



**Building A 3-1-1  
System For Police  
Non-Emergency Calls**

**A Case Study of the Austin  
Police Department**

AUSTIN POLICE DEPARTMENT  
**AUSTIN'S ANSWERS**  
**FOR POLICE NON-EMERGENCIES**  
GREATER AUSTIN CRIME COMMISSION

Prepared by





# Acknowledgements

## & Disclaimers

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# APD's 3-1-1 Core Concepts

## Introduction

At the most basic level, implementing 3-1-1 requires changing citizen perceptions. Citizens know to contact police by calling 9-1-1. What seems to have been lost over time is that citizens should use 9-1-1 only to request emergency services from police, fire and/or rescue services. Put differently, citizens must realize that not all emergencies are equal. Some emergencies cannot or should not be handled by police, fire or rescue services. However, citizens often do not have a readily accessible alternative number when faced with a non-emergency issue requiring police assistance or when faced with an “emergency” that can or should not be addressed by police, fire or rescue officials. 3-1-1 can be the alternative in these situations.

Austin Police Department (APD) executives recognized the limitations of their 9-1-1 system. Call volumes were growing faster than the city’s population. Existing technology and staff levels could not support a continually growing call load. It was not logical or viable public policy to hire more and more 9-1-1 call takers since call volumes were predicted to grow indefinitely. 9-1-1 system technology could not be improved to use more efficient and advanced software because of interagency compatibility issues.

In rare instances, such as weather emergencies, APD suspected that some 9-1-1 callers were not able instantly to reach emergency call takers. Callers instead would hear a ringing phone or be placed on hold or receive a busy signal because all of the phone lines were busy. In potential life-and-death emergency situations, this outcome was alarming to any emergency service provider.

APD believed that 40 to 50 percent of their 9-1-1 calls were either for police non-emergencies or situations that were not appropriate for police, fire or rescue operations. They knew this was the case in city-wide crisis situations, such as weather emergencies. 3-1-1 offered a potential solution, if implemented and marketed correctly.

APD is committed to neighborhood-based policing. Neighborhood-based policing requires a customer service focus. 3-1-1 supports this philosophy of policing. The Chief wanted citizens to become the “eyes and ears” for the police. APD made a number of organizational changes to encourage better customer service and more citizen feedback. 3-1-1 is one of these changes.

APD's implementation of 3-1-1 focused on developing highly trained and skilled call takers, building critical partnerships and changing public perceptions of 9-1-1. APD assured 3-1-1 callers that 3-1-1 staff were cross-trained as 9-1-1 call takers capable of handling potential emergencies. They also provided these call takers with advanced technological tools to resolve caller issues in an effective and efficient manner.

APD partnered with key city departments and private entities to ensure that 3-1-1 was implemented appropriately and in a timely manner. Technology partners built the tools for call takers. Civic and community leaders notified the public of the upcoming service and the need for this service.

In the chapters that follow, we document how APD identified the need for a 3-1-1 system, designed and procured that system, and marketed it to the citizens. We note that at each phase of the project, APD maintained a citizen focus. They identified characteristics of Austin citizens, procured technology to improve efficiency, and reorganized their internal emergency communication operations. When they introduced 3-1-1, they explained the problems of overtaxing 9-1-1 and provided an alternative at the same time. They encouraged citizens to continue to partner with them to create safer neighborhoods by using 3-1-1 to report non-emergency public safety concerns.

Timing played an unexpected role in the implementation of APD's 3-1-1 system. Exactly one week after the national tragedies of September 11, 2001, 3-1-1 became operational in Austin. September 17, 2001, was the planned start date, even before the tragedies. APD seized the moment of additional media coverage of public safety to stress how important it was to keep 9-1-1 reserved for emergency calls.

Citizens benefited by being able to contact police for general information in this time of great uncertainty. They also were able to use the system to report non-emergency issues, such as the rash of flag thefts that occurred after the tragedy. While calls to APD increased during the crisis period and the follow-up anthrax scares, calls to APD's 9-1-1 center decreased. This shows the remarkable impact of a 3-1-1 system during a period of public uncertainty and crisis.

# The Need for 3-1-1

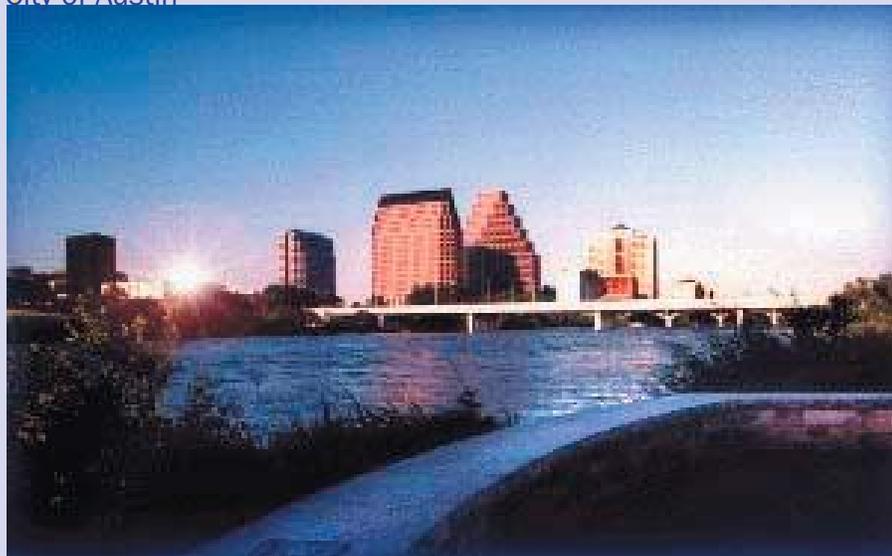
## Chapter I

### INTRODUCTION

Improving citizen interactions with Austin Police Department (APD) encouraged the 3-1-1 effort. This chapter discusses how APD executives assessed the need for a 3-1-1 system. We begin by examining the characteristics of Austin and of the Austin Police Department. We examine the 9-1-1 system and describe how the City's growth rate affected emergency response needs. Although all stakeholders were focusing on improving citizen interactions with the police department, each held a slightly different perspective on why the 3-1-1 system was needed.

When a city or community is considering whether to implement a 3-1-1 system, it is important that they first assess the environment and audience. APD understood who they were serving and what concerns they sought to remedy. They asked the following questions during the six months dedicated to investigating the potential benefits and costs of a 3-1-1 system.

City of Austin



## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about the City:

- What are the characteristics of Austin? Who lives there? What industries operate there?
- What types of changes have occurred in Austin over the past 10 years?
- What types of crime and quality of life problems do Austin residents and businesses face?

### Questions about the Police Department:

- What are the characteristics of the Police Department? How many sworn officers are employed and how are they organized?
- What is the philosophy of APD in regards to policing their community?
- What is the relationship between the citizens of Austin and the Austin Police Department?

### Questions about the 9-1-1 System:

- How is the 9-1-1 system operated and managed?
- What is the call volume for the 9-1-1 system currently? What is it expected to be?
- When do citizens call 9-1-1? What happens to these calls?
- What are the advantages and limitations of the 9-1-1 system?
- What is the vision for emergency and police communication in Austin?

### Questions about the Vision for 3-1-1:

- What issues can a 3-1-1 system help resolve?
- What is the vision for 3-1-1?
- Why does 3-1-1 serve as an alternative to 9-1-1?
- What are the perceived advantages of a 3-1-1 system?
- What are the perceived disadvantages of a 3-1-1 system?

**Austin.** Austin has a diverse and growing population. Over the past 10 years, the Hispanic, Asian and other minority populations have been growing exponentially. The majority of citizens are young and educated, with many working in the high tech industry. They are involved in their communities and city government. Austin Police Department relies on neighborhood-based policing concepts, leveraging this high level of citizen involvement. Fortunately, the crime rates are relatively low compared with that of other major cities.

The City of Austin is the 16th largest city in the country with a population of 656,562. The Austin metropolitan area is home to over 1.2 million people and is the 38th largest region nationally. Austin's population grew by 41 percent from 1990 to 2000, averaging 3 percent growth per year. As a result, Austin is becoming a multicultural city with a population that is 53 percent White, 31 percent Hispanic, 10 percent Black and 5 percent Asian. The Hispanic population has grown by 88 percent since 1990, while the Asian population has more than doubled, increasing from 13,503 to 30,858.<sup>1</sup>

Forty-three percent of the residents are between the ages of 20 and 44, and 30 percent are under age 19. The Austin area's adult population is highly educated. Eighty-two percent have graduated from high school, 35 percent have earned a bachelor's degree and 11 percent have received a graduate degree.<sup>2</sup>

The technology industry drove much of the economic growth of the area during the last decade. Currently, Austin's high-tech employment represents almost 15 percent of the total non-agricultural employment. Although the region is gaining numerous biotech and software firms, the anchor of Austin's high-tech industry is hardware driven. The major employers are University of Texas, Dell Computer Corporation, the City of Austin, Motorola and the Austin Independent School District.<sup>3</sup>

Austin's labor force was 737,787 with an unemployment rate of 2 percent in 2000. Recent layoffs by the high-tech industry increased this rate in 2001. The nominal per capita income was \$33,111 and the average household income was \$84,904. The median household income was \$49,218.<sup>4</sup>

Austin is located in Central Texas along the Colorado River. It covers 232 square miles and is surrounded by hills with altitudes ranging from 425 feet at the river to 1,000 feet in the northwest hills. Austin has four major highways serving it, with Interstate 35 cutting through the center of town. The climate is temperate, with 300 days of sunshine annually and an average rainfall of 32 inches per year.<sup>5</sup>

## UNDERSTANDING THE CITY

**Austin ranked as the third safest major city in the U.S. with regard to violent crime and 35th safest city with regard to property crimes.**

**Crime in Austin.** Austin ranked as the third safest major city in the U.S. with regard to violent crime and the 35th safest city with regard to property crimes. Austinites experienced approximately 4.8 violent crimes per 1,000 population and 52.4 property crimes per 1,000 in fiscal year 2000. Ninety-four percent of residents reported feeling safe walking alone in their neighborhoods during the day and 70 percent reported feeling safe walking alone in their neighborhoods at night.<sup>6</sup>

In fiscal year 2000, 12 drug-related offenses and 3.8 gang-related offenses, were reported per 1,000 people. There were 1,254 serious-injury producing collisions and 11.6 traf-

fic fatalities per 100,000 people. 229,212 traffic citations were issued during FY 2000. Over 8,000 abandoned vehicles were investigated, with nearly half of them removed from public property within 14 working days.<sup>7</sup>

Austin has taken an aggressive approach to maintaining and revitalizing its neighborhoods. There are numerous active neighborhood associations in the city. Over 23,000 volunteer hours were logged in the police department alone during 2001.<sup>8</sup>

**Austin Police Department.**

The Austin Police Department provides police services with a sworn force of over 1,270 and 600 civilians. The FY 2000-01 budget was \$125 million. Austin Police Department’s top four goals are to reduce violent crime, reduce property crime, improve traffic safety and improve quality of life. The Department is organized into five Bureaus: Community Policing Bureau North, Community Policing Bureau South, Investigation Bureau, Community Policing Support Bureau, and the Administration Bureau. The City is committed to maintaining a ratio of 1.9 officers per 1,000 residents and has increased the budget to address projected population increases, especially those related to annexations.<sup>9</sup>

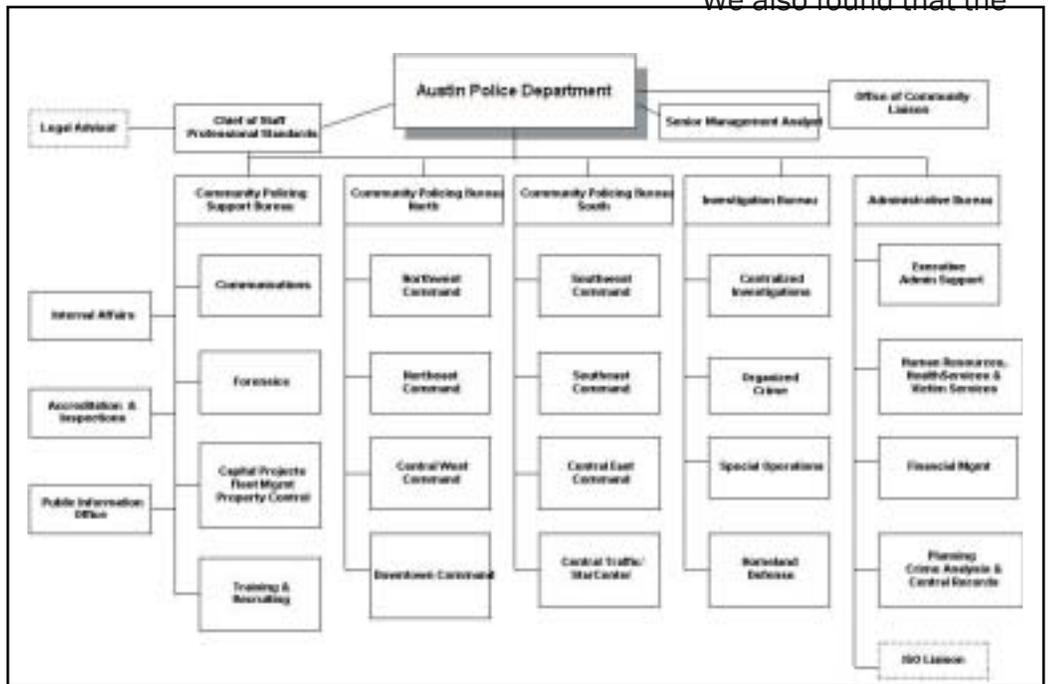
Since 1998, APD has practiced “Neighborhood-Based Policing,” a philosophy that incorporates tenets of community policing. Since that time, partnerships and collaborations with the community have increased, major organizational changes have occurred and problem-solving by officers has been encouraged and facilitated. The Chief set two important goals for patrol officers: respond to calls for service and engage in problem-solving activities.

In a previous report that assessed community policing in Austin<sup>10</sup>, we found that neighborhood-

based policing had permeated the department. From the executive ranks to patrol officers to civilians, everyone we interviewed and observed was aware of the concept and the manner in which it was being implemented. Furthermore, a majority of officers and civilians were supportive of the Chief’s approach and were dedicated to implementing neighborhood-based policing.

