Austin Police Department
Emergency Communications Division
Operational Evaluation – April 2014

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Emergency Communications Division
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Executive Summary

The Austin Police Department’s Emergency Communications Division (hereafter known as the Division) is the first point of contact for citizens calling 9-1-1. The Division also handles all dispatch duties for Austin police officers. Governor Rick Perry recently referred to Public Safety Telecommunicators in a state proclamation as the “unseen first responders.” This is an appropriate description for the work done by 9-1-1 call takers and police dispatchers. They are emergency workers in every sense of the phrase, but, generally, their roles are not afforded the same level of recognition or respect of that of seen first responders. This unfortunate reality can affect the priority level given the Division in regards to resource growth as compared to sworn officers of the police department.

Also affecting the ability of the Division to acquire needed resources has been its ability to maintain high quality services, despite tremendous growth in Austin population and subsequent increases in 9-1-1 call volume and police radio traffic. By outward appearances, the Division has maintained performance goals and usually exceeds the goal of answering 90 percent of 9-1-1 calls in under 10 seconds, which is a nationally accepted best practice. The credit for every bit of that success goes to the women and men working within the Division, but it has not come without a cost.

The combination of a lower priority level for additional resources and visible outward success with static resources has hidden the fissures that have been slowly growing within the foundation of the current model of emergency service delivery.

This evaluation serves as my report on the status of the APD Emergency Communications Division. I have observed the following areas to be operating at a high level:

- Individual and collective work efforts of the Division employees have been exemplary, especially among the call takers and dispatchers
- Performance measures are being exceeded or are close to expectations
- Citizens are receiving exceptional services overall from the Division
- The Austin Police Department is a valued partner among the agencies at the Combined Transportation, Emergency, and Communications Center

The following areas present challenges to the Division, despite the tremendous daily efforts of the emergency communication workers:

- The Division needs additional staffing to maintain the high performance that it has been producing, i.e., more call takers and dispatchers
• There is no dedicated support/administrative infrastructure in place to support the growing needs of the Division
• Call takers and dispatchers are not adequately compensated in proportion to the responsibilities of their jobs and the fact that they are Public Safety workers and essential employees
• The Division has greatly exceeded its overtime budget in the last few years in an effort to maintain minimum staffing
• Recent implementation of a new 9-1-1 software has created some operational issues
• The Division has not had training similar to sworn officers on the role of Emergency Preparedness and Planning

Based on the current and anticipated challenges for the Division, I am recommending the following:

• Compensation increase for telecommunicators commensurate with their roles in providing Public Safety to the City of Austin
• Staffing increases for frontline operational personnel over a multi-year period
• Fulltime budgeted positions dedicated to the support of the Division infrastructure, such as recruiting, hiring, training, scheduling, and technology support
• Communication Training Officer stipend for the senior call takers and dispatchers who are part of the ongoing training of new hires
• Temporary overtime budget increase to support minimum staffing efforts while new positions are hired and trained
• Improved communication and direct partnership with CAECD, AT&T, and Solacom, which are entities responsible for the 9-1-1 software and hardware
• Support for continued work on developing alternative disaster routing options and providing training in emergency preparedness and training – specific to an emergency communications center
Methodology

The preparation for this review began with a comprehensive review of current and all available archived information related to the Communications Division. Discussions were conducted with current and former staff to provide context to the historical information. I have spent the previous three months learning about the Communications Division and speaking to current staff at the management, supervisory, and operational levels. I have been present for several major operational events to see firsthand how the Communication Division prepares and responds. I have participated in the day-to-day management of the Communications Division and have had the opportunity to meet all the major partners.

This overall evaluation is the result of information that I have learned and the recommendations of those who have been working within the Communications Division for many years.
Chapter 1

Overview of the Communications Division

Staffing

The Division has 196 budgeted positions, of which seven are part-time. The Division also employs temporary positions that are used for new hires as they train to become call takers and dispatchers and reach the minimum qualifications necessary for licensure. Once a temporary employee becomes eligible for a regular budgeted position, then he or she is moved from a temporary status to a regular budgeted fulltime position - if a fulltime position is available. The significant differences between the two classifications are that a temporary employee does not receive benefits and has a lower hourly rate.

The Division is broken into two main operational areas: call taking and dispatch. Each of these areas provides 24/7 coverage in their respective responsibilities.

Call Takers

There are 93 call takers, of which seven are part-time. The call takers have three functional areas that they fulfill: 9-1-1 emergency call taking, non-emergency call taking and report writing, and Teletype.

Dispatchers

There are 71 dispatcher positions within the Division. Each of the nine police sectors and the Airport require individual 24/7 dispatchers. Highway Enforcement Command requires its own dispatcher for day shift and into the evening hours. A minimum of two relief dispatchers are needed for each shift to allow dispatchers to take breaks because a radio channel can never be left without a dispatcher. Additional to the daily requirement for dispatch positions is the frequent request for Special Event dispatchers separate from those normally scheduled. In summary, day shift and evening shifts have an absolute minimum of 13 dispatchers and night shift requires a minimum of 12 dispatchers.

Supervisory Staff

Each shift is supervised by a team comprised of supervisors and Leads. The Leads do not have a direct supervisory role over personnel but work within the command control center to monitor calls and services. The Division employs 12 Leads and 10 supervisors.
Management

Division management is comprised of eight positions, of which two are sworn. The police commander oversees the entire Division. The assigned lieutenant oversees Operations and the civilian manager oversees Administration. There are three assistant managers over Operations, and two positions assigned to Administration in the areas of Recruiting, Hiring, Training, Organizational Development, Compliance, Public Education and Outreach, and Technology. The management team has two administrative specialists assigned for support.

Scheduling

Scheduling for the Division is a complicated endeavor. The Division uses two 9-1-1 call takers on Special Assignment to work solely on scheduling for nearly 200 people. This is necessary, in part, because the Division cannot afford to be unexpectedly understaffed. Leave requests are reviewed by Schedulers to ensure that minimum staffing levels are maintained. The Schedulers coordinate overtime for anticipated vacancies that result in positions falling below minimum staffing. Schedulers also keep track of employees who trade days as a means of trying to take time off when their request has been denied due to falling below minimum staffing or when experiencing a last minute need for personal leave.

Each shift has a minimum staffing number. For call takers, it is based on anticipated call volume and it requires five different shifts, two of which overlap. For dispatchers, it is based on one dispatcher-per-channel and two reliefs working days, evenings, and nights. However, vacancies greatly affect minimum staffing. The Division is always carrying vacant positions because of the high turnover rate. Each vacancy affects minimum staffing. Unanticipated temporary vacancies for such things as sick days compound the problem when there are just enough personnel to cover minimum staffing needs – even if everyone came to work.

Budget

The overall budget for the Division in the current fiscal year is $13,333,960, of which most goes toward personnel costs such as pay and benefits. The two significant areas of discretionary spending are overtime and temporary employee pay. For this fiscal year, the overtime is set at $535,612 and the temporary employee fund is set at $456,446.

Technology Management

Technology for the Division covers all aspects of service delivery. The technology needs are significant for emergency telecommunications. There are two major partnerships that the Division maintains in the area of technology. First, the Division relies on the Capital Area
Emergency Communications District (CAECD) to provide all software and hardware for 9-1-1 emergency services. CAECD is a component of the Capital Area Council of Governments (CAPCOG). The Division provides only the employees to staff 9-1-1. Second, the City of Austin Communications and Technology Management (CTM), supports all other software and hardware related to the Division, including Wireless used for radio communications. Components of CTM are co-located with the Public Safety Communications agencies at Combined Transportation, Emergency, and Communications Center (CTECC).
Chapter 2

Staffing

Call Takers

The 93 call takers are assigned to cover three functional areas: 9-1-1 emergency, non-emergency calls and report writing, and Teletype.

9-1-1 Services

9-1-1 call takers comprise the largest number of call taker positions. Depending on the time of day and day of week, 9-1-1 call takers range in numbers from 6 to 14. The 9-1-1 call taker’s sole responsibility is responding to 9-1-1. Calls coming into 9-1-1 are distributed using an automatic call distributor (ACD) so that incoming calls go directly to an available 9-1-1 call taker. If the number of incoming calls exceeds the number of open 9-1-1 call takers, then the caller hears a recorded message asking that the caller stay on the line for the next available operator.

The Division serves as the primary Public Safety Answering Point (PSAP) for Austin Fire and EMS. The Travis County Sheriff’s Department answers its own 9-1-1 calls. When a Division 9-1-1 call taker answers the phone, then she or he will ask the caller if they need police, fire, or EMS.

- If the caller needs Fire or EMS, then the 9-1-1 call taker will do a live transfer to the secondary 9-1-1 call takers at Fire or EMS. Division protocol requires that the 9-1-1 call taker stay on the phone with the caller, absent any extraordinary circumstances that would prevent it.
- If the caller needs police, then the 9-1-1 call taker will process the call and submit information via Computer Aided Dispatch (CAD) to the sector Dispatcher and patrol officer assignment.

In addition to answering 9-1-1 and responding to emergency situations, the call taker will also direct the caller to the non-emergency phone number within the Division when the caller’s circumstances do not appear to be an emergency. For example, a caller complaining that children in the neighborhood are being too loud would be routed to non-emergency to free up the 9-1-1 call taker.

An additional responsibility of the 9-1-1 call taker is entering caller information immediately into the CAD system. CAD is how the call takers communicate quickly with dispatchers to ensure calls – especially highly urgent calls – are dispatched as soon as possible. 9-1-1 call takers
can also communicate directly with their counterparts in AFD and EMS via CAD. The 9-1-1 call taker immediately and continuously updates CAD as the caller provides information. This requires the 9-1-1 call taker to be effective in getting information from callers and summarizing the information efficiently for speedy transmission to APD dispatchers or AFD and EMS. Getting accurate information quickly from sometimes distraught or hysterical callers is challenging, but is a job expectation of the 9-1-1 call takers.

**9-1-1 call takers do an admirable job keeping APD above the 90% threshold for calls answered in under 10 seconds, which is a nationally recognized best practice. The staffing needed to maintain this threshold has been growing.** Currently, overtime is used to cover vacancies and non-emergency call takers are switched over to 9-1-1 to handle unanticipated spikes in call load. This type of operational inflexibility cannot be continued without jeopardizing the ability to answer 9-1-1 calls quickly. Increasing call volume over the past decade and small increases in 9-1-1 call takers over the past decade will inevitably reach a point that our service delivery goals will be unattainable. With the current calls trending upward, we are nearing a point when we will not reach these goals.

### Austin Population Growth Since 2004

<table>
<thead>
<tr>
<th>Date</th>
<th>Population</th>
<th>Change in Population</th>
<th>Cumulative Change in Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>842,750</td>
<td>18,545</td>
<td>150,648</td>
</tr>
<tr>
<td>2012</td>
<td>824,205</td>
<td>12,180</td>
<td>132,103</td>
</tr>
<tr>
<td>2011</td>
<td>812,025</td>
<td>21,635</td>
<td>119,923</td>
</tr>
<tr>
<td>2010</td>
<td>790,390</td>
<td>16,353</td>
<td>98,288</td>
</tr>
<tr>
<td>2009</td>
<td>774,037</td>
<td>23,512</td>
<td>81,935</td>
</tr>
<tr>
<td>2008</td>
<td>750,525</td>
<td>15,437</td>
<td>58,423</td>
</tr>
<tr>
<td>2007</td>
<td>735,088</td>
<td>16,176</td>
<td>42,986</td>
</tr>
<tr>
<td>2006</td>
<td>718,912</td>
<td>18,505</td>
<td>26,810</td>
</tr>
<tr>
<td>2005</td>
<td>700,407</td>
<td>8,305</td>
<td>8,305</td>
</tr>
<tr>
<td>2004</td>
<td>692,102</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### 9-1-1 Call Volume Since 2007

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9-1-1 Call Total Volumes</td>
<td>225,476</td>
<td>951,111</td>
<td>915,593</td>
<td>795,048</td>
<td>816,151</td>
<td>825,065</td>
<td>829,048</td>
<td>809,576</td>
</tr>
</tbody>
</table>

*January 1, 2014 thru March 31, 2014
Projected total call volume for 2014 is 987,919
Call volume includes both inbound and outbound calls from 9-1-1
9-1-1 Service Level Performance Since 2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Service Level</th>
<th>Answer Time in Seconds</th>
<th>Answer Time in Seconds</th>
<th>Answer Time in Seconds</th>
<th>Answer Time in Seconds</th>
<th>Answer Time in Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-1-1 2014*</td>
<td>94.33%</td>
<td>191,573</td>
<td>4,019 / 1.978%</td>
<td>5433 / 2.675%</td>
<td>1504 / 0.74%</td>
<td>569 / 0.28%</td>
</tr>
<tr>
<td>9-1-1 2013</td>
<td>92.49%</td>
<td>776,265</td>
<td>16,722 / 1.992%</td>
<td>32,000 / 3.812%</td>
<td>10,619 / 1.265%</td>
<td>3,691 / 0.439%</td>
</tr>
<tr>
<td>9-1-1 2012</td>
<td>97.10%</td>
<td>789,124</td>
<td>7,175 / 0.882%</td>
<td>1,494%</td>
<td>3,380 / 0.415%</td>
<td>851 / 0.104%</td>
</tr>
</tbody>
</table>

*January 1, 2014 thru March 31, 2014
Service level is only for inbound 9-1-1 calls

Non-Emergency Services

Originally, Teleserve report taking services were routed through a 3-1-1 phone tree option. 3-1-1 was operated within APD, but later became a separate division funded by Austin Energy. Currently, Austin 3-1-1 is not a division of APD, but is a partner in vetting initial calls from the public. APD non-emergency call takers respond to calls via transfer from 3-1-1. Non-emergency call takers also work from Customer Service Requests (CSR), which are requests for information from a citizen awaiting a call back. Non-emergency call taking ranges from speaking with citizens about non-emergency situations that may or may not necessitate a police response to taking police reports over the telephone. The goal was to reduce call volume for 9-1-1 call takers to ensure their availability for emergency calls, and also to reduce police response to non-emergencies of a question or report that could be handled by phone. This has been successful. But, similar to 9-1-1 and Dispatch services, City growth and department growth have outpaced growth in non-emergency call taking positions. As a consequence, non-emergency call takers frequently work from CSRs, which means the 3-1-1 operator has created an electronic message and the citizen is waiting for a call back. While these are not emergencies, they are very important to the citizens.

