311

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

A Case Study of the City of Austin Police Department: Executive Summary

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

Prepared by 21st Century Solutions Inc.

Acknowledgements

& Disclaimers

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Executive Summary

Overview

This Technical Assistance Guide for 3-1-1 describes the decision-making process of the Austin Police Department (APD) as it implemented its 3-1-1 system in 2000-2001. We cover issues of vendor selection, costs, call-routing and call-tracking system options, marketing strategies, staff hiring and training options, educating the public on 3-1-1 use, system maintenance and performance, and provide lessons learned in putting together a 3-1-1 system. This executive summary provides highlights of the Guide.

Background

In 1996 the Office of Community Oriented Policing Services (COPS Office) announced its intent to relieve the burden of 9-1-1 calls that had been placed upon law enforcement over the last 30 years. The COPS Office had requested that the FCC reserve 3-1-1 for use as a national number for non-emergencies. The FCC responded to the request and, in 1997, reserved 3-1-1 for use as a national, voluntary, non-toll, non-emergency phone number. By FY 2000, the COPS Office had awarded funding to 10 jurisdictions to establish 3-1-1 systems, with the Baltimore Police Department being the first to receive such funding. Other jurisdictions receiving COPS funding were: Birmingham (AL), Dukes County (MA), Framingham (MA), Houston (TX), Los Angeles (CA), Miami (FL), Orange County (FL), Rochester (NY) and Austin (TX). For more information on the history of COPS Office 3-1-1, please refer to the 3-1-1 Fact Sheet located on the COPS web site at www.cops.usdoj.gov.

The Austin Police Department

The Austin Police Department (APD) provides police services for a city of over 650,000 people, with a sworn force of over 1,200 officers, and 600 civilians. In 1998 APD implemented "Neighborhood-Based Policing," a philosophy that incorporates tenets of community policing. Since 1998, 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 has set two important goals for patrol officers – respond to calls for service and engage in problem solving activities.

To achieve the goals of the department, APD recognized the limitations of its 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 operators as the 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 operators. 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 40-50 percent of their 9-1-1 calls were either 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.

At the same time, however, the department wanted citizens to participate in neighborhood based 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.

Implementing 3-1-1

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 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 the 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.

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 operators capable of handling potential emergencies. They also provided these call takers with advanced technological tools to resolve caller issues effectively.

APD partnered with key city departments and private entities to ensure that 3-1-1 was implemented appropriately 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 Technical Assistance Guide, we document how APD identified their needs for a 3-1-1 system, designed and procured that system and marketed it to the residents and businesses of Austin. We note that at each phase of the project, APD maintained a citizen focus. APD purchased 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 up 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.

The Need for 3-1-1

When a city or community considers implementing a 3-1-1 system, it is important that they first assess the environment and audience. APD executives understood who they were serving and what concerns they sought to remedy.

The police department and city recognized that the Austin metropolitan area had grown by 41 percent from 1990 to 2000. They saw a growth in the Hispanic and Asian communities as well as an increase in residents between the ages of 20 and 44. With the growth in population came an increase in the number of 9-1-1 calls. The department estimated that calls increased slowly from 1992 to 1997, but increased by about 11 percent per year since 1997. In 2000-01, the department estimated that it was on track to receive over one million calls, a 43 percent increase from the 692,000 calls received in 1992.

As part of its assessment the department estimated that about 40 to 60 percent of its 9-1-1 calls were not true emergencies. This meant that about 240,000 to 360,000 calls could be handled by highly trained call takers rather than police officers dispatched to the scene. The executives within department also examined how they handled calls, the alternative non-emergency numbers they currently used, the types of call takers they employed, and their vision for a 3-1-1 system.

Based on this assessment and vision, the department sought to achieve technological benefits, increase the education of the public about 9-1-1 and 3-1-1, lay the foundation for an easy-to-remember city wide number, and improve problem solving activities.

Choosing a 3-1-1 Model

Nationally, cities are implementing three different models for their 3-1-1 systems. These include:

- ➢ Model 1. Basic police: 3-1-1 as a police only non-emergency
- ➢ Model 2. Basic city: 3-1-1 as a city services, not including police
- ➢ Model 3. Integrated: 3-1-1 as a total city, including police non-emergency.

The Austin Police Department selected Model 1, the basic police model, for three primary reasons: funding availability, ease of implementation, and intended purposes for the system.

Lessons Learned. Agencies that are considering a 3-1-1 system should consider the desired outcome they wish to achieve, the political realities of their communities, and available resources.

Partnerships

Partners played a key role in ensuring the implementation of Austin's 3-1-1 operation in a timely and effective manner. Key partnerships included:

- ➢ Coordinating with the 9-1-1 oversight organization in the Austin area for conceptualizing and planning for 3-1-1 – Capital Area Planning Commission (CAPCO);
- ➢ Relying on the city's Information Systems Department (ISD) for technical advice and expertise;
- ➢ Working closely with the City Purchasing Department to learn about procurement policies and to purchase equipment and training;
- ➢ Building strong ties with the technology and phone vendors to understand data needs, phone systems, and costs;
- ➢ Leveraging the support of the Greater Austin Crime Commission to market 3-1-1;
- ➢ Linking with the City Public Information Office to broadcast the 3-1-1 message.

Lessons Learned. Partnerships were critical at each stage of the 3-1-1 implementation process. Once partnerships were established, roles and expectations were made clear, lines of communication were drawn, and the decision-making structure was clarified.

Equipment/Technology: Procurement Process

Selecting and purchasing the proper equipment for 3-1-1 was dependent upon the model (police only, non-emergency number) and the plan envisioned by APD managers.

Hardware requirements. Eleven new workstations and a dedicated server with appropriate wiring were purchased and installed. Monitors with "touch screens" were important additions.

Telephony requirements. "Soft phones" – a phone number pad that appeared on the computer monitor and personal headsets were purchased. Call management software allowed APD to track calls from different sources. Voice recording software was also purchased. A 5-cent tariff for routing calls was charged by the phone company.

Software requirements. APD team members considered numerous software components. Decisions were based on balancing needs versus desires. One of the primary concerns was selecting software that would assist call takers in handling with citizens who called in. Call takers needed tools that would allow them to collect accurate addresses, document caller concerns, highlight situations where multiple callers were

reporting the same information, and ask pre-determined questions that were specific to the nature of the call.

Procurement planning for the 3-1-1 operations began almost one year prior to implementation. Five phases took place: project definition; analysis phase, design; procurement; construction, and implementation.

Lessons Learned. Partner with the purchasing department experts to determine the options that are available for procuring equipment. Currently, the marketplace for 3-1-1 solutions is limited. Only a few companies are providing products focused on government needs.

Equipment/Technology: Call Routing and Call Tracking

APD learned that the public has a number of ways to contact and gain access to the police department. These include:

➢ Calls from a home or business within the city limits.
➢ Calls from a home or business outside the city limits.
➢ Calls from pay phones.
➢ Calls from cellular phones.
➢ Call from within the police department.

While these appear straightforward, they involve different phone companies, different costs, and different ways that calls need to be routed and tracked.

Lessons Learned. Think through different scenarios in the development phase. Observe call takers over an extended period of time and track the types of calls they receive. Develop a baseline of 9-1-1 calls prior to the implementation of 3-1-1.

Staffing

To staff the new 3-1-1 operation (24 hours, seven days a week), APD used existing Emergency

Communications personnel and added ten new positions. Thirty-three full time equivalents (FTEs) were assigned to 3-1-1. APD Emergency Communications personnel are cross-trained to work in 9-1-1 and 3-1-1.

Call takers were faced with changes in their job description and in their skill requirements. Managers were faced with morale issues and training concerns. Acceptance of these changes required a change in attitude by call takers about the purpose and scope of their job. Managers reassured call takers about their new jobs, built excitement about the changes, and addressed harmful rumors. They also set new standards for performance and realigned the 3-1-1 call taker position with department priorities.

Lessons Learned. Realize that staff is half of the focal relationship between the callers and the police department. It is critical that staff fully understand and accept the 3-1-1 concept prior to implementation. Focus on morale issues and rumor control.

Training

Call takers, supervisors, technical staff, and patrol officers were provided different levels of training about the new 3-1-1 system.

Because changes were made to policies and procedures regarding the way in which call takers related to the public, extensive training and re-training of communications staff occurred. Class room training, "hands-on" experience, and one-on-one training were provided to call takers.

Technical support staff received training from the vendor and supervisors received a training session on call tracking software. In addition, supervisors were trained on using the new voice recording software. Patrol officers received an introduction to the 3-1-1 concept at roll calls.

Lessons Learned. Use the train-the-trainer method to build acceptance. Provide training, especially

refresher training, at multiple points during the implementation process. When conducting computer training, use "live" systems in a hands-on setting. Hold vendors accountable for documentation.

Logistics

In Austin, the 3-1-1 unit is under the direction of the Emergency Communications Division of APD. This division manages all emergency communications for the city. Call takers and dispatchers for police, fire, and emergency services were housed at police headquarters, with separate locations for the call takers and dispatchers. The 3-1-1 unit was located on a separate floor from the 9-1-1 operation and the dispatchers. A new facility resolved the physical space limitations faced by the city and police. In late 2003 a new communications center will fully integrate 3-1-1, computer-aided dispatch, and the records management system under one roof.

Lessons Learned. Recognize the impacts of physical space on morale and on system operations.

Timeline

Concept to implementation of 3-1-1 in Austin took two years. A full year was spent on planning, securing funding, and creating support for change. The equipment and technology phase, including project definition, analysis, design, procurement, construction and implementation took another year. During the second year, the marketing strategy was developed and implemented. Training occurred about three months prior to full implementation of the system.

Lessons Learned. Establish and distribute a formal timeline at an early stage of the process. Include details about the tasks, responsibility for the tasks, due dates, and the linkages between tasks. A project manager should be responsible for tracking progress according to the timeline. Maintain momentum with frequent meetings that require action, not just discussion.

Public Education/Marketing

The success of APD's 3-1-1 effort relied on the department's ability to change public perceptions and use of 9-1-1.

APD took critical steps in marketing 3-1-1 to the public. Working with the Greater Austin Crime Commission, APD formed a marketing team, developed a plan, and formed partnerships to ensure that the message about 3-1-1 would be broadly disseminated.

The team produced a new logo, brochure, wallet cards, and bookmark quiz in English and Spanish. A media briefing and kick-off event brought newspaper and television coverage to the project.

Lessons Learned. Recognize that changing public perceptions about 9-1-1 is the key to success of a basic police model. When developing a public education strategy and budget, be creative and set goals high. Rely on key stakeholders such as the Public Information Office to assist with the effort.

System Maintenance

Once the 3-1-1 system was established, APD developed processes and procedures to maintain it. System maintenance includes developing provisions for anticipated problems with the equipment and operational levels. APD believed that the system should operate 99.9999 percent of the time and be out of service for less than four hours in the event of a disaster. They anticipated that 3-1-1 would receive about 1,500 calls per day. If more calls came in, a "hold" system was included. That is, callers were placed on hold and told how long they would have to wait before a call taker could respond. Callers could also leave a voice message which would be retrieved by a supervisor.

A longer term maintenance issue involved ensuring the software did not become dated or obsolete. APD negotiated with the vendor to provide updates as they were developed for one year.

A maintenance agreement for off-site technical support was also included. For phone equipment and computer hardware, maintenance agreements were also in place.

APD was also concerned about personnel turnover. In the past, the turnover rate for call takers was 47 percent annually. The development of a single policy and procedures manual, new operating principles, overtime and rotation opportunities, better salaries, and a "quasi-career" track reduced the turnover rate to 5 percent.

Lessons Learned. In general, the 3-1-1 operation is relatively stable. However, hardware and software glitches do occur and maintenance agreements should be in place. Work with technical staff to develop acceptable levels of down time. In addition, some staff turnover should be anticipated, though this can be minimized.

System Performance

APD was concerned about tracking a number of performance measures. In particular, the department wanted to measure the individual performance of call takers and supervisors. On a department wide scale, they wanted to demonstrate the value of 3-1-1 by determining whether a reduction in the number of non-emergency calls on 9-1-1 occurred; how much time was spent per phone call; whether the system was overwhelmed as indicated by 'hang-ups'; and whether citizens complained about non-responsiveness.