Figure 1: APD Organization Chart

We also found that the



department had taken important steps in interacting and engaging the community to solve problems and improve the quality of life for residents. Officers (District Representatives in particular) were using problem-solving on a regular basis to solve long-term problems. Finally, we found that the department had made important organizational changes consistent with community policing principles in the prior two years.

Briefly, the organizational changes we documented in 2000 and that continue today include the following:

- **Decentralization.** Within each of seven geographic areas a commander oversees patrol officers, motor officers, street detectives, district representatives, street response officers and civilian support.

➤ **Shift schedules.** Officers no longer rotate days, evenings, nights and relief shifts every 28 days. Rather, officers are assigned to specific districts within command areas for specific times.

➤ **District Representatives and Street Response Units.** Each command area has five to seven officers serving as District Representatives (DRs), liaisons between patrol officers and neighborhoods, who engage in problem-solving. Street Response Units assist DRs through plain clothes or uniformed responses to hot spots.

➤ **Civilianization.** To allow patrol officers to focus on responding to calls for service and problem-solving, civilians have been added to the rolls. Crime scene technicians, lab technicians, victim service counselors and community liaisons have been added.

➤ **New general orders, policies and procedures.** In April 2000, elements of community policing and problem-solving were included in the general orders. Performance evaluations now include language about problem-solving and community interaction.

➤ **Accountability.** Assistant Chiefs, commanders, lieutenants, sergeants, and officers are accountable for crime reduction and maintaining order.

**In the 2000 report, we made the following comments about APD:**

“It appears that APD is well on its way to full implementation of its philosophy of neighborhood-based policing. While all is not perfect within APD, a strong foundation has been built. Because they have engaged in long-term planning and training efforts, the organization is poised to become a high performance department as the staff, including the large group of new officers, adjust to their roles and expectations.”<sup>11</sup>

From the performance measures in the budget, it is clear that APD is focusing on its four priority goals. APD executive ensure accountability at all ranks and seek ways to improve performance in all areas. They are committed to citizen satis-

faction and 80 percent of residents report being satisfied with police cooperation in addressing neighborhood concerns.

**9-1-1 in Austin.** Currently, the City of Austin (COA) Emergency Communications Center receives all calls for service for the three public safety entities, (Police, Fire and EMS) via the 9-1-1 system. The Austin Police Department houses the Emergency Communications Center and serves as the 9-1-1 primary public safety answering point. Funding, guidelines and regulations for 9-1-1 systems in the State of Texas are provided by the Commission on State Emergency Communication. The Capital Area Planning Council (CAPCO) serves as the regional coordinator for the 9-1-1 systems and monitors APD’s 9-1-1 system. Within APD, 9-1-1 is operated by the Emergency Communications Division that is under the Community Policing Support Bureau.

When a 9-1-1 call is received, a 9-1-1 call taker will initially triage the call. Should the caller need Fire, EMS or another outside emergency service agency (e.g., Travis County Sheriff, DPS, Travis County Fire Control) the 9-1-1 call taker transfers that caller to the appropriate agency. If the caller is in need

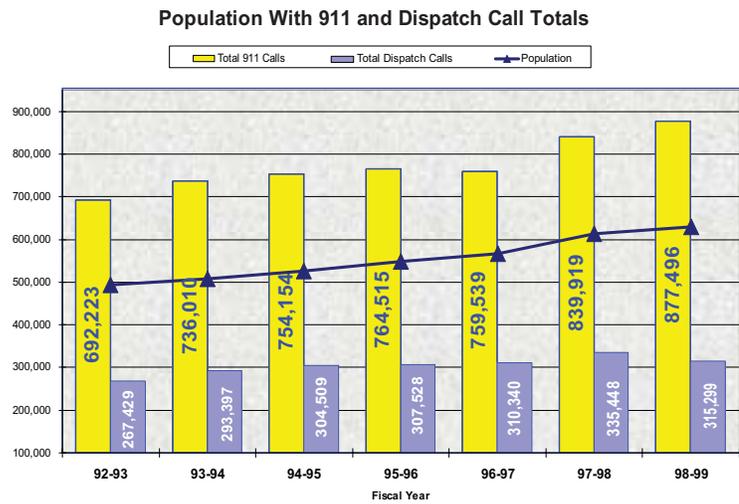
Figure 2: 9-1-1 Call Routing



of immediate law enforcement assistance from the Austin Police Department, then the call taker enters a call directly into the computer for dispatch. If it is initially determined that immediate assistance is not needed and the caller can make a report over the phone then the operator can transfer the caller to a 3-1-1 operator.

Since 1992, 9-1-1 calls have increased with the growth in population in Austin. Over the last three years, call volume has increased even more. Figure 3 shows that call volume increased by an average of only 2.4 percent for the first five years. However, in FY 97-98 9-1-1 calls increased 10.6 percent and since that time call volume has steadily increased at a rate of 4.4 percent annually. This average increase is about two percent higher than Austin's current population growth forecasts. In 2000-01, Austin 9-1-1 was on a track to receive over one million calls, 13 percent more than during 1998-99. The additional increase can be attributed to the explosion in cell phone use as well as to the city's staggering growth.

Figure 3: 9-1-1 and Dispatch Call Loads



Once received, calls are classified by the following priority levels:

- Priority One (1) calls are dispatched immediately. These calls are described as an incident where 1) there is an immediate threat to life and safety; 2) a violent criminal act is in progress or has just occurred; 3) there is imminent critical danger to the public. Examples include assaults, bomb threats, kidnapping, riots, robberies, and shootings.

- Priority Two (2) calls are dispatched within five minutes. These calls are described as an incident where 1) a non-violent criminal act is in progress; 2) a criminal offense has just occurred; 3) the suspects are in the area; 4) a criminal offense is imminent; 5) the potential for violence or imminent danger exists; and 6) a public disorder is occurring. Examples include burglary (just occurred), dangerous animal, disturbance and theft.

- Priority Three (3) calls are dispatched within 15 minutes. These calls are described as an incident where 1) a delay is not likely to result in further injury, loss of property, or adversely affect an investigation; 2) the situation is not current, but may eventually be hazardous; and 3) there is a witness on scene with suspect information. Examples include assisting motorist/not blocking, criminal mischief (just occurred), 911 open line, and suspicious noise (just occurred).

- Priority Four (4) calls are “report-only” calls. These are dispatched as soon as possible and are described as an incident where 1) the protection of life and property is not an issue and 2) the delay is not likely to adversely affect an investigation. Examples include abandoned property, checking welfare, a fireworks violation, and prostitution.

- Teleserve Calls that are transferred to 3-1-1. These calls are described as incidents where 1) there is no threat to life or injury to a person and/or there is no retrievable evidence; 2) it is unlikely that a suspect can be apprehended; 3) the incident is “old” and there is little or no suspect description available. Examples include auto thefts, assault by threat, credit card abuse, request to locate a missing person and theft.<sup>12</sup>

Looking closer at the 9-1-1 calls in FY 2000-01, 87,000 (16 percent) are Priority One calls, 80,000 (15 percent) are Priority Two calls, 253,000 (47 percent) are Priority Three calls and 122,000 (23 percent) are Priority Four calls. The average time to process a 9-1-1 Priority One call was 1.33 minutes and the average time to dispatch the call was 1.83 minutes in 2000-01. Although call volume has increased, there has been a variation in dispatched calls for service. In FY 2000-01, calls for service actually decreased by over six percent. Of the 877,469 calls received in 1998-99, 315,299 were dispatched to police officers to address. Once dispatched, the average time to arrival was 4.83 minutes.<sup>13</sup>

**Non-Emergency Calls to 9-1-1.** In FY 2000-01, the department estimated that between 40 percent and 60 percent of calls received through the 911 system were not true emergencies. If this was the case and the trend were to continue, then about 240,000 to 360,000 calls for service annually could be handled by highly trained call takers rather than police officers.

The Emergency Communications Manager stated that public education about 9-1-1 a decade ago worked very well – in fact too well. Like many other jurisdictions, most citizens knew to call 9-1-1 in an emergency. Citizens in Austin had started relying on 9-1-1 and police for purposes other than emergencies in too many instances. He cited several calls that were inappropriate 9-1-1 calls, including a caller reporting problems with a neighbor's crowing rooster.

The centralized 9-1-1 system serves a very important public safety need.

However, because of the state regulations focused on keeping the 9-1-1 system integrated statewide and accessible to all agencies, regardless of level of technological sophistication, APD was not allowed to alter the technology supporting the 9-1-1 system. They

were not able to take advantage of the advances made in database management to route calls and work orders more efficiently or to learn more about the nature of their calls. They also were not able to integrate the 9-1-1 system with other records management and computer-aided dispatch systems to assist in collecting, analyzing and reporting on the data. Being reliant on State funding and State timelines for system upgrades hampered the ability to modify and modernize the existing 9-1-1 system.

**Vision for emergency and police communication in Austin.** Austin voters approved the use of \$22.9 million in a 1998 bond election to build a Combined Emergency Communication Center. Other participating entities added funding to create a total facility budget of approximately \$39 million.

The 79,667 square foot facility was part of a major regional upgrade of all emergency communications systems and facilities. The Center replaces the City of Austin and Travis County 9-1-1 Communications Center and provides critical upgrades to the current emergency service systems. The Center includes the Austin and Travis County Regional Emergency Operations Center and integrates emergency services with a new, regional Transportation Management Center for the Texas Department of Transportation.

The technological systems being upgraded include 9-1-1 call handling, a new 800-MHz trunked voice radio system, computer-aided dispatch, mobile data terminals, automatic vehicle location, and transportation and transit services. The Combined Emergency Communications and Transportation Management Center became operational in the Fall of 2003.

Figure 4: Rendition of the New Combined Communication Center



**The Vision for 3-1-1.** In this section we ask:

- What issues can a 3-1-1 system help resolve?
- What is the vision for 3-1-1?
- Why does 3-1-1 serve as an alternative to 9-1-1?
- What are the perceived advantages of a 3-1-1 system?
- What are the perceived disadvantages of a 3-1-1 system?

Designing and implementing a 311 system in APD enabled the department to address several growing concerns about the 9-1-1 system. APD believed that 3-1-1 might address non-emergency situations in a more appropriate fashion and that 3-1-1 could lead to better management of resources to improve performance on priority goals such as response times.

Some of the principal problems APD sought to address with the 3-1-1 system included:

- Providing a viable alternative to 9-1-1 for citizens
- Developing a response that would allow APD to keep up with population growth
- Developing a response that would assist in addressing peak call loads
- Identifying a way to maintain appropriate staffing levels
- Creating a way to transfer non-public safety calls for city services to the correct agency.

In addressing these problems, APD officials believed the 3-1-1 system would allow APD to improve efficiency of its call operations, improve customer service, and raise public awareness about the use of 3-1-1 and 9-1-1. Beyond these benefits, they thought 3-1-1 could help APD to achieve one of its major goals of freeing up officer time to concentrate on problem-solving activities. The 3-1-1 system could also serve as an information resource for problem-solving efforts. In the sections that follow, we describe problems with the 9-1-1 system and how APD officials thought 3-1-1 would address them and enhance the Department's operations.

**Provide a Viable Alternative to 9-1-1.** The impetus to set up a 3-1-1 system started from a seemingly simple basis. When the Chief arrived in 1998, he recognized that citizens did not have a viable alternative to calling 9-1-1. APD had one non-emergency phone number listed, 974-5000. It was a private business exchange (PBX) used to reach personnel within the Department. Two civilian call takers acting as receptionists answered this number five days a week from 8:00 a.m. until 5:00 p.m. After 5:00 p.m. and on weekends, this number was answered by an answering machine advising callers to call later or to call 9-1-1. The civilian call takers were trained to transfer calls to the appropriate divisions or persons and did answer citizen questions generally.

The Chief recognized that this situation ran counter to the goals and vision for the police department. He stated that citizens were essentially forced to call 9-1-1 to report any problem - emergency or non-emergency. The other easy alternative was not to call the police. This situation did not encourage residents "to be another set of eyes and ears for the Department."

Internally, 9-1-1 call takers had no place to route calls that were made about non-emergency situations. They were forced either to answer the questions or tactfully dismiss the callers. APD did not have any form of non-emergency call center. In 1996, a prior administration had taken initial steps to improve 9-1-1's responsiveness. APD executives had recognized that 9-1-1 was severely understaffed and authorized adding another 21 call takers to the existing staff of 35.

They also used the COPS MORE grant program<sup>14</sup> to create Teleserve and to fund 10 full-time Teleserve call taker positions. Teleserve call takers took non-emergency police reports over the phone. The majority of reports involved property crimes such as burglary of a vehicle or a residence.

Funding for the positions through the COPS MORE program ended in 1999, and five call taker positions were converted to permanent positions,

while the remaining five were eliminated from the budget. These additional call taker positions decreased the average number of calls handled per 9-1-1 operator by almost 50 percent. Since that time, the average 9-1-1 call taker workload has increased almost 10 percent per year.

The Teleserve unit was staffed by 28 call takers and took approximately 5,000 calls per month. Beginning in July 2000, the Teleserve unit became a 24-hour, 7-days a week operation. Teleserve call takers received calls directly on a seven-digit number listed in the yellow pages, from transfers from the 9-1-1 call takers and by doing “call backs” to victims or complainants who left messages. Even with the Teleserve unit, the Chief did not feel that APD was achieving its goal of providing a quality alternative to 9-1-1. He directed his staff to find a way to build a 3-1-1 system.

**Relieving the Overburdened 9-1-1 System.** APD was committed to keeping up with population growth and developing a response that would assist with addressing peak call loads. These goals served as the primary impetus for starting the 3-1-1 initiative nationwide.

The U.S. Department of Justice COPS Office made a concerted effort to assist law enforcement agencies in handling the growing volume of 9-1-1 calls by requesting that the FCC reserve the 3-1-1 number for non-emergency calls. It was believed that the growing volume of 9-1-1 calls could eventually overwhelm the capabilities of emergency communications centers, resulting in delayed responses to emergency calls and inadequate responses to non-emergency calls. These challenges were facing many cities across the country.