The number of non-emergency call takers assigned to each shift is based on anticipated call load. The numbers per shift range from 2-5, depending on the day of the week and time of day. This group is the first reinforcements used to address anticipated or unanticipated increases in 9-1-1 call volume are the non-emergency call takers. CTECC has dual use call taking consoles that can be used for 9-1-1 or non-emergency; however, a call taker assigned to a non-emergency console has to sign out of the non-emergency call queue and into 9-1-1 software to begin receiving 9-1-1 calls. Also, the amount of time the reassigned call taker spends working 9-1-1 means that non-emergency CSRs begin to back up, thus meaning a citizen waits longer for a call back.
Also noted in the past has been an increase in 9-1-1 calls if a citizen is unable to reach a non-emergency call taker directly or receive a call back within a reasonable timeframe (generally 2 to 4 hours). As a result, any use of call takers assigned at non-emergency to supplement 9-1-1 has to be monitored for associated increases in 9-1-1 calls or extended wait times for citizens with non-emergency situations.

The first priority in call taking will always be 9-1-1, but non-emergency call taking has been apparently mitigating some of the 9-1-1 call volume increase that can be logically expected with a surging growth in the Austin population. It is a scope of work that has value, but currently cannot be properly staffed.

**Non-Emergency Call Volumes and Service Level Performance**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Emergency Inbound Call Volumes</td>
<td>62,592</td>
<td>261,460</td>
<td>271,703</td>
<td>261,200</td>
<td>260,528</td>
<td>297,609</td>
</tr>
<tr>
<td>Service Requests**</td>
<td>18,582</td>
<td>69,740</td>
<td>32,655</td>
<td>18,279</td>
<td>16,289</td>
<td>25,823</td>
</tr>
<tr>
<td>Service Level***</td>
<td>56.82%</td>
<td>59.44%</td>
<td>70.69%</td>
<td>79.38%</td>
<td>Est. 74%</td>
<td>Unavailable</td>
</tr>
</tbody>
</table>

*January 1, 2014 thru March 14, 2014
**Electronic transfer of citizen request from 3-1-1 when non-emergency call takers are unavailable to answer the direct call
***Divisional goal of answering non-emergency calls in under 60 seconds

**Teletype**

The third Division operational area that uses 9-1-1 call taker positions is Teletype. Teletype is staffed with two-three call takers per shift. Teletype has two major functions.

- Teletype operators communicate via statewide and nationwide systems with law enforcement counterparts to confirm warrants of arrest, respond to requests about APD informational bulletins, and post information to law enforcement networks in areas such as stolen autos, property, and missing persons. The Teletype operators have to comply with Department of Public Safety and Federal Bureau of Investigation requirements when using these state and national crime information networks.
- Teletype operators are responsible for logging information on all APD impounded vehicles and non-law enforcement impounds from private wreckers. This comprehensive
list ensures that a vehicle owner who calls about a missing vehicle can locate the vehicle because it has been logged.

Current Teletype operator staffing is usually sufficient; however, the only option for increased Teletype staffing is hiring overtime or reallocating additional call takers to Teletype. The root cause of inflexibility in this area is an overall shortage of call taker positions to respond fluidly to anticipated and unanticipated events.

**Staffing Recommendation**

Moving forward, I am recommending that the City increase the number of call taker positions. The Division has done very well, despite the challenges. However, I believe that the lack of added staffing will reach a crisis level within two years. I am posing a multi-year plan to increase staffing to prevent a staffing crisis but also is reasonable in scope.

*The detailed multi-year staffing plan will be included in Chapter 7 – Overall Recommendations*

**Dispatchers**

The 71 dispatcher positions cover primarily operations, but also are increasingly relied upon for Special Events.

**Operations**

The dispatcher position’s two major responsibilities are ensuring that calls are dispatched to officers and they respond to requests via the radio from officers. Dispatchers monitor the Geographical Information System (GIS) map to identify what officer is closest to a call to reduce response time. Dispatchers routinely run warrant checks, driver’s license checks, license plate checks, review the Department’s records management system at the request of the officers, immediately update all call information via CAD, and make call backs to citizens at the request of the officer seeking more information.

In addition to the routine responsibilities for dispatchers, they are also required to immediately coordinate any emerging event on the radio. Dispatchers document officer positions, re-broadcast locations, provide immediate updates that may be relayed from 9-1-1 via the caller, and, above all else, remain the calm and steady center of the storm. Patrol officers rely heavily upon the dispatcher in dynamically evolving events.

Operationally, dispatchers routinely cover nine geographical patrol sectors and the Airport on a 24/7 basis. The Airport dispatcher only works the Airport and the personnel cost of the position
is reimbursed to APD by the City of Austin Aviation Department. A separate Highway Enforcement channel is staffed 13 hours on day shift and partially into the evening shift because of the significant number of Highway Enforcement officers who work traffic and collision management on major roadways. A minimum of two relief dispatchers are staffed on each shift to relieve the primary dispatchers for breaks. A third relief dispatcher - when available - has been staffed using overtime because of the difficulty in providing breaks for 10-11 people during the course of an eight hour shift. Dispatchers are literally connected to their consoles and cannot get up and leave without another dispatcher taking over the radio.

**Special Events**

In 2013, the Division supported 45 city-wide special events by hiring additional staff, typically dispatchers, to assist with those events. Of those 45 events, APD Special Events Unit (SEU) paid for additional dispatchers to cover forty-two of the events; any call takers that were hired to offset increased call volumes due to the event was paid out of the Division overtime fund. In 2013, the Division worked approximately 1,030 overtime hours to support the SEU at a cost of approximately $34,000. The events that were not paid for by the SEU were Warrant Round-Up, Kustom Kar Show and Academy/Cadet Role Play. In 2012, SEU paid for 925 overtime hours for dispatchers at a cost of approximately $30 an hour. One caveat for 2014 in regards to hiring workforce to cover these events is that the SEU agreed to pay for additional call takers for the larger events such as SXSW and F1. For 2014, there are 45 events SEU is supporting that will require Division assets.

**Challenges**

The Division presently has to hire additional staff to cover Special Events, and, in some cases, require employees on their days off to cover the events for lack of volunteers to work the overtime positions. These Special Events requests are in competition with vacation requests, holidays, call-ins, FMLA qualifying events, and other overtime needed to achieve minimum staffing. Oftentimes there are anywhere from one to five events happening in a thirty-day period that require the Division to hire additional staff to support those events.

<table>
<thead>
<tr>
<th>Special Events</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Events</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Overtime Hours</td>
<td>925</td>
<td>1030</td>
</tr>
<tr>
<td>Estimated Overtime Cost</td>
<td>$30,000</td>
<td>$34,000</td>
</tr>
<tr>
<td>Events not reimbursed by Special Events Unit</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Emergency Preparedness
Having a third relief dispatcher as part of the minimum staffing would save overtime in both hiring the third relief dispatcher and paying overtime for an extra dispatcher to work Special Events. Flexibility is built into this staffing model instead of relying upon overtime.

In addition to the ability to work most Special Events without incurring overtime or mandating a dispatcher to work the event on their off time is the ability to be proactive for anticipated weather or incident-based events, or immediately reactive in unanticipated events. Having the operational flexibility to “pull” a radio using a third relief dispatcher would allow the Division to split a smaller geographical area from a sector to have more concentrated dispatcher services to a smaller number of police officers. For example, in the second ice storm of this season, it was Highway 183 North that was hit the hardest. All Highway Enforcement Command resources and many patrol officers were deployed to the area for road closures and crashes. The one dispatcher working the Highway Enforcement channel was quickly inundated with requests from the field. We tried using a second dispatcher to work the channel in tandem with the first dispatcher, but we still experienced issues with simply too many police officers for one channel. The plan moving forward is to create a virtual sector using a separate dispatcher to reduce the number of officers per channel and create a more manageable situation for the dispatcher. This plan was put into place for subsequent events and has been successful.

This is the operational plan moving forward, but it becomes problematic when depending upon an overtime third relief dispatcher. In an emergency situation, one of the two regular relief dispatchers can be used, but then the concern for other dispatchers emerges when they cannot leave their radios for breaks or even to use the restroom. A protracted event would quickly wear down all the dispatchers.

This type of flexibility could also be used in the Downtown area. The radio traffic balloons during bar closings on the weekends, even if there is no Special Event occurring. For a period of several hours, there is heavy radio traffic from officers on foot, bicycle, and horse, all of whom have to communicate by radio with the dispatcher. There is a risk that multiple incidents within the same small areas would create an unmanageable situation for the dispatcher and a safety issue for the officers if they are not able to use the radio because there is no open air. During the Friday and Saturday evening shifts for Downtown SXSW, we used three dispatchers for that area, and it worked well. One dispatcher had a corridor of E. 6th Street and all of the Special Response Team officers, a second dispatcher had all Special Events officers working the perimeter, and the third dispatcher handled all other radio traffic and calls for the Downtown area outside of E. 6th Street. This is the model moving forward for large Special Events, and it may become necessary to routinely “pull” a radio in the Downtown area during weekend bar closings. Having no increase in dispatcher staffing is a growing concern as calls increase, officer activity
increases with the number of officers added to the police department, and the span of control for dispatchers during busy times becomes more unmanageable.

**Staffing Recommendation**

Moving forward, I am recommending that the City increase the number of dispatchers to provide greater operational flexibility without relying upon overtime. The third relief dispatcher has been important to providing breaks, but, increasingly, I see a need for a regularly budgeted third relief position to use for Special Events and major weather or incident-based situations. This would require a minimum of 6 more budgeted dispatchers for 24/7 coverage.

In addition, the City will need to consider adding patrol sectors over the next five to 10 years to accommodate the geographic and population growth of Austin. It will also become necessary to reduce the span of control for dispatchers related to how many officers are on one radio channel. It takes about a year to hire, train, and license a dispatcher, so the City needs to consider that logistic in the years to come. It takes a minimum of six dispatchers to staff one radio console across 24/7 coverage. In addition to the training needed is the fact that CTECC currently has 14 dedicated dispatch consoles, plus several dual use dispatch consoles. Any additional sectors or fulltime dispatch channels will require additional hardware when the capacity of 14 sole use consoles has been reached. There also will be a need for a space reconfiguration of the operations floor area to accommodate new dispatch consoles, unless the facility is expanded.

**Sworn Officer Positions Added Since 2004 - 357**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sworn Officer Positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>1431</td>
</tr>
<tr>
<td>2014</td>
<td>1788</td>
</tr>
<tr>
<td>Total New Officer Positions Added</td>
<td>357</td>
</tr>
</tbody>
</table>

**Emergency Communication Staff Added Since 2004 - 12 converted grant positions**

**Support Team**

The Division only has four true support personnel who are not call takers, dispatchers, or supervisors. The Division has a Business Process Consultant for hiring and training, a Business Systems Analyst Senior for technology programs, and two Administrative Specialists. Other than these four support positions, the Division has no dedicated infrastructure for Recruiting, Hiring, Training, Technology, Scheduling, or Opens Records Requests. The Division has over 200 people, including temporary employees, who work 24/7 shifts in emergency services, new hire classes that start every 7-8 weeks, and mandatory Texas Commission on Law Enforcement
(TCOLE) licensing requirements for incumbent employees that require ongoing training. The recruiting and training Academy for sworn officers is not able to accommodate the additional workload for assuming responsibility for hiring and training emergency telecommunicators. The Human Resources Division for APD is limited to support functions for APD and lacks the personnel or expertise to hire and train telecommunicators. The best place for this function is within the Communications Division, but it requires an investment in budgeted positions that specialize in these functions, and not call taker and dispatcher personnel reallocated to Special Assignment.

**Hiring and Training**
The next chapter will more thoroughly explain the function of this Special Assignment team, but it is currently a team of six Operations personnel on Special Assignment who handle all responsibilities associated with Recruiting, Hiring, and Training. The current Special Assignment team is comprised of one supervisor, one Lead, one dispatcher, and three call takers. The Business Process Consultant manages all aspects of team and is responsible for the long range planning, and it is the lone designated position for this function by job classification. As with all of the Special Assignment positions, these Special Assignment positions come directly from Floor Operations. The consequence is effective vacancies in Operations that have to be balanced with the real need for an infrastructure for a Division as large and complicated as an emergency communications center for a major city.

There is no dedicated budget for the Hiring and Training areas, so the Division’s abilities are limited. Attendance at Recruiting events is sporadic. Partnerships with entities such as local high schools have shown some promise, but it is time consuming. With no specific person tasked with Recruiting, it becomes a task shared by personnel who are also tasked with hiring or training. This has been a challenge and will become a growing challenge without additional resources. The Division has strong competition with other local employers for the same pool of people, and the beginning pay and type of work in emergency communications draw a limited number of people. Added to this challenge is the new TCOLE requirement for drug screening, psychological testing, and medical examinations. These are all positive changes associated with the new TCOLE licensing requirements, but the reality is that it further shrinks the pool of people who might apply for fear of these types of examinations or because the beginning pay is not worth the perceived hassle.

The Division has been working on a Recruiting and Hiring plan that would project forward for several years; however, actual implementation of the plan absent the commitment to personnel is problematic. Currently, the Division has one call taker on fulltime Special Assignment to handle all responsibilities for ongoing hiring; including reviewing applications; verifying references; following up on TCOLE-mandated requirements such as a high school diploma or GED, proof of citizenship, and military discharge paperwork; conducting the testing necessary to evaluate
typing and communication skills; scheduling psychological examinations, medical examinations, and drug screens; and being the single point of contact for new hire applicants throughout the process. New hire classes are conducted approximately every 7-8 weeks alternating between call taker and dispatcher classes. In addition to the hiring responsibilities, this person supplements the Recruiting needs and Training personnel when necessary.

The Training team is comprised of one Lead, one dispatcher, and two call takers. Originally, there were two dispatchers, but we are trying an alternative of using an adjunct dispatcher instructor for the next dispatcher class. The adjunct dispatcher instructor will be on Special Assignment for the duration of the class, but then return to Operations until the next class. However, at a minimum, there is a need for one fulltime dispatcher and one fulltime call taker instructor. Course curriculum and ongoing training for new hires in the On the Job training portion, as well as ongoing training for incumbent telecommunicators necessitates a fulltime commitment from the Training Staff.

The Lead assigned to the Training team is responsible for overseeing the On the Job (OJT) training portion of the new hire experience. Retaining personnel during the extended training period is a significant challenge. Most of the turnover in the Division is during the first two years of hire. A consequence of the strong local job situation is that many new hires do not have prior experience in emergency communications. The first 9-1-1 call that immediately thrusts a new hire into a life or death experience with a citizen can be disturbing. Similar on the dispatch side is a new hire’s first experience with a critical incident that requires multi-tasking under highly stressful conditions.

