical response must be transferred to County Comm, as must *all* calls requesting ambulance service. Depending on the state of the municipality’s dispatching equipment, this transfer may take anywhere from twenty seconds to three minutes or more. For example, San Jose has one-button call transfer ability, which transfers a call in seconds. By contrast, Gilroy has less sophisticated equipment, and dispatchers must phone County Comm to transfer the call, which can take up to three minutes or more. All municipalities have the ability to transfer calls to County Comm and all municipalities can use County Comm as a back up 911 call center in case of a local emergency.

Since County Comm is already responsible for more fire dispatching than any other dispatch center, and is responsible for *all* ambulance dispatching, the Grand Jury asked interviewees the obvious question: “Given that there is duplication in the dispatching function, why maintain a local center?” Responses varied, but several themes emerged:

- Residents want a local connection with the dispatch center
- Police officers benefit by having an established relationship with a local dispatcher
- The manner in which a dispatcher responds to a call and even *whether* resources are dispatched, is a reflection of local values
- A local dispatcher has a familiarity with local geography that is valuable.

Upon closer examination, most of these concerns hold little merit. Interviewees could not point to evidence that residents really care who answers their 911 call; it is far more likely that callers simply want a speedy response from a knowledgeable resource.

Regarding law enforcement officer relationships with dispatch, the Grand Jury learned that the standard practice in areas with consolidated dispatch is to assign a particular “desk” to a particular community, such that the responder and dispatcher are able to develop the relationship and trust that some interviewees claimed could only come through a local operation.

The question of whether resources are actually dispatched is discussed in more detail below, but given the number and type of resources available to any given community, it may choose to send a response to a type of call, e.g., a complaint about a loud leaf blower, that another would not. Such local preferences can be made part of the dispatching protocol for that community, and has happened in Cupertino, Los Altos Hills and Saratoga, who contract with the Sheriff for somewhat customized law enforcement response for their communities.

Finally, with the proliferation of GPS systems, it is hard to justify the expense associated with maintaining a local dispatch center simply to ensure that people who “know the city” are available. One interviewee did argue that “GPS can show you where you’re going, but not what you’re getting into.” But another countered with the assertion that local police and fire personnel have the primary responsibility to know all aspects of their community and its geography as an integral part of their jobs.

Response Protocols

Consolidated dispatch centers and standardized equipment assure that 911 calls are answered and emergency personnel dispatched, but in order to achieve an effective and efficient response, protocols must be in place to determine which call will receive the most immediate attention. County Comm employs a prioritization system that ranks 911 calls by degree of seriousness, from an emergency that endangers life, down to complaints about violations of city ordinances (see Appendix A). Prioritization protocols in most SCC jurisdictions mirror this model. While in rare instances residents in some parts of SCC, often those living in unincorporated pockets, complain about slow response by law enforcement, most cities meet internal goals for response times based upon priority protocols. Further, response protocols for fire and emergency medical are virtually the same countywide, and pose no barrier to communications consolidation.

Law enforcement response protocols are very similar, as necessitated by legal boundaries. Yet police chiefs claim local dispatch control is required because their municipality has “nuanced” response protocol. This means, for example, that while one city would not respond to complaints of overly loud leaf blowers, another would. But there is no reason to think that such response nuances could not be implemented in a consolidated center where dispatchers are assigned to municipalities, and trained in area-specific, nuanced response protocol.

Radio Technology

Communications equipment is integral to the dispatch function. In order for dispatch consolidation to really work, all agencies must be able to talk to each other. However, equipment varies, as was noted above in discussing call transfer capability.

Radio equipment capability varies too. The Grand Jury learned that circumstances exist where a police chief may not be able to communicate with his own department when out of radio range, or one city may not be able to talk to another due to differences in equipment or radio frequencies used. In fact, Grand Jurors who participated in “Ride-Alongs” with the SCC Sheriff’s Office, observed that a number of patrol deputies chose to use personal cell phones rather than Sheriff’s radios. While this workaround may be effective for one-on-one communication, it is a wholly inadequate substitute for reliable long-range, countywide communication capability.

Standardization of equipment and technology is essential to successfully consolidating emergency communication and dispatch. This may pose a cost barrier initially, but long-term savings potential is worth going through the cost-benefit analysis.

Jurisdiction

Jurisdictional boundaries define which agency is called to respond to an emergency event. These boundaries largely follow city boundaries, but the lines do not make good sense from a response standpoint. Local dispatch systems may not have the visibility or authority to dispatch the closest resource when jurisdictional lines are not to be crossed. Particularly for fire or medical emergencies, this can impede the fastest response. For example, San Jose Fire Station 23 is closer to some areas of Milpitas than any of the four Milpitas fire stations; Palo Alto Station 5 is closer to some areas of Mountain View than any of Mountain View’s fire stations.