These measures were built into the system and can be analyzed on a daily, weekly, monthly or quarterly basis.

Lessons Learned. Track 3-1-1 performance daily. Use measures that provide in-depth information about what the system is accomplishing and how call takers are performing.

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& Bookmarks

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.

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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.

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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 the 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 serves 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. [1]

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.[2]

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. [3]

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.[4]

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. [5]

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.[6]

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.[7]

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.[8]

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.[9]

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[10], 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.

We also found that the

Figure 1: APD Organization Chart
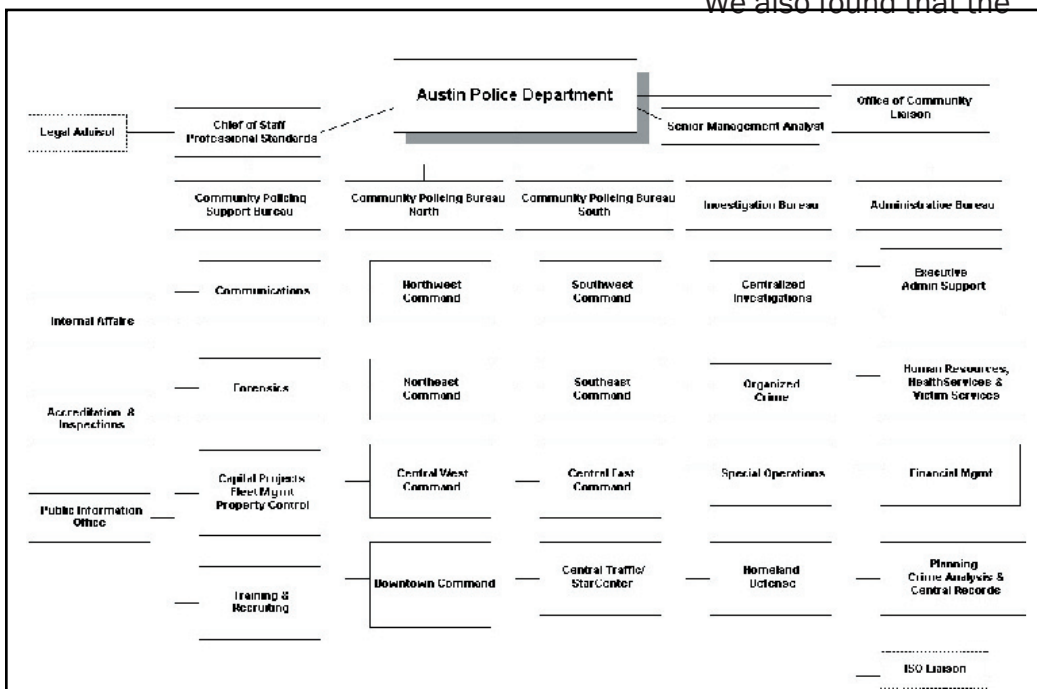
department had taken important steps in interacting and engaging the community to solve problems and improve the quality of life for residents. Officers (District Representatives in particular) were using problem-solving on a regular basis to solve long-term problems. Finally, we found that the department 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." [11]

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.

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).

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

> 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.[12]

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. [13]

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, APF 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[14] 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?"

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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 organization, 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. [15]

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. [16]

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 block-ing 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 pri-mary reason for implementing 3-1-1. Second-ary 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 availabil-ity, 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 learn-ing 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 inquires 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 refocused 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 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.

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 publized 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

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 orginating 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 orginating 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.

Procurement Process

Chapter IV

INTRODUCTION

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.[17] 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 calls 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-

Table 1: Requirements for CRM Software		
Requirement	Must Have	Luxury
Software functionality	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 georgraphic location of the caller and the APD geographic jurisdiction	- name and phone number the call was transferred to
	Provide informaiton 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-predesignated 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
Computer Hardware			
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
Telephony Equipment			
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 purchased the software and hardware directly without issuing an RFP. [18]

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.

Firgure 6: Screen Shot of APD CRM System.
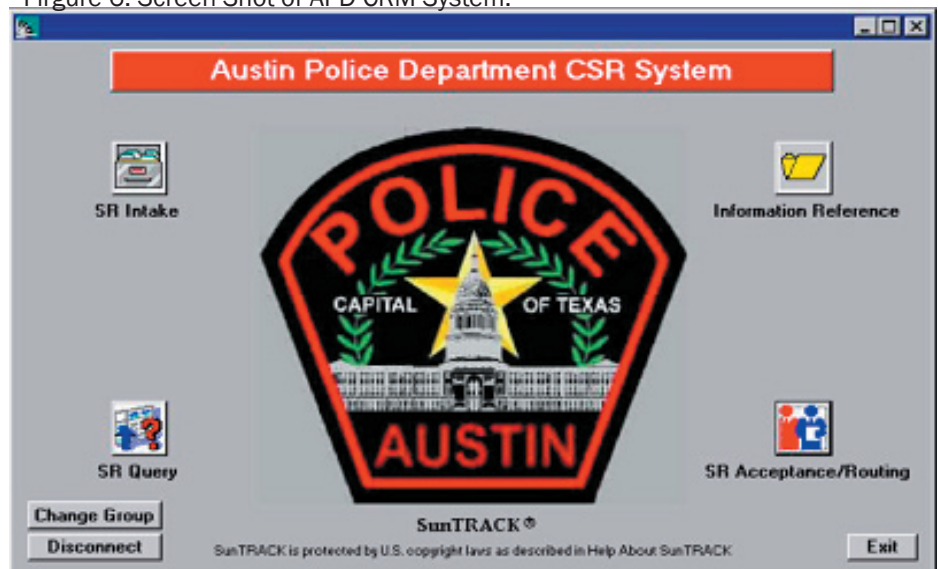
Call Routing and Tracking

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 tarriff; 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[19] - 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.

Staffing

Chapter VI

INTRODUCTION

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:

Table 3: Shift Assignments				
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
Total	3	3	27	33

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:

Table 4: 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			
# of Call Takers on duty	7	8	6	6	7	8	8

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.

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 affcting APD was the physical separation of the call takers. 9-1-1

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

____ 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.

Training

Chapter VII

INTRODUCTION

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.

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.

Policy Training

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.

Logistics

Chapter VIII

INTRODUCTION

We examine the organizational alignment and physical space requirements of the 3-1-1 operations in this chapter. In Austin, the 3-1-1 unit is under the direction of the Emergency Communications Division within the Austin Police Department. This Division manages all emergency communications for the City of Austin. Included are call takers and dispatchers for police, fire, and emergency services.

At the time this guide was written, call takers and dispatchers were physically separated in the Austin Police Department headquarters. The 3-1-1 operation was located in a small area on a separate floor from the 9-1-1 operation and the dispatch operation.

Austin residents passed a bond issue in 1999 to build a new Emergency Communications Center. This new facility resolved physical space and technical issues faced by the Department. A new caller aided dispatch (CAD) system and a new records management system (RMS) are expected to accompany its completion. The 3-1-1 operation is to be integrated with these systems.

Figure 8: Rendition of New Emergency Communication Center
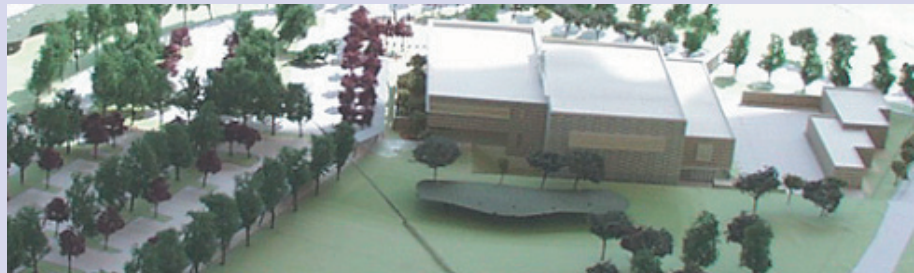
In this chapter, we discuss how Austin implemented 3-1-1 and overcame physical space constraints that encouraged organizational division between call takers and dispatchers.

QUESTIONS IN THIS CHAPTER INCLUDE:

Questions about What Organizational Alignments Impact 3-1-1:

➢Where can organizational responsibilities for 3-1-1 rest in the police only model?
➢What units interact with 3-1-1 operations in the police only model?

Questions about What Are the Fundamental Physical Space Requirements for This Size 3-1-1 Operation:

➢How much office space did APD allocate to 3-1-1?
➢What space requirements are inherent with a 3-1-1 operation?

Questions about the Impacts of Physical Space Constraints on Organizational Communications and Operations:

➢How does physical space constraints impact operations?
➢What communication steps are necessary to address these issues?

Organizational Alignment's Impact on 3-1-1.
The Manager of Emergency Communications oversees 3-1-1 operations in Austin. He works for the Assistant Chief responsible for community policing support. The Emergency Communication Manager is responsible for managing all aspects of emergency communications, including 9-1-1 and dispatch services. Currently, the division employees 155 FTE.

To ensure public safety, APD set a policy that all 3-1-1 call takers would be certified as 9-1-1 call takers. This ensured that if a 3-1-1 call escalated to an emergency situation, the 3-1-1 call taker woudl be prepared to staff the call and forward it to dispatch for appropriate action.

In addition, it allowed for rotations of staff through the units of Emergency Communications. As a 24/7 operation, APD emergency communications used a rotating shift. Every six months, call takers changed shifts and could change units. 9-1-1 call takers could rotate into 3-1-1 or teletype positions. Rotations ensured that staff were cross-trained, understood how the units worked together, and developed career-enhancing skills.

3-1-1 call takers worked with a broader range of units, both in the police department and external to the department, than 9-1-1 call takers. Within the department, 3-1-1 call takers filed police reports that were reviewed by the Reports Unit and analyzed by the Planning and Research Unit. Detectives relies on the reports from 3-1-1 calls for investigations. Outside the department, 3-1-1 call takers need to understand the roles of other city agencies to appropriately refer calls to them.

Physical Space. APD's emergency communication units were physically separated in APD headquarters. The 9-1-1 call center was located on the fourth floor across an open corridor and elevator area from the dispatch areas. Dispatchers were separated into three adjacent areas by semi-permanent walls. One area housed police dispatchers, another was for fire dispatchers and another for emergency services dispatchers. The manager, was located in another building across a parking lot from headquarters.

When the Teleserve unit was established, semi-permanent walls were erected on the third floor creating a 700-square-foot open area. In this trapezoid-shaped area, APD installed 11 mobile desk units along the walls and one supervisory desk. The Teleserve area was converted to the 3-1-1 call center.

Figure 9: Originai 3-1-1 Call Center

With the construction of the new Communication Center underway, this space was a temporary solution. It did have its drawbacks, however. At any one time, 11 or more conversations were occurring in a relatively small space. Depending on voice levels, concentration could be distracted at best. In the 9-1-1 call center and the police dispatch call center, half-walls improved privacy and eliminate noise overflow.

In addition, a small space was allocated in the information technology area for the 3-1-1 server and equipment.

Communication Challenges. Separation of the units created some real and perceived com-

munication challenges between the units. If the 9-1-1 system went down, runners were assigned to physically transport paper notes to the dispatch center across the corridor. Communication among the fire, emergency services and police dispatchers sometimes was stifled by the physical separation.

Likewise, the 3-1-1 operations were on a different floor from the 9-1-1 and dispatch centers. In order to communicate information that could not be electronically transmitted, 3-1-1 staff had to take an elevator upstairs.

These separations affected sharing of information among the units and on-the-job cross-training. Asking questions about specific calls required time; in emergency situations, quickness is essential. Asking questions and sharing information about policies was also slowed.

To overcome these problems, APD instituted the cross-training rotation. In addition, APD managers spent significant time and effort conducting training and updating staff on policy changes. Supervisors were well-informed about all operations. Most had worked in all units prior to becoming a supervisor. They assisted in problem-solving between the divisions.

The Emergency Communications Manager, his managers and staff anticipated the opening of the new emergency communications center. While they worked well within their existing logistical arrangements, they knew that co-location of staff and the expansion of space would enhance their operations. Combined with the new computer systems, they expected vast improvements in information handling and customer service.