The FCC responded to this request and, in 1997, reserved 3-1-1 for use as a national, voluntary, non-toll non-emergency phone number. Since then, the COPS Office has provided more than \$5.5

## FUTURE OF 9-1-1

The Emergency Communication Manager asked, “Will there be too many calls on the 9-1-1 system in the future based on population growth? And second, at what specific points in time could there eventually be too many calls?”

June 14, 2000

million in funding to implement 3-1-1 programs in 10 jurisdictions. Austin received funding under the “3-1-1 Technical Assistance for Start-Ups” funding program in FY 2000.

The concern about overburdening the 9-1-1 system serves as a primary motive for those most responsible for emergency communications in APD.

As a performance-based organiza-

tion, the Assistant Chief for the Operations Support Bureau during the implementation of 3-1-1 was most concerned about how long it was taking officers to respond to emergency situations. He measured the time that elapsed between the time the caller placed the 9-1-1 call and the time that an officer arrived on the scene. This was a key performance indicator for effectiveness of the police department. He focused on questions such as: was the police department able to handle emergency situations in a timely and consistent manner? How could APD reduce the response time, even if only by seconds? Congestion caused by non-emergency calls on the 9-1-1 system certainly affected this important performance measure.

The Emergency Communications Manager took this concern to a more detailed level. The most urgent concern was when the 9-1-1 system was being overwhelmed. He looked at this issue from two points of view. First he asked, will there be too many calls on the 9-1-1 system in the future based on population growth? And second, at what specific points in time could there eventually be too many calls, such as during weather or safety emergencies?

As previously mentioned, by 1999, the number of 9-1-1 calls was growing about 2 percent faster than the population in Austin. Many of these calls were about non-emergency situations.

Daily statistics showed that peak call loads occurred on Fridays and Saturdays. When these statistics were broken down by hour, call volume started off from a low at around 5:00 a.m. and steadily increased through the rest of the day. Activity peaked around rush hour (5:00 to 6:00 p.m.) and then steadily decreased through the course of the evening. Call loads during the weekend (12:00 p.m. Friday through 11:59 a.m. Sunday) were about 56 percent higher between 11:00 p.m. and 3:00 a.m. than during the rest of the week.

While the 9-1-1 system was working extremely well on normal days, during crisis events such as New Year's Eve (in particular, the millennium celebration) and severe weather, it was sometimes overburdened. Calls went unanswered (ringing phone) or were placed on hold beyond a 10-second period, falling short of the performance goals for 9-1-1. Even more worrisome were the busy signals that some callers may have been receiving when they called 9-1-1 because other callers were using all of the phone lines.

If callers were reporting non-emergency matters, a potential emergency call could not be received. 3-1-1 provided an avenue for the non-emergency matters, allowing a greater probability that "true" emergency calls would be received by 9-1-1. While the overburdened situation was occurring in rare crises, the Emergency Communication Manager foresaw that 3-1-1 would prevent this situation. He combined public re-education about the purpose of 9-1-1 with the introduction of 3-1-1. APD guided the public potentially to overtax the 3-1-1 system rather than the 9-1-1 system in these rare situations. This would allow "true" life and death emergencies access to the services while less serious problems like electrical outages could be handled more appropriately.

Furthermore, on average days, the 3-1-1 system would potentially allow 9-1-1 call takers to achieve the performance measure of answering all 9-1-1 calls within 10 seconds. Consistently meeting this goal would aid in improving overall emergency response time. Prior to 3-1-1's implementation, 9-1-1 call takers were able to answer calls within 10 seconds 90 percent of the time on average.

**Achieving Technological Benefits.** The 3-1-1 system would provide for technological efficiency and customer service gains that could not be achieved within the 9-1-1 system. With the new system, APD sought to integrate the 3-1-1 call management system with a new records management system and a new CAD system. They intended to create an integrated system that would allow them to gather information efficiently, to analyze it comprehensively and to report it dynamically.

From the operator perspective, the introduction of a 3-1-1 call management system should allow a way to address many apparent inadequacies in their current situations. Call takers were able to tell system developers where they had developed off-line or separate systems to manage information. They also were able to make suggestions how to meet customer needs better.

Developers eventually incorporated these suggestions and helped to provide better, systematic methods to resolve issues. Examples of this included the ability to access all city agency numbers within the system, the ability to enter data into one system and have it populate other systems, and the ability to email information to the individual responsible for resolution. All of these technological advances improved the call takers' ability to perform and improve their working situations.

**Public Education Opportunity.** One of the benefits of implementing a 3-1-1 system should be the opportunity to re-educate the public about the purpose of 9-1-1 and the role of police in their communities. Over the years, many citizens had forgotten the true purpose of 9-1-1 and were using it to report problems and seek assistance, regardless

of the magnitude of the problem. The Emergency Communication Manager used a real example of an individual calling 9-1-1 to complain about his irritation with his neighbor's rooster crowing in the morning. This situation was neither a life and death emergency nor essentially a police matter. While this appears to be an extreme situation, there were hundreds more "abuses" of the 9-1-1 system on a daily basis throughout the country.<sup>15</sup>

A simple way to address these abuses is to remind the public about the importance of using 9-1-1 for emergency calls only. Introducing 3-1-1 created an opportunity to do this, while also providing an alternative method for contacting officials who could assist with these matters.

**Laying the Foundation for an Easy-to-Remember City-Wide Number.** The City Manager investigated the establishment of the 3-1-1 non-emergency number for police services as a way to pilot test a city-wide number. Austin had 22 call centers for its various services. This situation resulted in duplication of effort, confusion for customers and cost inefficiencies. Based upon progress with the 3-1-1 police non-emergency number, the City Manager requested that city agencies work together to create an easy-to-remember number for the City, relying on the success of 3-1-1 as a model.<sup>16</sup>

**Improving Problem-Solving Activities.** With the introduction of 3-1-1 coupled with APD's organizational emphasis on neighborhood-based policing, an opportunity should be created to free time for officers to do more problem-solving. Even with call prioritization, inappropriate 9-1-1 calls were being dispatched due to lack of information about the situations.

As the citizens of Austin became more familiar with 3-1-1 and relearned the purpose of 9-1-1, they could improve their use of the 9-1-1 system and reduce the total number of dispatched calls. This ultimately could increase the time available for officers to participate in or conduct problem-solving efforts.

Also as APD encouraged citizens to take a more active role in policing their communities, and to "serve as the eyes and the ears" of APD through 3-1-1, better information about neighborhood problems could emerge. Using the new 3-1-1 customer service request system, APD could systematically gather that data, query it and report pertinent information. The authors anticipated that District Representatives would become particularly involved, using 3-1-1 information as a resource for their activities.



# Choosing a 3-1-1 Model

## Chapter II

### INTRODUCTION

3-1-1 can be used to address questions from citizens about police matters, city matters, or both. This chapter discusses criteria used to decide the scope of a 3-1-1 operation. We examine three possible 3-1-1 models. APD chose to implement a focused model - a basic police model. This model enables APD to concentrate on providing better customer service and to gather information from citizens about public safety issues. It is a direct attempt to remove calls from the 9-1-1 system.



## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about the types of 3-1-1 models:

- What 3-1-1 models are available? What is unique about each model?
- How would a city staff and use resources in each model?
- How can the models be implemented in a phased approach?

### Questions about choosing the Police Non-Emergency Only Model:

- What role does funding play?
- How do implementation requirements vary among the models?
- How do specific needs impact the choice of a 3-1-1 model?
- What issues about the intended purpose for 3-1-1 should be considered?

**3-1-1 Models.** The three models implemented as 3-1-1 systems in over 15 cities include:

Model 1: Basic Police: 3-1-1 as a police only non-emergency number

Model 2: Basic City: 3-1-1 as a city services number, not including police

Model 3: Integrated: 3-1-1 as a total city number, including police non-emergency.

In Model 1, citizens are advised to call 3-1-1 when they are experiencing a police-related non-emergency where no threat to life exists or no crime is in progress. These situations include:

- property crimes that are no longer in progress and the offender is no longer on the scene, such as vandalism, theft, graffiti, stolen autos and garage burglaries
- animal control problems
- illegally parked vehicles or vehicles blocking alleys or driveways
- telephone numbers, addresses or hours of operations for Police Department's division or programs.

In most cities that have chosen this model, call takers are trained for both 3-1-1 and 9-1-1. They are able to handle 3-1-1 calls that may evolve into emergency situations and to transfer those calls to emergency dispatch systems and call takers if necessary.

In Model 2, 3-1-1 for city services only, citizens are advised to call 3-1-1 when they experience situations that require a city service to respond. These include, but are not limited to, reporting:

- Code violations
- Stray animals
- Potholes
- Abandoned or junked cars
- Broken water mains or fire hydrant leaks
- Garbage collection problems
- Icy or flooded streets
- Broken traffic signals

- High weeds
- Trash or illegal dumping
- Mosquito control needs

Customer service representatives staff this system. They are not typically trained to handle 9-1-1 calls and are not connected to emergency dispatch systems.

Finally, Model 3 establishes 3-1-1 as “the” non-emergency number for all city services including police non-emergencies. Citizens are advised to call 3-1-1 for all non-emergency city service requests, ranging from police reports to public works to transportation to civil issues. Within this system, call takers may or may not be trained as 9-1-1 call takers.

Chicago and Houston are using Model 3, while Baltimore started 3-1-1 as the basic police-only system (Model 1) and is now evolving to the full service center concept of Model 3.

In all cities, the original intent of reducing the burden on 9-1-1 systems was stated as the primary reason for implementing 3-1-1. Secondary reasons included improving access to city services and allowing for more coordinated city response to customer needs.

### **Selecting the Police Non-Emergency Model**

The Austin Police Department (APD) chose to implement 3-1-1 as a basic police system (Model 1) for three reasons: funding availability, ease of implementation and the intended purpose for the system.

**Funding Availability.** APD began investigating ways to create a 3-1-1 system prior to learning of the opportunity for grant funding from the COPS Office. After assessing the available staffing, facilities and technological capabilities, they realized that they would need additional resources. Limited inquiries were made into working with other city agencies on developing the 3-1-1 system.

They undertook extensive efforts to justify using limited State funds designated for 9-1-1 systems. Numerous meetings and presentations about the potential benefits of a 3-1-1 system for the 9-1-1 system were made to the Capital Area Planning Council (CAPCO) and to the Texas Commission on State Emergency Communications. Ultimately, the Commission determined that it could not grant approval to use 9-1-1 funds for a 3-1-1 system due to legislative rules and regulations.

While still exploring alternative funding sources, APD was invited to apply for the third round of Federal funding for the implementation of 3-1-1 systems. APD received a grant from the COPS Office for \$369,210. This grant was less than their original estimates. They restructured their effort by combining the private business exchange (PBX) and Teleserve units into the 3-1-1 operations. Although this scenario posed additional difficulties, APD decided to use existing staff and facilities for 3-1-1. Twenty-eight call takers and supervisors handled Teleserve Operations. Their job responsibilities were re-focused to handle all 3-1-1 issues. (We discuss their new job requirements in the Training Chapter.)

For the public education component of its effort, the Emergency Communication Manager sought funding from private organizations and worked with CAPCO to coordinate funding for printed materials to promote 9-1-1 and 3-1-1. (These efforts are discussed more thoroughly in the Marketing chapter.) APD has faced serious facilities constraints for

## Selecting the 3-1-1 Model

Three reasons drove APD's choice of the basic police model of 3-1-1:

- 1) funding availability
- 2) ease of implementation
- 3) intended purpose of the system.

housing emergency communications staff. As discussed in Chapter One: The Need for 3-1-1, APD Emergency Communications will be moving into a new \$39 million Combined Emergency Communications Center in the Fall of 2003. Until that time, the 3-1-1 operations are physically constrained to 11 terminals.

These constraints were the primary reason that 3-1-1 operations were

limited to basic police non-emergency situations. APD was not able to financially support or physically house enough call takers to handle larger citywide operations.

**Ease of Implementation.** With Federal grant funding came a requirement and the expectation of a reasonable timeline for implementation. In the grant application, APD stated that the system would be operational by May 2001. APD could have asked the COPS Office for a grant extension to allow for more time to consider a city-wide number. However, three factors related to the timeline drove the decision to have a basic police system - coordination, procurement, and risk of failure issues.

**Coordination.** In Austin, the city operates 22 call centers. When APD approached city officials about the 3-1-1 system, the officials suggested that the basic police system could serve as a pilot test for implementing a one-stop city phone number. The officials were interested in the concept of the one-stop city phone number but were unsure which agency would be best suited to manage it.

Attempts had been made in the past to create a central city hotline. The hotline had not been well publicized and was under-used. City personnel had also attempted to clarify key telephone numbers in the blue pages of its phone books. However, citizens continued to voice frustration about not being able to locate the appropriate person within city departments. Some citizens called APD's main phone number or teleserve number to get this assistance. However, APD call takers were not trained to know who handled the various city services and were unable to transfer non-emergency calls using their "telephony" technology. They had developed off-line systems to address these needs in limited cases.

With funding from the COPS Office, APD was able to address its immediate need to remove some non-emergency calls from 9-1-1 while not assuming responsibility for resolving city-wide coordination issues. APD neither had the resources nor the time to address these complicated coordination and bureaucratic turf issues.

The coordination issues included determining chains of command, accountability and joint responsibilities. They also required addressing the multiple-source funding requirements involved in continuing day-to-day operations of the call center. By focusing on the police-only non-emergency response, the project limited the political disruption that otherwise could have been expected in coordinating a multiple call-center scenario. In addition, they were able to implement a system designed to meet the specific needs of their organization without having to meet the requirements other organizations. They were also able to maintain a clear line of decision-making for the development of the system.

**Procurement.** A major factor in implementing any technological response is the procurement of hardware and software to support the system or processes. In the state of Texas, systems developed to support public safety issues are

allowed to use direct procurement as an alternative to the request for proposal (RFP) process. Direct procurement simplifies the process and reduces the time required for purchasing hardware and software.

Austin officials did not realize this provision until they were in the process of obtaining the system. It was an important factor in their ability to implement the system in an expedited fashion.

**Risk of Failure.** As with any complex effort, especially technology efforts, the size of a project is directly related to the risk of failure for that effort. By containing the system to a basic police system, staff were able to avoid many potential implementation hurdles.

