

The 4-1-1  
on  
9-1-1

A White Paper  
for IT Support Specialists

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## Overview

In the support industry we are challenged with the availability of our services and the response time of our agents. Imagine a call center that required no queue for all calls, an immediate response to all issues, and handles urgent calls that are not just technical, they involve life and death situations.

9-1-1 centers are challenged with this requirement every day. They address a wide variety of emergency situations and provide assistance to the community using many of the same tactics and processes that we in the call center business use. Because of the intensity of their calls, and because they have been providing this service longer than most of us, we can learn a great deal from their practices.

## A Brief History of 9-1-1

The first official introduction of a national emergency number was in 1967 in the President's Commission of Law Enforcement and Administration of Justice. The commission recommended a "single number should be established nationwide, solely for the purpose of reporting emergencies." The concept had been used successfully in Great Britain since as far back as 1937. There, the emergency number is 9-9-9.

The Federal Communications Commission (FCC) was tasked with developing a solution for this recommendation. The FCC worked with American Telephone and Telegraph Company and found that, among the 3-digit codes that had not been assigned to specific areas of the country, 9-1-1 was the most memorable and met other technical requirements of the phone industry.

Senator Rankin Fife completed the first American 9-1-1 call on February 16, 1968.

## Overall 9-1-1 Process

The call centers in Philadelphia and Montgomery County, Pennsylvania follow similar processes for handling calls that come in through 9-1-1. When calls come in, details of the caller's location appear on screen. Call-takers answer the phones and follow a list of vital questions used to verify the caller's location and determine the nature of the call. Once the information is collected, they assign the ticket a "nature code." This nature code categorizes the urgency and escalation path of the issue. The calls are logged in the Computer Aided Dispatch (CAD) system and immediately sent to the appropriate dispatcher. In the case of "crimes in Progress," the call-taker keeps the caller on the line until assistance arrives.

The process followed by 9-1-1 call takers is not much different from those used the support and service industry. Customer support agents answer the calls and are usually provided with a script to help determine how the call should be handled. Calls are then transitioned to the appropriate support team to address the issue. The only major difference is that customer support agents generally try to solve the issue up-front without having to transfer the call. This is rarely an option with 9-1-1 call-takers.

But, if we are using similar processes, what are these support centers doing to provide constant availability that we might be able to apply to our organizations?

## What can we learn about 9-1-1?

9-1-1 call centers have four areas of proven expertise that can be applied to most customer service centers. Those areas are Categorization, Response to Call Volume, Training and Quality Assurance, and Queue Monitoring.

### Categorization

As mentioned above, all 9-1-1 calls are assigned a nature code when they come into the call center. Nature codes in the Montgomery County system generally start with a letter indicating who will respond to the issue: P for police, F for fire and M for medical personnel. The next few letters indicate the type of incident (residential fire, laceration, etc.) The team is trained to know which code to use in any given situation.

If they are not sure, the CAD system allows them to enter a “?” to obtain a detailed list of options. Once the location is verified and the code is entered, the call is immediately transferred to the appropriate department. No other fields are required. The call-taker can still add information to the ticket and those updates will be sent to the responding team, however the initial ticket is instantly moved to the dispatcher for immediate response. This shortens the response time while allowing for accuracy of information entered into the system.

The nature codes also carry an automatic urgency level. These levels can be changed by the dispatcher or call-taker, but rarely are. This allows the dispatcher to immediately prioritize calls since they have a pre-assigned severity level.

The call center and all of the other groups to whom calls are dispatched review and evaluate these codes regularly. John Dinolfi, Chief of Operations for the Montgomery County 9-1-1 Center, meets weekly with the chiefs of the different divisions to discuss how 9-1-1 calls were handled and how the nature codes are to be used, ensuring the proper handling of all calls.

In most service centers, call categorization is the most challenging aspect of call tracking tools. In “Designing Categories for Business Benefit,” Jennifer Streitwieser says, “categories are the bane of many service organizations. Categories are often outdated, irrelevant, and unused, and no one can untangle them or take responsibility for them.” Given that these categories are fundamental to the rapid response of 9-1-1 centers, revisiting them regularly could bolster the success of most call centers.

### **Response to Volume**

There are a variety of factors that contribute to call volume within a 9-1-1 center. Storms, blackouts, and other calamities are major contributors. A recent phenomenon affecting call volume has been the proliferation of cell phones. Before the late 90’s, an accident on the freeway resulted in a call or two from a phone on the side of the road. Since that time, the same accident can result in dozens of calls from well-meaning citizens who dial 9-1-1. According to the Chicago Tribune, emergency call centers reported receiving nearly 57 million calls from wireless phones in 2001. In a December 2002 article, they estimated that 36% of the approximately 14,000 daily calls to Chicago’s 9-1-1 center come from wireless phones. These phones cannot provide a location to call-takers, so they need to carefully verify the caller’s location and be sure the call was not made in error before disconnecting.

This impacts not only call volume, but call-taker time on the phone and their availability.