Timeline

Chapter IX

INTRODUCTION

From concept to 3-1-1 system implementation in Austin, two years elapsed. When the Chief hired the Manager of Emergency Communications in 1999, one of the manager's first challenges was to build a 3-1-1 call center. Once the plan was defined and the COPS Office grant was approved, implementation took one year.

Project managers created and followed a detailed timeline and project management plan. Sufficient time was included for training, testing, marketing and debugging. Almost everyone involved commented after the start date that they were pleased that APD "nailed" the timeline. Consistent weekly meetings helped maintain the momentum and assured problem-solving.

Well before the national tragedies of September 11, 2001, APD had already scheduled the 3-1-1 kick-off for September 17, 2001. In planning, APD had focused on using 9-1-1 day, September 11th, to bolster press and support for 3-1-1. As it turned out, the timing of the 3-1-1 kick-off was an unexpected blessing to the Police Department and the citizens of Austin. APD's preparation paid off at a time when tensions were escalating. 3-1-1 provided a needed alternative to 9-1-1 and an important source of general information for citizens.

QUESTIONS IN THIS CHAPTER INCLUDE:

Questions about the Timeline for Planning, Securing Funding and Creating Support for Change:

➤How much time is required to assess a concept and develop a plan to make it a reality?
➤What steps are involved in developing a concept for implementation?
➤How do funding timelines impact concept development?
➤What steps need to be taken up front to create support for implementing a new concept?

Questions about the Timeline for Equipment and Technology:

➤How much time should be budgeted for each phase of technology procurement?
➤What are the standard technology steps APD followed to install the new system?
➤How does the procurement process impact the timeline?
➤How can project managers maintain momentum during an extended implementation process?

Questions about the Timeline for Training and System Acceptance:

➤When should training for a new 3-1-1 system occur?
➤How much time and what steps are needed to ensure call takers are able to effectively use the new system by the start date?

Questions about the Timeline for Marketing:

➤How much time is needed to develop a marketing plan for 3-1-1?
➤When should marketing for 3-1-1 commence?
➤What tasks are important in implementing a marketing campaign with limited funding?

First Steps: Planning, Securing Funding and Creating Support for Change. Implementing a "police only" 3-1-1 system redefines the police role to some extent. This action publicly demonstrates that police are not responding to all calls and that some calls are not "true" emergencies. In Austin, this concept was not entirely welcome. Citizens were accustomed to a police officer arriving at their homes or places of work every time they contacted the police.

Continuing that level of service was not possible and not appropriate. Defining non-emergencies involved policy and operational changes. The Chief was dismayed that Austin only operated a 9:00 am to 5:00 p.m. non-emergency number. The first step to changing this situation involved creating the Teleserve unit. This unit allowed citizens to file police reports over the phone without an officer being involved. It was funded under the COPS MORE program in 1995.

The Chief recognized that while he was freeing officer time on a limited number of calls (approximately 3,000 per year), he had not yet conquered the vast majority of non-emergency 9-1-1 calls. With the hiring of the Manager of Emergency Communications, he wanted to find a solution. He sought to create a true non-emergency call center to improve 9-1-1 responses and to provide Austinites with an non-emergency alternative to 9-1-1.

The Emergency Communication Manager used his first six months to develop staff and cost estimates for developing a 3-1-1 operation. He assessed current staffing and equipment. Talking with call takers, he identified what tools were needed. He worked with information technology staff to develop estimates for equip-

ment and technology requirements. He also analyzed call data to determine target 9-1-1 call reductions to demonstrate success with the new system. Most importantly, he formulated a vision for APD's 3-1-1 operation. The Emergency Communication Manager defined how 3-1-1 would address the critical concerns with 9-1-1 and how it would improve APD's interactions with its citizens.

Planning

> The Emergency Communication Manager used the first six months to develop a manpower and cost estimate for developing a 3-1-1 operation.

Using this plan, police department officials began identifying avenues for obtaining funding. They developed presentations for the 9-1-1 oversight board, CAPCO and for City Hall. The Planning and Research Director reached out to the COPS Office and was able to identify a grant opportunity. The search for funding took approximately six months.

It should be noted that timing was key. Austin contacted the COPS Office three to six months before the end of the Federal fiscal year. It is not uncommon for Federal agencies to make program and funding decisions in this time period.

Because APD laid the groundwork for 3-1-1 by implementing Teleserve, individuals inside and outside the department were able to envision how the 3-1-1 system could improve the operations of the department. In addition, APD staff could demonstrate the success of Teleserve as an indicator of the anticipated impact of a 3-1-1 system.

The public was also prepared for changes in police interactions. The public understood their options for obtaining information and for accessing the department without a personal police encounter.

Equipment and Technology Procurement. From design to implementation, the equipment and technology components required approximately one year to put into place. Upon receipt of the COPS Office grant, three ISD staff were assigned to the project. They followed the standard IT steps for developing the 3-1-1 solution. These steps included:

> Project Definition
> Analysis Phase
> Design Phase
> Procurement Phase
> Construction Phase
> Implementation Phase

The project definition phase covered approximately four months and examined the scope and resources available for the project. The analysis phase overlapped with the project definition phase and focused on determining what APD needed and why they needed it.

During these phases, the ISD Project Manager developed the detailed project plan, including the timeline. The timeline listed each task to be completed, who was responsible for completing it, the start and end dates, and what tasks were related. She coordinated weekly core team meetings to discuss progress on each task, to review upcoming tasks, to problem-solve on any delinquent task, and to add any new tasks that may have appeared. These weekly meetings occurred throughout the equipment and technology phases until APD formally accepted the system from ISD. The meetings were critical for maintaining focus and momentum to complete the project on time.

The design phase involved identifying the functions that were needed and the available options for obtaining those functions. Basically, the Project Manager and her team conducted an intensive internet search for available 3-1-1 systems. About one month was spent on this phase.

Procurement is often the phase that leads to implementation delays and failure. By building a strong partnership with the Purchasing Office of the City of Austin, the core team learned that Austin had a special "safety umbrella procurement policy." Under this policy any items that would improve the safety of the public could be obtained without issuing a standard request for proposals. The team demonstrated that 3-1-1 would improve the safety of the citizens of Austin by removing non-emergency calls from the 9-1-1 system.

Application of this policy eliminated the need for an RFP and all the details associated with the process. Instead, the 3-1-1 core team hosted one-day demonstration sessions for vendors. They proceeded straight to receipt of a statement of work proposal for the selected vendors. For other items, they were able to modify existing contracts, which also saved time. In some cases, equipment was received within four weeks of placing the order.

The construction phase involved working with vendors to install, customize and debug the equipment and software. This phase took approximately three months, the most hectic time. Many tasks depended on the completion of other tasks. Vendors and APD staff depended on each other to complete these tasks.

During the construction phase, the importance of the Geographic Information System (GIS) link became critical and complex for APD. Problems with this link created delays of up to three weeks for some tasks. However, the Emergency Communication Manager and the ISD Project Manager redirected staff to use this time to test other components of the system and to finish training.

During the implementation phase, vendors worked closely with APD staff to ensure that the system would operate properly and to make any necessary adjustments. This phase took approximately two weeks. Vendor staff participated in the operation on-site during the first two to three days of operation.

Training and System Acceptance. APD's decision to use existing staff as 3-1-1 call takers resulted in fewer requirements for training, but led to resistance to change among personnel. Teleserve call takers were trained on 9-1-1 policies and some were aware of dispatch operations. They were experts with police reporting and the CAD system.

3-1-1 introduced new software and a new telephone system, and required a broader range of knowledge. Not only did 3-1-1 call takers need to understand police reports and patrol functions, they needed to be aware of operations in all areas of the department and in other city agencies in order to make appropriate referrals. The requirement raised anxieties for the call takers.

As 9-1-1-trained call takers, these individuals initially were not willing to become general purpose call takers. Teleserve had allowed them to specialize and increase their expertise. Call takers in Teleserve had acquired in-depth knowledge of offense categories and reporting requirements. At first, the expansion of Teleserve appeared to dilute their expertise. Instead of being specialists, they would know a little about everything. They did not view this as a positive outcome.

To overcome staff anxieties, APD 3-1-1 managers took a number of steps. During the procurement phase, all call takers participated in the evaluation of vendor demonstrations. This introduced them to the 3-1-1 plan eight months prior to implementation.

Once the software was constructed, 10 call takers participated in a train-the-trainer vendor class. This 12-hour training was conducted three months prior to implementation. The managers also participated in this training, as well as a half-day training on the phone tracking software.

About ten weeks prior to implementation, all call takers participated in one-on- one training with the training manager. She relied on call takers who attended the vendor class to help explain how the CRM system operated. This training was conducted on a live test database. Using a live system allowed call takers to experience a real operating environment well before the kick-off date. One month before implementation, a limited number of call takers tested the system by completing test plans on the master database.

In addition, all call takers were trained in Teleserve and 3-1-1 responsibilities. During this training, the Emergency Communication Manager and his assistant managers reviewed other areas of the police department and city administration that call takers needed to know. They outlined how call takers would learn these skills through the CRM system. Finally, they presented performance expectations and obtained signed agreements from the call takers stating that they understood their responsibilities.

Approximately two weeks before implementation, all call takers began using the system for Teleserve calls. At this point, all were accessing the master database. This use was limited, but allowed call takers to access the database and learn the functions in a live setting.

Timeline for Marketing. Development of the marketing component took approximately six months. The Chief and the Emergency Communication Manager believed that the original intent of 9-1-1 needed to be re-explained to the public in order for 3-1-1 to work.

The Chief appealed to the Greater Area Austin Crime Commission (GACC) for help with the marketing effort. This organization was formed in October 1997, to support law enforcement, raise public awareness about crime prevention programs, and promote a cooperative and coordinated anti-crime effort in the community. The Commission assumed responsiblity for the project and coordinated planning meetings four months prior to the start date. The marketing team consisted of APD staff from the public

information office, the community outreach office and the emergency communications staff. Representatives from CAPCO and the City of Austin public information office were involved. Finally a media consultant was hired to provide advice to the marketing team.

The Executive Director of the Commission led the marketing team in creating a slogan and developing a logo by the end of the first month. He worked with graphic design experts to create the logo and brochures. Orders for materials were placed two months prior to the event.

Through weekly meetings, the marketing team identified potential contributors, defined outlets for public announcements, and prepared a press announcement. The initial press announcement occurred one and a half months before the start date. At this press event, the team had hoped to talk with media managers about providing public service announcements and other complementary media coverage. Using the clout of GACC, APD was able to generate significant interest in 3-1-1. However, the event evolved into a press release about the effort rather than a plea for media assistance.

Prior to this announcement, the Commission Executive Director had prepared a grant application to the Southwestern Bell Foundation to solicit funding for the brochures and handouts. He also had solicited funding for additional marketing materials from other sources. The solicitation effort had taken approximately four months of persistent and continuous attention in order to raise $35,000.

District representatives and community liaisons distributed brochures at public meetings in the month preceding implementation. Newsletter announcements appeared in utility bills, school handouts and city materials in the month immediately preceding the announcement.

An earlier public service announcement had been planned in combination with 9-1-1 day, but was pre-empted by the national emergency and tragedies on September 11, 2001. APD did proceed with the 3-1-1 announcement a week later on September 17, 2001. This announcement received significant newspaper and television news coverage.

Following the announcement, 3-1-1 marketing team members continued to pass out written materials at all public meetings and to patrol officers.

Table 5: Timeline for 3-1-1 Implementation

	Sept 99-Mar 00	Apr 00-Sep 00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-o1	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01-current
Planning	▬														
Securing Funding		▬													
Creating Support for Change	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
Equipment/Tech Procurement															
Project Definition Phase			▬	▬	▬										
Analysis Phase			▬	▬	▬	▬	▬								
Design Phase					▬	▬	▬	▬							
Procurement Phase								▬	▬						
Construction Phase									▬	▬	▬	▬	▬		
Implementation Phase													▬	▬	
Training															
Call Takers											▬	▬	▬	▬	
Patrol and Dispatchers													▬	▬	
Marketing															
Research					▬	▬	▬	▬	▬	▬					
Team Planning Meetings											▬	▬	▬	▬	
Marketing Material Distribution													▬	▬	▬
Meeting with Media Executives											X				
Kick-off Media Event														X	

Public Education/ Marketing

Chapter X

At its most basic level, implementing 3-1-1 requires activating the phone number and creating a change in public perception and use of 9-1-1. APD's policy changes, staffing shifts and new software systems leveraged the 3-1-1 phone number concept to improve efficiency and customer service. However, the future success of APD's 3-1-1 effort would rely upon their ability to change the pubic's perception and use of 9-1-1.