Improved response across all agencies can be expected through “boundary drop.” This is where jurisdictional lines are ignored such that the closest emergency resource responds to a given event. Once a 911 call is prioritized for response, equipment and crews are dispatched from the nearest possible location. Interviewees uniformly agreed that boundary drop would result in faster, more efficient emergency response, and many also agreed that the “communications component” is a major barrier in achieving full boundary drop as dispatching is not presently occurring from a central location. Adoption of a boundary drop system in dispatching may also lead to standardization in response protocols, radio technology, training and equipping of crews and emergency apparatus, and ultimately a breakdown in the artificial barriers standing in the way of full dispatch consolidation, which all interviewees agreed would result in better emergency response.

Communications Consolidation

Local dispatch centers clearly represent a duplication of services. The Grand Jury was encouraged to learn that most, if not all interviewees, recognize this as a problem and are already working to consolidate the dispatching function. All agreed that fire dispatch, which employs standardized response protocols and “speaks the same language,” lends itself easily to consolidation. There was more disagreement regarding

whether police dispatch could be easily integrated due to differing local law enforcement policies, but most interviewees acknowledged that these differences could be overcome with the right approach to consolidation – such as by establishing a Joint Powers Agreement (JPA); or consolidating by geographic region (North County, West Valley, South County) rather than county-wide. Active efforts to consolidate the dispatching function are being pursued in several SCC cities:

- Los Gatos and Campbell currently have a joint Request for Proposal (RFP) out to explore complete or partial consolidation of their two dispatch centers.
- Los Altos, Palo Alto, and Mountain View are pursuing “virtual consolidation,” which would give dispatchers the same information by computer and allow dispatching throughout the area without requiring construction of a new “brick and mortar” facility.

City Managers cited several reasons to pursue consolidation, focusing primarily on economy of scale, cost-savings, and efficiency. In addition, many cited the benefit of a faster, better response, which would in turn create safer communities. Finally, many advanced the theory that if SCC cities were able to achieve consolidation of emergency dispatch, functional consolidation of other agencies, such as fire departments, would more likely follow.

In fact, regional and functional consolidation has been successfully implemented both in the Bay Area and around the country. In San Mateo County, for example, all emergency dispatch is handled by a single countywide agency. Dispatchers work with a map displaying all available emergency vehicles, which are simply numbered in order, rather than by jurisdiction, and then dispatch the closest resources to any given event. In West Jordan, Utah, consolidated dispatch served several different municipalities in the Salt Lake City area; in Scottsdale, Arizona, a regional model developed in the 1970s is still in use today, whereby a single dispatch center serves 25 different fire departments. According to interviewees familiar with that system, it has been reproduced successfully elsewhere. The Grand Jury learned that many SCC police and fire officials bring out-of-state experience with successful multi-jurisdictional systems and can be instrumental in leading change.

In spite of resistance to consolidation, agencies throughout the county have demonstrated their ability to collaborate effectively through the Silicon Valley Regional Interoperability Association (SVRIA). The Department of Homeland Security has identified interoperability as one of the nation’s highest priorities. For first responders, there is no greater area of concern when facing a regional emergency, such as the

1989 earthquake or the 2010 San Bruno fire. In general, interoperability refers to the ability of emergency responders to share information via voice and data signals on demand, in real time, when needed, and as authorized. SVRIA is a Joint Powers Authority (JPA) among SCC agencies that has developed a long-term work plan to implement a regional communications system.

Conclusions

Clinging to local control seems to be a luxury rather than necessity, and it is a luxury municipalities may find they simply cannot afford to retain, particularly when County Comm offers both a capable and more technologically advanced alternative compared to the outdated equipment used in some municipalities.

The Grand Jury found that officials throughout Santa Clara County recognize, and are working to correct, inefficiencies in the existing emergency dispatch system. Elimination of local dispatch centers and elimination of local jurisdictional lines can go a long way toward providing faster, more efficient, and more cost-effective emergency response. The Grand Jury strongly encourages cities to work quickly and cooperatively to achieve the consolidation which will provide better emergency response service to the citizens of Santa Clara County.

Findings and Recommendations

Finding 1

Dispatch consolidation would result in more cost-effective and efficient emergency response and should be implemented throughout Santa Clara County.

Recommendation 1

Jurisdictions which maintain their own dispatching centers – Campbell, Gilroy, Los Altos, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, the City of Santa Clara, and Sunnyvale – and all jurisdictions which use Santa Clara County Communications for dispatch—Cupertino, Los Altos Hills, and Saratoga—should consolidate dispatch with neighboring jurisdictions and, where appropriate, should issue RFPs to do so.

Finding 2

Radio equipment has not been standardized and impedes effective countywide communication and emergency dispatch.

Recommendation 2

Jurisdictions which maintain their own dispatching centers – Campbell, Gilroy, Los Altos, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, the City of Santa Clara, and Sunnyvale; all jurisdictions which use Santa Clara County Communications for dispatch—Cupertino, Los Altos Hills, and Saratoga; the Santa Clara County Sheriff's Office; and Santa Clara County, should continue to work with the Silicon Valley Regional Interoperability Association to achieve countywide standardization of radio technology.

This report was **PASSED** and **ADOPTED** with a concurrence of at least 12 grand jurors on this 19th day of May, 2011.

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