**Having a position assigned to oversee and support new hires, as well as work with Communications Training Officers (CTO) is integral to trying to retain new hires that need additional help adjusting to the type of work and work environment of emergency communications.** The Lead adjusts his schedule to work across all three time shifts to have face-to-face time with new hires during OJT and also meet with CTOs. In addition to the CTO program, the Lead also fills in when necessary to supplement the trainers.

A tremendous benefit to the CTO program would be a monthly stipend for the senior call takers and dispatchers who volunteer to train. Similar to the Field Training Officer stipend for patrol, the stipend would be used for a set number of Division employees who receive extra training and assume the extra responsibility for training new hires. A stipend would make the position more competitive than the current practice of giving the trainers a small amount of administrative leave to compensate them. The administrative leave then later becomes a challenge for the Division as the trainer takes the time off and creates potential for overtime backfill.
It would be more cost effective in the long run to provide a stipend and this has been posed in this year's budget as a top need. It is also being listed as a top need in the multi-year budget as a fairly inexpensive investment in retaining new hires in the most critical phase of their training.

The supervisor assigned to the Recruiting, Hiring and Training team is responsible for overseeing the personnel and ensuring that all phases of the hiring and training processes are completed on a day-to-day basis.

**Communications Technology Support**
This function will be covered in greater detail in a later chapter; however, it is important to provide an overview during the Support Team section because it is comprised mainly of additional Special Assignment personnel. The management position – and lone designated position by job classification – is a Business System Analysis Senior. The three tech team members who work directly with Operations personnel are Special Assignment: two dispatchers and one call taker.

Operations personnel on Special Assignment to support technology needs have been in place for well over 10 years. The Division has a robust relationship with CTM, but the amount of software programs and individual users has necessitated a greater availability of personnel to the call takers and dispatchers who can take immediate steps to resolve a problem.

Although the Division could function without these positions, it would leave no immediate availability to operational personnel to get minor hardware changed out, questions answered about software, sufficient personnel to attend all meetings regarding technology upgrades or installations. The one lone dedicated Business System Analysis Senior would need to prioritize her time to focus only on the most important technological needs. Current functions such as the creation of all new employee (Department-wide) access accounts, development of training programs for new technology, daily updates to CAD, and troubleshooting of all reported issues would have to be eliminated or farmed out to different entities.

*The most significant losses without these positions would be the complete lack of self-sufficiency in a technologically dense environment and the ability to respond quickly to small issues before they become big issues involving loss of service.* The three Special Assignment personnel provide regular and after-hours service to Operations personnel. They will also be present for major maintenance periods, in case the maintenance affects Operations.

**Control Center Specialists**
Control Center Specialists (CCS) are assigned to the Command Control Center on each shift, two on days, two on evenings, and one on night shift. The CCS positions were created in 2009 using
floor personnel to address the high volume of telephone traffic in the Control Center. The Control Center is the area of floor operations where the Supervisors and Leads monitor activity. The original argument for CCS positions was that they could address the majority of the average 10,000-plus administrative telephone calls that are handled through Operations. This would free Dispatchers, Leads, and Supervisors to focus on the most important aspects of the jobs.

While I do not dispute the value of CCS positions, I cannot support the current staffing model at the expense of operational positions. We are reducing the CCS presence to one per shift, and no CCS position will be staffed if it causes a consequential use of overtime in Operations. The one-per-shift model will be evaluated later to determine if it should continue or if the CCS position will be used only when an unmanageable Control Center telephone call volume occurs or is anticipated.

I have witnessed firsthand the value in the CCS position during the ice storm events occurring in February and March 2014. The CCS personnel answered all phone calls, including a large number from extra officers working the events who did not have in-car computers. The phones at the Control Center rang constantly. However, anticipated events involving large numbers of extra officers can include adding a CCS presence at the Control Center on a temporary basis. We are working with the Police Technology Unit to allow VisiNet the capability of officers going into service via a desktop as opposed by telephone or over the radio. If this works out, then it would reduce Control Center telephone call volume for large events and reduce radio traffic for the Dispatchers.

**Administrative Support**

Administrative Support generally falls into four categories:

- Timekeeping
- Scheduling
- Open Records Requests
- Administrative tasks related to supporting management personnel. The Division has two Administrative Specialist positions assigned to support the entire Division.

**Timekeeping** is a task assigned to one of the two Administrative Specialists assigned to the Division. This position works only on timesheets and overtime sheets. It is a fulltime task that requires a considerable amount of coordination across 24/7 shifts to ensure the most accurate timesheets are submitted to Human Resources. We are fortunate to have a position dedicated to this function; but, it occupies completely one of two Administrative Specialist positions making the position unavailable for additional workload.
Scheduling should be designated positions with job classifications specific to this task. Instead, two call takers are on Special Assignment to work solely on scheduling approximately 200 employees to make sure we are always at or above minimum staffing and doing the best possible to reduce overtime expenditures. It is imperative to the efficient functioning of a large Division providing emergency services in a closed environment that Scheduling have a Division-wide perspective and a focused effort. Unlike Patrol, backfill or additional coverage in the Communications Division cannot simply be moved from another area. Only licensed individuals with job experience specific to their disciplines can fulfill a 9-1-1 call taking or police dispatch role.

The Division has not had software specific to Scheduling and instead uses an Excel spreadsheet format. Predictive modeling software would allow the Division to project personnel and staffing needs into the future and realign call taker personnel assets based on call volume. Austin 3-1-1 has such software and has kindly in the past used Division information to help the Division with projections. Prior to my arrival in the Division, discussions were ongoing with City Budget and CTM to fund the Division having its own scheduling software known as Workforce Management. The project is in its early stages and has not kicked off yet.

Open Records Requests. All radio traffic and every phone call that comes into the Communications Division Operations area are recorded through voice recording software. The Division is contacted routinely for Open Records Requests and subpoenas, by investigations and patrol supervisors for such things as 9-1-1 calls. One of the two Administrative Specialist positions has the sole duty of making copies of 9-1-1 calls and other requested items and forwarding them to the appropriate persons. This was a fulltime task prior to the Michael Morton Act, but now has become beyond the ability of one or even two people to satisfy. The Michael Morton Act requires the turning over of all evidence involving an arrest to the defense attorney, regardless of whether it is a city ordinance violation, misdemeanor, or felony. If a 9-1-1 call is involved in the arrest, then it is evidence that is required to be produced and turned over. For example, many domestic violence arrests begin with a 9-1-1 call requesting a police officer. The APD Domestic Violence Unit is now requesting all 9-1-1 recordings involving arrest cases and this unit alone numbers several hundred requests per month.

APD is exploring options related to the unfunded mandates in the Michael Morton Act. However, even if the 9-1-1 calls related to the Michael Morton Act were pulled by a separate team, then the Division Administrative Specialist would still be occupied with the requests that existed before the enactment of the Michael Morton Act. This does not allow the position to take on added duties normally performed by an Administrative Specialist.

The Administrative Support team has one other Special Assignment position that doubles as backup for production of the NICE recordings (9-1-1 calls and radio traffic) and also tracks all
expenditures related to the Division. This particular position is currently a Dispatcher. The position tracks and reports monthly or upon request the amount of Division funds used primarily in the two major discretionary areas of overtime and temporary employee spending. In particular, overtime is a reporting area closely followed by Division management. The Division routinely overspends its overtime budget to accommodate staffing needs. Looking for areas to save overtime becomes a regular task of identifying particular shifts or job types that may be using more than others or identifying how much overtime is related to backfill for scheduled or unscheduled absences.

If the Division were to receive Scheduler positions and operational Workforce Management software, then those positions could be combined with the Special Assignment position to free it for return to Operations. Overtime usage is closely related to scheduling and it may be a more efficient use of designated support positions to combine the overtime tracking and scheduling together.

The two Administrative Specialist positions currently assigned to the Division have duties unrelated to supporting supervisors and managers. This has been out of necessity to cover timekeeping and the fulltime work of producing NICE recordings. A temporary employee has been in place since 2013 as the administrative support for supervisors and managers. This position has been completing all the other tasks normally associated with administrative support, such as Purchase Requests, Travel Packets, projects assigned by managers, answering phones, front desk reception, and assisting with scheduling meetings and compiling agendas. There would be no true administrative support in the traditional sense without the use of a temporary employee.

The goal would be to return all Special Assignment positions to Operations and replace those positions with positions actually designated for those job descriptions. Borrowing from Operations became a necessity because of a lack of true Administrative Support, but operationally, the call taker and dispatcher positions should be returned to Operations. Currently, that is not possible without losing the infrastructure that is supporting the Division.

**Staffing Recommendations**

Moving forward, I am recommending that the Division receive job positions specific to creating a fulltime and not a makeshift infrastructure. **This involves a six-person Hiring/Training Team, three tech support positions, two Schedulers, and one additional Administrative Senior or Specialist position.** These positions would be added during the multi-year staffing plan included in Chapter 7.
Supervision

The Division currently has 12 Leads and 10 Supervisors. Each shift has assigned Supervisors who are responsible for specific personnel. The Leads perform a quasi-supervisory role but their job description prohibits them from acting as supervisors or performing actual supervisory duties. I believe there is room for improvement in this model with additional duties for Leads that would have them acting more in a “corporal-type” role that would allow Supervisors and Leads to work more closely with personnel assigned to them. It would also reduce the direct span of control of supervisor to employee. Additional training for Supervisors and Leads in leadership and supervision would also be beneficial, as would specific training in Incident Command Structure and expectations.

Staffing Recommendation

Staffing for these positions is added in the multi-year plan to accommodate for growth in call taker and dispatcher positions.

Management

I am not recommending any increase in the number of managers over the duration of the multi-year plan to increase staffing. There are a sufficient number of managers, especially given the fact that two sworn managers – a lieutenant and a commander - were added in January of 2014.

Staffing Recommendation

None

Space Allocation

Space allocation or reconfiguration is not an immediate need; however, the Division will outgrow its Dispatch footprint at CTECC once we exceed 14 fulltime dispatch consoles. The two dual use 9-1-1/Dispatch consoles could be used in an emergency, but more operationally sound is to add dispatch consoles once we reach 15 fulltime dispatch consoles. We will outgrow the Dispatch footprint before we outgrow the call taker footprint. There is room for considerable growth on the call taker side per shift.

Also an issue is a lack of office space for the support function. It does not appear that the APD footprint was designed for growth in the support area. Currently, support functions are housed together in tight spaces. This is workable but not ideal. The first need in this area would be a
larger Training room to accommodate larger and more classes, but the footprint does not allow for expansion.

Again, space allocation is not the most pressing need, but it will become an issue in the next five to 10 years.
Chapter 3

Hiring and Training

Texas Commission on Law Enforcement (TCOLE)

Overview
HB 1951 was enacted into law September 2013. This new law requires all Telecommunicators to be TCOLE licensed to work in emergency communications for a public safety entity and it became effective on January 1, 2014.

A Telecommunicator is defined as; "a person acknowledged by the Commission and employed by or serving a law enforcement agency that performs law enforcement services on a 24-hour basis who receives, processes, and transmits public safety information and criminal justice data for the agency by using a base radio station on a public safety frequency regulated by the Federal Communications Commission or by another method of communication."

Prior to January 1, 2014, Telecommunicators were only required by TCOLE to complete a 40-hour Basic Telecommunicator Course and a 24-hour Crisis Communications Course in order to receive certification to be employed in the State of Texas.

The new licensing requirements set forth by TCOLE now mandates that each telecommunicator complete a TCOLE licensing exam and be issued a Telecommunicator License that must be maintained according to TCOLE standards.

New Licensing requirements affect three major areas for the Emergency Communications Division:

1. Recruitment and Hiring
2. Training
3. Continuing Education

Recruitment and Hiring
Under the new licensing requirements, Telecommunicators are now subject to the same TCOLE hiring criteria as a police officer. This means that potential applicants must now meet the following standards:

- A psychological exam prior to hire
  - Personality testing (MMPI-2)
  - One hour psychological interview with a licensed psychologist.
A physical exam prior to hire
  - Physical exam to be conducted with a licensed physician
  - Drug screening

These new pre-screening prerequisites impact the Division in the following manner:

- Recruiting potential candidates
  - Recruiting potential candidates has become more difficult as the hiring pre-requisites increase. Applicants are hesitant to go through the time and effort required for prescreening. Adding the psychological and physical exams means that applicants now have to interact with the hiring process no less than five times. This is an arduous task for many, and the necessary disclosure of the long hiring process has decreased the number of people applying for employment with the Division.
  - Actively recruiting potential applicants has become more and more of a vital need for the Division as the hiring process becomes more extensive and expensive.

- Cost
  - TCOLE licensing requirements have added the following pre-screening costs per applicant:
    - MMPI-2 test sheet: $1.06
    - MMPI-2 test grading: $26.50
    - Psychologist interview: $200.00
    - Drug Screening: $87.00
    - TOTAL COST PER APPLICANT: $314.56
  - There is an average of 90 applicants per year (based on attrition rates, classes and turnover) that will go through this process at an annual cost of: $28,310.4

- Time
  - Adding psychological and physical testing to the hiring process has increased the length of time to hire candidates by approximately 6 weeks. This means that the entire hiring process takes approximately 14 weeks.
    - Two-three weeks for psychological and physical testing
    - Two-three weeks for drug screening results

There is no budgeted position at the Division to take the responsibility of recruitment and hiring. Currently, there is a 9-1-1 call taker assigned to process applicants. An operations supervisor on special assignment with the training work unit assists with those aspects of hiring that require a supervisor’s review or supervisory access. The entire process is overseen by the Business Process Consultant to ensure compliance with TCOLE requirements, City of Austin policy, and State and Federal laws.
Training

Under TCOLE requirements, every Telecommunicator has one year from date of hire to obtain their Telecommunicator license. It is recommended that this training takes place after the new hire has completed both classroom and on-the-job training, and has been out of training for at least 60 days.

The cost of taking an employee off the operations floor to take 40 hours of training and to test is approximately $525.00 per employee. If online training is approved, this cost drops to $75.00 per employee. The Division has been asking for the funding necessary for online training.

Total cost of training: (Based on 60% retention after training)

- $21,000 (if classroom training is used)
- $3,000 (if online training is used)

Continuing Education

Per TCOLE requirements, every Telecommunicator must take 20 hours of continuing education in a two-year training cycle. The Division houses 200+ employees. This amounts to 4,000 hours of mandated training every 2 years (or 2,000 hours of training per year).

These training hours must be met to maintain licensing; therefore, training must be developed or bought and taught either through classroom instruction or online.