This chapter focuses on the steps APD took to market 3-1-1 to the public. It details how they developed the marketing plan, who they engaged to help market 3-1-1, and the key messages and methods they employed. Marketing efforts were rooted in the Director's philosophy that without reeducating the public about 9-1-1, even all the "bells and whistles" of 3-1-1 could not achieve his primary goal of reducing 9-1-1 call loads.

The national tragedies of September 11, 2001 played an unexpected role in the success of the marketing campaign. APD seized the opportunity to demonstrate how 3-1-1 would improve public safety in Austin at this critical time. The media responded positively to their message.

QUESTIONS IN THIS CHAPTER INCLUDE:

Questions about the Marketing Plan for 3-1-1:

➢ How did APD approach marketing for 3-1-1?
➢ Who should be involved in marketing 3-1-1?
➢ What planning should be conducted?
➢ What are the key elements in the plan? (i.e., Is there a special audience such as a Spanish speaking community?)

Questions about How Funding Is Secured for Marketing:

➢ What are the sources of funding for marketing?
➢ How much funding should communities attempt to secured to publize 3-1-1?
➢ How can the funding used?

Questions about How 3-1-1 Is Publicized:

➢ Who should be involved in marketing 3-1-1?
➢ How effective were the different marketing channels for APD's effort?

Leveraging Community Support. Once the 3-1-1 concept paper was drafted, the Chief and the Emergency Communications Director approached the Greater Austin Crime Commission (GACC) for support. GACC was formed in October 1997 to support law enforcement, raise public awareness about crime prevention programs, and promote a cooperative and coordinated anti-crime effort in the community. Its 32 members are recognized business and community leaders. The President was a former chancellor of the University of Texas. The Commission agreed to become APD's marketing partner.

The assistance of these well-known community leaders opened doors to the print and television media for APD staff. The Commission was also able to reach corporate funding decision-makers and encourage significant donations.

More importantly, APD was able to garner the talents of an internationally known graphic designer. His firm developed and tested the logo and marketing materials for 3-1-1. They worked to assure audience recognition and a positive response to the 3-1-1 concept. The firm donated its time to the project.

Developing the Marketing Plan. GACC's Executive Director assumed leadership of the 3-1-1 marketing team. The team consisted of APD staff from the public information office, the community outreach office, and emergency communications staff. Representatives from CAPCO and the City of Austin public information office were also involved. Finally, an outside media consultant was hired by GACC to provide advice and conduct research on media efforts in other communities.

Prior to convening the team, the Commission Executive Director conducted a two-phase research effort to outline a marketing plan. First, he reviewed literature on developing marketing and product branding plans, generally. These materials provided information on why and how

to develop a marketing strategy, templates for marketing action plans, and ways to measure success.

The second phase of the Commission Executive Director's review involved contacting other jurisdictions that had implemented 3-1-1. He requested information about their marketing activities and asked for samples of their materials. He also joined the technical team on site visits to Baltimore, San Antonio and Dallas. Based on his research, he developed a chart highlighting the 3-1-1 marketing strategies that had been tried by others, and noted his perceptions of the impacts of these strategies.

With the Emergency Communication Manager, the Commission Executive Director drafted a two-page "3-1-1 Marketing Action Plan Overview." He convened the marketing team four months prior to the planned 3-1-1 start date. At this meeting, he discussed his research findings, displayed sample marketing materials from other 3-1-1 sites, and disseminated his marketing action plan including the following:
> the target launch date
> objectives for the marketing effort
> control points for decision-making and financial oversight
> key milestones and dates
> a budget estimate for the effort by media category
> evaluation measurement tools
> special media news events
> print materials to be developed
> potential community partners

The team briefly reviewed the plan and adopted it. Some team members were aware of the first tasks, determining a logo and slogan. After the plan was adopted, these team members reported on their brainstorming ideas for the logo. The team built on these ideas and proceeded to brainstorm about logos and slogans, potential media outlets and potential community partners for funding.

By the end of the first month of meetings, Austin's 3-1-1 initiative had a logo and slogan. The team created the slogan, "Austin's Answers," with great care. They pondered a number of choices, often testing potential slogans on APD staff who were not involved with the project. Once the choices were narrowed, they discussed variations of the chosen slogan such as "Austin Answers" or "Austin's Answer." In part, the final choice was driven by the decision to use APD's famous search and rescue dog, Austin, as the 3-1-1 mascot, especially in order to reach children. Austin attended the marketing meetings with his handler, though he did not add many comments.

Selection of the logo also involved extensive thought. The Commission Executive Director worked directly with a well-known graphic designer, to develop and test alternative logos to brand Austin's 3-1-1 effort. The team conducted a written vote to choose among the top three designs. Once the final design concept was presented to the team, a discussion ensued about whether to have dashes between the numbers, similar to the required 9-1-1 marketing style.

During the logo selection meeting, team members also presented text for a potential brochure. The team discussed ways to reach target audiences such as children, the elderly and the Hispanic-speaking population. In addition to a brochure, team members designed a quiz to point out the differences between 3-1-1 and 9-1-1 calls especially for use with children.

By the middle of the second month, production on all printed materials started. These materials included:

- 5 ½" by 8 ½" tri-fold brochures, compliant with US Postal Service mail standards

Figure 10: 3-1-1 Marketing Materials

- 2 ½" by 3 ½" wallet cards contrasting when to call 3-1-1 with when to call 9-1-1
- 4 ¼" by 11" bookmark cards, explaininglling when to call 3-1-1 instead of 9-1-1 on one side, with a quiz with matching 40 situations with 3-1-1 or 9-1-1 on the other
- pencils
- bumper stickers
- logo T-shirts
- logo balloons

The brochure, wallet cards and bookmark quiz were printed in both English and Spanish to reach Austin's diverse population. The brochure:

Figure 11: APD 3-1-1 Logo

- provided a four-paragraph description of 3-1-1 as "a toll-free telephone number that allows people within the city limits to request police services in non-emergency situations
- discussed why 3-1-1 was needed
- identified who would answer 3-1-1 calls (i.e., cross-trained 9-1-1 call takers)
- explained when to call 3-1-1 versus when to call 911, including a list of potential situations
- explained what would happen if a person dialed 3-1-1 when they intended to dial 9-1-1 (again highlighting the cross-trained call takers)
- noted that the APD's main number (974-5000) would remain in service and was available to callers outside the city limits with non-emergency requests
- highlighted non-emergency calls to APD's 9-1-1 system by pulling out quotes of caller's questions, such as "Will trick-or-treating be legal tonight because of the rain?"

While the materials were being printed the team continued

to meet weekly. Next steps involved solidifying donations from corporations, developing and coordinating insertion of newsletter articles, and scheduling special media events.

Seeking Donations. Based upon the Chief's and the Emergency Communication Manager's initial presentation of the 3-1-1 concept, GACC provided $10,000 to the marketing endeavor. They also took the lead in soliciting other sup-

Figure 12: Bookmark 9-1-1 v. 3-1-1 Quiz

WHO YA' GONNA CALL?

SITUATION	call 3•1•1	call 9•1•1
1. A vehicle is blocking my driveway.		
2. A house is on fire.		
3. My cat is stuck high up in a tree.		
4. There is a refrigerator in the road.		
5. Loud music is coming from a house on my street.		
6. Someone is prowling around in my yard.		
7. My bicycle is missing.		
8. The couple next door are screaming and shouting.		
9. Someone broke into my car and took my purse.		
10. I heard a gunshot.		
11. A car is parked in a handicapped space.		
12. A dumpster is on fire.		
13. A dog is loose in my neighborhood.		
14. A baby is in a locked car.		
15. Someone took a statue from my front yard.		
16. My husband just hit me.		
17. My son ran away from home.		
18. There is a person laying on the sidewalk.		
19. There are potholes in the street.		
20. A car is stalled on the road.		
21. My ex-girlfriend keeps calling me on the telephone.		
22. I just swallowed a bottle of pills.		
23. I need to get personal items from my ex-wife's house.		
24. My Dad fell off a ladder.		
25. Graffiti is all over my fence.		
26. My baby isn't breathing.		
27. My car is missing.		
28. I have just been raped.		
29. I found a gun on the sidewalk.		
30. Someone is breaking into my neighbor's house.		
31. There are two teenagers in the park when they should be in school.		
32. I was just held up by a man with a gun.		
33. A dead deer is on the side of the road.		
34. I hear screams for help.		
35. What detective is working on my case?		
36. My wife is having a baby right now.		
37. I think my neighbor sells drugs.		
38. A man is looking in the windows of cars in the parking lot.		
39. Someone is using my credit card.		
40. There is a bad collision on the highway.		

port. As public employees, APD staff could not seek funding directly from private individuals or corporations. The Commission Executive Director established an advertising budget estimate of $85,000 in his marketing action plan. He planned:

    $15,000 for design
    $10,000 for print materials
    $15,000 for television spots
    $10,000 for radio spots
    $25,000 for production
    $10,000 for coordination.

He also set an advertising target with a two-to-one spending ratio. For every dollar spent by GACC on advertising, he sought two dollars in cost-free media coverage, such as public service announcements.

The Commission Executive Director, with the assistance of the media consultant, contacted CAPCO, the 9-1-1 oversight organization, Southwestern Bell and Motorola for possible donations. These three organizations were directly involved with the 3-1-1 effort.

CAPCO agreed to provide $10,000 for print media that would highlight both 3-1-1 and 9-1-1. They also agreed to create teasers within their advertising and public recognition events to spark interest in the 3-1-1 announcement planned for September 17th.

Responding to a grant application to their foundation, Southwestern Bell contributed $25,000. Once pledged, foundation funding takes time to secure. Fortunately, GACC was able to cover expenses until the funds were received.

Motorola did not respond to the Commission Executive Director's solicitations for help with marketing expenses, despite repeated inquiries.

The team discussed approaching other potential donors. However, time and personnel limitations did not permit aggressive follow-up on these leads.

In the end, $45,000 was used almost exclusively to develop print media. GACC's influence helped secure pro-bono services from the designer. This saved the marketing team $15,000 of the funds that had been planned for design.

APD did not run radio, television or print advertisements. They did seek and obtain significant cost-free television and print coverage for 3-1-1. We will discuss how they achieved this in the next section.

Marketing 3-1-1

Pre-Kick Off Marketing. Television coverage of APD's 3-1-1 plans began on July 31, 2001. GACC President invited 86 editors and station mangers (radio and television) to a media briefing. The media advisory stated that:

> *"The 3-1-1 launch is the city's largest public safety initiative in recent memory. The Austin Police Department and the Greater Austin Crime Commission need your help to educate the public concerning the importance of this new system."*

Media kits included:
- a 3-1-1 system overview
- a list of 3-1-1 media contacts
- a 2-page description of the need for 3-1-1
- a 2-page introduction of the Greater Austin Crime Commission
- the COPS Office press release about the 3-1-1 grant.

Although GACC President invited editors and managers to the 11:00 a.m. briefing, entire crews arrived with cameras and reporters. The GACC President introduced the 3-1-1 concept and the need for community involvement to market the new service. The Emergency Communications Director followed him, providing a more detailed description of APD's goals with 3-1-1. The Emergency Communication Manager fielded questions from reporters about the costs

Involve the Media

The GACC President invited 86 editors and station managers to a media briefing about 3-1-1.

of the service, other cities that were using 3-1-1 and the reasons people call 9-1-1 with non-emergencies. He used the example of the man who called 9-1-1 about his neighbor's noisy rooster.

Despite their best efforts, this briefing evolved into a press release for 3-1-1 rather than a discussion about how to garner future media support and coverage.

