



CHIEF'S FILE CABINET

Ronny J. Coleman

I Heard It Through the Grapevine

Is there anyone in the entire world who has not seen and heard the raisins singing “I heard it through the grapevine?” Maybe some remote aboriginal tribe with no electricity, and no contact with civilization meets that criterion. Most of us only know a couple of bars of the song, few know the whole song. But is instantly recognizable to most of the world.

We have a grapevine of sorts in the fire service also. It is not the one you are probably thinking of right now. I know we are all either contributors, observers or victims of the rumor mill in firehouses. True that is a grapevine. That’s a good one to talk about in another column, but it is not the one I want to discuss here. I want to talk about one called the Cascade of Events for Communications.

The cascade of events involved in the fire and emergency reporting system is one of the most critical grapevines in emergency service. The Cascade of Events is the sequence of time, people and processes that occur when an emergency occurs in our communities, and the one that results in our forces getting there quick enough to make a difference. It was originally published in the CFAI Standards of Cover document back in the 1980, and it was based upon earlier definitions provided by Rexford Wilson, in his text “Nine Steps to Extinguishment.”

Let me digress for a moment to make a point. Early in my life I lived in a rural community. We had a volunteer fire department. If anyone needed the volunteer they would call a seven-digit telephone number. There were 7 people who heard that phone in their house (the old “party-line”). The volunteer fire department had a policy that no one would answer that phone on the first five rings. Everyone counted the rings, then all picked up at once on the 7th ring. The idea was if one person heard just part of the message something could go wrong. Better to wait five rings and get everyone on the line. Five rings. Care to guess about how long that time period seems to a person with a serious emergency in progress.

Fast forward, if you please, to the early 1970’s when the 911 system was created. There are lots of firefighters in stations today who have seen those funky little 7 digit phone number stickers we used to pass out like candy. The jump from the volunteer 7 phone, 5 dispatch listeners and the creation of 911 encompassed an era where almost every fire department had a seven-digit number – and their own dispatch. Many a headquarters fire station had a small office in the corner where the phone rang and it was answered by a firefighter on duty – not a trained dispatcher. In some cases the old dispatch officer was so close to the bunkroom that a middle of the night call was often observed by a gaggle of half dressed firefighters heading toward their rigs before the bells were ever rung. I know when I got stuck with that duty I used it to study up for exams, others slept or watched TV – it was boring job, punctuated by moments of pressure.



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911 changed all that. Don't worry, I'm not going to bash 911 (It is pronounced nine-one-one, there is no eleven on a phone). What I am going to raise is a series of observations about what it has done to the sequence of events between a person in trouble and a person whose job it is to take care of the trouble that may be more of a problem than we recognize.

Here's my basic question. Just how long an interval between these two points is reasonable? Someone is in trouble – we get there to deal with it! I know what we have been telling people – it is supposed to be 60 seconds. Is it truly 60 – even 90 seconds. Or do we really even know?

Maybe it is, maybe it isn't. That's why I am reviewing this concept. You may already know this time frame as alarm processing time. That definition got a boost in visibility from the Standards of Cover process when published by the CFAI. It has subsequently been used in many documents. By using the term *time*, we are implying that there is a single factor involved. Maybe it is really alarm processing times -

Maybe there is, maybe there isn't an issue here. However, I have found this out by reviewing documents developed in both the field of fire communication and SOC studies over the last few years. Is this an item that even deserves our attention?

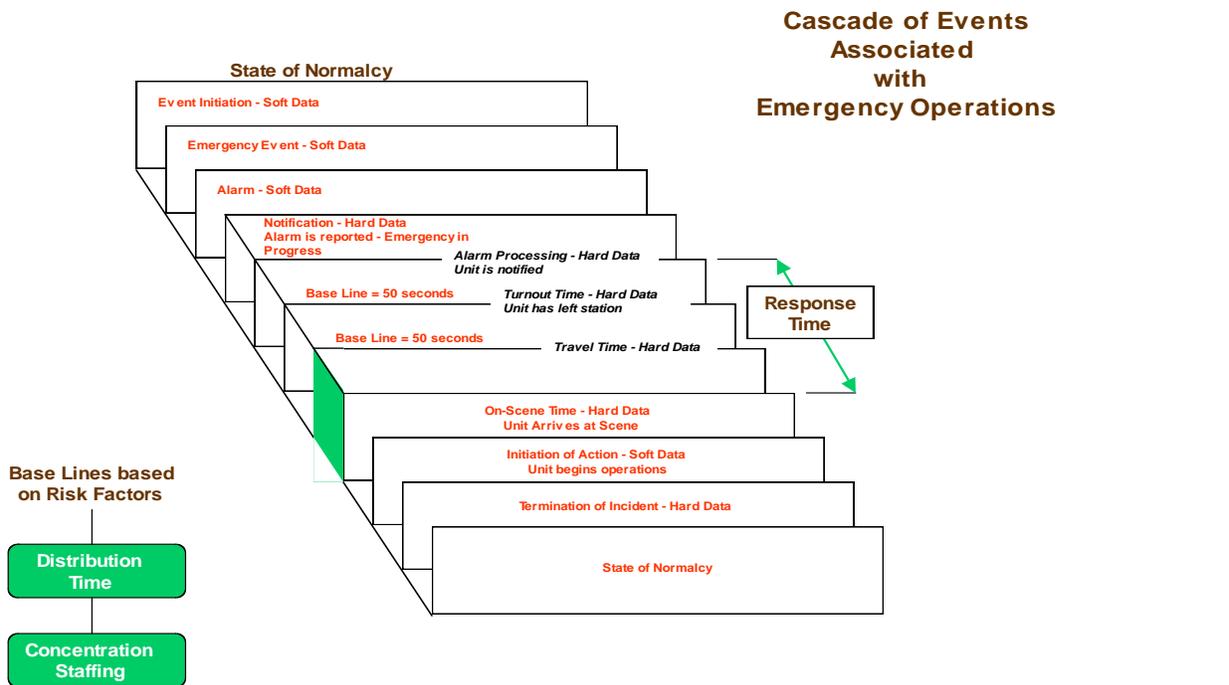
My answer is that it depends on whether or not you really want to know what your service level is in providing a predictable response to your community. This inquiry could take about 3 minutes of your time, or it could be the topic of several future staff discussions.