There is no training budget at the Division; this is a quantifiable hardship for overtime dollars for the Division.

Recommendations - TCOLE

It is recommended that the Division is allotted the following annual funds to absorb the cost associated with TCOLE licensing requirements:

- A Hiring budget of $28,310
- TCOLE testing and basic telecommunicator training budget: $21,000
  - This training budget could be reduced to $3,000 per year if online training is approved. In 2013, the Communications Division tried to save overtime dollars associated with training by requesting approval for online training. This method required monthly approval by the Training and Travel committee 60 days in advance. In August of 2013, the Training and Travel committee would no longer approve online training, regardless of the amount of overtime dollars and training time that was related to the basic telecommunicator classroom training.
- A fulltime Human Resources Specialist $70,740 to specialize in hiring.
  - $70,740 is based off fiscal year 2015 and includes the following:
    - Base salary
    - FICA
    - Medicare
    - Retirement
    - Insurance
  - A human resources specialist would also be a resource for the division to take the lead on making sure discipline documentation is consistent, to advise operations managers on HR and employee relations issues, and to ensure there is HR presence at interviews (this will be a requirement when the City of Austin moves to Civil Service later in 2014.)

<table>
<thead>
<tr>
<th>Hiring – Pre-screening</th>
<th>$28,310</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCOLE Licensing and test</td>
<td>$21,000</td>
</tr>
<tr>
<td>Human Resource Specialist</td>
<td>$70,740</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$120,050</strong></td>
</tr>
</tbody>
</table>

Total budget request due to TCOLE licensing mandates: **$120,050**

**Recruiting**

**Overview**
The Division strives to be a nationally recognized communications center known for its best practices and contact center standards. The goal is to provide a timely and accurate service to the public safety needs of the citizens of Austin.

In an effort to maintain such a goal, we must progressively hire for current and future vacancies in our staff by pursuing and attracting much needed talent.

Due to the nature of our business, there are a multitude of difficulties that we encounter while attempting to hire new employees. Finding individuals who ultimately possess the appropriate communication skills, typing skills, emotional stability, and background is a daunting task; especially when the number of people applying for positions is minimal.

**Issues**
Published statistics show that there are over 70 call centers in the Austin regional area, employing over 23,800 employees.
1. We do not have a competitive edge in the market
   a. The Austin Police Department's Emergency Communications Division is essentially an inbound contact center, and therefore is in direct competition with the contact center industry in Austin.
   b. Although the Emergency Communications Division is a contact center, there are **important differences** between working for an Emergency 9-1-1 call center and a regular customer-service contact center.

APD’s call takers are subject to and must comply with the following:

- Working mandatory overtime
- A high stress environment sometimes retrieving life or death information
- Are evaluated based on speed of entry and sound decision making under pressure
- High liability and public visibility
- Requires stringent pre-screening for employment
- Requires passing a State licensing exam under the Texas Commission of Law Enforcement
- Requires maintenance of License
- Is audited by Department of Public Safety and the Federal Bureau of Investigations on an annual basis

2. We have no presence in the industry or job market place
   a. We have limited advertising outside of the City of Austin e-careers Web site
   b. We do not have a marketing or recruiting budget
   c. We do not use staffing companies to assist in recruiting efforts
      i. There are over 20 staffing companies in Austin which recruit for call centers

3. We do not know how we compare to other contact centers in recruiting efforts
   a. We have no software to help us identify what limited recruiting strategies we have are working
   b. We have no data with regards to successful recruiting
   c. We do not have a brand to help us promote or market our role in the community

**Recommendations - Recruiting**

It is recommended that the Division is allotted the following annual funds for recruiting:

- $1,000 for local job fair registration fees
  - Career fair advantages
    - Opportunity to inform the general public that we have open positions available.
    - Ability to answer any specific questions the candidates may have on the spot.
- Opportunity to find candidates with proven experience and skills.
- Recruiter is able to explain personal accomplishments that have been achieved while working for the department.
- Target military personnel and students.
- Position becomes more competitive in the local workforce.
- Ability to create a more diverse staff.
- Gives the department a “face.”
- Low costs.

- $1,500 for marketing paraphernalia
- $5,000 advertising per year to use for local advertising an example might be: (www.tvaustin.com)
- $2,000 for online recruiting software
- The Division should have a Facebook page, a public education page in the City Web site that directs users to information on 9-1-1 and links to current vacancies, and should have links inserted in any Austin Police Department social media or public information sites and releases.
  - Job Fair registration fees $1,000
  - Marketing materials $1,500
  - Advertising $5,000
  - Recruiting software $2,000
  **Total $9,500**

Initial budget of $9,500 (to purchase software)

**Annual budget of $7,500 for recruiting after software purchase.

Training

Overview
The Training Unit of APD Communications has a vital role in ensuring that all employees, and the division as a whole, are within compliance in all State and Federal training mandates. The training unit develops, conducts, administers and tracks all new hire, refresher, and mandatory training. They ensure that training is standardized and measurable and they enforce the policies surrounding learning, engagement, testing and attendance.

The training work group is made up of:
  - Four trainers
    - Two 9-1-1 call taker instructors
The training workgroup is responsible for both new employee training and incumbent training.

**New Employee Training**
New employees receive specialized training when they join the Division. The training requirements are outlined below:

<table>
<thead>
<tr>
<th>Training Category</th>
<th>911 Call Taker</th>
<th>Police Dispatcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Instruction</td>
<td>4 weeks</td>
<td>5 weeks</td>
</tr>
<tr>
<td>On the Job training</td>
<td>4-6 weeks</td>
<td>8-12 weeks</td>
</tr>
<tr>
<td>Specialized Radio Training</td>
<td>N/A</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Non-Emergency Training (within 6 months of hire)</td>
<td>2 weeks</td>
<td>N/A</td>
</tr>
<tr>
<td>Basic Telecommunicator Training and TCOLE exam (within 1 year of hire)</td>
<td>1 week</td>
<td>1 week</td>
</tr>
<tr>
<td>Total Training Weeks</td>
<td>11-13 weeks</td>
<td>17 – 21 weeks</td>
</tr>
</tbody>
</table>

The Division conducts approximately seven or eight new hire classes per year. Overall, approximately 35-40 weeks per year is dedicated to new hire instructor-led classroom training.

**Incumbent Training**
The Training Unit also conducts mandatory incumbent training based on TCOLE licensing and City of Austin requirements. Below is an example of the impending hours per year of required training per employee.

<table>
<thead>
<tr>
<th>Training Category</th>
<th>Frequency</th>
<th>Length of training</th>
<th>Hours per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>*TDD/TTY recertification</td>
<td>Twice a year</td>
<td>1 hour</td>
<td>2</td>
</tr>
<tr>
<td>**TCIC/NCIC recertification</td>
<td>Once every two years</td>
<td>2 hours</td>
<td>1</td>
</tr>
<tr>
<td>City Ethics</td>
<td>Once a year</td>
<td>1 hour</td>
<td>1</td>
</tr>
<tr>
<td>City Diversity Training</td>
<td>Once every 2</td>
<td>8 hours</td>
<td>4</td>
</tr>
</tbody>
</table>
TCOLE Continuing education training

- Once every two years
- 20 hours

Total Training Hours
- 18

*TDD/TTY – Telecommunications Device for the Deaf/Text Teletype

**TCIC/NCIC – Texas Crime Information Center/National Crime Information Center

The Emergency Communications Division staffs approximately 200 employees at any given time (this is inclusive of part-time and temporary staff).

18 X 200 = 3,600 hours of training is mandated for the division on an annual basis.

8 hours of training is mandated outside of TCOLE licensing requirements – this amounts to 1600 hours

The four members of the training work group are projected to conduct over 2,200 hours of classroom training in fiscal year 2013-14. This is not inclusive of any mandatory continuing education hours. This is equivalent to 55 weeks of classroom instruction, and does not include development time; preparation or review time; time spent administering training classes; tracking, documenting, submitting rosters; or any other administrative function.

Issues

Training and development in the Emergency Communications Division does not have a budget, nor does it have a dedicated budgeted staff.

Staff in the Division average approximately 5-8 hours of continuing education per year, all of which are mandated trainings to maintain certifications or comply with City of Austin policy. New TCOLE Telecommunicator licensing rules means that Telecommunicators will now be required to take 20 hours of continuing education in every 2-year training cycle. The Division is not prepared to meet those requirements due to shortage in training staff, lack of funds, and lack of training resources.

Other issues are as follows:

- Training instructors are operational and are not in regularly budgeted positions. There is a lack of expertise in adult learning theory, curriculum design, e-learning and platform skills; however, there is much experience in the public safety field.
- The training supervisor is borrowed from operations and has no background in training or development. This is also a special assignment position, which takes from front-line operations.
- No training budget allocated to the Division
  - More training hours have been mandated by TCOLE
- TCIC/NCIC
- TDD/TTY
- City Ethics
- Workplace professionalism
- Basic Telecommunicator
- Crisis Communications

- 20 hours per employee of professional development training

- CTECC is out of space
  - Currently five employees assigned to the training and development work group are sharing an office built for two

- Training classroom is not optimal
  - The training room used at CTECC was designed to be used as a Joint Operations Command (JOC) room and is not set up to train; therefore, the space is not set up as a training or learner centric environment.
  - The training room can only comfortably hold 6 new hire employees at any given time, training this number of people at one time means that the Division is constantly hiring and cannot keep up with turnover rates. In 2013, the Division began bringing in classes of eight, making training space even more limited.
  - Since 2010, the Division has conducted new hire practical training at the BUC (Back up Center) which is a disaster recovery site for 9-1-1 operations. This has been a necessary step to ensure appropriate training of staff.
  - There is no storage space which is desperately needed to house required paperwork for records retention, including training files, HR paperwork and hiring paperwork.

- Communications Training Operators (CTOs)
  - CTOs conduct the on-the-job portion of new hire training. There are approximately 32-40 CTOs at any given time in the Division.
  - CTOs are over worked due to the necessary length of the training program and the fact that new hire classes are back to back to combat attrition, and failure rates during new hire classroom instruction or job training.
  - CTOs earn two hours of administrative leave (ADL) for every eight hours they train a new hire. This equates to a large amount of ADL being awarded to CTOs, who in turn have difficulty using their accrued time off due to staffing constraints. From a CTO’s perspective, this benefit carries little value because of this constraint.
  - CTOs are the most influential group in the Division, they set the stage for a new employee, they recommend advancement in training and advise if performance is failing. It has been difficult to manage and set standards with this group because the Division needs them but has little to offer them in return. An entire CTO program has been developed, written, and is ready to implement should the stipend program be approved.
Recommendations - Training

- 4 PCN’s for organizational development and training specialists
  - $73,666 per specialist is based off fiscal year 2015 and includes the following:
    - Base salary
    - FICA
    - Medicare
    - Retirement
    - Insurance
  
  Total: $294,664

- 1 PCN for a supervisor dedicated to training
  - $97,938 is based off fiscal year 2015 and includes the following:
    - Base salary
    - FICA
    - Medicare
    - Retirement
    - Insurance

- Stipend for CTOs $81,000.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 OD and training specialists</td>
<td>$294,664</td>
</tr>
<tr>
<td>1 Training Supervisor</td>
<td>$97,938</td>
</tr>
<tr>
<td>CTO Stipend</td>
<td>$81,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$473,602</strong></td>
</tr>
</tbody>
</table>
Long-term consideration:

APD Communications is in need of an additional technical training facility to use in conjunction with the onsite training room at CTECC. An executive summary was submitted in 2009 in conjunction with the APD Continuing Education Unit, which identified a City facility that was vacant for use and initial start-up costs to increase the training capacity of the Division. Estimated cost of this in 2009, based upon the technology being used at that time was $969,000.

Turnover

Overview

Staff turnover is one of the biggest problems that the communications center industry faces. It has a huge impact on costs associated with recruiting, hiring, training, and quality of service.

Turnover rate within the private call center industry can range between 30 and 45 percent (Exploring Call Center Turnover Numbers by Penny Reynolds, The Call Center School). http://www.gloccal.com/call-center/call-center-certifications.html

The Division has an overall turnover rate of approximately 20% division-wide across all functional areas. When turnover is calculated, we take into consideration our part-time staff and our temporary staff. When we hire for vacancies, we hire base off the projected turnover for frontline staff, that is, 911 call takers and police dispatchers.

The Emergency Communications turnover of 19.5% is well below industry standards; however, front-line staff, particularly police dispatchers, is close to meeting the industry standard of 30%.

<table>
<thead>
<tr>
<th>Year</th>
<th>Division Turnover</th>
<th>911 Call Taker Turnover</th>
<th>Dispatcher Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>24.4%</td>
<td>20.8%</td>
<td>33.8%</td>
</tr>
<tr>
<td>2013</td>
<td>18.6%</td>
<td>20.8%</td>
<td>25.4%</td>
</tr>
<tr>
<td>2014</td>
<td>15.5%</td>
<td>17.7%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Ave:</td>
<td><strong>19.5%</strong></td>
<td><strong>19.8%</strong></td>
<td><strong>27.2%</strong></td>
</tr>
</tbody>
</table>
The above percentages as it relates to front-line staff are associated with these numbers:

2012 - 40 employees separated during FY 2012
   o 24 Dispatchers separated
   o 16 Call Takers separated (including part-time and temporary)

2013 - 34 employees separated during FY 2013
   o 18 Dispatchers separated
   o 16 Call Takers separated (including part-time and temporary)

2014 - 30 employees have separated during FY 2014 to date (7 months into the fiscal year)
   o 16 Dispatchers separated
   o 14 Call Takers separated (including part-time and temporary)

Vacancies fall under two categories for the purpose of this report:

1. Vacancy due to performance reasons (inclusive of not successfully completing the training program)
2. Vacancy due to voluntarily leaving (inclusive of personal reasons, new job, retirement)

Dispatchers

Performance issues leading to vacancies for dispatchers is generally at the temporary employee level and is a reflection of employees not completing their training program. Analysis has shown the following as attributing to high training failure rates:

- Trainee:
  o “Fear” of the job
  o “Temporary” status
  o Demanding non-stop nature of the job
• Communications Training Operator:
  o Lack of training and development as an on the job trainer
  o Lack of compensation as an on the job trainer
  o Fear of liability
  o Fatigue and burn out

• Environment:
  o Busy Radios
  o Increase in highly urgent calls

Additionally, reasons for voluntary separations among dispatchers are similar to those of voluntary separations found with the call takers:

• Lack of competitive compensation
• Involuntary overtime
• Limited chance at career advancement
• Strict policies and procedures

Call Takers

Call taker turnover is lower than that of dispatchers. A much higher percentage of call takers pass their training program. This is partly attributed to the length of training being less than half the length of dispatcher training as well as the nature of the job. 9-1-1 call takers have less multi-tasking and codes to learn, and, although during spikes in call volume, they will take back-to-back calls, they will only work one call at a time. A dispatcher can have as many as 20+ officers on a radio channel at any given time.