9-1-1 centers take three major approaches to address call volume issues:

#### *Emergency Preparedness*

9-1-1 centers follow the news closely - many have televisions in their centers to remain up-to-date on current events. When an event with probable impact is anticipated, they prepare the center by having extra personnel available during the expected crisis. Recently, when hurricane Isabel threatened the Eastern Sea Board, 9-1-1 centers along the coast prepared for the worst. In Montgomery County, this meant extra personnel and the expectation that no one would leave until relief arrived. According to John Dinolfi, there have been times when he and his team have slept on location for a few hours to maintain coverage levels. They also work closely with other divisions of emergency services to use their 4wheel drive vehicles to pick up other call-takers and emergency personnel.

The phone systems and support center equipment are all on a UPS and a backup generator. If a blackout situation occurs, the UPS kicks in until the backup generator can be started. Once started, it will run for 12 hours before requiring refueling.

This might be extreme in the case of a customer support center, but being prepared for the worst is a best practice for any organization. Testing and practicing emergency processes is essential and will allow for improved reaction time during a crisis.

#### *Cross training personnel*

When an unexpected call spike hits the call center, they route the overflow to other teams. A supervisor monitoring the call queues determines when a call should be shifted to her or the dispatchers, if volume requires. In Montgomery County, call-takers are stationed in the same room, so calls can easily be switched and the performance monitored. All teams are cross-trained to ensure the quality of support does not suffer in times of high call volume.

#### *Call Avoidance*

The Philadelphia 9-1-1 center makes use of the Differential Police Response Unit (DPR) to handle non-urgent calls that come into the 9-1-1 center. Things like defective streetlights, abandoned vehicles, sanitation complaints, etc. are handled here. The DPR, staffed by limited-duty (injured) police officers, relieves some of the burden on 9-1-1 call-takers by addressing issues that do not require an immediate response.

Some cities have taken this concept even further. New York and Dallas have recently begun to implement a 3-1-1 service. This service works in tandem with 9-1-1, as the point of contact for less urgent issues, freeing up the emergency call-takers to respond to more urgent calls. This also addresses a marketing issue for 9-1-1. While the municipalities do not want people to misuse the 9-1-1 system, they also do not want to discourage people from calling. They have to ensure availability, without stretching resources to the point where they are unable to provide quality service. This is exactly the type of issue that affects the support and service industry in the conflict between customer service and scope creep.

### **Training and Quality Assurance**

Montgomery County's 9-1-1 service includes a Quality Assurance (QA) team that is responsible for reporting on performance. They work closely with the training organization to make sure lessons learned by senior personnel are incorporated into the training for new members of the team. This is particularly important in a field where turnover is a top concern -- another attribute they share with support and service organizations.

Each call-taker is given a monthly performance report. The team manager reviews this information with them regularly and provides coaching. Since all calls to 9-1-1 are recorded, the QA department can review random calls to perform checks. On occasion, these calls are played back with the call-taker to improve performance or review a difficult situation.

Something else the QA department looks for on these recordings is a best practice example of how certain types of calls should be handled. These calls are then shared with the training department and are incorporated into their courses.

The training process for 9-1-1 center staff is fairly involved. New personnel go through two weeks of training before they are allowed to sit with the call-takers. In this training they are given instruction on the nature codes, tips on how to handle emotional callers, and participate in various practice sessions using simulated phone conditions. They also use this time to critique the sample calls provided by the Quality Assurance team.

Once they have successfully completed this process, they sit with a senior call-taker, who provides daily written feedback to the manager regarding the trainee's performance. The QA department also generates daily reports on trainees to monitor their progress. Only when the senior call-taker approves the trainee's readiness are they allowed to begin taking calls on their own. They continue to get daily feedback on performance as part of their ongoing training.

The process is involved and subjective, but it also allows flexibility for the various learning curves of new employees.

Unfortunately, in many organizations training and quality assurance are the first areas to be affected by cost-cutting measures implemented in a struggling economy. They become even more essential, however, as we look for personnel to do more with less and to still provide an effective response to all types of calls.

### **Queue Monitoring**

The supervisor in the Montgomery County 9-1-1 center works from a raised platform that overlooks the call-takers, the police dispatch, and the fire and medical dispatch teams. They also have a computer monitor that shows all of the calls in the CAD system. These calls are color-coded based on priority and status, with expected response times for each priority level. When the calls exceed established response times, a flag appears on the supervisor's monitor. The supervisor then contacts the necessary teams and asks for an update. "Usually it's just that the system wasn't updated with the information," John Dinolfi said, "but the supervisor needs to check up on it."

This call monitoring system reduces the likelihood that a call will be lost. It also allows the center to capture all updated information regarding the calls in case any further issues arise.

While many call centers monitor call queues, rarely is it a constant vigil. However with limited resources, having one person dedicated to monitoring the queue is often not very cost-effective. There are alternatives. Some call centers provide real-time queue information, visible to all personnel in the call center. Some call tracking tools can contact key personnel, either by email or pager, when a particular ticket will exceed its service level agreement. These tactics can be used to meet the same goal achieved by 9-1-1 centers.

## Call Centers and 9-1-1

Visiting a 9-1-1 center is a tremendous way to gain insight into how to further improve our services. It can also put what we do in perspective. The intensity of their calls is beyond the kind that most call centers receive, but they do experience many similar issues. They handle them by improving their processes: honing their categories and integrating their quality assurance and training procedures. They pay close attention to call and ticketing queues, preparing for and reacting to changes that will impact them. In many ways we perform the same jobs. Taking that urgency and passion and applying it to our organizations will allow us to exceed expectations, and bring our own emergencies to a quicker resolution.

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