



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Scott P. Johnson

SUBJECT: SEE BELOW

DATE: May 3, 2006

Approved

Deanna Sabra

Date

5/9/06

**SUBJECT: SOLE SOURCE PURCHASE OF MOTOROLA XTS 2500
AND XTS 5000 PORTABLE RADIOS**

RECOMMENDATION

Authorize the Director of Finance to execute Purchase Orders for the sole source purchase of ninety-two (92) Motorola XTS 2500 portable radios, one hundred thirty-six (136) Motorola XTS 5000 portable radios, and accessories to Motorola C & E, Inc. (San Mateo, CA) for a total cost not to exceed \$718,657.27 including tax and delivery.

OUTCOME

The portable radios are necessary to enhance the interoperable communications capability among regional Fire and Police departments in response to major emergencies, including terrorism events.

BACKGROUND

In 1984, the Director of General Services approved standardization on Motorola radio equipment after the Police and Fire Departments experienced system problems with non-Motorola radio equipment. This standardization was initially approved by City Council on November 20, 1984 and has been periodically renewed since then.

The majority of Motorola portable radios and related accessories will be used by public safety agencies to ensure communications interoperability within Santa Clara County as part of the regional homeland security preparedness program. The Urban Areas Security Initiative (UASI) 2004 Homeland Security Grant's State OHS office has approved the above sole source equipment purchase request and will fund \$595,803.37 of the purchase.

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The following jurisdictions will receive the Motorola radios as part of the UASI grant:

City	XTS 2500	XTS 5000
San Jose	0	37
Sunnyvale	0	39
Mountain View	30	0
Milpitas	17	0
Santa Clara Co. Public Health Dept.	25	0
Morgan Hill	20	0
TOTAL:	92	106

An additional 30 Motorola XTS 5000 portable radios will be used by the San Jose Fire Department to replace Motorola Saber II portable radios on reserve apparatus. Reserve apparatus are activated on a contingency basis. The Saber II radios are not compliant with the requirement for digital and narrow-band capability and do not have the full interoperability capacity of the radios used by firefighters.

ANALYSIS

Since the City is heavily invested in Motorola communications infrastructure and field equipment throughout the Police and Fire Departments' emergency communications, it is in the best interest of the City to sole source the purchase of Motorola radio equipment versus introducing significant risk to public safety operations associated with another radio brand. Additionally, regional public safety interoperability is enhanced through the use of common equipment.

Motorola radios and related equipment is required to match existing equipment. There are significant problems implementing different brand radios because there is no interchangeability of equipment between manufacturers and most of their options are proprietary. As required by Municipal Code 4.12.149, the Director of Finance reviewed and approved Brand Name and Proprietary Procurement Form on March 8, 2006 (see attached). This decision is valid for three years. In case the City replaces the existing Mobile Radio System, this determination needs to be reviewed.

ALTERNATIVE

Not applicable.

PUBLIC OUTREACH

Not applicable.

COORDINATION

This memorandum has been coordinated with the City Manager's Budget Office, the Police Department, Fire Department, General Services – Radio Shop, and the City Attorney's Office.

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COST IMPLICATIONS

This project is funded by the Urban Areas Security Initiative (UASI) Grant funds and the Construction Tax and Property Conveyance Tax Fund.

BUDGET REFERENCE

Fund #	Appn.#	Appn. Name	RC#	Total Appn.	Amt for Contract	2005-2006 Adopted Budget	Last Budget Action (Date, Ord No.)
001	3306	Urban Areas Security Initiative (UASI)	150700	\$7,300,592	\$595,804	Pg. IX-9 Operating	27645 1/10/06
392	6498	Reserve Apparatus Equipment	101373	\$134,000	\$134,000	Pg. V-381 Capital	27580 10/1805

CEQA

Not a project.


SCOTT P. JOHNSON
Director, Finance

For questions, please contact Walter Rossmann, Chief Purchasing Officer at 535-7051.



Department and Contact Information
Department and Contact Information: Information Technology / Don Beams
Required Contract Information
Contractor: Motorola, Inc.. Address: 1150 Kifer Rd., Suite 100 Sunnyvale, CA 94086-5312 Contact Person and Telephone Number: Paolo Caltagirone, Account Manager Cell: (650) 678-5477 Voice: (650) 577-0339 FAX: (650) 577-0333 Type of Product / Service Offered (briefly describe): Land-mobile, two-way radio products and related items.
Complete responses must be provided for all of the items listed below
<u>A. GENERAL INFORMATION:</u> 1. What are the performance requirements for the product you are requesting? (Please provide documentation if available) The City of San Jose operates diverse and technically sophisticated radio communications systems for all of its public safety and non-public safety departments. Nineteen (19) different models of radio communications equipment are required to meet system configurations and requirements. Each of these models require spare radios, replacement circuit boards and other part in order to limit equipment downtime and serve the needs of our customer departments in an efficient manner. Clear and concise communications is essential for emergency communications. Emergency incidents require the coordinated actions of multiple departments, the ability to communicate is often compromised by the variety of radio systems. The ability for Police and Fire Departments to successfully communicate with Dispatch Operations is dependent on the following key requirements: <ul style="list-style-type: none">• Complete Interoperability (compatibility) in radio communications equipment. With Motorola's wide range of product offerings, reliable and rugged equipment is available in low-tier, mid-tier, and high-tier price ranges without the need to adopt equipment from other manufacturers• High reliability of equipment for mission critical radio communications• 9000 series radio remote control head for standardized placement of the user controls that are needed to change channels and operate related functions.