During the six o'clock news that evening (July 31, 2001) 3-1-1 was announced to the public. The news stations reported that 3-1-1 would not be operational until September 17, 2001. Fortunately, the Emergency Communication Manager anticipated that the public might miss that critical information. Prior to the briefing, he confirmed that the 3-1-1 number had been established and connected. On August 1, 2001, 3-1-1 calls began trickling into the Tele-serve operation.

Following this television announcement, APD received editorial reviews in print media. In addition, the Emergency Communication Manager and other APD executives received numerous requests for interviews. APD decided not to allow any press walk-throughs of the operation until the official kick-off date.

Over the next month, members of the marketing team began handing out printed brochures and attending community meetings. The school district provided every student with printed brochures about 3-1-1 in combination with their educational efforts about 9-1-1.

On the morning of September 11, 2001, APD Emergency Communication staff was preparing to participate in a media event highlighting 9-1-1 day at the Texas State Capitol. An APD Call Taker was to be recognized as an outstanding 9-1-1 operator during the ceremony. According to the plan, CAPCO staff was going to foreshadow the announcement of 3-1-1 as an alternative to 9-1-1 at the end of this event.

Unfortunately, the terrorist attacks in New York City and Washington DC occurred on that day. As was the case in every community and city in the US, APD quickly refocused its activities. Calls to 9-1-1 and Teleserve surged. The entire 3-1-1 team realized that it was even more imperative than before that the public announcements about 3-1-1 occur the following week.

Kick Off Marketing. On September 17, the Mayor, Chief and other city and APD executives gathered to officially announce the service during a media briefing. APD seized the opportunity to remind everyone that "public safety is a community concern" and that "9-1-1 was endangered" by the growing number of non-emergency calls.

All of the major media carriers attended the briefing. Immediately following the briefing, camera crews and reporters participated in an open house. The Emergency Communication Manager encouraged everyone to watch and interview call takers.

All three major networks carried the 3-1-1 announcement, spending between 45 seconds and three minutes on the story. This was a remarkable level of coverage, especially given the extensive amount of news about national events and local reactions to the events. Securing this level of television coverage had a

Figure 13 and 14: Press Coverage of September 17th 3-1-1 Kick-Off Event

Chief Knee During an Interview

positive impact on the dissemination of information about 3-1-1.

Follow-up Marketing. Following the official kick-off announcement, APD received scattered coverage about 3-1-1 over the next two months. At one point, AT&T asserted to the press that APD did not advise them how to access 3-1-1. This assertion was in response to AT&T customer complaints that they were not able to access the service. The Emergency Communication Manager was able to refute the assertion by producing the certified letter that had been sent to AT&T during the implementation phase of the project. He used this media inquiry to encourage other phone carriers to realize that 3-1-1 was a service that customers desired.

In addition, 3-1-1 was featured in a story about a rash of flag thefts. With the rise in demonstrations of patriotism, American flags were being stolen from houses and businesses. Victims were calling 3-1-1 to report the thefts. The news stations covered the story and reminded viewers to contact 3-1-1, not 9-1-1, in the event of a flag theft.

Aside from the news coverage, APD staff distributed printed brochures, quizzes and other marketing materials following the official kick-off date. All supplies were exhausted by mid-December. As an ongoing marketing effort, APD and GACC developed a web-based version of the brochure. The web site is located at http://www.austincrime.org/311/index.html.

Based upon initial assessments, it appeared that APD's multi-pronged marketing strategy succeeded in shifting citizen perceptions. 9-1-1 call loads appeared to have decreased, in spite of heightened concerns over terrorism. Six months after the announcement, the marketing team was investigating ways to continue its campaign and spread the word about the service. APD officers assisted in posting flyers in downtown businesses as part of this follow-up outreach effort.

System Maintenance

Chapter XI

Once a 3-1-1 system is implemented, procedures must be put into place to maintain it. System maintenance includes developing provisions for anticipated problems with the equipment and operational levels. Specifically, we discuss how APD's 3-1-1 call center handled peaks in demand and temporary staff shortages. These issues are examined from the point of view of equipment performance and staffing options. We also look at how staff were incorporated into the call center. We address how information was diffused to new call takers and to rotating call takers.

QUESTIONS IN THIS CHAPTER INCLUDE:

Questions about How 3-1-1 Handles Peaks in Demand:

➢What is the average number of abandoned calls during a shift?
➢What happens to callers when they can't reach an operator?
➢When messages are left, what is the response?
➢What redundancies are built into the systems?

Questions about How New Call Takers are Brought On Board:

➢What training is provided to new call takers for 3-1-1?
➢How do rotations between divisions function?
➢How are policies and procedures translated to new staff?

Handling the Call Load. Once the 3-1-1 hardware and software solutions had been designed, ISO staff analyzed the scope of the effort prior to procurement. They determined that the project was limited in size, with only 11 call takers plus a supervisor. For bandwidth to support the center, they needed a solution for 12 people. For "up time," the 3-1-1 managers could accept approximately four hours of down-time in disaster recovery. The size of the system and the length of the disaster recovery window allowed for a broad solution with limited redundancy.

The Telephony Coordinator and the Hardware Coordinator did not need to build a system that could be operational within seconds. This type of system would require multiple mirror systems running simultaneously to ensure that if one or more systems failed, a replacement system could be activated immediately. That level of redundancy was not necessary here.

The criteria used to make hardware and software decisions included:

➢Growth rate - APD did not anticipate extensive growth and advised planning for only 12 stations

➢Disaster recovery time - Four hours were allowed to bring the system back to full operation

➢"Up time" - The system needed to be available most of the time. In the event of a disaster, it needed to be unavailable for no longer than four hours. To ensure this level of availability, extensive system redundancy was not required.

➢Bandwidth - Limited to supporting 12 staff.

➢Number of people to support - 12 existing users.

The Hardware Coordinator followed "the rule of 9s." Under this rule managers stated that the system should operate 99.9999 percent of the time, not 99.99999999999999999999 of the time.

The 3-1-1 core team relied on current Tele-serve and PBX call volume as the baseline for system requirements. They anticipated that 3-1-1 would receive approximately 1,500 calls per day. In case more calls were sometimes received, a hold system was included. Callers would hear a recording explaining that they could continue to hold for the next available call taker, with an estimate of the length of time they were likely to be on hold. They would also be advised that they could leave a message. Supervisors would retrieve messages once per hour and return calls.

System Redundancy

The system should operate 99.9999 percent of the time . . . and be out of service for less than four hours in the event of a disaster.

Because of the unique situation created by the September 11 tragedies, 3-1-1 received more calls than anticipated. Managers tracked the calls and identified problems based on the number of dropped calls, the number of calls per operator, and the number of messages. Two additional work stations were added to address these overrun issues.

Software Updates. A longer-term maintenance issue involved ensuring that the CRM and phone software would not become dated or obsolete. APD negotiated with Motorola to provide updates as they were developed, for one year. The City purchased a maintenance agreement that provided limited (20 hours) off-site technical support for the software, as well. Additional support could be purchased later, at agreed-upon rates documented in the contract. City-wide maintenance and support agreements were in place with Avaya and Dell

for the phone equipment and computer hardware.

New Employees. Even though APD has reduced call taker turnover drastically (from 47 percent per year to 5 percent per year), new call takers are hired occasionally. APD offers orientation classes for new call takers. These individuals participate in a two-week course to certify them as 9-1-1 call takers and to explain how Austin's Emergency Communications Division functions. They learn about the policies and procedures that apply to all call takers. They also learn about specific issues for 9-1-1 call takers, 3-1-1 call takers and teletype call takers. Generally, call takers start their assignments as 9-1-1 call takers.

Managers developed a single policy and procedures manual for all call takers when 3-1-1 was introduce. Managers for each of the units, (9-1-1, 3-1-1 and dispatch) participated in multiple work sessions to revise and update the manual to reflect current operating procedures. They identified which were not being followed, the reasons they were not, and whether they needed to be included or deleted. They also identified practices that had not previously been documented. Working together, they established standard ways of handling situations. This intense effort was aimed at easing the transition for call takers when rotating within shifts and across units, and to ensure consistent responses to customers by all units.

When call takers started in the 3-1-1 unit or were rotated to 3-1-1 from another unit, they sat with an experienced call taker for two weeks. During the first week, they listened to how calls were answered and resolved. Using a remote headset, they linked into the phone system of the trainer. They learned about the reporting systems on the desktops. During the second week, new call takers began to answer calls while the experienced call taker listened. When the experienced call taker certified that the new call taker can handle calls solo, on-the-job training, was complete. Generally, the trainer remained available to the new call taker to answer questions and assist with problem calls as they arose. Leads and supervisors also worked with the new call taker.

APD created flexibility among its emergency communications units by:
➤ standardizing call taker responsibilities
➤ creating uniform policies and procedures
➤ instituting systematic on-the-job training.

Based on these operating principles, APD was able to offer overtime and rotation opportunities among units to meet unit-based staffing shortages. This helped maintain workload distribution. They also created a quasi-career track for call takers. Call takers could learn all the functions of emergency communications and apply for management positions.

By expanding the breadth of the job, management made the call taker position more interesting. Call takers faced very different experiences based on whether they were focused on responding to emergencies in the fastest possible manner (9-1-1), or resolving citizen information and reporting issues (3-1-1). To ensure that call takers were exposed to these different experiences, positions were rotated every six months. Call takers switched shifts and/or units. Rotations ensured that information was distrubuted throughout the unit and that call takers were cross-trained.

Summary. Appropriate levels of redundancy existed in the 3-1-1 equipment and in staff knowledge. Expectations derived from existing data and operating knowledge were used to design the system. Redundancy ensured that the call center operated in a supportive and continuous manner. The systems were built to function with limited down-time (four hours) and to allow for limited growth over time. Support and maintenance agreements provided for software updates on a regular basis, to ensure that they did not become obsolete.

Performance of both equipment and staff waa tracked and monitored daily. If issues were identified, such as too many "dropped" calls they were researched and addressed in a timely manner.

Staff were cross-trained on a regular basis through standardized policies and procedures and rotations among units. When the 3-1-1 call center reaches peak operating capacity, resources can be added in an appropriate time frame.

System Performance

Chapter XII

INTRODUCTION

A major issue for 3-1-1 call centers nationwide is convincing the public to dial 3-1-1. Theoretically, 3-1-1 service provides key information about city services, meeting an anticipated public need. However, if the public does not know about the service or does not demand the service at a sufficient level to justify expenses, questions about proper resource allocation arise.

As city budgets tighten, all cost centers must demonstrate that they are providing a public good in an effective and cost-efficient manner. The 3-1-1 core team was aware of this requirement. They designed the system and procured software capable of tracking the performance of the system and of the call takers operating the system.

This section provides information about how to APD uses 3-1-1 system to measure performance. For example, managers and supervisors use the system to track the volume of phone calls received overall, how quickly calls are answered, how long call takers remain on the line, and how many calls are abandoned. This section does not provide findings regarding the overall effectiveness of 3-1-1 or describe whether calls to 9-1-1 increased or decreased over time. Those issues are addressed in the formal evaluation conducted by 21st Century Solutions, Inc. (forthcoming).

During the visioning process for the 3-1-1 system, management established four measures of success:
1. Reduce the number of non-emergency calls on the 9-1-1 system by 35 percent.
2. Handle non-emergency calls in an efficient manner, i.e., low average call times.
3. Handle calls without overwhelming the 3-1-1 system, i.e., avoid hang-ups due to customer waiting times.
4. Receive few to no complaints from community members using 3-1-1.

Management uses tracking systems to guide call takers in improving their performance. Management evaluates call taker performance, develops constructive criticisms, and establishes benchmarks for improvement using individual statistics from the tracking systems. To motivate call takers, individuals who exceed benchmark performance levels and improve system operations are recognized frequently.

QUESTIONS IN THIS CHAPTER INCLUDE:

Questions about How APD Assesses Its Performance with 3-1-1:

➢How are 3-1-1 calls tracked?
➢How often do Emergency Communications managers report on 3-1-1 statistics?
➢What performance indicators do they use?

