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STUDY SESSION
CITY OF UNIVERSITY CITY
Fire Department Dispatch Services Proposal
VIA VIDEOCONFERENCE
Monday, September 12, 2022
5:30 p.m.

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AGENDA

1. **MEETING CALLED TO ORDER**
   At the Study Session of the City Council of University City held on Monday, September 12, 2022, Mayor Terry Crow, called the meeting to order at 5:31 p.m.

   In addition to the Mayor, the following members of Council were present:
   > Councilmember Stacy Clay
   > Councilmember Aleta Klein
   > Councilmember Steven McMahon
   > Councilmember Jeffrey Hales
   > Councilmember Tim Cusick
   > Councilmember Bwayne Smotherson; (excused)

   Also in attendance were City Manager, Gregory Rose; City Attorney, John F. Mulligan, Jr.; Police Chief, Larry Hampton, and Fire Chief William Hinson.

2. **CHANGES TO THE REGULAR AGENDA**
   Mr. Rose asked that Item J (1); Ratification of Flood Emergency Expenses be moved to the City Manager's Report.

3. **FIRE DEPARTMENT DISPATCH SERVICES PROPOSAL**
   Mr. Rose stated this presentation is on the need to separate fire and police dispatch services, and how the City's service delivery for public safety will be enhanced by that separation.

Chief Hinson stated this presentation is in no way a dig at their current employees, merely a way to address the overwhelming call volumes they receive, maintain standards and provide citizens with the best options.

Current System
Current Dispatch Service provided by Police Department
- Police Dispatchers serve a secondary role as Fire Dispatchers
- No dispatchers are Emergency Medical Dispatch certified
- No dedicated Fire dispatcher on duty; (police call volume requires their attention)
- The focus is on police dispatching
- Supervised by the Police Department Command Staff

CAD (Computer Aided Dispatch) system is oriented for Police use
- CAD system is 22 years old and does not meet modern standards for Fire and EMS
- Current Dispatch System is not NFPA 1221compliant

  🌼 *This leaves the department open to losing points with ISO, who rates every department on these values.*

Changes to Fire Dispatch - Modern Best Practices
- Emergency Medical Dispatchers
- Modern CAD system
- Vehicle Location System for each fire apparatus
- Intercommunication with Mutual Aid Partners (CAD to CAD)
  - This system is currently being implemented throughout the County
- Communication and Data available to Fire units on each incident; (Mobile Data Terminals)
- Compatibility with County funded Fire station reporting system
  - US Digital System
  - This system is not compatible with the City's PSAP system and therefore, will not be installed
- GIS data and the ability to route the closest unit to life threats and serious incidents

Emergency Medical Dispatching
- **Emergency Medical Dispatch** (EMD) refers to a system that enhances services provided by 911 Public Safety Answering Point (PSAP) call takers. It does so by allowing the call taker to quickly narrow down the caller's type of medical or trauma situation to better dispatch Emergency Services and provide quality instruction to the caller before Emergency Services arrive
  - EMD is the Best Practice in our industry – University City is the only PSAP in the county to not have EMDs answering Emergency 911 calls
  - Currently, University City Dispatch does not provide needed information to our Firefighter/Paramedics prior to their arrival or aid the caller in providing care to our citizens and visitors before our unit's arrival

- *Chief Hinson played a video demonstrating how the EMD system works.*

- UCPD dispatchers are NOT EMD certified
  - High Call volume and personnel shortages have prevented them from attending training or gaining certifications
  - Current system's function is geared toward Police support and dispatchers maintaining their required police certifications

- CCE911 (Central County) dispatchers are all EMD certified (since1991)
  - CCE911 is NFPA 1221 compliant
  - Initial Training and Certification completed prior to being allowed to take calls
  - CCE911 provides its dispatchers with a Continuing Education program to maintain their EMD certification
    - Recertified every 2 years with 24 hours of continuing education
    - Monthly hands-on training
    - All AHA Healthcare Provider CPR certified (the same level of certification Fire/EMS and Emergency room personnel maintain)

- Uses Fire/EMS EMD-specific software to assist dispatchers in rapidly assessing the situation, allowing the most up-to-date information to be sent in real-time to responders via mobile data terminals

Current CAD System
- Currently, University City CAD is 22 years old and has not had significant innovations or improvements in the last 12 years. This current system uses a card format to assign fire units and has no ability to "know" the current locations of Fire Department apparatus
- System has no live backup or redundancy. When the current system goes down, dispatchers are using pen and paper