Initially, staff were able to establish clear system objectives and a reasonable scope of work. They were able to form a manageable implementation team and to develop clear communication protocols and processes.

The complexity of the technology was limited. The system operates as a client-based system with 11 terminals and reasonable security measures. Technology managers did not have to maintain extensive backup and recovery systems or deal with multiple building wiring issues.

As a follow-on, the training requirements, implementation planning and marketing efforts were not overwhelming or overburdening to the staff who were handling 3-1-1 system implementation. Most members of the implementation team, especially those from APD, were handling 3-1-1 implementation in addition to their existing job responsibilities. Were the system to have been a city-wide system with multiple agencies involved, much more time and effort would have been required to coordinate these components.

**Intended Purpose.** From Chief's point of view, 3-1-1 was a number intended to provide citizens with an alternative to 9-1-1. 9-1-1 is an emergency number for police, fire and rescue situations. The Austin Police Department sought 3-1-1 to provide an alternative to 9-1-1 for nonemergency calls, to improve police services and to ensure 9-1-1 would be available for emergency situations.

He believed that 3-1-1 ought to be maintained as a police non-emergency number. While he supported the establishment of a city-wide, easy-to-remember number, he sought to maintain the integrity of 3-1-1 as a police non-emergency number and to avoid assuming management responsibility for a city-wide call center.

One of the main concerns facing 3-1-1 nationwide is: will 3-1-1 reduce the call load for 9-1-1 - one of the principal reasons for creating it -- or will it merely result in more calls while not reducing calls to 9-1-1?

If the 3-1-1 number is advertised as a police non-emergency number, the likelihood that citizens will use it for instances where they may have called 9-1-1 but now can call 3-1-1 instead of 9-1-1 for nonemergency calls is higher. Also if they believe they will receive the appropriate level of police response they seek, they will be more likely to use 3-1-1. If 3-1-1 is a broadbased city-services number, citizens may be more inclined to call 9-1-1 to reach desired police services, thereby defeating the intended purpose of APD's 3-1-1. This is not to say that in some cities, the broader-based city services number is not a beneficial alternative for 9-1-1, but it was not perceived to be an effective solution for the Austin situation.

Beyond the impact issues, APD managed one of the smaller, albeit most critical, call centers

in the city. Austin is one of the few cities in the country that operates a municipal electric utility, Austin Energy. As a result, Austin Energy operates the largest call center in the city. APD and Austin Energy had a dedicated line between them to report electrical outages and other electrical utility problems. Austin Energy dispatches all types of utility problem calls, including public works and water response, once they are transferred from the 9-1-1 center. Other large call centers include Health and Human

Services, Public Works, Water and Wastewater and Solid Waste Services.

Because 3-1-1 would address a critical mission for APD and would operate with only 10-11 call takers, the Chief did not want to assume management responsibility for the city-wide service call center. This

long-term responsibility presented many management, financial, training and facility challenges that APD was not prepared to assume.

Austin city officials are currently in the process of developing a plan to create a one-stop city number. The APD Emergency Communications Manager co-chairps of this citywide committee with the Deputy CIO of the Information Systems Department. At this time, APD resisted the use of 3-1-1 as the city-wide number, but is demonstrated how the customer service request software and other technologies could be expanded to support this effort.

### Austin's Intended Purpose for 3-1-1

3-1-1 is a number intended to provide citizens with an alternative to 9-1-1.

## INTRODUCTION

# Partnership Development

## Chapter III

Partnerships are not as evident in the basic police model of 3-1-1 as in other models. Even so, partners played a key role in ensuring timely and effective implementation of Austin's 3-1-1 operation. Key partnerships included:

- Coordinating with the 9-1-1 oversight organization, CAPCO
- Relying on the Information Systems Department (ISD)
- Working closely with the City Purchasing Department
- Building strong ties with technology and telephone vendors
- Leveraging the support of the Greater Austin Crime Commission
- Linking with the City Public Information Office

We discuss how these partnerships formed, their significance and their impacts. We also note that as the APD 3-1-1 system succeeds, more partnerships have formed. Many of these partnerships involve other city agencies reaching out to the Police Department for assistance.



## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about the Key Partners in the Police-only model:

- What types of partners are needed for successful implementation?
  - What entities will potentially benefit from a 3-1-1 system? How can and should they be involved in development and implementation?
  - What entities can assist with the integration of the 3-1-1 technology with existing 9-1-1 systems and city systems?
  - What entities are involved in the procurement of services?
  - What is the role of local phone exchange carriers and competitive carriers?
  - What will be the local government's relationship with the various technology vendors? Can public-private partnerships be fostered?
  - What organizations can build community support? Who can help with the public education efforts?
  - What will be the relationship with the media and who can assist in the facilitation of that relationship?
  
- What significance do these partners play during the different phases of the project?
  - When should partnerships be formed to maximize the benefits?
  - How can communication with key partners be maintained at an appropriate level?

### Questions about How Partnerships Are Built:

- Which partnerships are formal and which are informal?
  - What types of agreements are appropriate to formalize partnerships?
  - How do team members play a role in building partnerships?
  - Who is authorized to enter into formal partnership agreements?

## Building Support

**9-1-1 Ties to 3-1-1.** 3-1-1 evolved as a solution to improve customer service and address overtaxing of the 9-1-1 system. The Emergency Communication Manager contended that “we have done a great job of making people aware of 9-1-1. We need to do a better job of reminding people of the purpose of 9-1-1.” In order to make 3-1-1 a success, the Emergency Communication Manager built a strong relationship with 9-1-1’s regulatory organization, the Capital Area Planning Commission (CAPCO).

This partnership was fundamental to improving service of 9-1-1 via 3-1-1. CAPCO staff participated in conceptualizing and planning for 3-1-1. Staff assisted in developing the marketing plan. CAPCO leaders publicly supported the implementation of 3-1-1 and provided \$10,000 to support the marketing campaign. They also publicized 3-1-1 through their monthly newsletter (see Figure 5).

CAPCO identified avenues to combine advertising for 9-1-1 and 3-1-1. They worked to re-educate the public about the purpose of 9-1-1 as an emergency number while promoting 3-1-1 as an alternative for non-emergency situations. They also assisted with negotiations with Southwestern Bell and the other telephone service providers.

## Designing and Building the System

**IT Expertise.** Often police departments rely on outside vendors or internal specialists for technology procurement and implementation. In Austin, the Department maintains a small information technology staff that is co-managed by the citywide Information Systems Department

(ISD). Additional Information Systems staff persons are co-located in the Department to support enterprise-wide efforts.

APD sought and received expert technical assistance from ISD management for 3-1-1 development. ISD dedicated staff to the development of 3-1-1. ISD appointed a Project Manager and a team of two other staff to support the effort. One team member managed the telephony technology while the other managed hardware and server implementation. These staff worked with the Emergency Communication Manager to define

Figure 5 CAPCO newsletter article about 3-1-1

**THE 9-1-1 RESPONDER**

## Austin Answers: 311 Coming Soon

The City of Austin is in the process of implementing a 311 call center to reduce the non-emergency call volume from the 9-1-1 system. Dialing 311 will allow citizens to request non-emergency police services more easily and allows the Austin Police Dept to handle those requests more efficiently.

All of the hardware and software have been installed and currently call takers are being trained on the new equipment and its functionality. All 311 call takers are highly-trained in police procedures and are familiar with Police Department operations on both emergency and non-emergency response procedures. If the caller dials 311 by mistake, the call taker has the training and technology to process any emergency call that would normally be received on 9-1-1.

The following are examples of 311 calls:

- Property crimes that are no longer in progress and the offender is no longer on the scene (vandalism, theft, graffiti, stolen autos and garage burglaries.)
- Animal control problems.
- Illegally parked vehicles or vehicles blocking alleys or driveways.

Telephone numbers, addresses and hours of operations of the Police Department's divisions or programs.

311 is a toll-free number and now people can use a mobile or pay phone free of charge to request both emergency (9-1-1) and non-emergency (3-1-1) police services.

311 will improve the City of Austin's Emergency 9-1-1 System. As more and more people dial 311 for non-emergencies, 9-1-1 will be available for what it was designed, true emergency situations. An estimated 50-60% of all 9-1-1 calls that the Austin Police Department receives do not require a response for police, fire or EMS.

The City of Austin has chosen "Austin" the award-winning Search and Rescue Dog as their 311 mascot. Look to see Austin and Red E. Fox appearing at public education functions to help publicize this new way of reporting non-emergencies along with reminding everyone when it's the right time to dial 9-1-1.

**For Non-Emergencies**

**D E A L**  
**3 1 1**

and implement the project within the time period. They were funded by ISD, within the City of Austin's budget.

The formal partnership between these two city organizations was fundamental to the success of the project. The Project Manager was trained in project management for information technology deployment. She knew how to organize the project and assured that it was delivered in a timely and useful manner. Her focus on the technology and equipment components allowed the Emergency Communication Manager to concentrate on training, change management and marketing.

Once the project was delivered, the Project Manager created the necessary documents to formally transfer the project to APD and to ensure that long-term maintenance and support agreements were in place.

**Procurement Expertise.** Expertise was needed for the technology development and for the procurement of that technology. Governments establish extensive policies and procedures for obtaining goods and services. As a result, procurement is a perplexing maze to most of those trying to implement a concept. However, within each government are individuals tasked with understanding and enforcing procurement policies and procedures.

APD and the ISD staff recognized the complexity of procuring a 3-1-1 system. They sought expert advice from the Purchasing Office prior to initiating the procurement process. By reaching out for this advice, the 3-1-1 team built a partnership with the Purchasing Office and learned key information about procurement policy.

They learned that the public safety procurement authority allows agencies to procure items to improve the safety of citizens using methods that are simpler than the standard request for proposal process. This partnership saved the

team from three to nine months, eliminating the lengthy RFP process.

**Vendor Expertise.** Once procurement was set into motion, Austin PD and the 3-1-1 core team established a working relationship with two primary software vendors, Motorola (Suncoast Division) and Avaya. Motorola supplied the Customer Relations Management (CRM) software and Avaya supplied the telephones and telephone system software. The relationship with Avaya was an expansion of an existing relationship with the City of Austin.

Installing the 3-1-1 operation was a "win-win" situation for Austin and for the vendors. Austin received an operational system in less than a year and the vendors received a working demonstration of their products for use in future marketing. Both the vendors and city officials were enthusiastic and committed to the endeavor.

As part of the contractual agreement, Motorola and Avaya installed their equipment and software at the Austin Police Department. The contractual agreements were clear about expectations for both the vendors and the City. Installation involved loading Austin-specific data, configuring the systems to integrate existing APD systems and problem-solving or debugging the software in the APD environment. Austin ISD staff and Department staff prepared data for transfer to the vendors, tested functionality and answered questions about existing operations and systems.

During the intense construction and installation process, the public-private partnership emerged. Vendor staff, APD staff and ISD staff work side-by-side. They identified data required by the system, formatted it for uploading and resolved problems when data was not compatible between the two systems. They also worked together to set APD-specific parameters and functions.

Finally, the vendors transferred their knowledge of the products to the staff in an appropriate and useful manner. They demonstrated how the systems operated and how to troubleshoot. They made themselves available during the initial start-up process and resolved last-minute issues with the telephone system and the CRM software.

One area of concern about the CRM software was the lack of official product documentation. Although this information was not provided immediately, Motorola recognized the issue and sought remedies to address it prior to final release of the product.

By establishing a team spirit and welcoming the vendors onto the team as equal partners, the 3-1-1 core team created a success story for how public-private partnerships can improve government services. The importance of this partnership should not be overlooked. Often government entities and vendors do not develop quality working relationships. Instead they “negotiate” over what is expected versus what is delivered. These tense relationships often lead to program failure.

**Local Phone Service Carrier Role.** In addition to the partnerships with Motorola and Avaya, APD entered into a formal agreement with Southwestern Bell, the local exchange carrier. This partnership involved many issues. As the only local carrier, Southwestern Bell only would agree to provide the 3-1-1 service at a five-cent charge per call. (In Baltimore, Verizon provided the service free of charge.) Given this fee, APD negotiated that Southwestern Bell would filter out 3-1-1 calls originating outside APD’s jurisdiction so that APD would not be charged for them.

To make this happen, Southwestern Bell hired a consultant to work with APD Geographic Information Software (GIS) staff. The consultant installed a GIS filtering system that routed calls originating outside the jurisdiction to a message stating that 3-1-1 service was not available to them. The filtering system lacked the specificity

required to ensure that all such calls were filtered. It would only filter calls down to the “zip+ four” level. Austin’s annexation policy allowed for situations where homes and business in the same “zip+ four” area may or may not have been within the city limits. This issue is discussed in more detail in Chapter IV.

Southwestern Bell worked with APD to meet all public notification requirements. As a regulated entity, Southwestern Bell had to announce the new 3-1-1 service in the Texas Register for 60 days prior to putting the service on-line.

A key problem with the partnership with Southwestern Bell was that the project contact changed multiple times. Each time the 3-1-1 project manager would make an agreement with the project contact, that contact would be transferred or leave for a different position. These changes in personnel negatively affected this key partnership.

On a positive note, Southwestern Bell provided funds to support the marketing campaign through the Greater Austin Crime Commission. They provided \$25,000 in Foundation grants to support the development of education materials. This level of funding was appreciated and reasonable given that the City of Austin would be paying Southwestern Bell more than \$45,000 a year for the service based on the five-cent tariff. Cities seeking this type of donation from their local carriers should be aware that carrier foundation programs have grant application schedules. They should attempt to meet the schedules to avoid delays in receiving the support.

**Competitive Carriers.** All other telephone service providers for the area, including those owning local pay phone and cellular phone services, needed to be notified. Bell staff informed the 3-1-1 team of this requirement, but refused to reveal the identities of these companies. After much research, the team found a source for a list of these companies. CAPCO, the 9-1-1

regulator, maintained a list and shared it with APD. APD forwarded registered letters to over 90 companies informing them of the steps they needed to take in order to participate in the 3-1-1 service. Many did opt to participate.

APD established a seven-digit number in the Austin PBX switch for these companies to use to access 3-1-1. Under the arrangement, when callers who dialed 3-1-1 reached the switch of the service provider, the call was transferred to a seven digit number and forwarded to APD's PBX switch. Because the call goes to the APD seven-digit number, it does not incur the Southwestern Bell tariff. However, since the call does not go through Southwestern Bell's switch, its point of origin cannot be assured to be within the APD geographic jurisdiction.