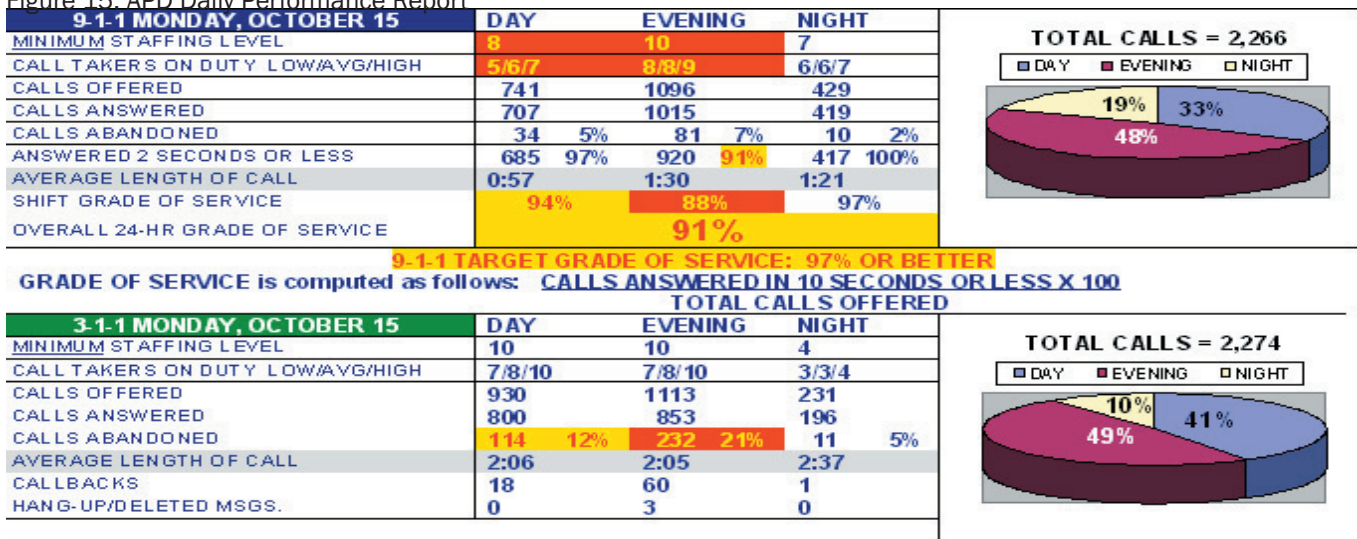Questions about How Call Tracking Statistics Are Used to Manage Employees:

➢How can managers use statistics from the 3-1-1 system?
➢How can call takers use statistics from the 3-1-1 system?

APD Performance. Emergency communications Technical Services Supervisors track call volume daily. The Supervisor prepares a report highlighting the number of call takers, as well as calls received, answered and abandoned for the 9-1-1 and the 3-1-1 systems. This report is forwarded to all emergency communications managers daily.

Figure 15: APD Daily Performance Report

9-1-1 MONDAY, OCTOBER 15	DAY		EVENING		NIGHT	
MINIMUM STAFFING LEVEL	8		10		7	
CALL TAKERS ON DUTY LOW/AVG/HIGH	5/6/7		8/8/9		6/6/7	
CALLS OFFERED	741		1096		429	
CALLS ANSWERED	707		1015		419	
CALLS ABANDONED	34	5%	81	7%	10	2%
ANSWERED 2 SECONDS OR LESS	685	97%	920	91%	417	100%
AVERAGE LENGTH OF CALL	0:57		1:30		1:21	
SHIFT GRADE OF SERVICE	94%		88%		97%	
OVERALL 24-HR GRADE OF SERVICE			91%			

TOTAL CALLS = 2,266

□ DAY ■ EVENING □ NIGHT

19% 33% 48%

9-1-1 TARGET GRADE OF SERVICE: 97% OR BETTER
GRADE OF SERVICE is computed as follows: CALLS ANSWERED IN 10 SECONDS OR LESS X 100
TOTAL CALLS OFFERED

3-1-1 MONDAY, OCTOBER 15	DAY		EVENING		NIGHT	
MINIMUM STAFFING LEVEL	10		10		4	
CALL TAKERS ON DUTY LOW/AVG/HIGH	7/8/10		7/8/10		3/3/4	
CALLS OFFERED	930		1113		231	
CALLS ANSWERED	800		853		196	
CALLS ABANDONED	114	12%	232	21%	11	5%
AVERAGE LENGTH OF CALL	2:06		2:05		2:37	
CALLBACKS	18		60		1	
HANG-UP/DELETED MSGS.	0		3		0	

TOTAL CALLS = 2,274

□ DAY ■ EVENING □ NIGHT

10% 41% 49%

Each month, this report is summarized. Managers discuss trends and problem areas. They implement changes, as needed. Based on these discussions, the Emergency Communication Manager prepares monthly reports for the Assistant Chief of Operations and the Chief. His report outlines key successes, areas of improvement and planned activities for the coming month.

Maintaining this consistent reporting allows managers and executives to stay aware of changes in emergency communication requirements. The information about 9-1-1 calls helps managers forecast the potential impact of a 3-1-1 system.

The call tracking software for Austin"s 3-1-1 system allows managers to track data by the source of the call; a direct 3-1-1 call, a Teleserve number call, a general number call or an internal transfer call.   Managers disaggregate types of call data to estimate how many 3-1-1 calls are being received above and beyond normal Teleserve and PBX call loads.

As noted, this chapter on performance measures provides information about how APD uses the 3-1-1 system to measure performance. The chapter does not provide findings regarding the overall effectiveness of 3-1-1 or describe whether calls to 9-1-1 increased or decreased over time. Those issues are addressed in the formal evaluation conducted by 21st Century Solutions, Inc. (2003). We offer the following examples only to demonstrate how Austin managers are using performance data from their tracking system to address internal reporting needs.

For 3-1-1, the Emergency Communication Manager made performance presentations to the command staff of APD and the City Manager at major milestone dates. After the system had been in place for approximately a month, he reported on 3-1-1 activity.

In this presentation, the Emergency Communication Manager stated that "3-1-1 resulted in a reduction of 16 percent of calls into the 9-1-1 call center…. Prior to 3-1-1, the 9-1-1 call center averaged 2,586 calls a day. 9-1-1 now handles an average of 2,179 calls a day." He presented

charts showing call load for 9-1-1 and 3-1-1 by day. These charts clearly demonstrated how 3-1-1 was reducing 9-1-1 call loads on a daily basis.

He made follow-up presentations at the three-month and six-month marks. In each time period, statistics demonstrated how 3-1-1 was achieving the first performance goal, reducing the 9-1-1 call loads. Even in light of the national tragedies of September 11, 2001, 9-1-1 call loads appeared to have been reduced in Austin.

To track customer satisfaction with 3-1-1, assistant managers employ two performance tools. First, an assistant manager listens to recordings (about 20 minutes) of a select number of calls each quarter. The assistant manager assesses how call takers handled callers and callers' reactions and notes how customer service might be improved. The training coordinator also calls a random number of callers and conducts a customer satisfaction survey.

When the system was first implemented, the Emergency Communication Manager also responded to any customer comments that were received by the Chief's Office. 3-1-1 received early press coverage because AT&T cellular customers could not reach 3-1-1 from their phones. Initially, AT& T had stated that the APD had not informed them about the need to offer the service. However, the APD was able to produce a copy of the certified letter with receipts to document its delivery, and thus deflected the negative press. Aside from that incident, 3-1-1 has received accolades in editorials in the press.

Call Taker Performance. Management tracks the performance of call takers in real time during daily shifts. [Tracking systems performance is discussed in Chapter XIII: System Maintenance.]

The software installed with the phone system allows management to monitor how long call takers are with callers, how long they spend completing follow-up reports, and how long they take for breaks. It also documents how many calls are taken per shift, per call taker, and the source of the calls received. The system stores this information for up to 5 years. Management listens to tapes of calls quarterly.

The CRM system tracks resolutions by call type. Using this data, managers can quickly identify when incorrect information is being provided and who is disseminating that information. This allows them to contact the call taker(s) and advise them of the correct information quickly -- and discretely.

Using these data, APD management developed benchmarks for performance plans, provided constructive criticism to improve call taker techniques, and identified solutions to recurrent problems faced by callers. As an example, management developed internet-based fact sheets to answer common caller questions and provided city contact phone and address lists.

Management also uses individual performance data to commend call takers on their performance. Because of the precise accounting in the systems, call takers can distinguish themselves more easily. Not only can they demonstrate the quantity of calls they are handling, but the system documents the depth and quality of their services to Austin citizens.

Summary. Access to real-time information in an information service center is critical. Austin's 3-1-1 center tracks how and what information is requested and disseminated. APD quickly demonstrated to their executives how 3-1-1 appears to aid in the delivery of services by their department using call volume statistics. Using the tracking software, managers encourage individual call takers to improve their performance in terms of the quantity of calls they are handling and the quality of services they are providing.

Lessons Learned

Chapter XIII

INTRODUCTION

Austin implemented 3-1-1 to provide citizens with an alternative to calling 9-1-1. The Chief believed that citizens should have a way to seek assistance from APD about issues that were not emergencies. He wanted to encourage citizens to become "eyes and ears" for the Department. Citizen involvement is fundamental under the Chief's philosophy of neighborhood-based policing. 3-1-1 is a method of encouraging and allowing for a broader range of citizens to become involved.

APD staff responsible for Emergency Communications sought to ensure that citizens could reach 9-1-1. The growing call volumes overtaxed the 9-1-1 system in crisis situations. APD knew that 40-60 percent of 9-1-1 calls were non-emergency calls. 3-1-1 provided a viable solution for removing these calls from the 9-1-1 queue.

The 3-1-1 team understood that 3-1-1 reinforced the overall department philosophy. They also viewed it as a solution to a potential crisis with 9-1-1. Understanding where 3-1-1 fit into the big picture for this goal-oriented Department served as a powerful underlying motivator throughout the process of creating the service. Those responsible for developing the plan and securing funding framed issues around how 3-1-1 would positively affect public safety. Once implementation began, IT managers responsible for designing and for procuring the technology defined appropriate project scopes and functional needs using this framework. Managers led call takers to accept new job responsibilities by explaining how the call takers would be important contributors within APD's overall mission. Clearly placing 3-1-1 within the context of overall agency goals eased the implementation process at each stage.

In this chapter, we discuss what lessons were learned at each stage of the implementation process. In some cases, APD anticipated what needed to be done; time proved them correct. In other cases, managers wished they had known how to resolve issues more easily. As external observers, we saw two overall key lessons emerge. One, as discussed above, is that 3-1-1 should be proposed within the context of wider agency goals. If the mission of the new service is clear, everyone at every level will have an easier time contribut-

ing to successful implementation throughout the process. Second, anointing a champion to reinforce this mission is critical. In Austin, the Emergency Communications Manager served as the project champion. While many people were involved, he was the point person responsible for making decisions, clarifying expectations and keeping 3-1-1 on the priority list of Department activities.

SUMMARY OF LESSONS BY CHAPTER:

Need. Before implementing 3-1-1, understand the needs of the community, the 9-1-1 call volume and the types of calls received at 9-1-1. If an excessive number of non-emergency calls are being received by 9-1-1, investigate the reasons citizens are calling 9-1-1 rather than another number.

Choosing the Model. Determine which 3-1-1 model -- the basic police model, the basic city model or the comprehensive model -- will meet the needs based on the desired outcome, political realities of the community and available resources.

Partnerships. Look for partners at each step of the process and be flexible about what these partners can provide. Once partnerships are established, be clear about roles and expectations. Also ensure that everyone knows and understands who makes the final decisions.

Equipment/Technology: Call Routing and Call Tracking. Think through different scenarios in the development phase. Observe call takers over an extended period and track the types of calls they receive. Develop a baseline of 9-1-1 calls prior to the implementation of 3-1-1.

Equipment/Technology: Procurement Process. Partner with the purchasing department experts to determine what options are available for procurement. If there is an easy way to procure the technology, use it. Currently, the marketplace for 3-1-1 solutions is limited. Only a few companies are providing products focused on government needs. Finally, make sure that your 3-1-1 technical team includes a GIS expert at the design stages.

