

DATE ISSUED: November 21, 2001

REPORT NO. 01-251

ATTENTION: Honorable Mayor and City Council  
Docket of November 26, 2001

SUBJECT: Wireless Communications Long Range Plan Consultant Agreement

### SUMMARY

Issue - Should the City Council authorize the City Manager enter into an Agreement for wireless communications consultant services with Tech/Knowledge, Inc.?

Manager's Recommendation - Authorize the execution of an agreement with Tech/Knowledge, Inc. to provide a ten-year Wireless Communications Long Range Plan for the City.

Other Recommendations - None

Fiscal Impact - Not to exceed total sum of \$299,938. Funding is available in the current FY 02 Budget.

### BACKGROUND

On May 1, 2001 the City issued a Request For Proposal (RFP) for a City Wireless Communications Long Range Plan. Eleven responses were received by the July 10, 2001 deadline. The responses were reviewed and analyzed by staff to determine whether the proposals met the requirements for services as outlined in the RFP. Three finalists were selected for further review and Tech/Knowledge, Inc. was selected as the best firm able to provide the deliverables as outlined in the Scope of Work in the RFP.

### DISCUSSION

The City's public safety wireless communications infrastructure is reaching the end of its anticipated life span and should be replaced and upgraded by 2005-2006 to guarantee that the critical wireless communications requirements of our public safety services will be met over the following years. Some of the current network components are no longer available from the manufacturer, and spare parts are getting difficult to acquire. The recently completed City-wide Information Technology Strategic Plan (ITSP) identified a high priority initiative to develop an overall strategy for replacement and upgrade of the current City wireless infrastructure. The ITSP identifies a preliminary high level cost estimate of \$35-45 million to replace the existing public safety communications systems.

In the mid-1980's, the City initiated similar consultant studies and plans were developed to implement wireless systems replacements. The \$35 million Public Safety Communications Project was approved by the City Council in 1989 and financed with \$10 million in Capital Improvement Project funds and \$25 million from a voter-approved General Obligation bond issue. Completed in 1991-92, the Public Safety Communications Project was an extremely successful and well-implemented plan and included the wireless infrastructure, the 800 MHz Voice Network; the Mobile Data Terminal (MDT) Network; police and fire dispatch center electronic systems and related end user (field) communications equipment. Today, these critical wireless networks are still an integral part of the City's public safety telecommunications infrastructure.

At the time that the existing wireless networks were placed into operation, it was anticipated that their technological life span would be 15 years. In addition, the MDT Network has been at capacity for many years and does not meet today's growing mobile data capacity (bandwidth) needs for public safety. As a result, the Police Department has been using commercially-contracted wireless data service called Cellular Digital Packet Data (CDPD) in order to supplement the City's wireless data network capacity. The Fire and Life Safety Services Department is also in the process of implementing CDPD service in order to augment the critical operational needs for its public safety missions.

The planning process for a project of this scope will take several years. The first step in this effort is the development of a long range wireless plan. Based upon the results of this initiative, high-level plans and cost models will be developed for replacement of the current public safety communications systems and upgrade of those systems to provide enhancements to our current technologies. Subsequent consultant studies are anticipated which would detail individual system specifications and prepare bid documents for project implementation in 2004-2005. Funding alternatives will also be studied and will include consideration of a ballot proposition for a general obligation bond issue for the 2004 election.

The scope of work for the Tech/Knowledge Agreement includes studying alternatives for the phased replacement of the City's 800 MHz Voice Network and the MDT Network, as well as the associated microwave backbone and other infrastructure required for these voice and mobile data public safety networks. The scope of this study also involves some key additional networks including the City's Very High Frequency (VHF) Radio Network, Automatic Vehicle Location (AVL) Network, Supervisory Control and Data Acquisition (SCADA) Networks, Police and Fire and Life Safety Services Computer-Aided Dispatch (CAD) systems and associated dispatch equipment. In order to develop a 10-year Wireless Communications Long Range Plan, Tech/Knowledge, Inc. will address operational issues, technological issues and economic feasibility issues, using information from today's marketplace offerings, projected future City wireless needs and state-of-the-art technology offerings.

Tech/Knowledge, Inc. will also consider interoperability issues to insure that the City can effectively respond to multi-jurisdictional incidents and will be asked to study opportunities for leveraging existing regional communication systems. One example is the County of San Diego Regional Communications System (RCS), with which the City currently shares resources and programming capabilities to meet the interoperability needs for public safety/mutual aid in the

region.

Another critical area that Tech/Knowledge, Inc. will address will be the merging of wired and wireless technologies and how we can best leverage our exiting City resources to provide the necessary connectivity and capacity needed as 3G and other wireless technologies come to the marketplace.

Tech/Knowledge, Inc. is a telecommunication and information technology engineering and consulting firm specializing in voice and data communications, information technology, service delivery and office automation. Tech/Knowledge provides consulting and implementation assistance to both public and private sector agencies, including over 50 California municipalities. Tech/Knowledge, Inc. is vendor-independent. They have no direct or indirect relationships with any entity engaged in the provision of wireless services or equipment which will be reviewed under the scope of the City's project.

ALTERNATIVE

Do not approve the contract for wireless communications consultant services with Tech/Knowledge Inc.

Respectfully submitted,

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Richard E. Wilken  
Information Technology & Communications Director

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Approved: Howard Stapleton  
Acting CIO

WILKEN/SJL