

LOS ANGELES FIRE DEPARTMENT



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FIRE CHIEF

July 9, 2015

BOARD OF FIRE COMMISSIONERS
FILE NO. 15-079

TO: Board of Fire Commissioners

FROM: *RMT* Ralph M. Terrazas, Fire Chief

SUBJECT: TIERED DISPATCH SYSTEM – SUSTAINABILITY PLAN

FINAL ACTION:	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Corrections	<input type="checkbox"/> Withdrawn
	<input type="checkbox"/> Denied	<input type="checkbox"/> Received & Filed	<input type="checkbox"/> Other

SUMMARY

On December 1, 2014, the Los Angeles Fire Department (LAFD) implemented a new emergency medical dispatch methodology called the Tiered Dispatch System (TDS). The purpose of TDS was to improve the handling of emergency medical calls for service by improving and streamlining the 911 interrogation process. The new medical dispatch system has taken the place of a fully supported and serviced system and therefore requires the fulltime support of department staff to sustain and improve the system. Presently, the department is using the manual card sets to interrogate 911 callers. The use of manual cards was considered temporary pending the eventual implementation of the TDS software. It is expected that basic functionality of the TDS software will be implemented by September 1st of this year. Following the implementation of the software the department will be recommending short and long term strategies to sustain and improve TDS.

In the short term, the department will recommend using the existing Kaiser account to support the system and complete the existing software requirements. Looking towards long term sustainability, the department will recommend an organizational framework that can sustain and improve the new system. It is understood that the long range strategy includes additions to the existing staff and this may make it difficult to fund at this point. A phased in approach over four years is recommended so as to limit the amount of one time impact to the department budget. For the purposes of this report the recommendations are conceptual at this point and more detail will be provided to the Board as it becomes clearer on the exact needs and costs of TDS. What has become clear in the eight months since implementing TDS is that supporting this system will require a significant commitment from the department.

RECOMMENDATION

That the Board:

Receive and file this report.

FINDINGS

In July 2014, during the development phase of the TDS software, the initial Software Requirement Specification (SRS) was written. It was decided that an outside contractor would be asked to provide an estimate of the amount of work it would take to build the basic software components of TDS. It was determined by the contractor that it would take approximately 1800 - 2000 development hours to complete the project. The department concluded that this development effort would not be supported by the current budget and the contractor was directed to deliver a system with some very basic functionality in an effort to get the system implemented on the dispatch floor. Presently, the contractor is nearing the completion of the basic requirements that will allow the department to implement the software on all dispatch consoles by September 1, 2015. However, there remains existing requirements that were a part of the original SRS that will need to be completed in order for TDS to realize its full capacity. It is estimated that an additional 80K dollars is required for the contractor to complete the TDS software as it was originally intended. The software contractor will be in Los Angeles during the last week of July of this year and the department should have a clearer understanding of the work that remains following this visit.

Regarding the funding of TDS in the short term, the department is currently using the Kaiser fund. As TDS is entirely medically related, access to the Kaiser fund is within the guidelines of this account. Continuing to use this account in the short term would allow the LAFD to complete the TDS software application with increased functionality and this should result in improved call processing times.

Looking to the long term sustainability of TDS, the department recommends a phased-in approach that should be completed over the course of four years. Foundational to this recommendation is the addition of key support staff that will be used to fulfill required duties that involve everything from TDS product enhancement to ongoing training. The purpose of these recommendations is to provide organizational framework that is in alignment with the department's strategic objectives.

As mentioned earlier, during the first two years (2015/16) the department recommends continuing to support the software developer with the full implementation process. Parallel with this effort would be the training of key ITA support personnel that would be tasked with supporting the TDS program in perpetuity. As the TDS project is still in the initial stages of development and refinement, it is felt that the original software developer is best positioned to continue this effort. Switching the TDS software programming entirely to ITA staff at this point could potentially slow the project while allowing for ITA mastery of the complex software programming. Additionally, ITA is currently programming all other CAD modifications and this would be an ancillary task added to their already busy project list.