Staffing. Realize that staff is half of the focal relationship between callers and the police department. It is critical that staff fully understand and accept the 3-1-1 concept prior to implementation. Focus on morale issues and rumor control.

SUMMARY OF LESSONS BY CHAPTER:

Training. Use the train-the-trainer model to build acceptance. Provide training, especially refresher training, at multiple points during the implementation process. When conducting computer training, use live systems in a hands-on setting. Hold vendors accountable for documentation.

Logistics. Recognize the impacts of physical space on morale and on system operations. Ensure that you have the organizational clout to make announcement of 3-1-1 an important event for the organization.

Timeline. Establish and distribute a formal timeline. Be detailed about what tasks must be completed, who will be completing them, when they are due and what other tasks are dependent on their completion. Have a project manager focused on tracking progress according to the timeline. Maintain momentum with frequent meetings that require action, not just discussion.

Public Education/Marketing. Recognize that changing public perceptions about 9-1-1 is the key to success of a basic police model. When developing a public education strategy and budget, be creative and set your financial goals high. Rely on key stakeholders such as the Public Information Office to assist you with the effort. Take advantage of unexpected situations.

System Maintenance. Plan for limited redundancy.

System Performance. Track 3-1-1 performance daily. Use measures that provide in-depth information about what the system is accomplishing and how call takers are performing.

Need. Before implementing 3-1-1, understand the community, the 9-1-1 call volume and the types of calls received at 9-1-1. If an excessive number of non-emergency calls are being received by 9-1-1, investigate the reasons citizens are calling 9-1-1 rather than another number.

APD understood that they were serving a relatively sophisticated citizenry with high expectations for government and police services. Executives saw that the 9-1-1 call volume was growing faster than the population. They recognized that 40-60 percent of their 9-1-1 calls were non-emergency calls, many about civil matters. Citizens were calling 9-1-1 because they knew they could reach the police department and there was not a viable alternative. 3-1-1 made sense under these conditions.

Choosing the Model. Determine which 3-1-1 model-- the basic police model, the basic city model or the comprehensive model-- will meet the needs based on the desired outcome, political realities of the community and available resources.

APD used 3-1-1 in its most basic form to remove non-emergency police calls from 9-1-1. When calling 9-1-1, citizens were seeking police intervention. The basic police model ensured that 3-1-1 callers would know they were contacting the police and would be discouraged them from reverting to 9-1-1 as the preferred police contact.

Further, APD understood that developing a centralized city call center involved extensive coordination and management efforts. As one of the smallest call centers of the 22 operating in the city, the police department did not choose to assume leadership of this enterprise operation. Establishing the basic police model allowed them to pilot test implementation strategies and new call management technologies. It also allowed them to build a system within available financial and personal resources in a timely fashion.

Partnerships. Look for partners at each step of the process and be flexible about what these partners can provide. Once partnerships are established, be clear about roles and expectations.

APD partnered with other city organizations (the Information Systems Department, the Purchasing Division and the Public Information Office), private telephony and software vendors, 9-1-1 regulators (CAPCO), community leaders (Greater Austin Crime Commission) and media during implementation. Each partner provided unique expertise vital to the successful implementation of 3-1-1.

Because City officials anticipated building an enterprise-wide call center based on APD's 3-1-1 experience, the Information Systems Department assumed a significant role in the development process. Early in the process, the Emergency Communication Manager worked with ISD executives to clarify who would make decisions about APD's 3-1-1 effort - APD. This early clarification was critical to keeping the project focused and the lines of communication clear.

Equipment/Technology: Call Routing and Call Tracking. Think through different scenarios in the development phase. Observe call takers over an extended period and track the types of calls they receive. Develop a baseline of 9-1-1 calls prior to the implementation of 3-1-1. These data will enable you to differentiate between the call load that would have been generated through the standard non-emergency number(s) and the part of the call load that is new to the operation.

APD relied on the experience of management to define how calls would be received and how they would be routed and tracked. Initially, APD struggled with how to identify competitive local exchange carriers (CLEC) operating cellular services and pay phones. The first alternative would have denied citizens using these services

access to 3-1-1. However, APD officials realized that allowing some citizens access while denying it to others would jeopardize the success of the effort. They redoubled their efforts and reached out to their partner, CAPCO, to assist in identifying these companies.

ISD staff observed call takers in order to devise specifications for how to route and track calls. They watched what kinds of calls were received and how these calls were resolved. These observations served as the basis for the functional specifications of the telephony and call management software.

Equipment/Technology: Procurement Process. Partner with purchasing department experts to determine what options are available for procurement. If there is an easy way to procure the technology, use it. Currently, the marketplace for 3-1-1 solutions is limited. Only a few companies are providing products focused on government needs. Finally, make sure that your 3-1-1 technical team includes a GIS expert during the design stage.

APD avoided months of difficult procurement tasks by building a partnership with the experts in Austin's Purchasing Department. They learned of a special umbrella rule allowing direct procurement of products and services that improve the public safety. This rule allowed them to avoid the request-for-proposal process and to jump-start technology procurement. They also used modifications of existing contracts wherever possible.

ISD staff involved with the project spent extensive time attempting to identify vendors for 3-1-1 solutions. What they learned is that few exist, especially with proven solutions for public agencies.

One lesson that APD learned the hard way is the importance of involving a GIS expert throughout the 3-1-1 implementation process. Address data are key components when linking 3-1-1 data to other enterprise data systems such as CAD and reporting systems. GIS technology is a complex and specialized field. APD did not involve GIS staff until the construction phase. During this hectic time, they learned that the specifications and formats of APD's GIS data did not meet CRM or SWB system specifications. It took extensive communication, data reformating and time to address this issue. In the end, APD was not able to fully incorporate the GIS address data into the CRM system. This has limited the usefulness of the CRM software.

Staffing. Realize that staff is half of the focal relationship between callers and the police department. It is critical that staff fully understand and accept the 3-1-1 concept prior to implementation.   Focus on morale issues and rumor control. Resolving these issues requires that you address root problems first, such as staffing shortages and pay issues.

When implementing a new system, weigh the benefits of refocusing existing staff against those of hiring new staff. Change presents serious challenges that may outweigh any potential savings in training costs. In either case, empower and trust your employees to solve problems.

APD understood that the success of 3-1-1 depended on changing citizens' use of 9-1-1. To be encourages to use 3-1-1, callers needed to have positive experiences with 3-1-1 call takers. Beyond the technological tools, call takers needed knowledge and customer service skills to address caller needs in an effective and efficient manner.

To implement 3-1-1 with existing Teleserve and PBX staff, APD managers had to redefine the call taker position, address intra-unit communication and morale issues, and realign expectations. All tasks required excellent change management skills. Managers created a single call taker performance plan, developed a career track for call takers and addressed rumors

proactively. Executives met with command staff and divisions relying on Teleserve staff to realign expectations and build support for the new 3-1-1 operation.

Training. Use the train-the-trainer model to build acceptance. Provide training, especially refresher training, at multiple points during the implementation process. When conducting computer training, use live systems in a hands-on setting. Hold vendors accountable for documentation.

APD started training on the new 3-1-1 system three months prior to the kick-off date with vendor train-the-trainer sessions. Using this method allowed them to expose recognized leaders to the concepts and to learn about potential concerns of staff. Leaders built excitement and positive feedback about the new tools within their respective shifts. One lesson learned for the leaders during these sessions is that it is important for managers to provide as much information as possible about the new system, as soon as possible. Resistance to 3-1-1 developed from a lack of understanding of the vision and of the changes that were planned.

Participants learned the new software in a hands-on environment. They were able to see how the system reacted under different scenarios. APD also allowed enough time for their staff to learn the new tools at their own paces. This eased fears and tensions about the new job.

With respect to vendors, ISD staff made sure that vendors provided the necessary technology documentation to support and maintain the hardware and software. Initially, Motorola did not have this documentation available.

Logistics. Recognize the impacts of physical space on morale and on system operations. Ensure that you have the organizational clout to make the announcement of 3-1-1 an important event for the organization.

Physical space at APD headquarters was limited. Emergency Communication units were spread throughout the building. The space provided was not ideal for a call center. These physical space constraints affected the call takers' morale and communication. Managers recognized these issues and took steps to address them.   They also demonstrated that the situation would improve by posting pictures of the construction of the new communication center.

Within the organization, the Emergency Communication Manager promoted the activities of the Emergency Communication staff. He ensured that executives were aware of staff contributions to the operation of the Department. The kick-off of 3-1-1 was no exception. His marketing team coordinated a media event involving the Mayor, City Manager and Chief. When the cameras appeared in the call center, call takers proudly showed off their new tools and were recognized for their contributions to the Police Department.

Timeline. Establish and distribute a formal timeline. Be detailed about what tasks must be completed, who will be completing them, when they are due and what other tasks are dependent on their completion. Have a project manager focused on tracking progress according to the timeline. Maintain momentum with frequent meetings that require action, not just discussion.

The ISD Project Manager created a multi-page timeline.   Working with the Emergency Communication Manager, she built in sufficient time to allow for inevitable problems.   This timeline detailed each phase of implementation, including the training and marketing phases. Under her direction, the team relentlessly tracked, reported and most importantly, completed tasks as documented in the timeline during weekly meetings.
The marketing and training team leaders developed timelines, but not to the same level of specificity. They also held frequent team meetings. Although they accomplished all of their goals, at some meetings, focus seemed to drift

and frustration developed. A more specific task timeline might have avoided these issues.

Overall, all involved in the APD 3-1-1 effort felt that their timeline worked splendidly. The project was completed on schedule.

Public Education/Marketing. Recognize that changing public perceptions about 9-1-1 is the key to success of a basic police model. When developing a public education strategy and budget, be creative and set your financial goals high. Rely on key stakeholders such as the Public Information Office to assist you with the effort. Take advantage of unexpected situations.

APD managers asserted that the success of 3-1-1 depended on public re-education about 9-1-1. Public education was perhaps the most critical aspect of this effort.

APD sought the assistance of community leaders with this important aspect. APD leveraged the clout of community leaders involved with the Greater Austin Crime Commission to gain media and corporate support. GACC leaders also enlisted the support of a well-known graphics firm to brand Austin's 3-1-1 effort. APD relied on the communication experts in the Public Information office to access the marketing outlets with the greatest potential for citizen contact.

Brainstorming from the perspective of the various team members played a significant role in the planning for marketing and fundraising. One area that proved very difficult was identifying sufficient personnel to actually contact corporations and businesses for financial support. GACC members found that securing corporate donations was a labor-intensive undertaking. The unexpected events of September 11 changed the landscape for the 3-1-1 marketing effort. APD and GACC officials quickly adjusted their materials and proceeded according to plan. They were able to use these unfortunate

circumstances to demonstrate the value of 3-1-1 to the community's public safety needs. The media quickly accepted and promoted this message.

System Maintenance. Plan for limited redundancy. In general, the 3-1-1 operation is relatively stable. However, hardware and software glitches do occur. Work with technical staff to develop acceptable levels of downtime.

In addition, some staff turnover should be anticipated. APD developed a cross-training method for incorporating new staff in a positive manner.

System performance. Track 3-1-1 performance daily. Use measures that provide in-depth information about what the system is accomplishing and how call takers are performing.

APD tracks 3-1-1 calls and call resolution daily. Using this information, they provided success stories with data within the first two months of operation. Frequent reports allowed the Department to maintain interest in and attention on 3-1-1.

Detailed performance data allowed managers to work with call takers to improve their performance. Managers were able to identify potential areas of concern and to discuss them with the call takers before significant problems could occur. Most importantly, performance measures allowed call takers to demonstrate their achievements. Feedback on performance measures served as a motivator for positive job performance.

Endnotes

[1] Austin City Source: Austin, Texas Basic Facts. Available on the web at www.ci.austin.tx.us/citymgr/basicfac.htm

[2] Ibid.

[3] Ibid.

[4] Ibid.

[5] FY 2001-02 City of Austin Budget, Police Department Section. Available on the web at www.ci.austin.tx.us/budget/01-02/downloads/pb02_police.pdf

[6] Ibid.

[7] Ibid.

[8] Ibid.

[9] Ibid.

