

City Council Radio Communications Equipment Lifecycle Replacement

City Council

October 7th, 2019

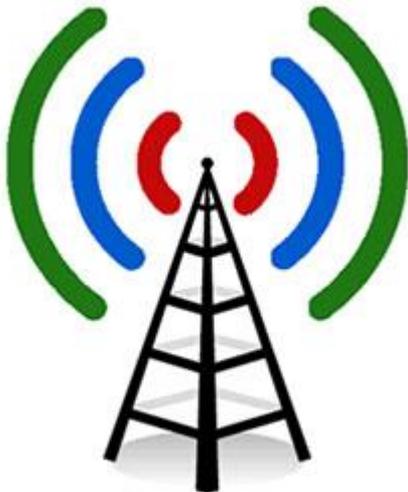




Background

Department of Information Technology

- DoIT operates the Pasadena Radio system with radio towers, communications infrastructure and end use devices: handhelds, portables, mobiles, dispatch consoles
- 1600+ Radios are used for variety of critical public safety and municipal services, including Police, Fire, Water & Power, Public Works & Transportation





Background

Department of Information Technology

2006

**PFD
Purchased
Current
Fleet of
Radios**

2008

**PPD
Purchased
Current
Fleet of
Radios**

2013

**Motorola
Discontinued
Sales of
XTS5000
Radio**

2018

**Motorola
Discontinued
Support on
XTS5000
Radio**

- 10 Year Expected Lifecycle for Radio equipment
- Fire Radio Fleet – 13+ Years
- Police Radio Fleet - 11+ Year Age
- Frequency of repairs increasing due to age
- Parts for XTS5000 radios available in limited supply



Background

Department of Information Technology

- Radio Communication Lifecycle Replacement Project added to Capital Improvement Program in FY2017 as unfunded.
- Mentioned regularly during discussions about the use of Measure I funds to support Public Safety over the last year.
- Partial funding of \$2M was approved by Council during the FY2020 Capital Improvement Program budget hearings.



Legacy Radios – XTS5000 Series

Department of Information Technology



- > 11-13 Years Old
- > Single Band – UHF Only
- > High Power Consumption
- > 1000 Channels
- > Not GPS Capable
- > P25 Phase 1
- > Smaller LCD Display
- > Small Knobs
- > No Top Display
- > Channel Announcement Only
- > No Wi-Fi



New Radios - APX P25 Series

Department of Information Technology

Public Safety Requirements

- > Multi-Band – Interoperable communication
- > 3000 Channels
- > Extreme Environmental Ratings
- > Multi-Key Encryption AES/DES/ADP

Other User Feature Improvements

- > Longer Battery Life & Fast Charging
- > Larger LCD Display & Top Display Larger Knobs
- > Adaptive Audio
- > Blue Tooth Capable

Support Features

- > Remote programming
- > Embedded GPS
- > P25 Phase 2 Capable



PASADENA



Equipment Summary

Department of Information Technology

Department	Type	Quantity
Police	Mobile	165
Police	Portable	434
Police	Helicopters	5
Fire	Mobile	178
Fire	Portable	255
Fire	Station Alerting	20
	TOTAL	1,008

- Accessories will also be replaced such as microphones, ear pieces, holsters, antennas, batteries and chargers



Volume Discounts through Pooling

Department of Information Technology

- Staff recommends procuring using LA County Contract – MA-IS-1240419-3, effective July 1, 2012 and renewed annually with typical 20% list price discount
- Motorola offering 50% discount on radios and 20% discount on accessories through pooling purchases with Los Angeles County and other cities before end of calendar year.
- Product Delivery Time – 4-6 Weeks from date of order.



Product Pricing

Department of Information Technology



New APX Series

Product	MSRP	Contract Price
Police Portable	\$11,340	\$5,670
Fire Portable	\$12,200	\$6,100
Single Head Mobile	\$10,926	\$5,463
Dual Head Mobile	\$11,511	\$5,755



Implementation Schedule

Department of Information Technology

January 2020

Inventory, Programming and Testing

February

**Fire Portable Deployments
Police Portable Deployments**

March

Fire Mobile Installations

April-May

Police Mobile Installations

June

Punch List Items – Project Completed



Other Radios

Department of Information Technology

- Non-Public safety radios will be replaced as needed and funded through department operating and capital budgets
 - > Less expensive to maintain and replace
- Police Helicopter Radios
 - > Uniquely made, designed specifically for each helicopter and require custom installation
 - > Staff to return in new year with a separate contract award and additional appropriation request.