3-1-1 call takers can distinguish when they receive a competitive local exchange carrier (CLEC) call from their telephone equipment. They immediately determine if the call is in the APD jurisdiction, prior to resolving the issues. Managers also track the number of CLEC calls monthly.

### **Creating the Buzz**

**Community Support.** One of the first partnerships APD established to support the 3-1-1 project was with the Greater Austin Crime Commission (GACC). APD understood that marketing 3-1-1 was essential to its success. However, funds were not provided by any source to conduct the marketing.

GACC was established in October 1997 "to support law enforcement, raise public awareness about crime prevention programs, and promote a cooperative and coordinated anti-crime effort in our community." GACC "established strategic partnerships with law enforcement, agreeing to serve as the non-profit foundation for charitable gifts to the Austin Police Department; produce public service messages designed to reduce

non-emergency calls to 9-1-1..." They maintained "custodial accounts for several Police Department divisions..."

## Implementation Partnerships

Partnerships allowed APD to meet implementation deadlines and create the necessary "buzz" to make the public aware of 3-1-1's existence.

The founders of GACC are recognized community leaders and knowledgeable business professionals. APD leveraged the talents of GACC to support the marketing campaign. GACC members used their community clout to:

- secure pro-bono work from leading graphic artists to design the publicity materials
- attract media to press conferences
- distribute brochures through retail outlets.

GACC staff also worked with corporations to solicit donations to support the marketing campaign. They secured \$35,000 in private support in addition to the \$15,000 they provided directly. This was an important function since the police department cannot solicit or accept private support.

### **Internal Support: Public Information Office.**

Within the City of Austin, the Public Information Office (PIO) played a key role in broadcasting the 3-1-1 message. They worked with other city departments to include announcements about 3-1-1 in electricity bill mailings, the City newsletter, District School Announcements and Health

and Human Services bulletins. Jointly with PIO, they created web page links, making 3-1-1 a priority announcement on the home pages for both the City of Austin and the Police Department. Finally, PIO staff served as liaison to the Mayor's and City Manager's offices for scheduling appearances at media announcements. PIO staff saved APD staff significant time in coordinating announcements and spreading the message.

**Summary.** Partnerships were critical at each juncture of 3-1-1 implementation. Starting 3-1-1 as a police non-emergency number allowed APD to build a manageable and useful system for the police department. However, partnerships allowed them to succeed at meeting implementation deadlines and at creating the necessary "buzz" to make the public aware of 3-1-1's existence.



## INTRODUCTION

# Procurement Process

## Chapter IV

Procuring equipment is often the greatest hurdle to implementation. Procurement requires an understanding of the scope and needs of a project. This chapter discusses the steps that Austin's 3-1-1 team took to identify what equipment to procure and how they procured that equipment.

Project managers envisioned a fully integrated 3-1-1 system. They researched the services citizens requested and were likely to request. They observed and talked with call takers to identify where technology could make them more effective. Finally, project managers created diagrams and models documenting their vision of a functional 3-1-1 system within existing personnel, environmental and financial constraints.

The team sought equipment to support their vision. They developed detailed blueprints outlining the functional requirements for each hardware and software product. They also distinguished between those functionalities that are essential and those that are "luxuries."

We provide details about the research that was conducted, how different vendors were evaluated, how traditional procurement steps were expedited, and what equipment was procured. We discuss the functionality sought from each component of the 3-1-1 system.

## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about What Equipment Is Needed:

- How does the scope of the police-only model of 3-1-1 impact equipment selection?
- What types of hardware and software are pertinent to 3-1-1 systems?
- What are the approximate costs of these pieces of equipment?
- Which items are priorities and necessary for use?
- Which items are “luxuries”?

### Questions about How to Procure the Equipment:

- What are the steps involved in procuring equipment for 3-1-1?
- How is research about the equipment conducted?
- What are the major findings from the research about the equipment?
- What procurement policies are followed?
- How long does the procurement process take to complete?
- Who is involved in the procurement process?

### Questions about Requirements Beyond the Start-Up Period:

- What maintenance and replacement policies are incorporated into the procurement?
- What upgrades are planned in the procurement?
- Is the hardware and software scalable to a larger 3-1-1 operation in the future?

**Equipment Needs.** Limiting the scope of the 3-1-1 operations to the basic police model set the parameters for the hardware and software requirements. The Department estimated that the system would support a 24-hour-a-day, seven-day-a-week operation. It would accommodate projected call volumes of 50,000 to 100,000 calls per month. Eleven call takers or concurrent users and two managers would be connected at any one time. The operation started with a limited process when compared to other 3-1-1 city-wide installations.

Technically, the hardware and phone system requirements are complex. They involve networking, compatibility and integration requirements. In this chapter, we discuss these requirements in broad terms and for laymen system users. We recommend that technical professionals seek additional information from information technology sources. The lists provided in this chapter are not comprehensive for a 3-1-1 system as each agency has different existing systems, IT environments and IT configurations. In addition, the price information has been approximated to recognize proprietary information agreements between the City of Austin and the vendors. The estimates are provided to establish a typical range of the types of expenses incurred in procuring technology for a 3-1-1 system.

**Hardware Requirements.** The limited installation translated into providing 11 new workstations and a dedicated server with appropriate wiring. System requirements of the software components (discussed below) drove the hardware needs. The workstations are 800 Mhz with single processors, 256 mb of memory, 4 gb hard drive capacity and 19-inch monitors with touch screens. They are network-ready with no phone card and no monitor/keyboard switch boxes. Each workstation cost approximately \$2,500, including the Touchscreen monitors and emulation software.<sup>17</sup> Procurement took about four weeks, using an existing City of Austin contract. Eleven workstations are set up in the 3-1-1

common workspace, with one in the manager's office. The 12th workstation is used as the telephone call voice recording station.

The server is a dual processor, expandable to quad, with 800 Mhz, 1 gb memory, 2-9 gb drives and 6-18 gb drives. The server cost about \$7,500 and was procured using an existing City of Austin contract and delivered within about four weeks. It is housed with other servers in a secure and temperature-controlled environment located in Austin PD Headquarters.

Adopting the basic police model of 3-1-1 resulted in lower overall hardware requirements and costs. APD was able to reconfigure existing space and wiring to accommodate the new hardware. Even so, the team assured that the hardware they selected could be expanded to support a larger operation.

**Telephony Requirements.** For the telephony equipment, the sets are soft phones with observing capabilities. Each soft phone costs approximately \$1,000. New headsets were obtained so that each call taker could have his or her personal headset. APD procured 51 headsets at \$150 each. Call takers were adamant that each person should have his or her personal headset for hygiene and health reasons.

Behind-the-scenes telephony equipment and service charges included an array of items. To establish the 3-1-1 service and the 5-cent tariff, APD worked with Southwestern Bell to apply to the Public Utility Commission for approval. Application costs were \$4,000 initially and services changes were \$600 per month .

Southwestern Bell reprogrammed each of its Central Offices to route 3-1-1 calls in specified geographic areas. This involved reprogramming the table for call routing in each geographic area. Austin has 18 geographic areas covered by 3-1-1. The initial costs of these reprogramming services were approximately \$4,500.

Each time APD needs to make a change to the table for call routing, Southwestern Bell charges \$610. These types of changes will be required when Austin completes new annexation.

Each month, APD pays approximately \$3,000 for the routing of 3-1-1 calls through the Central Offices based on the 5-cent tariff. Southwestern Bell is also providing summary call reports at a cost of \$10 per month for the calls that route through their Central Offices in the 18 geographic areas.

To accept calls from the Southwestern Bell T-1 switch to the APD switch, APD procured a smart trunk interface card. The card cost approximately \$4,000 and the installation charges were \$2,000. APD also purchased a CSU that allows for a test point to protect the Southwestern Bell network from the Austin equipment. This technology price was \$1,500.

Avaya provided the call management software. 3-1-1 call management was an enhancement to the existing call center software. This software provided benefits well beyond the 3-1-1 service and allowed Austin to track all calls received on the Private Business Exchange (PBX) switch. The software cost \$150,000 and was procured as part of a larger City of Austin telecommunications upgrade. Each month the license fee for the software is \$1,000.

APD procured new voice recording software at a cost of approximately \$50,000. This equipment helps APD ensure that call takers are providing the highest level of customer service on a daily basis. It also provides vocal documentation of the 3-1-1 calls in the event that a 3-1-1 call escalates into an emergency call.

**Features that are priorities and necessary for use versus features that are “luxuries.”** The Austin 3-1-1 team did not face multiple decision points about needs versus luxuries in evaluating the hardware and telephony technology. The components added for 3-1-1 were standard to the current computer and telephony technology avail-

able and planned in the Department. The soft phone/touch screen technology was the most significant upgrade.

Requirements for the hardware and telephone system revolved around integration with existing hardware, limits on the space available, ergonomics for call takers and requirements of the CRM software (explained below). The desktop computers required sufficient drive space and memory to operate multiple programs simultaneously. They also needed network cards.

As an upgrade, the desktops were equipped with large screens that are touch-screen compatible, much like those used in restaurants. With the desktop interface phone software, call takers are able to access a “soft phone.” A phone number pad appears on the computer monitor and call takers touch the screen with their fingers or a flat object to dial, i.e., a soft phone. While not essential to the operation of a 3-1-1 system, this technology speeds the dialing process by integrating it with the central piece of equipment, the computer, rather than requiring the use of a separate telephone.

Aside from the soft phone integration, the phone systems include headset compatibility, access to at least two phone lines, multiple hold options and caller identification screens.

**Software Requirements.** While a limited operation allowed for a more manageable hardware procurement process, software procurement involved balancing needs versus desires. Some software components were directly tied to the hardware and telephony equipment and have been discussed above. However, we list them here to provide a complete record of the software within the system.

The software components included:

- 3-1-1 Customer Relationship Management (CRM) software
- 3-1-1 Server Disaster Recovery software
- 3-1-1 Server Defragmenter software
- Client PC Emulation Software license

- Client PC Internet Explorer Browser
- Client PC MS-Office Software for Supervisor Workstation
- Non-concurrent Database Engine User Licenses and Server License
- Call Management Incoming call reporting software

Team members spent the majority of their time selecting software for the system. Particular attention was given to selecting the CRM software. The team anticipated that this software would guide the interactions between call takers and APD customers. At the very least, it would support, not hinder, the call takers as they attempted to gather necessary information.

Call takers needed tools that would allow them to collect accurate address information, document caller concerns, highlight situations where multiple callers were reporting the same information, and ask pre-determined questions specific to the nature of the call. For example, if a caller were to report a traffic signal failure, the tools should allow the call taker to document the location of the traffic signal, determine whether a report had already been taken, assess the level of danger, learn whether any accidents had occurred and document caller information. Call takers also needed a tool that could store phone directory and policy information for one-click access.

Other evaluation criteria set the standards for how the CRM software integrated with existing and proposed systems and hardware. As discussed in Chapter 1, APD had planned its move into the new communications center in 2003. With this move, they were expecting to introduce new CAD, radio and records management technology and software. The ability to integrate 3-1-1 software into the enterprise components served as an important undercurrent in the selection process.

The CRM software required the most evaluation and system needs analysis. This software

represented the principal cost and operational changes associated with 3-1-1 implementation. A variety of CRM software existed on the market. Prices ranged from \$50,000 to \$250,000, depending upon the features included.

The team evaluated software options against these dimensions:

- Software Functionality
- Phone System Interfacing
- Data Sharing Capabilities with other programs
- Interface with Enterprise Call Center
- System Software and Hardware Specifications
- Licensing Requirements
- Performance
- Documentation
- Support
- Training
- Maintenance
- Warranty
- Security

In each area, the team defined what the CRM software “must do” as opposed to the functionality that would be “nice to have.” Table 1 shows an example of the type of evaluation tool prepared for software functionality.

Table 1 shows that APD required the CRM software to log all incoming 3-1-1 calls, record key caller information, verify that geographic location was in the APD jurisdiction, record information specific to the problem, escort the caller when transferring calls, create statistical reports, and so forth. Luxury items sought included the ability to record the disposition of the call, to document where the call was transferred to and to capture key information from other enterprise systems.

For Phone System Interfacing, only luxury items were identified. The team wanted the software to be capable of capturing and storing ANI information (caller number, address, etc.) and speed dial base information. For example, if an opera-

Requirement	Must Have	Luxury
<b>Software functionality</b>	Log all incoming 3-1-1 calls	Record the disposition of the 3-1-1- call in the call record, including:
	Record basic information about each call, including:	- disposition type
	- time/date call taken	- disposition narrative
	- name of caller	- time/date the call was disposed
	- address of caller	- time/date 3-1-1 call was terminated
	- request type	- call-taker handling the call
	- request narrative	- department, organizational unit and phone number where the call was transferred
	Verify the geographic location of the caller and the APD geographic jurisdiction	- name and phone number the call was transferred to
	Provide information to questions	- corresponding CAD incident number, if applicable
	Escort callers to other organizations and organizational units that can address their need	- corresponding police reporting system number, if applicable
	Provide access to CAD to create related CAD incident reports	
	Provide access to police reporting system (DEORS)	
	Create and run pre-defined and user-defined statistical reports regarding any aspect of 3-1-1 call data	Run selected reports and queries on-demand or automatically at user-selected intervals or at user-pre-designated times.

tion used speed dial #2 to contact the manager of emergency communications, the software would capture the director’s entire phone number, not just the “2” that was dialed.

Under the Data Sharing Capabilities with Other Programs criteria, the team wanted the software to be capable of open database connectivity (ODBC) with future CAD and RMS systems. As a luxury, the software would allow for an automatic connection, directly and effortlessly transferring the data.

The team also looked ahead to determine city-wide 3-1-1 solutions. They sought software that would allow work orders to be transferred between city organizations via the ODBC connection with a future enterprise or citywide call center.

With respect to System Software and Hardware Specifications, Licensing Requirements, Performance, Documentation, Support, Maintenance, Warranty and Security criteria, the team’s “must have” requirements mirrored standard information system requirements. For example, the vendor was to provide information about software and hardware specifications prior to purchase of

their software. Options for support services and time extensions to standard warranty and service periods were considered.