2. What products could potentially meet these performance requirements?

While there are other radio equipment brands (i.e. MAXON, Icom, Uniden, Ritron, SmartComm, TEKK RELM etc), past experience (prior to 1984 standardization on Motorola) has proven that a product mix of non-Motorola and Motorola radios is not a good strategy or solution. Furthermore, non-Motorola radios were found to be unreliable.

Only Motorola brand equipment has consistently met the City's reliability requirements (minimum down-time) and overall superior performance required by our public safety departments. Motorola has long led the industry in radio for public safety.

3. What market research was conducted, including evaluation of other items considered?

Were there other items with less restrictive specifications available? (Describe your efforts to identify other goods/services that could have been procured to meet your requirement and indicate why those alternatives were deemed inappropriate or unavailable. Please include the names and addresses of suppliers contacted and the reasons for not considering them, OR explain why the surveyor effort to identify other goods/services was not performed.)

No survey is currently under way due to extreme time constraints in the approval of a pending order of 161 mobile radios, in which grant funding will be lost if the order is not approved. Federal grant funding, on a General Fund reimbursement basis was made available for early replacement of 161 mobile radios with a newer model that provides direct interoperability with other local police department networks.

4. Are you purchasing this product in order to conduct a field test? Please describe the parameters of the test.

No

5. Is this product necessary to match existing inventory? Please state why.

Yes, Motorola radios and related equipment is required to MATCH existing equipment. Approximately 99.91% of the existing mobile, hand-held and paging receivers that are used on City radio networks are Motorola brand equipment. Since the City is heavily invested in Motorola communications infrastructure and field equipment throughout the Police and Fire Departments emergency communications estimated at approximately \$11M, it is not prudent to introduce significant risk and cost that may be associated with another radio brand.

There are significant potential problems in purchasing and implementing different brand radios because there is no interchangeability of equipment between manufacturers and most of their options are proprietary. For example, the Motorola 800 MHz Mobile Data Network relies on Motorola's RD-LAP messaging protocol for connectivity between the 911-dispatch center and the Motorola radio modems used in Police and Fire Department vehicles.

6. Is the purchase of this product consistent with an approved technology architectural standard?

Please attach documentation.

The existing Police and Fire Dispatch Radio Console System consists of specialized proprietary software and hardware developed by Motorola and has been operational since 1989. ITPB and Steve Turner concur with the recommendation for standardization

B. PRICE ANALYSIS:

7. What pricing information was obtained?

In the past, Purchasing has priced similar types of radio equipment with other manufacturers to determine if the prices from Motorola are competitive. From past order history, Motorola provides a minimum discount of 15% per unit when orders are less than 15 units, along with higher discounts in the 20% to 35% range with orders larger than 15 units. In addition, the City of San Jose will receive the same pricing on Motorola equipment that other local agencies receive on their purchase under the Western State Contracting Alliance (WSCA).

General Services works closely with Purchasing to regularly monitor the market to ensure that the City receives highly reliable equipment at the best possible price.

8. Describe any cost savings realized or costs avoided by acquiring only this product versus other products. (For "standardization" requests please explain significant costs savings. Refer to the San Jose Municipal Code, Section 4.12.149 B (1), (2) and (5) for additional information to justify standardization based on cost savings or cost avoidance.)

Cost savings are achieved on a per project basis. For example, in a current project to replace 161 Motorola Spectra-A9 series radios with the newer AstroSpectra W4 series equipment resulted in cost savings of \$88,000 in parts and labor due to having interoperability capability in utilizing existing Motorola radio control cables installed in the Police Department's vehicles. This type of savings will most likely occur in the future with other similar models of equipment, and a related savings would not occur with models from other manufacturers.

In general, cost savings are achieved on standardized Motorola products in the following categories:

- Cost effective service, repair and maintenance (technician proficiency in one brand). Of the 7,000 pieces of Motorola mobile, hand-held and base station equipment that are supported on a Citywide basis. Only one set of test equipment is required for all various models of Motorola communications equipment. Since there is compatibility between manufacturers for testing, programming etc., additional test equipment and fixturing would be required for each non-standardized model of radio added to the City's radio network.
- Cost effective programming software for different models of equipment is essentially similar when they are from a standardized manufacturer. Modification of new test harnesses for bench testing is eliminated with standardization. Motorola has adopted specific test fixtures and metering adaptors that are specific to Motorola hand-held (portable), and mobile radios. Adopting other brands of equipment would require the purchase of additional types of support equipment, fixturing, and radio programming software.
- Cost effective training results when standardized on a specific brand of equipment.
 - Technician training is improved. The cost of training averages \$800 per model per technician. Each new manufacturer model added would result in an additional cost of approximately \$6,400 for training and \$4,500 in lost productive wages. Service and maintenance manuals are written from a common perspective, and with a consistent "look & feel" when they are from a single manufacturer.
 - User training is more efficient when older equipment is replaced with newer equipment due to same brand similarities. In addition, Officer safety is improved because standardization enables Officers to locate and operate Motorola's standard radio controls during high stress incidents.
- Minimize spare parts for single brand. The need to stock additional spare parts for each non-standardized radio is eliminated. For each new, non-standardized model and manufacturer, one or more spare radios would be required to support the sub-fleet of installed equipment, along with a spare parts equivalent of 11:2 times the cost of the radio, to a maximum of 10 percent of the overall cost of the equipment being added to the City's fleet.

Required Approvals

<p align="center">Requesting Department Director</p> <p align="center"> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied </p> <p align="center">  _____ Date </p>	<p align="center">Finance Director</p> <p align="center"> <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied </p> <p align="center"> Approval requires written decision consistent with Section 4.12.149 subsection C, Memo attached </p> <p align="center">  _____ Director or Designee/Date </p>
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