- Lacks the capability to:
  - ➢ Redirect the closest unit to a life-threatening or more emergent call.
  - ➢ track units as they respond to the incident
  - ➢ relay information gained after the initial dispatch
  - ➢ Lacks Mobile Data Terminal capability on the Fire Department side
  - ➢ show on-scene commanders' what units are responding to the emergency and plan in advance of their arrival

Modern CAD System
- CCE911 uses Tritech Enterprise Computer Aided dispatch system
  - ➢ GIS capability to "know" the location of all Fire Apparatus for University City and our Mutual Aid partners live
  - ➢ A capability that enables dispatchers to direct the closest unit to life threats and significant calls based upon the current location of the apparatus
  - ➢ Mobile data terminals in each apparatus are linked to CAD to receive live updates as calls unfold
  - ➢ Mapping capability to adjust to emergencies and give the most up-to-date information for that area to responders
  - ➢ System has a live redundant backup system that seamlessly fills in if the primary system fails

Vehicle Location for Each Apparatus
- The proposal includes the installation of Mobile Data Terminals and Wireless routers on each of the Fire Department Vehicles, and
- Sierra Wireless Routers that transmit current GPS coordinates of all apparatus live back to CCE911

Intercommunication between PSAPs
- Central County E911 uses Tritech Enterprise CAD, which has the capability to communicate with other CAD systems
- ECDC (East Central Dispatch Center) in Richmond Heights is going to Motorola Premier One this year and is coordinating with Motorola to connect its system to Central County. This will allow the two dispatch systems to share resources seamlessly
- St Louis City is in negotiations to acquire Motorola Premier One as well, allowing all Mutual Aid resources that assist the University City Fire Department connected and able to share information freely
- All other PSAPs have transitioned their Fire/EMS dispatching to CCE911 or ECDC except Kirkwood. Kirkwood has expanded to provide services for Des Peres to try to remain viable.

Communication and Data Available to Fire Units on Each Incident
- Mobile Data Terminals connected to Central County allow responding units to see the information coming into the dispatchers' live
  - ➢ Nature of emergency medical calls, what care is being instructed to callers, patient history, etc.
  - ➢ Private information that should not be transmitted over a radio. Location of hidden keys, door codes, phone numbers, patient information, etc. can be relayed through the computers privately and securely
  - ➢ Specific information about properties within the city can be set for specific addresses, including access codes, fire department pre-plans, etc.
  - ➢ Units can place themselves en route and on scene at incidents, making reports related to standard compliance more reliable and ensuring grants remain within reach of the city
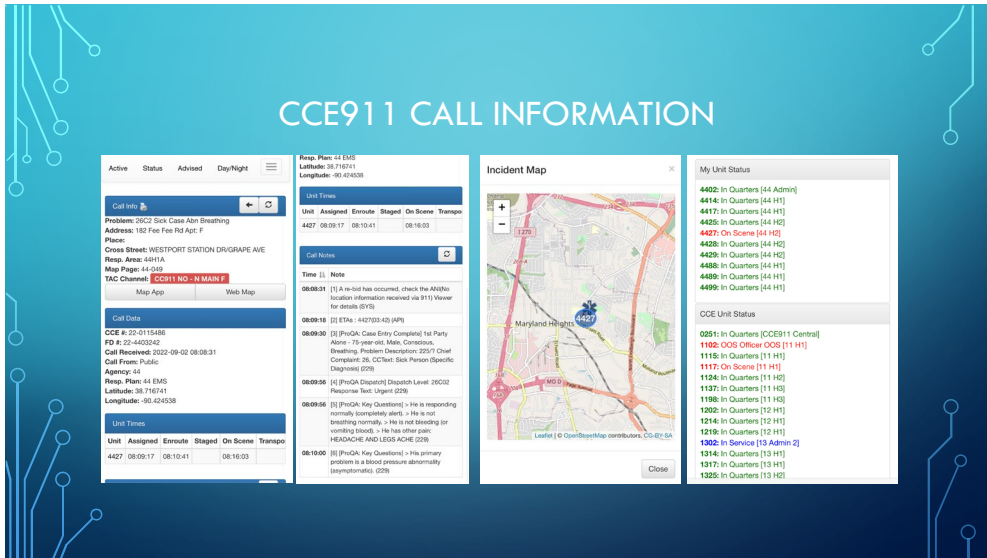
Sample CCE911 call illustrating where the call is, what trucks are responding to the call, where trucks are located, the speed of the vehicle, what they are responding to, each step that has been taken, and any questions asked or responded to by the dispatcher. This system also redirects trucks to respond to the most critical life-threatening needs first.