The primary requirements that the team specified were that the CRM software must operate as a relational database and on a Windows NT-based server and client network. This specification promoted compatibility with existing and planned changes for other information systems (such as CAD) and the city platforms. Meeting this requirement ensured that the 3-1-1 software was compatible with the APD standard and that the current staff had the skill sets to implement and maintain it.

Finally, the team required the vendor to provide all training for call takers, supervisors, managers, web-users, system administration and database administration. The trainings had to be flexible to avoid disruptions of the 24/7 Teleserve operations. They also sought train-the-trainer sessions and expected these to be reasonably priced.

The police-only model limited license costs for the software selected, but did not alter the basic fea-

**Table 2: Estimates of Costs of 3-1-1 Technology (2000)**

	Cost per Item	Quantity	Total Cost
<b>Computer Hardware</b>			
Workstation cost with the Touchscreen monitors and immulation software	\$ 2,500	12	\$ 30,000
Server, dual processor, expandable to quad, with 800 Mhz, 1 gb memory, 2-9 gb drives and 6-18 gb drives	\$ 7,500	1	\$ 7,500
<b>Telephony Equipment</b>			
Softphone	\$ 1,000	11	\$ 11,000
Headsets	\$ 150	51	\$ 7,650
Public Utility Commission Tariff Application:			
Initial Costs	\$ 4,000	1	\$ 4,000
Monthly Public Utility Commission Fee*	\$ 600	12	\$ 7,200
Table Reprogramming Services at			
SWB Central Offices: Start	\$ 4,500	1	\$ 4,500
Table Reprogramming Services at			
SWB Central Offices: Change Fee	\$ 610	0	\$ -
Monthly 3-1-1 Routing Charge (5 cents tariff)*	\$ 3,000	12	\$ 36,000
Monthly Summary Statistic Reports*	\$ 10	12	\$ 120
Smart Trunk Interface Card	\$ 4,000	1	\$ 4,000
Installation of Smart Trunk Interface Card	\$ 2,000	1	\$ 2,000
CSU to protect SWB network	\$ 1,500	1	\$ 1,500
Call Management Software**			
(PBX wide software)	\$ 150,000	0	\$ -
Monthly Call Management Software			
License Fee (PBX wide software)	\$ 1,000	1	\$ 1,000
New Voice Recording Software	\$ 50,000	1	\$ 50,000
Customer Relationship Management (CRM) software	\$50,000 to \$250,000		

\*Ongoing Monthly Costs

\*\*One Time Costs procured as part of a City of Austin telecommunication's upgrade.

tures or capabilities of the software. The software was designed to operate city-wide, if that need were to arise. Many benefits of streamlined communication between departments were lost. In fact, altering the software to work within the limits of the police-only model involved some adjustment to the user interfaces.

Training was required to explain components that were included for an integrated system, but that would not be used in Austin at the time of implementation. Call takers were required to understand that although the software included functionality to transfer work orders and track progress, that functionality would not be activated in the police-only model. Additional manual steps were established to complete tasks that the software would have accommodated in an integrated circumstance.

### **Questions about How to Procure the Equipment:**

Procurement planning for the 3-1-1 operations began almost one year prior to implementation. It included the following phases:

- Project Definition: Determining the project scope and resources (three months)
- Analysis Phase: Determining what was needed and why it was needed (three months - concurrent with project definition)
- Design Phase: Determining how to obtain what was needed either through buying an off-the-shelf software package to customize or building an information system (two months)
- Procurement Phase: Evaluating and purchasing the hardware and software (six to eight months)
- Construction Phase: Installing, configuring, tuning and testing the software and hardware (three to four months - overlapping with procurement phase)
- Implementation Phase: Turning the systems on for use and final debugging (two weeks)

**Project Definition, Analysis and Design.** The Manager of Emergency Communications worked with the Director of Planning and Research and

three staff from the Information Services Department (ISD) of the City of Austin to define the project scope. During this phase, the Emergency Communication Manager determined what type of operations he sought, what functions were definitely required, and what functions were not needed.

During the analysis phase, the ISD Project Manager used business functional and data modeling to develop functional decomposition and entity-relationships diagrams. These tools specified what call takers did when answering calls and the data they needed to do their jobs. She sat with Teleserve call takers, watching how they took calls from the queue, what steps they took in answering the calls and how they resolved the calls. In this effort, she did not document the process of taking calls but focused specifically on the functional requirements of call taking.

The Project Manager documented environmental factors that would impact the selection process - what skills were available within the team and what physical limitations exist, especially as related to physical space. She considered the option of building an information system versus buying software off-the-shelf. At this point, the team realized that to build a system would require more work than available staff could handle.

**Procurement Phase.** To evaluate market options, the Project Manager conducted Internet research for two months. She looked at websites for other cities with 3-1-1 call centers, conducted key word searches in well-known search engines, and perused known IT solution vendor web sites. Four to six vendors provided CRM software. Unfortunately, none was designed specifically for a police 3-1-1 operation; rather it was designed for businesses concerned with customer service.

Of the vendors available, two sold CRM software in the government arena. Further, only two vendors included a geo-code component in their files. This functionality was a requirement because APD would only accept 3-1-1 calls from its jurisdiction. The software needed to be able to identify which

calls were within the jurisdiction and which were not. Also, APD used geo-based data to analyze crime trends and department resource needs. The Project Manager soon learned that this functionality was the key distinguishing feature and expense of the CRM software products.

The Project Manager invited all six firms to provide day-long demonstrations of their products. Two accepted the invitation. During the demonstrations, the core team, made up of the three ISD staff, the Manager of Emergency Communications and two of his staff, participated. The Emergency Communication Manager wanted the call takers to have the opportunity to see the vendors and to become invested in the new system. Call takers participated in rotating two-hour open forum demonstrations in which the vendors took questions and showed how their products would address the operation in question.

During these demonstrations, the team reaffirmed its requirement that the system operate on a relational database engine and have a proven track record of responding to public agency needs. Only one vendor, Motorola, met these two requirements. Motorola's system had been installed in three large cities. The team contacted peers in these cities and made a field trip to one of them, to obtain references and see the system in operation.

The Project Manager approached the purchasing department to learn what options she had for procuring the necessary hardware and software. Normally, the department allowed three purchasing options: RFP's or Requests for Proposals, a time-consuming public bidding process; adding to an already-existing contract between the vendor and the City, under certain circumstances; and sole source purchasing, buying directly from a single vendor without a public bidding process. The Project Manager learned that the City had a policy of allowing sole source purchasing when that best served the interests of public safety. This was certainly

the case for the 3-1-1 system. In the process of becoming educated in procurement protocol, the Project Manager also formed a critical, positive working relationship with Purchasing.

In partnership with the purchasing department, the team determined that the 3-1-1 project qualified under the rules and guidelines of the umbrella authority. They were allowed to purchase the software and hardware directly without issuing an RFP.<sup>18</sup>

Motorola wrote a 50-page proposal responding to specific functionality requirements outlined in the RFP. Negotiations between ISD and Motorola began immediately. Use of this authority saved the team between three and five months compared with the time required for processing an RFP.

To procure the telephony components, the ISD Voice Engineering Supervisor executed modifications to existing contracts. Using these vehicles allowed expedited delivery and limited paperwork. She estimated the number of phone lines that would be needed based on the number of current Teleserve calls. This provided her with the call volume. She estimated that they would need lines to support at least 10 call takers and 10 calls in the queue -- or 23 lines. The calls were routed over a Sonet network.

**Construction Phase.** Once the procurement process was set in motion, the vendors agreed to begin the construction phase. Avaya installed the call tracking software for the PBX switch. They provided a half day of training on this software and discussed how it would meet some of the requirements for the CRM software. These functionalities enhanced the managers' ability to assess the system operation and to improve the skills of their call takers. Features provided by the call tracking software included identifying the source of the phone call (3-1-1 number, Teleserve number, or internal and external PBX numbers); logging time spent by call takers on calls, follow-up to calls, report writing and

breaks; and tracking time in each state by call taker. The department also installed a system to record calls for customer service reviews and for potential crises or problem situations.

For the CRM software construction, Motorola practically installed the system before Motorola and the City of Austin executives signed the final contract. (The basic components had been agreed upon, allowing the legal teams of both parties to review and approve the language.)

Construction involved a cooperative effort between the vendors and the team. The team provided the hardware, set-up area and Austin-specific data. The vendors installed the software, uploaded the data and configured the screens for the Austin operation.

Within this contract was a detailed test procedure. Motorola was required to demonstrate the software's functionality against this test, using Austin data and configuration prior to acceptance of the system by APD. Following the installation, the Project Manager and the APD Training Coordinator participated in a demonstration, led by Motorola staff, of the functionality of the software against this test.

During the test, one key feature was not functional - address identification based on geo-data from APD. Because of the difference between geo-data formats, the data from APD's GIS could not be uploaded into the CRM software without significant reformatting. The main problem was the difference in base maps and geographical fields used by APD's GIS and Motorola's CRM software. The format for the coordinates for the addresses differed systematically, meaning that making changes in APD's GIS program would have been time-consuming and costly. Resolving the issue took extensive APD staff time and vendor effort. This address identifi-

cation functionality allowed call takers to enter an address and/or street intersection to verify that it was within APD's jurisdiction and to determine if more than one call had been received for that address.

Because of APD staffing constraints, Motorola was not able to fully resolve the geo-data issues. Although this functionality was not fully operational, APD provided an initial acceptance of the software and began customizing and testing it for use approximately one month prior to the official start date. APD formally accepted the software approximately two weeks prior to the start date. During the first two days of calls, the vendors, Motorola and Avaya, remained on-site to resolve problems as they arose.

**Maintenance, Support and Upgrades.** The vendors supporting the 3-1-1 operation in Austin are providing maintenance and support as needed. Agreements about the level of support were established in the respective contracts. In addition, agreements about automatic shipping of upgrades were negotiated within the contracts.

Figure 6: Screen Shot of APD CRM System.



## INTRODUCTION

# Call Routing and Tracking

## Chapter V

Routing and tracking phone calls turned out to be more complicated than imagined. While designing the system, 3-1-1 team members learned that the public has multiple ways to access the police department. In Austin, calls into the 3-1-1 call center originate from five phone type locations. These include:

- calls from a home or business within Austin city limits
- calls from a home or business not within Austin city limits
- calls from pay phones
- calls from cellular phones
- calls from within the Austin Police Department.

To place these calls, individuals may dial 3-1-1, the Austin Teleserve phone number (974-5750), the Austin Police Department general number (974-5000), or the internal APD operator (0).

Once a caller reaches the 3-1-1 call center, call takers focus on resolving their issues and gathering the appropriate level of information about public safety issues. Calls are routed or resolved, depending upon the nature of the issues involved. Calls may be forwarded to specific individuals or departments within the police department, resolved by taking a police report or call report, dispatched or answered without any follow-up action by the call taker.

Software obtained with the phone system tracks where the call originated and the duration of the call. The Customer Relations Management (CRM) software tracks the disposition of a limited number of calls, especially those requiring action by other city agencies. Teleserve calls are tracked based on the incident number in the CAD system and the records management system (DEORS). Information calls are forwarded or resolved without the creation of specific call tracking documentation. By establishing these different routing and tracking processes, APD staff are able to focus resources to improve customer service and strengthen the relationship with citizens trying to improve their neighborhoods.

## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about Where Calls Originate:

- How are calls directed into the 3-1-1 call center?
- What steps are necessary to filter and direct calls into 3-1-1?
- What issues are specific to calls from pay phones and cellular phones?
- What types of work-arounds can be used to address issues specific to calls from competitive local carriers?

### Questions about How Calls are Routed:

- What options does a call taker have to resolve a call?
- What happens when emergency calls (9-1-1) are made to 3-1-1?
- How does the implementation of 3-1-1 change a Teleserve operation?

### Questions about How Calls are Tracked:

- How is APD tracking calls that are coming into 3-1-1?
- What impact did APD expect 3-1-1 to have on 9-1-1 calls?
- How has 3-1-1 impacted 9-1-1 during its start up period?
- What information is maintained about the disposition of 3-1-1 calls?

**Origination Points for 3-1-1 Calls.** Calls into 3-1-1 originate from five major categories:

- Calls from homes and businesses located in the Austin city limits.
- Calls from homes and businesses not located in the Austin city limits.
- Calls from pay phones in the Austin city limits.
- Calls from cellular phones
- Calls from within the Police Department.

Further, calls reach 3-1-1 call takers when individuals dial any of the following:

- 3-1-1
- APD's seven-digit general phone number (974-5000)
- APD's seven-digit Teleserve phone number (974-5750)
- 0 from within the APD building and/or phone network.

Calls made by dialing 3-1-1 from homes and businesses are first routed to a Southwestern Bell transfer station. Southwestern Bell is charging a tariff; 5 cents is charged to the City of Austin for each 3-1-1 call filtered through their switch. To ensure that APD only receives calls within its jurisdiction, Southwestern Bell agreed to include a geo-based filtering system in its transfer station. Relying on this geo-file, 3-1-1 calls made from within the city limits are passed through to the 3-1-1 call center. Calls that originate from outside the city limits receive a message stating that the City of Austin 3-1-1 service is not available to the caller. It further advises them to contact their local police department for assistance.

While this process appears straightforward, Austin's annexation policies create situations in which the city limit is difficult to determine by citizens. In some situations, houses on one side of the street are within the city limits whereas those on the other side are not. In extreme cases, the city limit falls in the middle of buildings and splits apartment complexes. The geo-file used by the Southwestern Bell

transfer equipment is based on the zip-plus-four postal code. This method does not reflect the level of specificity required to filter all calls from addresses located along the city limit line. Some calls may be passed through that are not within APD's jurisdiction. Call takers are responsible for screening these calls based upon more specific geo-data within the CAD system.



Calls made from pay phones and cellular phones present a host of issues to the 3-1-1 team. Pay phones and cellular phone services are owned and operated by many different companies, known as competitive local exchange carriers (CLEC) companies. The majority of pay phones in the Austin city limits are owned and operated by Southwestern Bell, making the addition of 3-1-1 service easy.