The last two years of the sustainability plan would involve the requesting of additional staff to begin to build out the organizational framework that will assist the ongoing effort to support TDS. For the purposes of this report, several assumptions have been made to give context to how this may operate within the proposed organizational structure. With the addition of the Emergency Medical Services (EMS) Bureau, the TDS application and support effort would fall under EMS Bureau oversight with communication to the Metro Fire Communication (MFC) Division Commander. Given the medical nature of pre-arrival instructions and the configuration of TDS algorithms this would align appropriately under the EMS Bureau.

In year three of the four year plan, the recommendation would be to add one Captain II/Paramedic, one Captain I, one Firefighter/Emergency Medical Dispatcher (EMD) and one Management Analyst I (MAI). This supporting staff would assume the major responsibilities of evolving and evaluating the application of TDS. The Firefighter EMD would bring dispatcher end user analysis and validity to the three units. Dispatch algorithms and caller interrogation are in a constant state of review and require extensive staff work to process input, evaluate, design, test and implement each change. Each single modification to TDS is pervasive throughout the entire dispatch framework and must be accounted for so that every delivery medium is updated to reflect the modification.

The new Captain I position (Dispatch Development Unit) would gather and process input from dispatchers and field resources. Additionally, this position would manage all dispatch mediums including card updates and software and hardware enhancements. This position would draft communication for field resources to keep them updated on the dispatch enhancements and how it may impact field resources. The Captain II/Paramedic (Dispatch Training Unit) would be primarily responsible for initial TDS training and certification. This position would also develop the remediation and coaching strategies necessary to improve effectiveness. This effort is continuous and requires the consistent application of department policy. Additionally, this Captain would be responsible for the creation of a progressive remediation loop. This new process would bring consistency to how dispatchers are coached, mentored and remediated.

The last year of the sustainability plan would involve the addition of a Battalion Commander. This new section chief would be responsible for all things dispatch related. The responsibilities would include everything from quality improvement and TDS design enhancements to continuing education for new and existing dispatchers. This oversight would also involve coaching and mentoring programs as well as progressive and educational discipline when applicable. Presently the majority of this responsibility rests with the Division Commander. Moving this to the section commander would free up the division commander to focus on maintenance and management of the dispatch floor and the on-going technology projects.

The existing Quality Improvement (QI) Unit would also fall within this new organizational structure and would facilitate the alignment between the analysis of dispatcher

effectiveness and continuing dispatcher education. Currently, the QI Unit is separate from MFC and reports directly to the EMS Division. Under the new EMS Bureau, the QI Unit would be complimentary to the Dispatch Training Unit by allowing for coordination between the two separate units under the Dispatch Development Section.

DISPATCHER STAFFING

Sustainability of TDS is also contingent upon ensuring adequate staffing of dispatchers who perform call processing and communicate with field resources. Given the increasing call load, the increased number of field resources to manage, the increased percentage of 911 calls via cell phone, and the increasing population, a TDS Sustainability Plan must include a detailed staff report on our current and future dispatcher staffing needs.

FISCAL IMPACT

As previously stated, this sustainability plan is conceptual at this point. As the plan evolves, more specific requirements and costs for the new authorities will be outlined in a separate report.

CONCLUSION

The Los Angeles Fire Department has taken a significant step in improving fire department dispatch operations. The implementation of TDS has already proven to reduce call processing times by nearly 18 seconds. It is expected that with further TDS enhancements, this will continue to improve. The recommendations presented here provide for a comprehensive response to all perceived needs for TDS. It is important to note that under the previous medical dispatch system an entire corporation supported, improved and maintained the medical dispatch system. Under TDS, the fire department has assumed this role and with that new responsibility the fire department is now obligated to support, improve and maintain the current medical dispatch system.

Board Report prepared by Assistant Chief Trevor Richmond, Metro Fire Communications