The causes for voluntary turnover for 9-1-1 call takers is similar to that of the call center industry:
• Non-competitive compensation;
• High stress (results in high burnout);
• Monotony;
• Limited chances of career advancement;
• Strict rules and procedures;
• Involuntary overtime (9-1-1 specific)

Issues

There are many issues associated with turnover. People are the greatest asset of any organization, but the Division suffers from the lack of the following:

• Compensation
  o 9-1-1 emergency call takers fall within the same pay grade as a customer service representative within the City of Austin. This is despite the fact that a 9-1-1 call taker works in public safety and is the first, first responder in an emergency; is required to be licensed; has mandatory training requirements and certifications; makes life or death decisions; works in a high stress environment; is subject to being subpoenaed by court; and has the very real potential to be featured in the media for making a mistake.
  o Police dispatchers fall within the same pay grade as a payroll specialist. They have the same educational requirement, but very different jobs within the City of Austin. Police dispatchers are the life line to patrol officers in the field. They are skilled at prioritizing; managing multiple officers on a radio at any given time; running back ground checks and warrants; giving and receiving coded information; and calling citizens back to ensure officer safety.

• Mandatory Overtime
  o All 9-1-1 call takers, police dispatchers, leads and supervisors are subject to mandatory overtime. Overtime is required to maintain minimum staffing.
  o The Division is not staffed to take into account natural shrinkage (scheduled vacation, sick time, FMLA) nor is it staffed to be equipped to handle unscheduled leave (calling in sick). Therefore, employees are subject to being told to stay at work until someone is available to relieve them (refusal of mandatory overtime can result in disciplinary action)

• Burnout
  o It takes approximately 14 weeks to hire a call taker or dispatcher. Hiring is followed by 8-10 weeks of training for a call taker and 13-17 weeks of training for a dispatcher.
  o When hiring and training is taken into account, there is approximately 24 weeks (6 months) from vacancy to productive hire for 911 call takers and 31 weeks (7.75 months) from vacancy to productive hire for police dispatchers.
  o To offset the length of time to fill vacancies, temporary employees are hired in an attempt to have a pool of employees midway through the hiring and training program to place in available positions as soon as possible.
• Note: employees that complete training as a dispatcher do not generally meet minimum qualifications per the City of Austin job description (one year experience) and so cannot be moved off temporary status.
  o A stringent attendance policy is in place.

• Scheduling
  o The methodology used for scheduling is antiquated. Currently, there is a 9-1-1 call taker on special assignment who works on scheduling and rosters from an Excel spreadsheet. She is backed by a second 9-1-1 call taker also on special assignment.
  o The Division tries to schedule as intelligently as possible based upon information on call volume, peak times and available staff covering seven job functions and 11 shifts to be covered.
  o A workforce management tool is a vital resource for scheduling, future planning and providing information on service levels and service gaps. It is also a forecasting tool designed specifically to assist call centers staff appropriately.
  o A workforce management solution has been requested and partially funded in 2010. The project is moving forward but does not have an implementation date.

• Refresher training (training focused on the reinforcement and recall of vital knowledge and skills required to successfully do their job)
  o Currently, the Emergency Communications Division supplies no refresher training once new hire training has been completed.

• Leadership, professional development and culture of learning
  o Leads, supervisors and managers are frequently denied attending leadership training and seminars due to restrictions in resources and budget.
  o There are no budgeted assets or (funds) to develop any training in-house. Those employees on assignment in training roles from the operations floor do not receive any additional training to master the skills required in areas such as curriculum design or e-learning. There are also no assets to prepare them for movement into leadership roles or to develop workplace professional skills. This includes basic word, excel and outlook skills as well as soft skills such as workplace communication, professional writing, public speaking, time or stress management.

• Training and Development budget
  o The Emergency Communications Division is the largest civilian division in the Police Department with over 200 employees. There are no training budget line items for the Division, even though there are over 5,000 hours of state and federally mandated training required for compliance.

• Quality Team
  o The 9-1-1 emergency call center for the City of Austin has no quality assurance program, and no quality team that would be responsible for performance management, trending analysis, identifying training needs, identifying disparities in process or procedures, coaching 9-1-1 call takers and dispatchers and giving performance feedback.
**Recommendation- Turnover**

There are many varying steps that can be taken to help reduce turnover, but changes must be at a structural level.

- **Workforce Management (WFM) Software continues to be a priority need for the division.** The purpose of the scheduling software is to streamline operational scheduling to enhance 9-1-1, non-emergency and Police Dispatching services while reducing overtime costs. The software will lead to the improvement of personnel forecasting which will assist in reducing overtime costs, increase efficiencies of emergency communication services delivered to the community, and support personnel vacation/leave needs through identifying days and times service levels will be less impacted by an absence. Denying vacation and scheduled sick requests continues to be a problem with morale and affects turnover.
  - WFM software was approved as a Capital Improvement Project (CIP) in 2010, but it was underfunded.
  - To date, this project remains in its earliest stages with no identified implementation date.
- Additional staffing that would take into consideration shrinkage and not require overtime or mandatory overtime with as much frequency.
- Approval of the stipend for CTOs – this will improve the morale and the performance standards of the CTOs which will in turn improve the quality of training.
- A training budget would allow flexibility in creating a learning culture within the division and would be used to ensure each employee received not only their mandated training hours, but also professional development hours. Investing in employees has a direct positive impact on retention.
- Creating a career ladder
  - Currently, there is no benefit for a 9-1-1 call taker who is cross-trained in three functional areas. An employee who has a broader skill base has the same compensation as an employee that can work in three function areas as well as train new hires.
  - Special assignment positions have become the only means in which an employee can develop business or industry skills.
  - All current special assignment positions need to be converted into budgeted positions.
- Compensation issues affect the Division, particularly the effects of salary compression – a dispatcher that has worked at APD communications for three years will make the same salary of an employee starting today.
  - Discussions with the Human Resources Department with the City of Austin regarding compensation have been occurring for the last two years.
- Increase supervisory training and decrease span of control
  - Additional supervisors are needed to decrease the span of control and give employees more face time with their direct supervisor. Currently, any discussion with a supervisor is usually connected with performance or discipline which impacts employee morale.
• Quality Assurance team
  o All employees want fair and frequent feedback on their performance, particularly when so many calls are handled during the shift. A quality assurance team would support a culture of learning, give employees feedback, coach employees on how to improve, and provide praise when it is due.

Quality Assurance

Overview
It is crucial to monitor the quality of emergency communications to reduce problems, limit liability and improve performance. The goal with Quality Assurance (QA) is to objectively evaluate telecommunicator call processing/dispatching and the ability to navigate through the various agency systems, including CAD, mapping systems, phone and notification systems. QA works best when delivered in a score-based, proactive, supportive and educational format.

A good QA program that is implemented through a quality assurance team will deliver timely feedback and coaching to telecommunicators to significantly improve employee quality scores and morale. The program will make sure that telecommunicators have consistent monitoring on 9-1-1 emergency call receiving and emergency dispatch performance, feedback of protocol compliance, commendations, retraining and remediation as appropriate, and assistant managers will receive compliance data necessary for Division improvements, reporting, or future planning.

Issues
Currently QA exists as an integral component of the training program and is loosely used by supervisors as a coaching tool or when an employee is on a performance improvement plan. A full integration of QA would include quality scores being an element of shift bidding and a way to reward employees for doing well.

Recommendations – Quality Assurance

A full Quality Assurance program needs to be established to track and trend performance and give feedback to employees. The QA team should be a stand-alone team of budgeted fulltime Quality Improvement Specialists under the Training and development work group and should not be made up of supervisors or leads who have a direct chain of command line to employees. This team would be led by a training supervisor and would be responsible for reviewing and analyzing more than 30,000 calls per year and the associated dispatcher transactions in order to comply with the NENA recommended standard of reviewing 3% of all calls.

• 2 Quality Improvement Specialists
  o $79,938 per specialist is based off fiscal year 2015 and includes the following:
    ▪ Base salary
    ▪ FICA
    ▪ Medicare
- Retirement
- Insurance

Total: $159,876

- Purchase the quality assurance add-on to the NICE system to have software available to launch and track a QA program. Rough estimates put this cost at $50,000 which has the potential to be a shared cost within a multiagency facility.

| 2 Quality Improvement Specialists | $159,876 |
| NICE Inform QA add-on | $50,000 |
| **Total** | **$209,876** |
Chapter 4

Technology

Austin Police Department Communications Technology Team:

The Austin Police Department Communications Division has had an internal technology support team in varying numbers since 2004. The technology support team had its start providing customer support for the computer-aided dispatch application to all Austin Police Department sworn and civilian employees. Over time, the team evolved into a group that provides technical and other IT-related application support for the entirety of the Division’s technical applications. The group also ensures that user problems and resource requests are addressed as expeditiously and effectively as possible in order to maintain business operability and functionality.

The APD Communications Technology Support team also serves as the liaison between senior management and other divisions when appropriate. The Communications Technology Support team consistently ensures that the end users are provided with appropriate services in all areas of communications technology.

Partnership with Communications Technology Management (CTM) and the Austin Police Department Communications Division Technology Support:

Communications Technology Management provides advanced support to all CTECC agencies and is responsible for leading, directing, and implementing all technology related services. Communications Technology Management consists of numerous groups that each work with the Austin Police Department Communications Technology Support team to provide technical assistance in their area of expertise. Some of these groups include the Applications Support Team, CTM Reporting, the Network Services group, the Desktop Support group, and Geographical Information Systems (GIS). All Communications Technology Management groups typically provide a very high level of service and offer 24 hour coverage in the event of priority issues.

This chapter will describe the major software programs that comprise the core technology of the Division. Any reference to APD Communications Technology Support is referring to the one Business Systems Analyst Senior and three Special Assignment operations personnel that comprise the Division’s internal technology resources.
Solacom 9-1-1 Guardian Software

Overview
9-1-1 Guardian is the hardware and software system provided by Canadian company Solacom Technologies. The Capital Area Emergency Communications District (CAECD), a component of CAPCOG, completed the transition to Solacom from the previous software, Vesta, a product provided by Cassidian Communications.

History
Around 2011, CAPCOG began searching for the next call management system to be implemented to replace the aging Vesta system, which was not Next Generation 9-1-1 capable. CAPCOG made all final decisions on 9-1-1 software and hardware. The PSAPs in the CAPCOG region (31) provide only the personnel to operate 9-1-1. The move to change from Vesta was largely influenced by the U.S. Department of Transportation’s Next Generation 9-1-1 project that made recommendations for PSAPs in regards to having the ability to accept emergency call information from the public through SMS text message, images, and video.

By February of 2012, CAPCOG had narrowed the options for the new call management solution to products by two vendors, MicroData and Solacom. The process of narrowing down vendors to these two candidates was completed by CAPCOG based on their needs as well as their members needs and input by their member PSAPs. By April of 2012, Solacom Technologies had been chosen as the new vendor for the 9-1-1 call management system. According to CAPCOG, member PSAPs had been split about 50/50 in their preferences between MicroData and Solacom. Solacom had been selected by CAPCOG because it determined that Solacom had better references.

The contract with Solacom is a subcontract with AT&T. CAPCOG contracts with AT&T to provide 9-1-1 network service and AT&T has contracted with Solacom to provide the 9-1-1 call management system.

AT&T and Solacom began installing the new system in early 2013. By October 2013, the majority of the PSAP agencies outside of CTECC had already gone live with the new system. Installation at CTECC began on October 14th with all agencies making transition to Solacom on October 16th.

During this same time, CAPCOG underwent a statutory change from solely a state entity to the Capital Area Emergency Communications District (CAECD) – or the District, which took place on October 1, 2013. This statutory change allowed CAECD to directly collect the 9-1-1 phone tax (50 cents on every telephone bill). Prior to this statutory change, CAPCOG was responsible for distributing funding received from the state based on the 9-1-1 phone tax. With this change, the most significant difference for the CAPCOG PSAPs was that an advisory committee
comprised of PSAPs now has oversight of the District. In other words, PSAPs have greater influence on the decisions made regarding the 9-1-1 systems.

**Support**

Solacom is supported by a combination of the Austin Police Department Communications Division Technology Support, CAECD, and AT&T. APD Communications Technology Support has a very minimal role in the operational functionality of Solacom and is there primarily to handle the creation and maintenance of accounts, minimal configurations such as speed dials, and to serve as the first point of contact for any more serious issues. AT&T handles the maintenance and support for both the back end infrastructure and front end user workstations hardware. CAECD handles more involved configuration changes to the software including deciding what pieces of the software that the PSAPs are allowed to use.

In order to receive service for a problem or request, it is necessary for the Division to determine whether the issue is something that should be reported to AT&T or CAECD, with a majority of the issues being trouble tickets reported to AT&T. In order to report an issue to AT&T, the person reporting the issue must do the following:

- Complete a “911 Solacom Trouble Report” form that can be found at the Communications Control Center. Information on this form includes:
  - The reported date
  - The reported time
  - Who reported the issue
  - A description of the problem
  - What positions the issue is occurring at

- Call the 24-hour AT&T 800 number and provide them with all of the information that is on the Trouble Report form.
- AT&T will usually make the determination on whether the issue is a priority and justifies an immediate response from technicians or not. However, we are able to request an immediate response if we find it necessary.

Once the AT&T technician responds to the trouble report, the Division is not usually notified of the results. In order to receive updates on the issue, the Division has to rely on either the notes left by the technician on the Trouble Report or we must call AT&T back and request any information. The process of reporting problems is cumbersome and time consuming, especially if experiencing an issue with receiving 9-1-1 calls.
To request assistance with configuration issues from CAECD, the Division must e-mail a general mailbox for CAECD and we will usually receive a response within 24 business hours. There is not a general telephone number that we can call, but often we are able to reach out to individual employees of CAECD in search of a response.

The Austin Police Department Communications Division has not been allowed direct access to the vendor or any vendor-supplied documentation that has not been previously edited by CAECD. The Austin Police Department Communications Support Team and Management have been repeatedly denied access to an administrative manual supplied by Solacom to CAECD. Fortunately, the APD Communications Support Team was able to locate the administrative manual within the Solacom software itself and with that manual the Communications Support team was able to answer questions as simple as “What do all of the volume control icons mean?” The training that the APD Communications Support team received from CAECD was the same training that the PSAP call takers received with an additional 10 pages that covered how to create/edit/delete accounts and create/edit/delete speed dials.