[10] Craig D. Uchida, Shellie E. Solomon and Edward R. Maguire. "Neighborhood-Based Policing, Austin Style, An Assessment." Washington, DC: 21st Century Solutions, Inc., September 2000

[11] Ibid.

[12] APD's call prioritization and dispatch policies did not change as a result of the new 3-1-1 system.

[13] FY 2001-02 City of Austin Budget, Police Department Section. See note 5.

[14] COPS MORE is a program funded by the U.S. Department of Justice, Office of Community Oriented Policing Services. Since 1995, COPS MORE has provided funding to law enforcement agencies for technology, civilians, and overtime in an effort to redeploy officers and deputies into community policing activities.

[15] Rana Sampson, "Misuse and Abuse of 911," Problem-Oriented Guide Police Series, U.S. Department of Justice, COPS Office, 2002.

[16]
 While this city-wide route has been the method of other 3-1-1 efforts, the Chief has identified specific reasons for maintaining 3-1-1 as a police non-emergency number and for not taking on the responsibilities to be the headquarters for Austin's single number. These issues will be discussed in the next chapter about choosing the 3-1-1 model.

[17]
 Emulation software allows communication with a mainframe application by a personal computer.

[18]
 While the COPS Office understands APD's rationale for making a sole source procurement of the 3-1-1 hardware and software, they encourage other jurisdictions to follow the standard competitive RFP process as outlined in "The Law Enforcement Tech Guide: How to plan, purchase and manage technology" SEARCH Group, COPS Office. 2002. See "Part IV: Acquiring the Technology" for specific steps.

[19]
 Texas State privacy laws prohibit forwarding of address information for non-emergency uses.

Glossary of Terms

Abbreviations

3-1-1	Phone number reserved with the Federal Communications Commission for non-emergency calls
9-1-1	Phone number reserved with the Federal Communications Commission for emergency calls.
ALI	Automatic Location Identification. When a person makes a 911 call using a traditional phone with ground wires, the call is routed to the nearest public safety answering point (PSAP) that then distributes the emergency call to the proper services. The PSAP receives the caller's phone number and the exact location of the phone from which the call was made.
ANI	Automatic Number Identification. A telephone network feature that passes the number of the phone the caller is using to the call center in real-time.
APD	Austin Police Department
Automatic Vehicle Locator (AVL)	An automatic vehicle locator is a device that makes use of the Global Positioning System to enable a business or agency to remotely track the location of its vehicle fleet by using the Internet. These devices combine GPS technology, cellular communications, street-level mapping, and an intuitive user interface. AVL systems generally include a network of vehicles that are equipped with a mobile radio receiver, a GPS receiver, a GPS modem and a GPS antenna. This network connects with a base radio consisting of a computer station as well as a GPS receiver and interface. GPS uses interactive maps rather than static map images on the Web. This means users can perform conventional GPS functions such as zoom, pan, identify and queries.
AVAYA	Telephony vendor selected by Austin to support the 3-1-1 system.
blue pages	The section of the phone book dedicated to listing government phone and location information.
CAD	Computer Aided Dispatch. A CAD system allows emergency operations and communications to be augmented, assisted, or partially controlled by an automated system. It can include, among other capabilities, computer controlled emergency vehicle dispatching, vehicle status, incident reporting and management information.
call center	An umbrella term that refers to reservations centers, help desks, information lines or customer service centers, regardless of how they are organized or what types of transactions they handle.

Glossary of Terms

Abbreviations

call taker	A person who handles incoming or outgoing calls. Within emergency call centers, this person is a trained civilian or officer responsible for handling emergency and non-emergency situations.
call volume	Number of calls received in a given time period.
calls abandoned	Number of calls where the caller hangs up before reaching a call taker.
calls answered	Number of calls received and handled by call takers or peripheral equipment. Answered calls do not include calls that are abandoned or receive busy signals.
calls offered	All of the attempts callers make to reach the call center. There are three possibilities for offered calls: 1) they can get busy signals, 2) they can be answered by the system, but hang up before reaching a call taker, 3) they can be answered by a rep.
calls received	Number of calls detected and seized by a trunk or private business exchange. Received calls are either abandoned or answered by a call taker or peripheral equipment such as an answering machine.
CAPCO	Capital Area Planning Council. A regional planning council organized in 1970 to serve local governments in its 10-county region in and around Austin. The primary focus of CAPCO is to serve as advocate, planner and coordinator of initiatives that, when undertaken on a regional basis, can be more effective and efficient. These include emergency services, elderly assistance, law enforcement training, criminal justice planning, solid waste reduction, infrastructure development, and housing and economic development.
Central Office	Can refer to either a telephone company switching center or the type of telephone switch used in a telephone company switching center. The local central office receives calls from within the local area and either routes them locally or passes them to an inter-exchange carrier (IXC). On the receiving end, the local central office receives calls that originate in other areas, from the IXC.
CIO	Chief Information Officer
CLEC	Competitive Local Exchange Carriers. Telephone companies responsible for providing local connections and services in addition to the primary local exchange carrier.
COA	City of Austin

Glossary of Terms

Abbreviations

COPS MORE	Grant program of the U.S. Department of Justice, Office of Community Oriented Policing Services entitled "Making Officer Redeployment Effective." Since 1995, COPS MORE has provided funding to law enforcement agencies for technology, civilians and overtime in an effort to redeploy officers and deputies into community policing activities.
COPS Office	Office of Community Oriented Policing Services, U.S. Department of Justice
CRM	Customer Relations Management software. Computer software packages are created by a number of vendors using database tools and business rules to manage customer information.
DEORS	Austin Police Department Records Management System
dispatcher	A trained civilian responsible for distributing calls for service to officers in a designated sector of a community.
District Representatives (DR)	Sworn Austin Police Officers whose primary job responsibilities are to serve as liaisons between patrol officers and neighborhood members. District Representatives engage in extensive problem-solving activities and are relieved of handling calls for service.
DPS	Texas Department of Public Safety
emergency call	A call received where there is a threat to life or injury to a person.
EMS	Emergency Medical Services
emulation software	Software that allows communication with a mainframe application by a personal computer.
GACC	Greater Austin Crime Commission. Organization formed in Austin in 1997 to support law enforcement, raise public awareness about crime prevention programs and promote a cooperative and coordinated anti-crime effort in the community.
gb	Gigabyte. One billion data bits on a computer.
GIS	Geographic Information System. Computer software that allow users to visualize, explore, query and analyze data geographically.
ISD	Information Systems Department.
MDT	Mobile Data Terminal. Ruggedized wireless computing devices to send and receive information over a wireless data network.

Glossary of Terms

Abbreviations

MHz	Megahertz. One million cycles per second, used especially as a radio-frequency unit.
Motorola	Customer Relations Management software vendor selected by Austin.
network ready	A personal computer that includes a component which, when connected, allows the computer to access a network made up of circuits and computers for the exclusive use of an organization or group of affiliated organizations.
non-emergency call	A call received by police which involves no threat to life or injury to a person and there is no retrievable evidence.
observing capabilities	A phone system that allows supervisors to hear and track phone conversations in real time.
ODBC	Open database connectivity. An open standard application programming interface (API) for accessing a database. By using ODBC statements in a program, users can access files in a number of different databases, including Access, dBase, Excel, and Text.
PBX	Private Branch Exchange. An in-house telephone switching system that interconnects telephone extensions, as well as to the outside telephone network.
PIO	Public Information Office
RMS	Record Management System. RMS is an agency-wide system that considers the reasons, the processes and the means necessary for a document to exist and be used. RMS must cover the entire life span of the document, from its generation to its destruction. It provides for the effective storage, retrieval, retention, manipulation, archiving and viewing of information, records, documents or files that are related to a single subject. Records related to law enforcement issues could include crime reports, law enforcement personnel records, criminal records, and crime analysis.
rule of 9's	The system should operate 99.99999 percent of the time not 99.99999999999999 of the time. This rule allows for technicians to establish the level of certainty regarding impacts of system failures. In this situation, a rare system failure is allowable without creating a public safety emergency.
softphones	A phone that allows users to easily make and receive calls by using a simple graphical user interface on a PC or laptop computer screen.
Southwestern Bell	Local Exchange Carrier in the Austin Area

Glossary of Terms

Abbreviations

Street Response Officers	Sworn Austin Police Officers whose primary job responsibilities are to conduct proactive intervention, intelligence and interdiction operations. Street Response Unit officers engage in extensive problem-solving activities and are relived of handling calls for service.
T-1 Switch	A T1 switch is a telephone line which is a 1.544 megabit T-carrier channel. A T-carrier channel is a digital transmission service from a common carrier. Data can be transmitted rapidly using a T-carrier such as a T-1 because a T-carrier service has multiplexors (a device that merges several low-speed transmissions into one high-speed transmission and vice versa) at both ends that merge the various signals together for transmission and then splits them at the destination. A T1 can handle 24 voice or data channels at 64 Kbits/sec. 8,000 frames are transmitted per second.
telephony	The technology and manufacture of telephone equipment.
teleserve	Call center that is established within police departments where trained civilians take police reports over the phone from citizens for non-emergency police-related situations and police officers are not dispatched to the scene, in general.
Texas Commission on State Emergency Communications	The appointed regulatory board responsible for overseeing emergency communication operations in the State of Texas. The Commission helps cities implement and maintain enhanced 9-1-1 emergency communications.
touchscreen monitors	Computer monitors that cause system operations via electric charges or signals when system call takers touch the screen with a finger or pointed object.

Glossary of Terms

Abbreviations

trunked voice radio system	A trunked radio system automatically selects from a pool of available channels when a radio user presses the push-to-talk button on a mobile or portable unit. As soon as one transmission ends, the system can use the channel for another. Trunking permits a large number of users to share a relatively small number of communication paths - or trunks. This sharing of communication paths is managed automatically by a computer. Channel selections and other decisions normally made by the radio user are made by the central controller, a computerized switch. Channel assignment is automatic and completely transparent to the individual users.
voice recording station	Multiple channel automatic audio recording software. Typical applications include telephone line recording (call recording), radio communication recording, control room voice recording and remote conferencing.

About the Authors

Shellie E. Solomon is the former senior financial manager with the Census Bureau, and senior manager at the Justice Department. Ms. Solomon has over 12 years experience in operations and management, budgets, strategic planning, criminal justice evaluation, and technology. She oversaw budget operations for Census 2000 and managed the annual budget of $1.3 billion for the COPS Office Grants Division for four years.

With 21st Century Solutions Inc,, Ms. Solomon has served as the on-site project director for the community policing evaluations in Fort Lauderdale, FL and Miami, FL as well as for the school-based evaluation in Miami, FL She serves as the research associate for the 3-1-1 evaluation in Austin, TX, iris scanning as emerging school technology evaluation in New Egypt, NJ, the lethality review in Colorado Spring, CO and National Assessment of School Based Partnership Program. She is working with U.S. Attorney's offices on gun tracking and safe zone implementation. She has assisted with projects involving performance measurement, resource allocation, system implementation, and internet applications.

Ms. Solomon holds degrees from the University of Oklahoma and Rochester University and is the recipient of the JustWorks award from the U.S. Department of Justice for innovation in government.

Craig D Uchida is a former senior executive at the U.S. Department of Justice and professor of criminology at the University of Maryland. He has over 23 years of experience in criminal justice research, planning, and administration. During his years at the Justice Department he served as the Director of Criminal Justice Research at the National Institute of Justice (NIJ) and as the Assistant Director of Grants Administration at the Office of Community Oriented Policing Services (COPS Office). He was responsible for developing and implementing the grant making process, making grant awards, and monitoring. When he left the COPS Office he had provided $3.4 billion to over 9,000 law enforcement agencies for hiring over 65,000 officers. His efforts at the COPS Office resulted in two major U.S. Department of Justice Awards – the Attorney General's Distinguished Service Award in 1995 and the JustWorks Award for innovation in government in 1997. He has published numerous articles and book chapters in criminology and is the editor of two books on drug enforcement and police innovation.

Dr. Uchida holds a doctorate in criminal justice and two Master's degrees. He is currently President of Justice and Security Strategies, Inc., a consulting firm specializing in crime and public policy and homeland securities policies and an adjunct professor at George Mason University's Administration of Justice Program.