Funding Recommendation

Department of Information Technology

- Staff recommends new appropriation of \$6M to the project.
- Funded through short-term tax-exempt equipment lease instrument, which will be brought before Council for approval within the next 60 days.
- Summary of Funding Sources

Radio Communications Equipment Upgrade and Replacement Project 71166	\$2,000,000
Equipment Lease Financing	\$6,000,000
Total	\$8,000,000



Staff Recommendation

Department of Information Technology

It is recommended that City Council

1. Find that the proposed actions are exempt from the California Environmental Quality Act (“CEQA”) pursuant to State CEQA Guidelines Section 15061(b)(3); and
2. Authorize the City Manager to enter into a contract with Motorola Solutions, Inc. for an amount not to exceed \$8,000,000 for radio communications equipment and accessories. Competitive bidding is not required pursuant to City Charter section 1002(H), contracts with other governmental entities or their contractors for labor, material, supplies or services;
3. Grant the proposed contract an exemption from the competitive selection process of the Competitive Bidding and Purchasing Ordinance, Chapter 4.08 of the Pasadena Municipal Code, pursuant to Section 4.08.049(B) contracts for which the City’s best interests are served; and
4. Amend the FY2020 Capital Improvement Program with an appropriation of \$6,000,000 to the Radio Communication Equipment Upgrade and Replacement Project 71166 from an equipment lease instrument.



Questions

Department of Information Technology

Questions?



Product Pricing Comparison

Department of Information Technology

New APX Series



Legacy XTS Series (2009 Prices)



Product	MSRP	Contract Price
PPD Portable	\$11,340.00	\$5,670.00
PFD Portable	\$12,200.00	\$6,100.00
Single Head Mobile	\$10,926.00	\$5,463.00
Dual Head Mobile	\$11,511.00	\$5,755.50

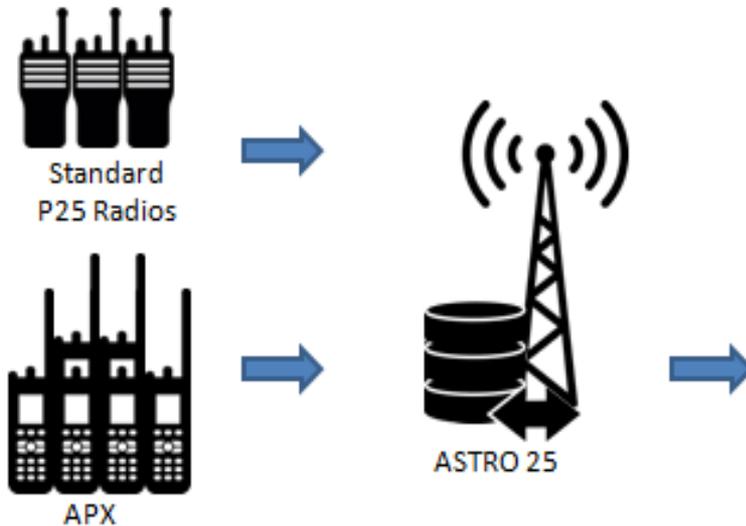
Product	MSRP	Contract Price
PPD Portable	\$5,561.00	\$3,809.00
PPD Mobile	\$5,561.00	\$3,809.00



Product Comparison

Department of Information Technology

Standards Driven



Value Adds

-  Ergonomics
(Eyes off, hands on)
 -  Enhanced audio processes
(Noise cancelling, equalizer)
 -  Environmental ruggedness
(temp, dust/water, impact)
-
-  Public Safety Voice apps
(Channel management, Emergency, Dynamic Zones, Alias and Location sharing)
 -  Public Safety Data apps
(Location, Geo-Fence alerts & channel steering, Individual and Group Bolo / Messaging, Fleet management and services)

APX or P25 radios

APX + ASTRO 25