Below this paragraph is an illustration created in the SOC process that was based on the same concept of the Utstein Criterion cascade of events. For those that are not familiar with Utstein – it was a series of events that make up the sequence of survival for cardiac arrest patients. It has been used in hundreds of documents. And, it's a darn good illustration. Unfortunately, it does not provide for some points that may be involved that are transparent.



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Back to my grapevine analogy for a second. Here's a question for you. Who's the person who is calling in an emergency talking to **first**. That is the fourth box in this sequence.

Second question. How many "links" are there in the chain of events before a signal is received by a responding company? That is box six in this series. How many seconds are involved in each transfer? How many transfers are made before your station is alerted. Are accurate hard data stamps kept on all of these steps?

If your answers to these questions are one, 60 seconds one and yes go to the last paragraph and consider this article to be done with. But, if the answer is several, several and no! Or, you don't know - You may have some homework to perform.

It might be useful if we take a few seconds and look at the various ways that used to provide fire service communications. You probably have one of them you may interact with several others. Here they are:

1. Fire dispatch owned & operated by fire department
2. Fire dispatch owned & operated by city as a Comm. Department
3. Police and fire dispatch located under police supervision, not a PSAP
4. Regional fire dispatch located under the other government, not a PSAP
5. Police, fire dispatch, operated as a PSAP



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If your emergency service alarm phone system only has one place, one person who can capture the call you are among the privileged few.

Over the last 30 years, dispatch service have undergone an evolution towards consolidation, either between police and fire or going into a multi-jurisdictional system or having some other jurisdiction provide contract services.

So far this is not a bad thing, but things are not as easy to count on, as it would seem. For example, the use of cell phones has generated a problem hasn't it? There are plans to resolve this issue, but currently a person using a cell phone or a computer may be talking to another entity in another community when requesting services for their own emergency services.

I recently received a copy of an email that spelled out one such dilemma. It appears that there are telephone systems that connect through the Internet. I believe the terminology is Voice over IP. Do they connect the user with the 911 center when they have an emergency? They do if they are registered to do so with the local 911 provider...otherwise they go off into some form of cyber space where the clock keeps on ticking, till someone calls the regular 911 system. This is a technological glitch that didn't exist a few years ago. It does now.

What is important for fire service managers is to be knowledgeable about the entire sequence of events. Moreover, this responsibility demands that we collect accurate and verifiable data so that we can do accurate deployment analysis. It is in our best interest to not accept what we are given, unless we have done everything to reduce alarm processing time(s) to the point where we know how to predict them. All of the emphasis upon travel time is gilding a dying lily.

Now, I know there are those reading this article who is saying; this is so obvious that it doesn't deserve too much attention.

I hope you are right, but recent experiences in reviewing the performance of fire companies has demonstrated to me that it is not as "scientific" as we assume it to be.

I can't provide too many examples without making it look like a criticism of an agency. So, let me just provide you with a series of questions that you can ask yourself and your dispatch center that tells y our department when to goes into the response mode.

1st thing. When a person alls the emergency number what agency answers first? Is it the fire department or a PSAP (Public Safety Answering point). How many transfers are required to get the call into the call queue for a fire oriented dispatcher? If the call taker does not transfer it directly to the fire department, whom do they transfer it to? How long does that take?



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Regardless of who answers the first call is that data captured electronically or manually?

If it is captured electronically does it capture all of the elements: YY:MM:DD:HH:MM:SS: or something less. If it only captures whole minutes there may be a problem in using that data to evaluate performance.

If it is captured manually, what is the possibility of delay and what clock is used to identify the manual elements used. Is it synchronized with other clocks in the system? If it is manual is it based upon the previous 6 elements or is it only in full minutes?

Once the dispatch data has been transmitted to the fire company is there a provision for that responding company to indicate that they are actually responding?

How is that data documented?

Finally, does the record keeping system keep track of the times the unit has declared its self on-scene. Is there data kept on how long the unit stays committed on the scene? Are there protocols in place to assure that units cannot or will not place themselves either on-scene too early or too late. What means are in place to quality control over these elements?

Got all of that? How well does your department measure up in this discussion? If you have 100% confidence in this aspect of your dispatch you are a lucky person. If you have not looked at it in awhile you may have reason to be concerned. Lily Tomlinson might have been on the other end of my parents old ring-down phone system – What may be on the other end of yours is a potential delay of alarm. Best you be the one to find it out before it becomes a headline on the 6 o'clock news.