Outages and Interruptions to 9-1-1 Service
After the CTECC agencies went live on Solacom on October 16, 2013, an outage occurred later that week on October 18th at approximately 3:00pm and lasted for approximately one hour. During this outage, we were unable to receive any emergency, 10-digit, or alarm calls through the Solacom system. This outage was caused due to Solacom/AT&T/CAECD attempting to complete maintenance on the system that caused the 9-1-1 call takers to be pushed from the primary side of the system to the backup side causing the loss of approximately fifteen 9-1-1 calls. All call takers had to reboot their Solacom system in order to restore functionality. After it was determined that the outage was caused by an unannounced maintenance event, Solacom/AT&T/CAECD agreed to notify all agencies of any future maintenances in order to prepare for any possible issues that might arise.

On December 16th, a second outage occurred during another maintenance event. The vendor had noticed a memory leak on the server that the backup (B-side) system resides upon and while they were attempting to fix the issue, the primary side failed causing the Division to not be able to receive 9-1-1, 10-digit, and alarm calls. This outage started at approximately 2:00pm and lasted about six hours. During this time, disaster recovery procedures were implemented including sending four call takers to our backup PSAP, Round Rock, to assist in taking calls. This event caused approximately 106 abandoned calls.

After this outage, it was determined that we had a need to expedite the installation of a “make-busy switch.” This switch allows for the Communications Supervisors to easily switch 9-1-1 calls to Round Rock Police Department Communications Division during any event which causes our PSAP to not receive 9-1-1 calls. Prior to this switch installation, the Division had to call AT&T to have the calls manually rerouted from Austin 9-1-1 to Round Rock 9-1-1, thus
adding to the time needed to answer 9-1-1 calls. The installation of the switch was completed on January 15, 2014.

The next 9-1-1 outage occurred on February 17, 2014 at approximately 4:00pm and lasted for about an hour and a half. During this outage, the primary side failed and call takers were switched over to the backup where they continued to take calls. A system restart resolved the issue; however, it was not determined what originally caused the problem. During this outage, 29 calls were abandoned. Later that night at approximately 1:30am on February 18th, the voice service process on the server restarted causing users to have to restart Solacom to restore functionality. There is also no known cause for this issue. The Austin Police Department did not lose calls during this outage. It was discovered during these two outages that if there are call takers on both the primary and the backup system, all calls would only present to the call takers on the primary side, not both.

On April 12, 2014, at approximately 12:46am, a service on the server restarted causing call takers to not receive calls until after they restarted Solacom. The process was restarted due to a transaction within the system that was blocked. While functionality was only lost for approximately 46 seconds, the event lasted for approximately an hour and a half. When the issue was first noticed, the Austin Police Department and other agencies decided to send their calls to their backup agencies. The Austin Police Department did have one abandoned call during this event.

On April 19, 2014, the primary side of Solacom went down and call takers were transitioned to the backup system. A restart resolved the issue; however, this issue is still being researched and it is unknown what caused it. It is not believed that any calls were lost during this interruption to 9-1-1 services.

In addition, the backup Internet Protocol (IP) phones located at select 9-1-1 positions have been ringing randomly since January. At this time, it is unknown what is causing the phones to randomly ring with no apparent caller. AT&T is aware of the issue and has been investigating it. Division personnel continue to update AT&T each time that it occurs. An AT&T technician has asked the Division to contact him on his cell phone so that he would be notified as soon as possible because Solacom only stores those particular logs for four hours before being purged. The issue with the IP phones has not interrupted 9-1-1 service.

**Current Situation**

On April 15, 2014, Solacom notified the CAECD and AT&T that they had developed a patch that is meant to provide an alarm to notify when a blocked transaction has occurred so that the PSAP can be prepared for a possible process restart that would cause a brief interruption to service. The root cause for a transaction being blocked has been not been identified. Solacom has also included other functions in this patch including:

- Additional logs to include more troubleshooting information
- Additional real-time troubleshooting information to help troubleshoot the memory leak
- Symbol files for application to support better memory mapping

Solacom has indicated they are also considering features for a future release that would allow all workstations to be pushed to the backup system when necessary instead of individual users, as well as a feature that makes notifications when that occurs.

Currently, CAECD has the patched version of Solacom software installed at the backup center and they are awaiting testing and approval by CTECC agencies to install the patch at CTECC.

At this time, there is no maintenance schedule for Solacom and AT&T, and maintenance is usually provided on an as-needed basis. There have been six maintenance events since January 2014 for varying issues. The Division is generally not allowed any input by AT&T and CAECD on the maintenance times and past requests to reschedule maintenance times have been denied.

**Challenges**

Current challenges with the Solacom system include issues with a lack of clear communication from both AT&T and the CAECD. While AT&T adds resolution notes to the Trouble Report that is created when an issue is reported, the notes are not always clear and we do not usually have an opportunity to express any questions or concerns that we may have with the resolution. If we do have any questions or concerns, we have to rely on either speaking to one of the technicians the next time that they are on the operations floor or calling the AT&T 800 number to seek answers.

There have been approximately 116 separate trouble reports sent to AT&T in the 6 months since we have been live on Solacom. **Not all of these issues are related to Solacom.** An issue with call delivery is an AT&T issue but it may present itself on the user end as a problem with the 9-1-1 software. In comparison, the 6-month period immediately prior to the switch only consisted of approximately 42 trouble tickets. Many of the trouble tickets from both the previous Vesta system and from Solacom did not include any resolution notes and the resolutions are unknown.

**Technology Recommendations**

It is difficult after a relatively brief implementation period to determine if the issues with 9-1-1 are systemic with no resolution, or if this is the typical period of adjustment with a major software installation. The critical consideration here is that interruptions to 9-1-1 service affect public safety and there is little room for patience in working through issues. Major areas of improvement needed in this area are as follows:

- The current process for reporting interruptions or outages to 9-1-1 demonstrates no sense of urgency on the part of the vendors or CAECD. Calling an AT&T resolution center in
Atlanta when a PSAP is unsure if their 9-1-1 system is functioning is unacceptable, especially when the resolution center has to work through Solacom to resolve issues not connected to network delivery.

- **CAECD, AT&T, and Solacom have all demonstrated a willingness to resolve issues.** Solacom executives have been to Austin twice to meet with PSAPs and executives from AT&T’s resolution center have also met with PSAPs. However, communicating PSAPs 9-1-1 needs for improvement takes too long when having to go through CAECD who then contacts AT&T who in turn contacts Solacom. Solacom communications back to PSAPs then work in the reverse. The PSAPs recognize a process needs to be in place to track and document improvement requests, but all believe that Solacom would have had a more ready product and quicker fixes to problems if PSAPs had some direct contact with Solacom.

In addition to these major improvements, AT&T and CAECD need to provide a higher level of service in regards to communicating the cause and the resolutions to application issues as well as any other concerns. The lack of communication often leaves the Division to work in a vacuum to determine if issues have been resolved and/or the status solutions for standing issues have been found.

**Important Development**

These recommendations have all been reported to the Strategic Advisory Committee that provides guidance to CAECD. The advisory committee is working with a cooperative CAECD to improve the process and provide technical guidance in resolving issues. The Division believes the creation of a 9-1-1 District responsible to an advisory committee comprised of the PSAPs will have better results in the future than the previous relationship with CAPCOG.

**Inform Computer-Aided Dispatch (CAD)**

**Overview**
Inform Suite is software application provided by TriTech Software Systems. It consists of software solutions for desktop workstations, mobile workstations, and browser based solutions. Inform CAD provides for streamlined dispatch operations, increased situational awareness, and enhanced field communications for multi-agency CTECC operations.

**History**
Originally The Austin Police Department was operating on a computer-aided dispatch product offered by Tiburon Public Safety Solutions. In 2004, The Austin Police Department, Austin Fire Department, Austin-Travis County EMS, Travis County Sheriff’s Office, and Austin Bergstrom International Airport went live with TriTech’s Inform Suite.
Support
Support for the computer-aided dispatch system is provided by the APD Communications Technology Support team, the CTM Application Support team, and TriTech.

The APD Communications Technology Support team is the first point of contact for all CAD related issues as well as system administrators for the system. It provides troubleshooting of all issues before taking anything that is outside of Division scope to the CTM Application Support team. If the Application Support team is unable to solve the issue, they then take it directly to the vendor’s support team.

The APD Communications Support team’s relationship with the Application Support team is the strongest of all of our professional relationships. The APD Communications Technology support team’s office is just down the hall from the Application Support team and we also have the ability to enter work orders for them, call them, and e-mail them and they are always quick to respond. On top of the consistent high level of support provided by the Application Support team, all of the CAD agencies meet once every two weeks in order to discuss any issues with the computer-aided dispatch system and discuss progress on projects relating to the system.

Current Situation
Currently all CTECC agencies are using the 4.5.11.3 version of TriTech Inform and we are in the testing phases of the new version (version 5.x) of TriTech Inform with plans to go live on the new version later this year. While unexpected outages were common when we first switched to TriTech, they have become increasingly rarer with most issues not affecting end users. Since May of 2013 there have been two unexpected outages of the computer-aided dispatch system.

- May 31, 2013 – Failure in the core CAD Stratus server caused by a hardware failure caused end users to not be able to utilize the application. The vendor advised that the part would not arrive until June 3rd at which time the agencies determined to switch to the standby server. After this outage it was decided to virtualize all servers which has reduced the number of outages and decreased the length of planned outages, as well as increasing the overall performance speed of the system.

- April 19, 2014 – Two configuration files in the computer-aided dispatch software were determined to cause an issue for users logging onto the system. After almost eight hours, the CTM Application Support team was able to replace the corrupted files and restore end user functionality.

Challenges
Challenges with the computer-aided dispatch system include the length of time it takes to correct software defects. While TriTech is good at communicating with the Applications Support team, sometimes they are slow to actually implement fixes. However, for higher priority issues they will generally offer a software patch which will get the fix implemented in a quicker fashion.
Greater Austin/Travis County Regional Radio System (GATRRS)

Overview
The Greater Austin/Travis Country Regional Radio System is a system in use by public safety and public service agencies in order to meet their communications and data exchange needs. It is a partnership agreement between the City of Austin, Travis County, Austin Independent School District, and the University of Texas at Austin. The Austin Police Department Communications Division utilizes the radio system through the use of Motorola radio console hardware and software. We also utilize handheld radios for backup purposes.

Support
The radios are supported by a combination of Communications Technology Support, the City of Austin Wireless Communication Services Division (WCSD), and Motorola. The APD Communications Technology Support team provides the first point of contact for operational personnel while WCSD administers the system. The WCSD handles all configurations, maintenance, diagnostics, and troubleshooting. If necessary, WCSD will contact Motorola for vendor support.

The WCSD maintains an excellent level of service. In order to reach them for any issues, the APD Communications Technology Support team simply needs to call WCSD’s on-call phone which is monitored 24 hours a day and they will respond immediately to all requests.

Current Situation
The WCSD currently has plans to replace the Motorola radio console hardware and software with updated hardware and software later this calendar year.

There have been three significant interruptions to radio service since December of 2013. The first interruption occurred on December 12, 2013 and was caused by maintenance being performed at Austin Bergstrom International Airport to the Console Electronics Bank (CEB). This issue was resolved by disconnecting the CEB from the main GATRRS switch at CTECC. Another interruption occurred on December 17, 2013. This interruption was caused again by maintenance at Austin Bergstrom International Airport to the Console Electronics Bank. Again, the problem was resolved by disconnecting the CEB from the main GATRRS switch at CTECC. The third interruption occurred on January 21, 2014. This outage was the result of an unexpected reset of the zone controller at CTECC while attempting to re-establish the microwave path between CTECC and other GATRRS sites.

All issues were immediately addressed, resolved, and fully explained to APD and were part of the major upgrades planned for this year.
**NICE Inform/Verify**

**Overview**
NICE Inform and NICE Verify are comprehensive voice recording technologies that are used to record, search, and listen to all incoming and outgoing emergency, non-emergency, and administrative telephone calls, as well as all radio traffic.

**History**
Until June of 2012, The Austin Police Department utilized the Freedom Call Check application provided by the Dictaphone Corporation for voice recording. In June of 2005, Dictaphone sold its Communications Recording Solutions to NICE Systems effectively ending vendor support for the Freedom Call Check application. The NICE system was installed in June of 2012.

**Support**
Support for the NICE system is provided by the Wireless Services Communications Division located on the first floor of CTECC. Support is generally provided immediately, if the issue is prolonged, WSCD remains in contact with us to provide updates.

**Current Situation**
There are two aspects of the NICE system that are utilized by the Austin Police Department. NICE Inform is a piece of software that can be used to search for previously logged recordings so that they can be used by Communications supervisors for quality assurance use or by the custodian of records for recording requests from outside of Communications. Nice Verify is the piece of the recording system that allows for the dispatchers and non-emergency operators to review only their calls and radio traffic.

**Challenges**
For issues that require vendor intervention, the vendor size can sometimes be a challenge. NICE is a worldwide corporation with numerous large clients and sometimes their size can be a hindrance. The Wireless Services Communications Division does an excellent job providing support to us; however, sometimes it takes NICE too long to respond to them for issues that require NICE’s assistance.

**DbNetGrid**

**Overview**
DbNetGrid is an application that is part of DbNetSuite and can be used to display and report on database information from any of the supported databases in a web browser. It is used by the Austin Police Department as a way to track shift rosters and on-call rosters for specialized units as well as a way to provide reports from the databases in the computer-aided dispatch application.
Support
Support for DbNetGrid is provided by CTM. Typically support is provided by notifying CTM Reporting through the use of the Magic service desk application; however we can also receive support by calling or e-mailing a technician directly. When it comes to providing support for DbNetGrid, CTM does very well at communicating with APD Communications Support and fixing issues quickly.

Current Situation
Currently, the DbNetGrid reporting application is operating efficiently and as designed. The Austin Police Department upgraded to the newest version of the Application in 2013 and has not had any issues with the service. All support provided has been to add new reports into the application. To date, the only events in which DbNetGrid was not available were internet outages that CTM has no control over.

Nortel Telephone System

Overview
The Nortel telephone system is the administrative phone system at CTECC. Within the Austin Police Department Communications Division the phone system is used by the control center, dispatchers, and call takers assigned to non-emergency and Teletype.