To address this problem, APD established a protocol for interested service providers other than Southwestern Bell. It involved establishing a seven digit number that could be used to reroute calls to 3-1-1. APD worked with CAPCO, the 9-1-1 regulators, to identify all the pay phone owners and cell phone carriers. They sent a certified letter to over 90 CLEC companies explaining what steps to complete to offer 3-1-1 services to their customers. It was

up to the CLEC companies as to whether they altered their switch stations to accommodate 3-1-1. Those who chose to offer the 3-1-1 service set up their switches such that when a person dialed 3-1-1, the switch would translate the call to the seven-digit number at the APD switch; the call would then be passed on to the 3-1-1 call center.

Initially, APD received limited negative publicity for 3-1-1 because AT&T cellular phone users could not reach 3-1-1. AT&T, a major cellular service provider in the area, publicly denied receipt of the certified letter notifying them of the steps to take to offer 3-1-1. APD was able to respond to this publicity in a positive manner by producing a copy of the certified letter and receipt. They publicly encouraged AT&T and other cellular phone service providers to recognize the public demand for 3-1-1 and to take the steps necessary to offer the service.

Citizens and businesses also reached the 3-1-1 call center when they dialed the APD general seven digit number and when they dial the APD Teleserve seven digit number. By rerouting these numbers, APD combined its Teleserve and private business exchange operation (PBX) with 3-1-1. They reassigned staff positions from the Teleserve and PBX operations to 3-1-1 and used existing staff positions in the most efficient manner possible. Team members caution that using existing personnel to staff a new 3-1-1 operation presents challenges associated with change management. APD did so because funding and staffing availability made this their only option.

APD internal calls for operator assistance were also rerouted from the PBX operation to the 3-1-1 call center. This switch initially caught officers off guard. Some reported that they hung up after hearing the 3-1-1 greeting, thinking they had misdialed. Again this staffing decision made more efficient use of limited staff positions.

**How Calls Are Routed.** Once a call reaches the 3-1-1 call center, it is routed to an available call taker automatically. Call takers answer the call, "Austin 3-1-1. May I help you?" Daily call takers answer over 900 calls during the day and evening shifts and over 200 during the night shift. If no call takers are available to take calls, callers may opt to leave a message. Call takers are in a busy status and unavailable to receive incoming calls when they are answering a call, completing report writing after a call, or on a break.

The phone system software reports call taker status in real time for managers. Managers are able to view the number of calls waiting, the length of time that the longest call has been waiting, how many call takers are immediately available for incoming calls and how many call takers are currently logged on the system. In addition, they can view specific information about each call taker, including the telephone extension of the console that the operator is in, the current state of the call taker, the amount of time spent on the current call, and which line the caller called to reach a 3-1-1 operator. Much of this information is displayed using easy-to-understand graphics, such as a Green  Telephone meaning that the call taker is ready for a call, or a Blue Coffee Cup,  meaning that the call taker is finishing a report.

Managers can also request historical reports to determine the average length of time call takers spend taking each call, writing reports or taking breaks. This information is available for individuals and/or in aggregate form for a group of call takers. It can be queried based on time periods ranging from shifts to days to weeks to months.

When a call is received, if it is a 3-1-1 type call requesting services from the PD or from another city agency, call takers enter that information into the CRM system. These calls include calls reporting street light failures, animal control issues and other city service calls. Call takers are prompted with questions

to ensure they gather the necessary information required to resolve the call. The CRM software is able to track duplicate calls, such as multiple calls reporting a street light failure at the same intersection.

If the call is a Teleserve call, the call taker enters a police report into the CAD and RMS system (DEORS). On average, these calls require more time than other calls. Situations designated as Teleserve calls include burglary reports where the perpetrator has clearly left the crime scene, vandalism calls or missing persons calls.

As discussed in Chapter VII: Training, shifting from the Teleserve operation to the 3-1-1 operation required that Austin call takers alter their roles. As their experience grew, Teleserve call takers became more involved in obtaining in-depth information for detectives to use in investigating police reports. With 3-1-1 implementation, both detective and call takers realigned their expectations about what information should be collected during the initial contact. The 3-1-1 call takers are required to focus on quickly resolving and transferring calls.

For the rare case where a call received at the 3-1-1 call center is an emergency call, the 3-1-1 call takers are certified 9-1-1 call takers. The call taker takes the required information and forwards the call to a dispatcher. The only difference that a dispatcher will notice about these calls is that they lack the automatic “ALI” information<sup>19</sup> - the address information. 3-1-1 call takers attempt to obtain the address information to the best of their ability and in most cases are expected to be able to gather that information readily.

3-1-1 callers who request general information or ask to be transferred to another APD department receive answers or are transferred without call takers creating documentation. Call takers escort callers to their destinations in the majority of cases, ensuring that the caller

reaches a person, or is informed of the transfer to voice mail. In cases where the caller is seeking information from an entity outside of the City of Austin government, the call taker searches an internet resource list and provides the appropriate phone number to the caller.

In the current system, 3-1-1 call takers are not able to use the CRM software to determine the status of follow-up on issues reported through 3-1-1. If a caller calls back to check on the status of a service request, the 3-1-1 call taker must direct them to the appropriate responder for further information. With the link to an enterprise call center, APD hopes in the future to implement this tracking ability with the CRM software. This will improve the level of customer service to callers without overburdening the APD 3-1-1 call takers.



## INTRODUCTION

# Staffing

## Chapter VI

Regardless of the technology changes, the success of 3-1-1 lies in the interaction between the citizens who use it and the call takers accepting the calls. The Austin Police Department (APD) implemented 3-1-1 by reassigning existing staff from the Tele-serve Unit and the PBX operation.

While doing this limited the level of training required for call takers, it created challenges associated with change management. Call takers were faced with changes in their job description and in their skill requirements. Three months before these changes took effect, Teleserve changed from a ten-hour operation to a 24-hour operation, creating a new shift structure. Acceptance of these changes required a change in attitude by the call takers about the purpose and scope of their job.

While all of these changes were significant, 3-1-1 managers reassured call takers about their new jobs, built excitement about the changes, and addressed harmful rumors in a timely and effective manner. They also set new standards for performance and realigned the 3-1-1 call taker position with department priorities.

## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about the Number of Call Takers Needed:

- How many call takers are scheduled per shift?
- How long are the shifts?
- How are shifts covered in peak times?
- What is the call load?

### Questions about the Skills Call Takers Need:

- Do call takers understand the purpose of 3-1-1?
- What are the advantages and disadvantages of employing civilian call takers for 3-1-1?
- What are the advantages of employing certified 9-1-1 call takers as 3-1-1 call takers?
- How are call takers selected?

### Questions about Motivating Call Takers:

- What is the turnover rate for call takers?
- What are common concerns about 3-1-1 from call takers?
- What management steps are essential to reassure call takers when implementing 3-1-1?
- How can rotations through emergency communications divisions benefit 3-1-1?
- What benefits or perks aid in motivating call takers?

**Number of Call Takers.** To staff the new 3-1-1 operation, APD used existing communication personnel plus ten new positions from City budget for fiscal year 2000-01. In total, 33 Full Time Equivalents (FTEs) were assigned to the 3-1-1 operation as follows:

Shift	Supervisor	Lead	Call Taker	Total FTE's
6 a.m. - 2 p.m.	1	1	9	11
2 p.m. - 10 p.m.	1	1	9	11
10 p.m. - 6.a.m.	1	1	9	11
<b>Total</b>	<b>3</b>	<b>3</b>	<b>27</b>	<b>33</b>

The operation is a 24-hour/7-day operation. Shifts were eight hours in length. Below is an example of a typical 3-1-1 shift schedule:

Employee	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Supervisor	OFF	OFF					
Lead			OFF	OFF			
Call Taker #1	OFF						OFF
Call Taker #2					OFF	OFF	
Call Taker #3				OFF	OFF		
Call Taker #4			OFF	OFF			
Call Taker #5		OFF	OFF				
Call Taker #6	OFF	OFF					
Call Taker #7	OFF						OFF
Call Taker #8					OFF	OFF	
Call Taker #9			OFF	OFF			
<b># of Call Takers on duty</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>8</b>

APD converted their Teleserve operation, staffed with 21 individuals, and their PBX or APD main number operation (2 individuals) to 3-1-1. Operating 3-1-1 did not have an impact on the staffing level of the 9-1-1 call takers levels at 72 call takers.

On average, each call taker in the Teleserve operation handled between 40 and 70 calls per shift. In a few cases, the duration of Teleserve calls was approaching 20 minutes prior to the implementation of 3-1-1. Call takers became experts in gathering detailed information for detectives, asking a range of questions.

Spending this amount of time on 3-1-1 calls was not possible and contrary to one of the goals of 3-1-1 – to remove non-emergency calls from 9-1-1. If callers are unable to reach a 3-1-1 operator because all the lines are busy, they will likely

resort to calling 9-1-1. Managers worked with detectives to explain how 3-1-1 would support them, but not assume their responsibilities. 3-1-1 call takers gather essential information from these Teleserve type 3-1-1 calls.

With the implementation of 3-1-1, call takers handle on average 80 calls per shift. The duration of the calls averages less than two minutes. During peak

periods, when the line is busy, 3-1-1 callers can choose to talk to an answering machine or wait for an operator. Leads and supervisors return calls within an hour. On Teleserve type 3-1-1 calls, the duration of some calls is longer than the average 3-1-1 call. However, with training, call takers were taking less time to fill out the Teleserve questionnaire.

#### **Required Skills and Training.**

APD Emergency Communications personnel were cross-trained to work in three major units, 9-1-1, teletype and 3-1-1. Every six months, call takers rotated between the divisions, allowing for shift changes. The rotations build the skill levels of everyone in the division, promote understanding and cooperation between the units, and improve staffing options for peak times and overtime requirements.

Most important, 3-1-1 call takers were certified as 9-1-1 emergency call takers. In the event that a 3-1-1 call escalates to a 9-1-1 emergency, the call

takers are trained to handle the call appropriately and forward it to dispatch. Providing this level of service was critical to APD's vision of 3-1-1. It ensured that if callers dialed 3-1-1 by mistake in an emergency situation, highly trained call takers would handle their call.

**Understanding of 3-1-1.** Most Teleserve call takers were previously 9-1-1 call takers and/or teletype call takers. When asked about their view of 9-1-1 compared to Teleserve, these call takers felt that Teleserve was a different type of position and a different way to expand their skills and experiences in the police department. To take a police report in Teleserve, the call takers were required to know more about the laws and codes in Austin and to understand the divisions within the police department. Typically, 9-1-1 call takers were responsible for determining the nature and urgency of the caller's emergency and for routing the call to dispatch for a patrol response, a much different role than taking a police report.

At the introduction of 3-1-1, Teleserve call takers were suspicious about their changing roles. They enjoyed the depth of their jobs, acting as fact finders to properly fill out police reports. They took pride in directing callers to the proper entity to resolve police situations. Call takers were particularly concerned that they would become general purpose call takers, much like a 4-1-1 service for the City.

To diminish these concerns, managers took a number of steps. First, they involved call takers in the procurement process for the CRM software. Call takers questioned vendors during the demonstration about how the system would handle different day-to-day situations. This step introduced call takers to the types of tools they would have access to in their new positions.

During the training for the software, managers picked leaders from the call takers to participate in train-the-trainer sessions. The individuals identified the advantages of the new software and discussed it with their peers. They assisted

with training everyone on the software. During this intense training period, managers were able to learn and address misconceptions and rumors that were developing as the implementation of 3-1-1 grew closer.

As the call takers became more familiar with tools they would have and learned more about the key purpose of 3-1-1, they began to understand their roles more clearly. Call takers realized that they were already fielding a number of non-emergency calls in Teleserve and in 9-1-1. They realized that these calls were having an impact on their ability to meet performance standards in the 9-1-1 division. They also realized that the new tools would help them handle these non-emergency calls in a more professional and expeditious manner. Finally, call takers realized that as 3-1-1 call takers, they would expand their knowledge of the police department and the city government. With this new knowledge, they would be able to problem-solve situations more easily and would become more valuable employees.

To stress the value of the 3-1-1 positions, the Emergency Communication Manager involved call takers in the media reports announcing 3-1-1. He allowed reporters to interview call takers and to film them for news stories. Call takers showed off their new tools and discussed how 3-1-1 would help the public gain access to important police department information.

Convincing the call takers of the benefits of 3-1-1 was difficult for managers. However, APD was successful in educating call takers about the primary purpose of 3-1-1 - to remove non-emergency calls from 9-1-1. They demonstrated the personal benefits of being a 3-1-1 call taker and thus avoided a major turnover of staff.

After the training and prior to the kick-off date, all call takers signed a "3-1-1 work agreement." This work agreement clearly laid out expectations that each employee would provide a high level of customer service. It also spelled out what call takers could expect from their supervisors and what actions they were to take if they did not feel

their supervisors were assisting them. Finally, it documented management's understanding that the implementation of 3-1-1 presented many challenges to all involved.

call takers and dispatchers are located on the fourth floor in a secure area. Teleserve call takers were located on the third floor.

## Figure 7: 3-1-1 Work Agreement

### Laying the Groundwork.

One of the significant factors in APD's success with personnel was its recognition of the understaffing and underpayment of call taker positions. In the years prior to 3-1-1 implementation, APD undertook a major overhaul of the emergency communications division. From 1994 to 1996, APD more than doubled the number of 9-1-1 call takers from 35 to 79, allowing the department to catch up with the increase in Austin's population. This staffing change reduced the average number of calls handled by a 9-1-1 call taker by almost 50 percent.

In addition, APD increased the pay for call takers from \$11.00 per hour to \$14.82 per hour. This rate applied to all call takers, whether they were 9-1-1 call takers or Teleserve call takers. Addressing workload and pay issues was the first step in recognizing call takers as integral to the police department response to customer needs. Establishing shifts and developing seniority protocols and career tracks also improved call taker positions. These actions reduced call taker turnover from 40 percent per year. For the past two years, APD has a waiting list of individuals seeking to be call takers.

Within the Division, one factor affecting APD was the physical separation of the call takers. 9-1-1

\_\_\_ I understand that 3-1-1 will be a highly publicized number. Exemplary service will be expected. I will treat every caller with the respect, courteousness and empathy that they deserve.

