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MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov

COMMITTEE MEMORANDUM

TO: Finance and Citywide Projects Committee Members

FROM: Kathie G. Brooks, Interim City Manager

DATE: February 20, 2013

SUBJECT: REFERRAL TO THE FINANCE AND CITYWIDE PROJECTS COMMITTEE, A DISCUSSION TO CONSIDER REPLACEMENT OF THE CITY'S PUBLIC SAFETY RADIO SYSTEM WITH A NEW P25 COMPLIANT SYSTEM BEFORE THE FEDERALLY MANDATED 2016 TIMEFRAME.

INTRODUCTION

This matter was referred by the Mayor and Members of the City Commission at the February 6, 2013 Commission Meeting, Item C4L.

BACKGROUND

The City of Miami Beach, the Licensee, operates a Motorola equipped 800 MHz 10 channel trunked Public Safety Radio System, the System, in its designated Federal Communication Commission (FCC) jurisdiction. The System is currently on year eight (8) of a ten (10) year life cycle and it is not Project 25 (P25), compliant as defined by federal P25 standards, as the standards were emerging as the system was being contracted. The City's goal is to replace the System with a new P25 compliant system before the 2016 timeframe. The system replacement time cycle, based on procurement of the existing system, is over two (2) years from issuance of the RFP to acceptance of a working system.

P25 is a suite of standards for digital radio communications for use of interoperability by federal, state and local public safety agencies in North America to enable them to communicate with other agencies and mutual aid response teams in emergencies. The FCC has issued a directive that all 800 MHz systems will be "narrowbanded" in the 2016 timeframe. Narrowbanding is the process by which frequency width is narrowed from approximately 25 KHz to 12.5 KHz for each licensed frequency, thus increasing the amount of available radio spectrum. The main type of 800 MHz systems easily, and cost effectively, capable of being narrowbanded in such a fashion are P25 compliant systems. Both the infrastructure and the subscriber components of a radio system must be P25 compliant for full interagency interoperability to exist.

ANALYSIS

There are a few ways for the City to achieve compliance by the narrowbanded P25

directive issued by the FCC. The City can purchase a replacement P25 compliant radio system, it can join with other agencies in purchasing and establishing a Regional radio system or it can operate as a guest on a larger host's radio system.

Regardless of the direction the City moves in, it should first secure the services of a professional consultant (Consultant) that can compile all the stakeholder's requirements and manage the project to ensure that the requirements are implemented in the new radio system. The services of the professional consultant would be procured by means of an RFP to ensure that the best qualified candidate is selected.

Should the City decide that it will simply purchase its own replacement radio system; the Consultant's role would be to compile requirements to compose the RFP, assist in evaluating responses and manage the implementation project. The new P25 compliant system would allow a Miami Beach P25 radio to use a radio talkgroup on another P25 system and talk to the other system's dispatcher after the systems are configured to work together.

Preliminary discussions were held with the City of Miami (Miami) to explore the possibility of establishing a regional radio system and the feedback was very positive. Miami operates a Motorola trunked Public Safety Radio System that also needs to be replaced. Miami is in the process of hiring a consultant for the creation of a RFP and is interested in establishing regional interoperability memorandums so that it can take a regional approach to securing grant funding and operating a radio system. Miami believes that the grants for radio systems that are currently offered are geared more towards Regional systems and it would be easier to approach the grant as a united front than alone. Miami has indicated that Hialeah and Coral Gables have already expressed that they would join the Regional approach and Miami Beach can be included if they desire. Miami has further expressed that they are not favoring any specific vendor and want to procure the best product available. Should regional grant funds become available, each regional participant would use the funds to buy their own P25 systems that would operate subject to the established regional interoperability memorandums. In this manner, a Miami Beach radio would be able to use the specified radio talkgroups within each region to reach the region's dispatcher.

Preliminary discussions were also held with Miami-Dade County (County) to explore the possibility of having the County host the City on their radio system and the feedback was also very positive. The County currently operates multiple radio systems. One system is a dated analog Macom Edacs trunked Public Safety Radio System for their Police Department. The County Police Department will be transitioning to a new digital Harris P25 compliant trunked public safety radio system running full encryption in late 2013 (System B). The County's other non-public safety radio users are already on a new digital Harris P25 compliant trunked radio system (System A). The County's Fire Department operates on a third radio system that is a UHF analog multichannel system. The UHF system is not subject to the P25 directive due to its operating in the UHF spectrum; it just has to be narrowbanded. The County may consider hosting Miami Beach radio users on their multiple radio systems based on their respective classification of the radio users. Preliminary discussions also indicated that the City would have to purchase its own entire fleet of handheld, vehicle mounted, and desktop dispatch radios in order to be hosted. In this manner, a Miami Beach radio would be able to reach the Miami Beach dispatcher while operating anywhere within the coverage of the County's radio system.

Pros & Cons of Owned, Regional, and Hosted Radio Systems

Owned Radio System

- Full control and responsibility of the system implementation, resources, maintenance and operation.
- Must establish interoperability memorandums to allow Miami Beach radios to reach each region's dispatcher while in their region.

Regional Radio System

- Sometimes, shared control, resources and costs of system maintenance and operation with other Regional participants.
- Established regional interoperability memorandums allow Miami Beach radios to reach each region's dispatcher while in their region.
- Sometimes, unified dispatching and 911 call taking location eliminates the need for all the individual dispatch and call taking centers of the Regional participants.

Hosted Radio System

- Less control as guests pay host for use of the system and equipment.
- Typically, the guest's FCC licenses are permanently turned over to the host so that the host's system can legally operate within the guest's designated FCC jurisdiction.
- Miami Beach radios would talk to Miami Beach dispatchers while anywhere within coverage of the County's radio system.
- Typically, host's dispatching and 911 call taking location eliminates the need for the guest's dispatch and call taking center. Additional savings could be achieved through the integration of PSCU (Public Safety Communications Unit) with that of the host system. Miami Beach Police Department has indicated that they do not recommend dismantling the Miami Beach PSCU.

CONCLUSION

The City should secure the services of a Consultant that can compile all the stakeholder's requirements and manage the project to ensure that the requirements are implemented in the new radio system. The City seeks the direction of the Finance and Citywide Projects Committee as to whether to procure its own, explore joining a regional approach, or pursue a hosted approach to replace the existing System with a new P25 compliant system before the 2016 timeframe.

KGB/PDW/AS