Support
Any support needed for the administrative phone system goes to the Network Services group within CTM. The APD Communications Technology Support team currently maintains a good working relationship with Network Services group.

There are no current challenges with the Nortel telephone system. The system consistently works as designed and if there are ever any priority issues, the Network Services group maintains 24-hour service.

SharePoint

Overview
SharePoint is a web application framework and platform that integrates intranet, content management and document management developed by Microsoft. The Austin Police Department Communications Division utilizes the SharePoint application to maintain document libraries containing numerous amounts of operational information.

In July 2010 APD Communications transitioned from CommWeb to SharePoint.

Support
SharePoint is supported by the APD Communications Technology Support team. Any documents, issues, updates, creating/deleting of accounts are handled by the team.
Current Situation
Currently, SharePoint is the primary content management system for any information to be stored and referenced for communications personnel. There are numerous SharePoint sites dedicated to the major roles within communications: Call Taker, Non-Emergency, Dispatcher, Supervisor/Lead, Teletype, CCS, Training, and Communications Support. Within each is necessary information relating to each functionality group. SharePoint also houses other information and services such as overtime sign up, scheduling/timekeeping information, special events, and caution note requests.

ECaTS 9-1-1

Overview
ECaTS is the emergency call tracking system that is used by the Austin Police Department Communications Division to collect and analyze 9-1-1 call data. It is a browser-based application that is provided by the CAECD.

History
Before EcaTS, the Division was using the Contact Center Manager Administration (CCMA) application to collect and analyze 9-1-1 call data as well as monitor the 9-1-1 call takers. EcaTS was chosen to replace CCMA to retrieve more comprehensive information from the 9-1-1 call data.

The ECaTS system went live in early 2013. The go-live date was about a year later than originally stated, and it had to be reprogrammed with Solacom was implemented. There were initial problems with EcaTS reliability of application and integrity of data. The Public Safety agencies at CTECC had difficulty getting “cradle to grave” information at a summary level.

Support
Support for the ECaTS system is provided by the CAECD. In order to receive support for a problem or a request, the APD Communications Technology Support team must e-mail a general mailbox for CAECD and we will usually receive a response within 24 hours.

Current Situation
The ability to get reliable and comprehensive information has improved. Currently, ECaTS is being used by supervisory and management staff to review 9-1-1 call answer rates and other ad hoc requests.

Challenges
The only way to reach CAECD is by email and that could slow response times to any issues. This challenge will be shared with the PSAP Advisory Committee working with CAECD.
**Versadex**

**Overview**
Versadex is the Records Management System utilized by the Austin Police Department and produced by Versaterm. It is used for storing and searching for police records including reports and warrants.

**History**

**Support**
Support for Versadex is provided by the APD Central Records. If the Division needs support for Versadex we can either call Central Records directly or call CTM. The Division currently has a very strong relationship with Central Records and the rare issues with the system are typically corrected within 24 hours.

**Current Situation**
The Austin Police Department Communications Division uses Versadex to enter non-emergency reports and to confirm warrants issued by the department. Along with Versadex, the Division uses a product designed for Patrol (Mobile Report Entry) to take non-emergency reports during times that Versadex may be down for scheduled or unscheduled maintenance.

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**Wireless Office Messenger**

**Overview**
Wireless Office Messenger is a software application used to send messages to pagers used by City of Austin personnel. This application is capable of sending messages to the city-issued pagers, e-mail, and cellular device by SMS text message.

**Support**
The APD Communications Technology Support team became administrators of the wireless office application in January 2013. The APD Communications Technology Support team handles account creation for employees, modification of groups and individual accounts, and troubleshooting. Any issues with the system would be reported to CTM.

**Current Situation**
Currently the Austin Police Department Communications Division utilizes Wireless Office Messenger for most paging needs.

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**FirstCall**

**Overview**
The FirstCall system uses a "reverse dialing" telephone method to notify members of the public of critical emergency information in situations where property or human life is in danger and of
events that may affect them. The System provides enhanced notification capabilities to land lines, cell phones, email, SMS devices, and TTY/TDD machines.

History
In January 2014, CAECD implemented a new regional notification system (FirstCall). This system replaced the GeoCast system that was previously used.

Support
FirstCall is supported by a combination of APD Communications Technology Support, CAECD, and FirstCall. APD Communications Technology Support primarily handles the creation and maintenance of accounts, configuration of the interface, and provides the first point of contact for most issues. The CAECD maintains the registry and the registration Web site. FirstCall can be contacted directly via an 800 number to provide technical support. While we have not yet experienced any issues with the application, our first step in resolving the issue would be to send an e-mail to a mailbox monitored by CAECD and wait for a response.

While we have not had an issue with the system to date, we are concerned that it may be difficult to contact CAECD in the event of a failure of the functionality of the application. Because we are not the primary account holders, we feel it would be best to have a primary contact with CAECD that could be available to assist in the event that we were required to contact the vendor directly.

This information will be shared with the PSAP Advisory Committee working with CAECD.
Chapter 5

Disaster Routing

APD Communications Disaster Recovery

The Division serves as the primary public safety answering point (PSAP) for the Austin area and is a vital link in the delivery of emergency services. A large number of technologies and systems are used by the Division to process, coordinate, and efficiently manage the large volume of requests from external and internal customers. These systems categorize, prioritize and streamline delivery of services or they serve to facilitate the coordination of responses and exchange of vital information between multiple agencies. The size and growth of the Austin area continually drives area PSAPs to find new ways to keep up with sustained increases in calls for service. In addition, emerging consumer technologies require development of new methods for receiving and handling requests for service (i.e., text messaging, video messaging).

The purpose of Disaster Recovery (DR) Planning is to identify vulnerabilities in our business processes and technologies. Contingency plans are created to account for potential losses of systems or an inability to follow normal business practices. DR plans specifically are operational guidelines and procedures outlining options and actions Division personnel can take on a wide range of scenarios from the loss of a single system to the loss of an entire facility. The primary focus is on how to maintain our primary services such as 9-1-1 and radio communications while activating backup assets and bringing in additional resources to assist with the crisis. Once primary services are stabilized, additional plans are implemented for the restoration of secondary and informational system as well as establishing timelines and expectations for repairs depending on the scenario. The overall goal is to overcome or mitigate impacts to operations and ensure continuity of emergency services to the community.

Backup Center

The CAECD provides PSAPs at CTECC with a secondary site from which they can operate under emergency conditions. This site is referred to as the Backup Center or BUC. The Division can provide all primary services from the BUC but at a reduced capacity. Activating the BUC is not an immediate option. Having multiple sets of infrastructure for our primary systems to support different sites is cost prohibitive. This requires CTM to redirect services to the BUC when transitioning operations. Transferring services to the BUC requires a large logistical and coordination effort involving APD, the secondary PSAPs at CTECC, CAECD, APD RTCC, CTM, AT&T, DPS, and the backup PSAPs for each agency.

If the decision were made for APD to move operations to the BUC, incoming 9-1-1 calls would be rerouted to our backup PSAP - Round Rock Police Department - until staffing could be
relocated or called in to assist at the BUC. An additional response team of APD Call Takers would be immediately dispatched to RRPD to assist with 9-1-1 calls. Radio communications would be maintained during the transition with assistance from APD’s Real Time Crime Center RTCC to respond and track the highest priority incidents. A standard activation of the BUC consists of normal radio operations resuming channel by channel as Dispatchers arrive to take control of the radios; Austin 9-1-1 calls being rerouted to the BUC by AT&T once enough Call Takers arrive to handle the volume of calls; DPS contacted to reroute Law Enforcement (LE) information; and CTM beginning to redirect secondary systems and services. Once 9-1-1 and Dispatch operations are resumed, additional APD call takers would be staffed at Austin 3-1-1 to resume non-emergency call taking services and begin working on the backlog of non-emergency calls.

Operations

9-1-1 phone lines consist of a mix of dedicated lines via an AT&T network, as well as a mix of administrative lines to allow for law enforcement transfers and calls from entities such as alarm companies. Solacom is designed to have several levels of redundancy with different agencies working on separate systems to prevent a single outage from bringing down services for the entire CAECD area. It is also important to note that Solacom at the BUC runs on the same system as the agencies at CTECC. This means that in a Solacom-only outage, the BUC cannot be used as a backup for 9-1-1 calls since it would suffer from the same outage. The use of a backup PSAP is intended to ensure continuity of 9-1-1 services while the BUC is activated or repairs are made to the primary systems. However, in a Solacom-only outage, RRPD assumes all APD 9-1-1 calls until repairs are made. Round Rock was chosen as the Division’s back up due to it being the largest available law enforcement communications center in the local area, in addition to being on a separate Solacom primary server from CTECC. This means that an APD complete outage would be unlikely to cause a complete outage at RRPD.

Past and Current DR Planning

Historically, disaster routing plans for 9-1-1 outages were basic and relied heavily on coordination with AT&T personnel to affect any changes in the handling of 9-1-1 calls. The installation of new technologies and the lessons learned from subsequent interruptions to 9-1-1 services have created a need for APD to streamline our ability to reroute 9-1-1 calls and implement alternative operational plans. These plans have gone through a continual development process since the first outage and continue to evolve as the PSAPs learn more about our systems’ behaviors and weaknesses.

The agreement in place with RRPD to act as a backup PSAP was basic and not supported by any operational procedures or policies for how to accomplish the outlined goals. It was also noted that no plans were in place to assist RRPD with the impact of taking on the potential Austin 9-1-1 call volume. Working with RRPD personnel, policies and procedures were drafted to further
outline personnel support requirements, logistics, communication methods, and notification
requirements with the intent of streamlining the transitioning of services between agencies. For
example, any activation of the make busy switch involves a team of APD call takers and an APD
communications manager driving to Round Rock to assist with calls.

Meetings with Austin 3-1-1 are being held to discuss the feasibility of 3-1-1 continuing some
non-emergency functions and exploring options for assistance during 9-1-1 outages. Currently, 3-1-1 will use only electronic Customer Service Requests when advised by APD that they need to temporarily limit or eliminate non-emergency call taking services.

Various disaster routing alternatives and emergency preparedness plans have been drafted and
are in different stages of implementation. What type of response will be dictated by the type of
outage or interruption to emergency communication services. For example,

- Division personnel standing by at RRPD during maintenance events in case of
  interruptions to 9-1-1 service;
- Requesting Austin 3-1-1 to be on standby as a possible answering point and to assist with
calls to APD during outages. APD would send a team of call takers to 3-1-1 to supplement their personnel.

If 9-1-1 calls have been rerouted to RRPD solely because of a 9-1-1 outage, calls can be
transferred from RRPD back to APD via non-emergency lines temporarily repurposed for 9-1-1
operations. This allows RRPD to quickly identify Austin 9-1-1 calls and reroute callers back to
CTECC avoiding likely extended hold times caused by limited RRPD staff trying to process all
calls themselves. In addition to our normal emergency and non-emergency positions, APD
currently has ten dual-use positions that can be used for either 9-1-1 or non-emergency calls. These dual use positions allow personnel to quickly move from emergency or non-emergency capabilities depending on the current need. Temporarily repurposing non-emergency administrative lines has been an extremely useful tool for APD in reducing potential hold times and impacts to operations.

**Future DR Planning**

Several possibilities are currently being researched and developed to improve our alternatives to
interruptions to emergency communication services, regardless of the cause. Having multiple
options for specific scenarios is a vital part of the Division being prepared for unanticipated
events:

- Repurposing the current make busy switch to reroute 9-1-1 calls first to APD
  administrative lines, instead of first sending the calls outside of Austin. This
  would eliminate the potential bottle-neck issues associated with limited capacity
  when rerouting 9-1-1 calls to RRPD and allow for the immediate use of staff on
  hand for continuation of service. There are some drawbacks to using this method.
The current lines used for this purpose are outside of the dedicated 9-1-1 network and do not provide all the information normally associated with a 911 call (e.g., geo locating). However, this option may be most important for expedient transition of services during an interruption in 9-1-1 services when it is not immediately apparent that a failure is actually occurring.

- A mutual agreement between San Antonio Police Department and APD to become each other’s back up PSAPs is currently being explored. Having a large agency as a back up PSAP would greatly improve the capacity to handle 9-1-1 call volumes. This option is intended for scenarios where APD Communications or CTECC has experienced an event requiring immediate evacuation or a catastrophic loss of services to the facility. Also, SAPD and APD currently use the same CAD systems. This allows a wide range of options for information dissemination during events that are not available with other local law enforcement agencies.

- Discussions are underway with Austin 3-1-1 to explore its viability as a “last resort” 9-1-1 if all 9-1-1 capabilities fail. This discussion is early and would involve additional training for 3-1-1, tabletop exercises to work through operational issues, and a commitment from APD to provide an immediate team of call takers to help with call volume and prioritization of calls.
Chapter 6

Budget

The Division has been successfully adhering to its overall budget. The majority of the budget is related to cost factors outside the control of the Division, such as base pay, benefits, and other non-discretionary costs associated with personnel. There are two areas of discretionary spending that affect operations:

- Overtime expenditures
- Temporary Employees

Temporary employee costs are significant but usually within the budgeted amount. However, overtime expenditures have greatly exceeded the budgeted amounts for the last few years and are projected to be greatly over budget during this fiscal year.

Overview

Overtime expenditures for the Division have risen over the years to address the demands of the department and the public. The single biggest driver in this year-after-year overtime expenditure increase is the need to maintain expected performance measures with no commensurate increase in staffing but continued increases in call load and police activity. The increases in emergency calls to 9-1-1 and dispatch traffic for patrol officers is the inevitable byproduct of rapid increases in Austin population, increases in special events attended by tens and sometimes hundreds of thousands of visitors, and increases in patrol officer staffing that create additional activity on the dispatch channels.

The performance measures for the department include the time required to enter the information from the caller into the electronic dispatch system, the time required for a dispatcher to assign an officer to the call and the time it takes for the officer(s) to arrive at the incident. For some calls, such as those involving crimes against persons that are in progress, the requirements are much more stringent. There are also recommended guidelines for call answering times provided by the industry associations – the National Emergency Number Association (NENA) and the Association of Public-Safety Communication Officials- International, Inc. (APCO) – of 90% of all 9-1-1 calls on average answered in 10 seconds or less; 95% of all 9-1-1 calls on average answered in 20 seconds or less. Appropriate staffing levels are required to meet all of these measures and overtime is one of the components of staffing necessary to accomplish this.
History

For more than 14 years, overtime has been an integral part of the Emergency Communications Division’s staffing solution to meet and/or exceed the service level needed for both the public and the officers in the field. Overtime is defined as hours worked over 40 in a given work week by non-exempt employees that is paid at 1 ½ times the regular pay rate of the employee as mandated by the Department of Labor Fair Labor Standards Act.