GIS Data and Ability to Route Closest Unit to Life Threats and Serious Incidents

- Routers and Mobile Data Terminals give the CAD "knowledge" of Fire Apparatus at all times.
  - ➢ CAD will prompt for the closest unit to respond to or be redirected to life threats or significant calls.
  - ➢ Dispatchers will be able to locate and have knowledge of our unit's locations. This will make our personnel safer and provide the capability to correct a human error if a mistake happens. (O – Orchard, A – Archer)

Dispatch Time NFPA Compliance
Time of call to dispatch time
- NFPA 1221 requires 64 seconds or less

University City Dispatch
- From 7/1/21 to 8/30/22 the average time from call to dispatch was 4 minutes and 34 seconds

CCE911
- Less than 60 seconds on fire
- Immediate on a medical threat

Dispatch Time NFPA Compliance
- CCE911 has a minimum of 11 dispatchers/call takers on duty with a call volume of 143,000 calls per year
- University City has up to 3 dispatchers on duty with a call volume of 102,000 calls per year

- 🔸 *The difference in response times is based on the number of personnel.*

Dedication
- CCE911 has personnel dedicated to:
  - ➢ MDT and mobile router installation and maintenance
  - ➢ Network infrastructure maintenance and planning
  - ➢ GIS mapping personnel
  - ➢ Ongoing Fire/EMS dispatch training and innovation

> Maintaining an open channel of communication with its members for integration of department information into the dispatch platform.

Closing Comments
- Focus – Past versus today
  > Police oriented Focus
  > Looking for Fire/EMS-oriented Focus
- A desire to utilize the best practices in 2022
- EMD Certified Dispatchers
- Established Technology
  > Focusing limited resources where they are needed in the most efficient method possible
  > Connecting with our Mutual Aid Partners to increase response times
  > Putting information into the hands of our personnel enabling them to provide the best possible service
- Providing the most effective and efficient service to our citizens and visitors

Councilmember Clay posed the following questions to staff:
Q. What is the cost associated with this proposal?
A. (Chief Hinson): $300,000 per year. It's a five-year contract with a 1/2% increase over that period, making the final cost $307,000.

Q. What impact will this change have on the Police Department?
A. (Mr. Rose): It could only be positive since it reduces the number of calls that the police have to respond to. One of the variables I considered was hiring more dispatchers versus spending $300,000 for this service. But the reality is that not only will contracting this service out reduce the burden on the City's police dispatchers, it will also provide so much more in terms of technology, equipment, Mutual Aid, and expertise.
A. (Chief Hinson): Every radio traffic dispatch made for a fire should be reviewed by dispatchers to make sure nothing was missed. But oftentimes this is not being done simply because of the volume of calls our dispatchers receive.
    The way Central County's system integrates with our dispatchers is that when a 911 call comes in for the Fire Department, that dispatcher will now only have to push a button to be automatically connected to Central County while remaining on the line to determine whether there is a need for a police officer.

Q. So, this system will allow our dispatchers to solely focus on calls related to the Police Department without diminishing any of the services currently being provided?
A. (Chief Hinson): That is correct.

Q. Do you have a breakdown of how many of those 102,000 calls received are police-related?
A. Approximately 90% of those calls are for the police.

Councilmember Cusick posed the following questions to Chief Hinson:
Q. How many of the communities U City uses for Mutual Aid have implemented this system?
A. All of them.
Q. Are all of them currently utilizing this system?
A. Twenty-five out of thirty-five communities are currently utilizing Central County's system. Seven utilize East Central County, which is currently in the process of putting the Tritech System in place, and the other three; Kirkwood, Glendale, and Des Peres use Kirkwood's Dispatch, which already has Tritech.
Q. Does Central County have plans to increase the number of its staff?
A. They plan to add two new dispatchers to their staff.

Q. Is it correct that one dispatcher will answer a call to triage the situation while a second dispatcher is listening to dispatch the call?
A. That's correct. They have two dispatchers that sit side-by-side.
Q. What does NFPA 1221 Complaint mean?
A. NFPA is the acronym for the National Fire Protection Association, which establishes the requirements for EMS/EMD dispatchers, training, response times, and the type of equipment that should be used.

Mr. Rose stated although the section Chief Hinson is referring to only deals with dispatchers, NFPA standards cover other things, like the number of staffing required for operating each piece of equipment.