\_\_\_ I understand that the implementation of 3-1-1 may cause an increase in our call volume. As a part of the 3-1-1 team, I believe that I can make a difference in the outcome of this program. I will make every effort to efficiently handle every call I receive. I will assume an active role in every call I handle and refer callers that need special attention to my supervisor or lead.

\_\_\_ I understand that the time I spend on the calls, in queue and in not ready will be monitored by the supervisor or lead on duty. Calls that exceed 8 minutes long will set off a visual alarm alerting the supervisor or lead that I may need assistance with my call.

\_\_\_ I understand that I am the most important part of the Austin Police Department's 3-1-1 team. It is up to me to expect the most I can from my Supervisor and Lead. If he or she is unable to assist me with a question or problem and does not make a valid attempt to resolve the question or problem it is up to me to refer the lack of assistance to his or her supervisor. I understand that in order to make 3-1-1 work for the city, I will need to expect nothing but the best from those in a position to assist me.

\_\_\_ I understand the use of the internet will be allowed. It will allow me to better assist the citizens of Austin in their questions. I understand that ALL use of the internet is monitored and that any user found abusing the privilege by pursuing personal business online will be subject to disciplinary action up to and including termination.

\_\_\_ I understand that as with every new thing there will be a great deal of modifications to the way I currently do things. I will attempt to embrace these changes and offer other suggestions to those in a position to create change.

\_\_\_ I understand that the 3-1-1 software's resource pages are easily updateable and can be modified relatively easily. I expect my supervisors and leads to help me become a more efficient call taker by updating these resources when they are given suggestions. I will follow up with the supervisor if I do not feel that the update has occurred in a timely manner.

Somehow, physical location became a status issue among the call takers. Those call takers on the fourth floor were assumed to have higher status than call takers on the third floor. While this issue seems minor, it was a real and difficult problem for managers to address. They abolished the distinction between the types of call takers. All call takers were given the same performance plan, regardless of whether they were 9-1-1 or 3-1-1 call takers.

With the implementation of 3-1-1, call takers on the third floor suddenly assumed a more “glamorous and glitzy role.” They used more modern equipment and software. They were able to solve a wider range of caller issues with relative ease. The press interviewed and featured them on television. These actions caught the attention of call takers from other areas. Some began to inquire about when they could rotate into the division.

**Summary.** In the basic police model, training and certifying 3-1-1 call takers for 9-1-1 calls provides a number of benefits. It guarantees that callers have access to emergency services if required. It allows managers to meet staffing needs more easily in peak situations. It promotes career advancement for call takers, allowing them to rotate through the emergency services operations. Finally, it motivates staff to work as a team and recognize the importance of 3-1-1 in responding to customer needs.

Success of 3-1-1 depends on positive interactions between callers and call takers. APD ensured that call takers understood their roles and the purpose of their jobs in the larger scheme of the Department. Call takers were able to succeed because they had appropriate tools and management support and were able to concentrate on the tasks at hand.

## INTRODUCTION

# Training

## Chapter VII

Training is required for smooth implementation of new processes or systems. The establishment of 3-1-1 in Austin required a multi-faceted training approach. This chapter describes the training that took place prior to the start of the 3-1-1 system and discusses plans for future training.

Two major themes were incorporated into each training session. The first theme addressed the importance of removing non-emergency calls from 9-1-1 by providing 3-1-1 as a viable alternative. All of those involved with 3-1-1 were trained and asked to participate in the public re-education about the purpose of 9-1-1 as an emergency number.

The second training theme promoted the concept that for 3-1-1 to be a viable option, calls had to be answered in a timely, effective and courteous manner. The Emergency Communication Manager recognized that call takers were dedicated to providing excellent customer service. In some cases, providing this level of service to callers resulted in others receiving a diminished level of service. Their calls were not answered in a timely manner.

The training highlighted this imbalance. Trainers demonstrated how the new technological tools and operating policies would focus the requests for information and types of responses call takers would make to callers. Structuring the interactions with set questions would assure that all callers would receive a high level of customer service while having their issues handled in a timely and effective manner.

Supervisors, Teleserve call takers, 9-1-1 call takers and technology systems staff received intensive training on the new 3-1-1 operations. Police dispatchers, district representatives and police officers participated in brief reviews of the intent of 3-1-1 and their roles in promoting it.

Methods of training included train-the-trainer vendor trainings, one-on-one trainings and on-the-job training experiences. Training is planned for new hires.

## QUESTIONS IN THIS CHAPTER INCLUDE:

### Questions about What Training is Needed:

- What changes are being made to department policies and procedures? What changes in service expectations are required to handle the added call volumes?
- How does the customer service request system software work? What do call takers need to do to enter calls into the system? What do supervisors need to do to review and manage call loads? How can supervisors use the system to help them supervise and develop their staff?
- How does the telephony component operate? What do call takers need to do to use the telephone software? What types of reports can the supervisors request from the software? How can the supervisors use these reports to manage their staff's workload and to ensure quality service?

### Questions about Who to Train:

- What training do call takers need to operate 3-1-1 stations?
- What training do supervisors need to manage 3-1-1 operations?
- What training do systems or technical staff need to facilitate the software and hardware components of the 3-1-1 operations?
- How are District Representatives informed and educated about 3-1-1?
- How are patrol officers informed and educated about 3-1-1?

### Questions about How and When Training is Conducted:

- What level of training is needed from the software vendors? Who participates in this training? When is the optimal time to have the vendor conduct the training?
- What training is best handled by internal resources? When is this training provided?
- How is on-the-job training coordinated?

### Questions about What Training Will Be Available Beyond the Start-Up Period:

- What types of in-service training are planned?
- How will new call takers be trained about 3-1-1?

## What Training Is Needed

**Department Policy Training.** One of the most important training components for a 3-1-1 police non-emergency system is training on revised department policies and procedures. In addition, new and experienced call takers benefit from reviewing service expectations held by their supervisors. Training addresses issues such as:

- how much information a call taker collects
- how much information a call taker provides
- how call takers balance the goal of providing excellent customer service with the need to handle calls in a timely manner.

### Policy Training

To conduct this training, APD Emergency Communications staff initially reviewed and revised their department policies and procedures to incorporate 3-1-1 protocols. They used this opportunity to review and update their procedures. Supervisors from each of the divisions within Emergency Communications (including 9-1-1 operations, Dispatch and Teleserve) spent two days going through the policies and procedures line-by-line.

They discussed which policies and procedures were being followed and which were not. If the policies were not being followed, they discussed the likely reasons. If the policy or procedures had been or needed to be changed, they revised the source document. Based upon these sessions, all call takers were re-trained on department emergency policies and procedures.

Beyond policies and procedures, expectations about levels of customer service were reviewed. Supervisors reviewed data about average time

spent with callers and how that average had increased over time. Supervisors felt that call takers were providing a higher level of customer service than required in some cases. They believed that the longer average call time could have a negative impact on overall levels of service because other calls were not being answered in a timely manner.

The Emergency Communications Manager believed that Teleserve call takers - the future 3-1-1 call takers - needed a refresher course in the requirements and expectations for their jobs. He also thought that Department staff relying on Teleserve call takers to support their efforts needed to be reminded of the limits of Teleserve operations.

**Call takers must have the customer service skills and expectations that they are to gather only necessary information and move on to the next caller.**

To facilitate this, he first met with command staff and detectives to ensure that detectives understood the role of Teleserve. He worked to realign detectives' expectations about reports from Teleserve with his expectations of what Teleserve could reasonably deliver. Following this effort, the Emergency Communication staff hosted two 8-hour refresher courses during which the Emergency Communication Manager explained the expectations for the 3-1-1 call takers, including expectations of more focused report taking.

Detectives relying on Teleserve from property crimes, robbery, sex crimes, auto theft, and forgery participated. They presented specific report requirements and types of questions that they would need 3-1-1 call takers to ask.

This type of refresher course is critical, especially when using existing Teleserve staff. It is natural that when call takers become more knowledgeable about report-taking and receive guidance to ensure high quality customer service, they will begin to spend more time with callers. They are trying to meet the needs of callers and detectives to the best of their abilities. This results in more calls holding for longer periods of time.

The Emergency Communication Manager was seeing this trend. In some cases call takers were taking 20 minutes or more to resolve calls. This ran counter to the needs of the 3-1-1 system. Call takers needed to understand that they were to gather only necessary information and then move on to the next caller. Otherwise, callers who were holding would become frustrated. They would hang up and might call 9-1-1. Once callers believed that 3-1-1 might not meet their needs in a timely manner, they could reject 3-1-1 and not consider it a viable alternative.

**Call Management System Training.** With the introduction of new software and hardware, training is required to avoid frustration and accidental misuse by users. The Emergency Communication Manager required that all 3-1-1 call takers be fully trained on the software prior to touching it. To meet this requirement, the training staff coordinated vendor train-the-trainer and supervisor trainings on the customer relationship management (CRM) software and on the telephony call management and soft phone software.

**Train the Trainer Sessions.** The CRM vendor training involved two 12-hour train-the-trainer sessions for users or 3-1-1 call takers and two two-day training sessions for supervisors and group administrators. During these trainings, vendors explained the system capabilities, requirements and functions. Specifically, vendor trainers reviewed each screen, button and field of the system. They demonstrated

each function. They provided overview explanations, conducted live demonstrations of the software and oversaw a hands-on lab exercise. All training was conducted on a live test database.

With the live test database, when the vendor trainers or the training participants entered information into the software forms as if they were taking a 3-1-1 call, the information was written to a database on a server. The participants were able to see what the software did with each entry. If participants entered an invalid type of data, perhaps alpha-characters in a field that required numbers, they received error messages. Further, participants could track their entries through all the forms in the software and see its full functionality.

For example, if a participant entered a call about a streetlight being out at a specific corner and a second participant entered the same information, trainees could see how the system tracked and reported duplicate information from multiple call takers. At this point, the call taker could tell the caller that they had already received a call about this signal and were addressing the situation. The call taker would be able to move on the next call without having to document the duplicate information.

Ten experienced Teleserve call takers were selected to participate in the train-the-trainer training. They were selected based upon their experience with Teleserve, their perceived leadership within their shifts, and their demonstrated technical abilities.

All Teleserve supervisors participated in the group administrator and supervisor training. During the group administrator training, supervisors learned how to create system options, manage user access, and obtain reports. Examples of the functions available to supervisors included:

- creating lists of questions that call takers should ask for particular call types. For

example, in a streetlight outage incident, the call taker would be prompted by the software to ask “Have any accidents occurred in the area?”

➤limiting the screens that users or call takers can access on their systems. For example, supervisors can remove menu buttons that allow a user to access screens or forms related to printing system-wide reports. Removing this menu option prevents call takers from seeing the work of other call takers.

➤creating daily reports that provide statistics on service request types, such as how many traffic light calls were received on a given day.

**One-on-One Training.** Following vendor training, the training manager, revised the vendor training manual and developed realistic APD examples to use in explaining the functions of the software to all call takers. She met with each call taker individually at a workstation to conduct one-on-one training. In two to three hour sessions, the training manager walked through the revised vendor manuals to explain the software and demonstrate the software functions on the workstation. Call takers were able to use realistic scenarios to practice using the software during these one-on-one sessions. They were able to learn at their own pace.

Following this training, call takers practiced using the software during on-the-job training. Two call takers were assigned to a workstation to practice taking calls and entering information into a test database. The test database mirrored the actual relational database built for the live system that was turned on September 17, 2001. By having call takers practice entering information into the test database, the APD training staff achieved two goals - first, to provide call takers with a safe environment to learn how to use the software without fear of “messing up” the real data and second, to identify potential problems with the actual database coding.

**Evaluation Results.** All of the participants were requested to fill out evaluation forms regarding the training sessions.

In general, all those trained by the vendor rated the training as either good or excellent. Participants remarked that the use of trainer monitors was a key component to the training sessions. The training room was set up so that three computer monitors were operating at each station. Two participants used the monitors and CPU, and at the same time, were able to watch the instructor’s monitor.

Comments about the vendor training suggested the need for a better understanding of the purpose of 3-1-1 system prior to attending the training and more use of APD-specific examples. It was also recognized that individuals learned the system at very different rates. Some felt the two-day training was too long, while a few would have liked more time.

**Technical Training.** Technical support staff participated in the group administrator training. However, they thought that they required additional training about the database functionality, relationships and security requirements. This training was provided by the vendor through a series of conference calls. During an extended conference call, a vendor training assistant came to APD to demonstrate functionality as the vendor’s technical expert discussed it over the phone with the APD technical staff. This was not ideal but fulfilled the requirements.

**Telephone Software.** All supervisors participated in a 4-hour training session on the call tracking software associated with the soft phone technology. This training covered how to watch real-time call tracking of their subordinates and how to query reports about call activities over specified periods of time. This software allowed supervisors to better understand, monitor, counsel and manage the activities of their call takers. Their role was important in assisting the call takers to transi-

tion to answering calls more quickly and in a more focused manner.

Five supervisors and/or Teleserve leads were also trained on how to access and review the voice recordings of calls to 3-1-1. This training took approximately one hour. Again, this training allowed supervisors to better monitor and counsel their call takers to ensure quality customer service, balanced with job efficiency requirements.

Call takers were given brief training on the soft phone technology and software. This training involved reviewing the functions of the equipment, such as how to read the call tracking screen on the phone and how to transfer a call. The trainer demonstrated how to operate the telephone functions by touching the screen of the monitor using the softphone software.

**General Training about 3-1-1.** Over the first few weeks of the implementation of 3-1-1, the 3-1-1 training staff attended officer “show-ups” (roll calls) to introduce the 3-1-1 concept and explain its purpose to patrol officers. District Representatives received numerous email notifications advising them about 3-1-1 and its purpose. Managers anticipated that District Representatives would participate in the marketing and general education of the public. In addition, District Representatives received numerous referrals about neighborhood issues from 3-1-1 calls.

**When Was Training Conducted.** Training for the software systems started approximately two months prior to the system start date. This allowed time to enter and customize data into the CRM software for APD needs. Refresher and review training sessions for 3-1-1 call takers were conducted up to two weeks prior to the start date of 3-1-1. In-service training is planned for all Emergency Communications staff over the three months following the kick-off date. All of the training was incorporated into orientation training provided for all new hires.