### Emergency Communications Overtime Expenditures

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Challenges

Scheduled and unscheduled leave averages 6,000 hours each month. 25 to 35% of those hours must be covered by overtime in order to maintain minimum staffing levels for call takers, dispatchers, leads and supervisors.

Mandatory overtime constitutes 8-10% of overtime worked or approximately 220 hours monthly. Mandatory overtime is when employees for the current shift are held over to work past their quitting time, up to 8 additional hours, because another employee(s) calls in for unscheduled leave. This was rotated among employees and most have to work mandatory overtime at least every 3 weeks. Mandatory overtime is a drain on morale and is disliked by employees. It is also unavoidable when unscheduled absences occur that bring staffing below minimum levels.

The top drivers of overtime used to address coverage gaps are outlined below. Some of the initiatives built against each are also listed.

#### Major Causes

**Absent employees** - Over 60% of scheduled and unscheduled leave each month is attributed to is filling in for absent employees. Unscheduled leave is defined as any occurrence of an employee making notification of not being present for their shift 24 hours or less from the start time of their shift.

- Only 2 employees per shift are permitted off for scheduled leave; employees may choose to call in unscheduled instead of risking being denied requested leave.
- FMLA intermittent and extended leave constitutes 16% of absences
- Return-to-work program (RTW) employees (disabled workers unable to work in Communications any longer who are on a special assignment in another division while...
seeking another position) have to be covered with overtime; this is not a vacancy until the employee is moved into another position or their employment is terminated at the end of the RTW program.

Major platforms to reduce absenteeism include the following:

- More stringent absenteeism policy
- Shift trade program
- Attendance reinforcement program
- Adding a third relief for dispatchers to cover scheduled breaks, lunches and as needed for restroom or stress relief breaks paid for with overtime. Many times the third relief is used to cover for absent employees to avoid overtime created by an unscheduled absence.

Previous initiatives to increase employee engagement and morale:

- Focus groups on critical process improvement areas
- SOP update project team
- Employee advisory forum
- Monthly shift meetings
- All employee meetings
- Employee input via electronic surveys
- Industry workshops

In addition to previous initiatives, the following items are being evaluated for effectiveness:

- Simplifying shift scheduling, especially for call takers
- Examining the efficacy of 4/10 schedules instead of 5/8s

**Vacancies** – The budget line item 5051 personnel savings requires the division to achieve $250,000 annually in vacancy savings. The amount realized each year is usually in excess of the required amount.

The division has consistently experienced a monthly turnover level of 4-5 call takers and dispatchers. The most recent 3-year average attrition rate is 20% for call takers and 27% for dispatchers. The division has no budgeted staff for recruiting and hiring and although the economic growth in the region is welcome, the competition for applicants has become drastically steeper.

Another constraint in hiring is a classroom capacity of 6 consoles. Due to the anticipated loss of students (30-60%) in the first 60 days, it has become routine to over hire by 2 whenever possible.

Yet another challenge is the ability to attract qualified applicants. A robust training and OJT program has been put in place to off-set this reality. It also requires bringing applicants in as
temporary employees with no benefits while they get through training and gain the experience needed to meet the minimum qualifications.

**Morale**

In my observations at the Division, there are two primary areas where employee morale is most affected by the budget:

- Pay. The entry pay makes it difficult to attract applicants in a strong, local economy. It also creates less incentive for current employees to stay and work through long hours and stressful work.
- Mandatory Overtime. The lack of flexibility in staffing creates the need for such things as mandatory overtime and a rigid vacation request program. It is my belief that some employees will call in sick because they cannot get approved vacation. Unscheduled absences only make the staffing situation difficult and mandatory overtime worse.

**Options to Reduce Overtime**

It is reasonable for the Division to be asked for ways to reduce its overtime expenditures. It greatly exceeds its budget each year. The bulk of the overtime expenditures are used for staffing. It appears overtime has been used for some time to reach minimum staffing levels to ensure sufficient call takers are present for anticipated call volume and Dispatch is able to maintain one-dispatcher-per channel ratio with two or three relief dispatchers.

Small improvements could possibly be made to reduce overtime in the following areas:

- Providing training to incumbent personnel using as little overtime as possible. It is difficult to provide quality training to incumbent employees because minimum staffing needs have involved paying backfill overtime so that employees can attend the class and Operations is able to maintain minimum staffing levels.

  We are trying a pilot program using TCOLE-mandated classroom training for dispatchers that will involve very little overtime. If logistically successful and it has no negative effect on radio coverage, then it can be used as model for future dispatcher training. It can also serve as starting place for a similar model to train call takers using minimum overtime.

- Reducing monthly shift meetings to quarterly. It is not ideal and further strains the ability for team building because of the day-to-day physical separation on the operations floor. However, it is something that can be reduced for small overtime savings.
• Leads can be trained to act as supervisors to reduce paying overtime for supervisors who are absent. This reduces coverage at the Control Center, but it is a possibility.

• Another option is return all, or part, of the Special Assignment personnel to Operations. The consequence of this option is that the Division would lose the only infrastructure it has. The relatively small number of people to be returned would result in small overtime savings, but potentially have a significant effect on hiring, training, technology support, and scheduling.

These areas offer small savings compared to the overall overtime expenditures. The one area that could reduce the greatest overtime cost savings is the area where I would least recommend it: reducing call taker or dispatcher coverage. The two critical services delivered by the Division are 9-1-1 call taking and police dispatch services. The current minimum staffing in these areas needs to be maintained. As the 9-1-1 call volume and radio traffic continues to grow, then the minimum staffing needed in these areas will also need to increase.

**Budget Recommendations**

Moving forward, I am recommending three improvements that will ultimately reduce turnover, vacancies, and, in the long run, overtime:

• Pay increases for new hires and current employees to reduce resignations
• Staffing increases to address minimum staffing needs outside of overtime
• A temporary increase of overtime funding by $350,000 to give the Division a more realistic overtime budget. Currently, vacancy savings helps to keep the payroll within overall budgeted amounts because overtime is being exceeded year after year. Overtime expenditures will start to reduce, once increased permanent staffing is in place. The continued use of overtime will fill coverage gaps as it has for over 14 years, but it is **NOT** a replacement for the true staffing needs in the Division.
Chapter 7

Overall Recommendations

The previous chapters have focused on the context of these recommendations. This chapter summarizes the recommendations and places them in one place for easy reference. The general categories of recommendations are as follows:

- Pay increase for telecommunicators
- Staffing increases for frontline operational personnel
- Fulltime positions dedicated to the continuing support of Division infrastructure
- Communication Training Officer Stipend
- Temporary overtime budget funding increase
- Improved communication and direct partnership with CAECD, AT&T, and Solacom
- Support for continued work on developing alternative disaster routing options

Pay Increase

Division Management has met recently with City of Austin Compensation to discuss compensation for the Division’s personnel. These types of conversations have occurred in previous years but without success. The emergency telecommunicators at the Division are the only civilian Public Safety workers in City employment. 9-1-1 call takers and police dispatchers routinely handle emergency situations involving citizens and police officers. The skills needed for the profession are more comprehensive than those needed for Austin 3-1-1 or dispatch in other non-Public Safety departments, yet the emergency telecommunicators are not paid commensurate to the skills required.

TCOLE has recognized that the level of professionalism and standardization needed among emergency telecommunicators is similar to that required of peace officers. As of January 1, 2014, emergency telecommunicators are required to be licensed by the same agency that licenses police officers. It represents the understanding that 9-1-1 call takers and police dispatchers are public safety workers and have the tremendous responsibility of influencing the outcome of sometimes life and death situations for the public and police officers. However, the pay does not reflect the reality with no real compensatory difference between similar non-emergency job types in city employment.

I am not recommending that emergency telecommunicators be paid similar to police officers, firefighters, or EMS paramedics. However, I believe a pay increase is warranted based on the job expectations of emergency telecommunicators. It is difficult to hire or retain emergency
telecommunicators when they can work similar jobs elsewhere for the same or better pay that do not involve the shift work, responsibility, or stress of emergency communications.

City of Austin Compensation has asked for written justification to show the “internal value” of the emergency telecommunicators. This is a first step, and we are complying.

- **My specific recommendation is for top-level support and action for reasonable pay increases for all emergency telecommunications workers.**

**Staffing Increase**

Staffing needs for the Division are significant. The historical success of the Division has been masking the growing problem. Steps need to be taken immediately to begin addressing staffing needs so that it does not become a crisis situation.

Below is a multi-year plan for staffing adjustments that bring the Division closer to where it needs to be. It includes call takers, dispatchers, Leads, Supervisors, and support personnel needed to create an infrastructure that does not affect Operations. Spreading increases across three years has three primary benefits:

1. It allows the City to more efficiently absorb the cost
2. It allows the Division to accommodate larger call taker and dispatcher classes to achieve growth in those positions
3. It immediately addresses needs, but also provides time between years to try new efficiency methods that might mitigate future staffing increase requests

**Multi-Year Staffing Plan:**

- **Fiscal Year 2014-2015:**
  - 12 Call Takers $783,632
  - 6 Dispatchers $424,437
  - 2 Leads $147,332
  - 2 Organizational Development and Training Specialists $147,332
  - 1 Human Resource Specialist $70,740
  - 1 System Support Technician $79,938
  - 1 Administrative Senior $65,303
  - **Total** $1,718,714
• Fiscal Year 2015-2016:
  o 12 Call Takers $783,632
  o 2 Communications Supervisors $159,876
  o 2 Organizational Development and Training Specialists $149,300
  o 1 Customer Service Scheduling Analyst $67,943
  o 1 System Support Technician $65,303
  Total $1,253,481

*******Note: A minimum of 6 dispatchers positions for 24/7 coverage must be hired one year in advance for each new sector added. The new position will need a radio console and all associated hardware.

• Fiscal Year 2016-2017:
  o 6 Call Takers $397,720
  o 1 Organizational Development and Training Supervisor $79,938
  o 1 System Support Technician $80,922
  o 1 Customer Service Scheduling Analyst $67,943
  o 2 Quality Improvement Specialists $159,876
  Total $705,477

*******Note: A minimum of 6 dispatchers positions for 24/7 coverage must be hired one year in advance for each new sector added. The new position will need a radio console and all associated hardware.

Additional budget increases to supplement recruiting, hiring, and training efforts:

• Hiring Budget Related to New TCOLE Requirements $23,310
• TCOLE Testing and Basic Telecommunicator Online Training $21,000
• Job Fair Registration Fees $1,000
• Marketing Materials $1,500
• Advertising $5,000
• Recruiting Software $2,000
  Total $52,310
Communication Training Operator Stipend

I am highly recommending this stipend as an immediate boost to the OJT portion of new hire training. It will make the position competitive among the most qualified, and properly compensate call takers and dispatchers for the added responsibility of training new hires in emergency communications. A stipend would eliminate the current personnel costs of providing administrative leave as compensation.

Communication Training Operator Stipend:
- 45 combined senior call taker and dispatcher personnel
- $150 month stipend for each trainer

Total Cost = $81,000 per year

Temporary Overtime Increase

A temporary increase of overtime funding by $350,000 to give the Division a more realistic overtime budget. Currently, vacancy savings helps to keep the payroll within overall budgeted amounts because overtime is being exceeded year after year. Overtime expenditures will start to reduce, once increased permanent staffing is in place. The continued use of overtime will fill coverage gaps as it has for over 14 years, but it is NOT a replacement for the true staffing needs in the Division.

- Temporarily increase the Division overtime fund by $350,000 for the next two fiscal years. The FY15-16 amount can be re-evaluated to determine if a second year of increase is necessary.

Improved Communication and Partnership with CAECD, AT&T, and Solacom

9-1-1 Call taking services are one of the two critical service areas provided by the Division. We have a responsibility to ensure that the public’s safety is front and center in every discussion about 9-1-1. There have been issues with Solacom and AT&T in achieving successful delivery of 9-1-1 services on a consistent basis. These problems are made worse by the lack of direct communication between the PSAPs and Solacom.

- The current process for reporting interruptions or outages to 9-1-1 demonstrates no sense of urgency on the part of the vendors or CAECD. There should be a direct and immediate reporting of suspected 9-1-1 outages directly to the person or entity that can take immediate action.
- **CAECD, AT&T, and Solacom have all demonstrated a willingness to resolve issues.** However, communicating PSAPs 9-1-1 improvement needs takes too long when having
to go through CAECD who then contacts AT&T who then contacts Solacom. Solacom communications back to PSAPs then work in the reverse. The PSAPs recognize a process needs to be in place to track and document improvement requests, but all believe that Solacom would have had a more ready product and quicker fixes to problems if PSAPs had some direct contact with Solacom.

I am recommending monthly meetings over the course of the next year with representatives of CAECD, AT&T, and Solacom to directly discuss ongoing issues and needs. I believe it important to Solacom to understand directly from the PSAPs what improvements or challenges remain with the software.

I am also recommending a formal service level agreement with AT&T related to their response times to problems affecting 9-1-1 service. AT&T’s contract is with CAECD, so this recommendation has been discussed with the PSAP Strategic Advisory Committee.

Support for Developing Alternative Disaster Routing Options

Emergency Preparedness has been a constant companion to any operational planning on the sworn side of the police department since September 11, 2001. The Division is behind the times in this area, but it is beginning to align its thinking, planning, and process in a more tactical way. Emergency Preparedness covers situations from unanticipated spikes in call load to a catastrophic loss of systems essential to critical service delivery, such as 9-1-1 or two-way radio. How the Division responds individually and as a Public Safety Communications partner necessitates identifying the options beforehand and having them in place to be implemented. It involves practicing scenarios that sharpen the skills and response times to emerging events.

- Creation of a Disaster Routing Operations Plan. This is a work in progress and evolves as we learn more about what can be supported. There is a Disaster Routing process in place, but a greater variety of options will allow Supervisors to make the best decisions in response to the circumstances that present themselves.
- Tabletop exercises internally and with partner agencies will hone Emergency Preparedness skills. We all have much to learn from each other.
- Tactical training for Division management, supervisory staff, and Leads that is specific to operating an emergency communications center as a command post will improve tactical and critical thinking skills. Exposure of this type of training to call takers would be beneficial for immediate understanding of processes that are implemented in a disaster or emergency situation.
- Training of any type in an emergency communications center may involve the necessary use of overtime to ensure that minimum staffing is maintained across all shifts. A commitment to funding this training – even if overtime must be used – is an important investment for the City.