Councilmember Hales posed the following questions to Chief Hinson:
Q. When you referred to trucks, does that include ambulances and fire trucks?
A. Yes, I'm referred to any emergency response vehicles.
Q. Could you explain what toning-out means?
A. There's an alert system on a truck that goes off to inform you what apparatus is going out and the engine house they are coming from; which we refer to as toning-out.
Q. So, with the Tritech System, a dispatch would be able to push a button and send all of that information out instantaneously?
A. Correct. They also install a computer screen at each firehouse that displays information about every call even before the tones drop.
Q. Has U City ever had a policy that states dispatchers have to be EMD certified?
A. I do not believe so. But now, we don't even have the option of sending our dispatchers to get this training because we're so understaffed.

Q. How much would it cost the City to implement its own Tritech System?
A. Eliminating the program needed for the police to write their reports, Tritech's system costs roughly between $400 to $750,000, depending on the depth of your program, plus an annual cost of $80 to $130,000 to maintain the system.
Q. Does U City not have the capacity to locate specific hydrants like the CAD System?
A. It does not. When a call comes in the driver has to look at a map to determine the nearest hydrants. And while the City could piecemeal all of this technology together with its current system, it would mean using second-party vendors for each aspect that all have their own separate operating systems.

Q. What are ISO ratings?
A. ISO is an insurance service organization that rates a fire department on its trucks, manpower, dispatch center, training, backup systems, and fire hydrants. Ratings range from 1 to 100, and U City's current rating is 3.79.
Q. How do you believe this contract would have been beneficial during the recent flooding event when our system was overwhelmed with calls from residents?
A. Every member of their staff is trained to be a dispatcher. So, during an emergency like the flood, all of their personnel, including supervisors, would be on the floor. There are no holds or dropped calls because they have a computer program that answers calls, triages the situation, and then prioritizes them based on the type of service being requested.

Mr. Rose stated an ISO rating's direct impact on residents is cost because it affects the amount of insurance they pay. So, it is extremely important to maintain this rating at an acceptable level.
      He then asked Chief Hampton if he would respond to Councilmember Clay's question about the impact this contract would have on the Police Department; specifically with respect to the complexity of answering calls for both departments, the extensive amount of training required for dispatching fire calls, and reassurance that the efforts of our current dispatchers would not be diminished?

Chief Hampton stated while dispatchers will still be responsible for receiving all 911 calls, instead of undertaking the extremely delicate task of correctly responding to and dispatching EMS and Mutual Aid calls; which are uncharacteristic from a police perspective, under this contract, they will only be tasked with making sure these calls are transferred to the County for discernment. So, the elimination of those calls will enhance rather than diminish the quality of service being provided.

He stated, for the most part, EMD training is viewed as a personal benefit for dispatchers. And while the department currently has three dispatchers that fall under this category, the attrition levels among his staff have made it difficult to provide all of his dispatchers with the opportunity to receive this training.

Mayor Crow posed the following questions to Chief Hinson:
Q. Are Central County's rates structured so that the City will be paying the same amount for this service as all of its other members?
A. While it is structured to operate as a co-op, rates are based on a municipalities' call volume, size, and real estate taxes, that is calculated by a set percentage for all of its members.
Q. So, does that mean that U City will be paying the same rate for a call?
A. Yes. However, Central County is owned by the five districts that initiated the service, and his understanding is that they pay a larger portion than its members.
Q. Is that because they are also receiving a return on their investment?
A. I don't know for sure. Members retain control of their department's operations and can provide input, but all decisions related to managing the agency are made by the owners.

Q. If we join, will U City be one of their largest participants?
A. Yes, we will.

Q. Since the City will be retaining all of its personnel, and expending an additional $300,000 per year, there really does not seem to be any cost savings derived from utilizing this service. It just seems like a new budgeted item for enhanced service with no debit and credit equality, is that correct?
A. All of the department's communication equipment, as well as the computers for each truck, will be purchased and maintained by the agency. Communication lines currently cost the City about $400 to $700.00 a month, which does not include the annual fee paid for the software.

Q. Is this a new concept or has the Fire Department been down this road before?
A. My understanding is that the department outsourced these services to North Central a couple of years ago. North Central is now defunct, but the reason the City discontinued its contract was due to a significant increase in the price.

Mr. Rose noted that another added benefit would be a reduction in response times, which is extremely important.

4. **ADJOURNMENT**
   Mayor Crow thanked Chiefs Hinson and Hampton for this presentation, and for keeping the community safe. He then adjourned the Study Session at 6:24 p.m.

   LaRette Reese,
   City Clerk, MRCC