

CITY OF OAKLAND
AGENDA REPORT

FILED
OFFICE OF THE CITY CLERK
OAKLAND

2005 JAN 13 PM 8:18

TO: Office of the City Administrator
ATTN: Deborah Edgerly
FROM: Finance and Management Agency
DATE: January 25, 2005

RE: A Report and Resolution approving the successful completion of the Voice over IP pilot project and authorizing the City Administrator or her designee to award a seven year contract for the lease of telephone equipment and services with ShoreTel (formerly Shoreline) Communications Inc., for an amount not to exceed \$275,000 annually or \$1,650,000 over the term of the contract without return to Council.

SUMMARY

In February 2004, the Finance and Management Agency presented to the Finance and Management Committee a summary report outlining the technology projects that will be coming forward during this year. Authorization was withdrawn on proceeding with two of the projects until further clarification and project phasing could be presented to the committee. These two projects were the Voice over IP (Voice over Internet Protocol) project and the Network Upgrade project.

On June 15, 2004, the City Council approved resolution 78613; "A Resolution authorizing the City Administrator or her designee to negotiate and execute a seven year contract for the lease of telephone equipment and services with Shoreline Communications Inc., for an amount not to exceed \$275,000 annually or \$1,650,000 over the term of the contract *conditioned upon the successful completion and acceptance by the City Council of a pilot voice over IP project at 150 Frank H. Ogawa Plaza with telephone equipment furnished to the City of Oakland at no cost during the pilot project.*"

The Information Technology Division (ITD) of the Finance and Management Agency (FMA) has successfully completed the pilot project at 150 Frank H. Ogawa Plaza (Wilson Building) and requests that the City Council authorize the City Administrator or her designee to award a seven year contract for the lease of telephone equipment and services with ShoreTel (formerly Shoreline) Communications Inc., for an amount not to exceed \$275,000 annually or \$1,650,000 over the term of the contract. This lease will cover the cost of equipment, software and maintenance that provide the City with Voice over IP (VOIP) telephones and related equipment.

FISCAL IMPACT

This initiative will be funded from existing departmental budget authority for telephone services and cost savings from the installation of the VOIP telephones. The following chart shows the costs that are paid by individual department budgets for telephone services and voicemail. The pilot project allowed ITD to estimate potential costs and savings that will be generated when this project is approved. The cost savings, as shown, will; 1) pay the cost of the ShoreTel (\$275,000

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per year) and the Enterasys lease (\$215,000 per year); 2) reduce individual department telephone cost by approximately \$200,000 citywide and; 3) pay for the Enterasys and ShoreTel equipment maintenance cost for the next 7 years.

Estimated Cost Savings from Voice over IP Telephone System

**Current Cost -Telephone Service (paid by
Departments based on 3000 lines)**

Item	Annually
Centrex Lines Recurring Charges (including Taxes)	\$765,360
Voice mail @ \$72/yr. per line (2200 mail boxes)	\$158,400
Annual Line installations (120)	\$8,400
Total Cost	\$932,160

**City-Owned Voice over IP Network (based on
2200 lines)**

Item	Annually
Centrex Lines Recurring Charges - non converted lines	\$38,400
PRI/DID Trunks Recurring Charges (SBC)	\$191,706
ShoreTel Lease	\$275,000
Enterasys Lease	\$215,000
Installation Charges (SBC)	\$17,028
Total Cost	\$737,134

Total Savings **\$195,026**

While the pilot project did not realize savings because the old phone system was not removed, ITD did receive cost estimates for implementing the pilot project and from SBC, existing charges for the old phone system. The cost savings do not include phone line usage (per minute costs). These costs will remain the same. It is expected that phone usage (per minute) costs may decrease as employees monitor, or see, their usage via the computer display.

BACKGROUND

The City of Oakland currently obtains Centrex telephone services from SBC via a CALNET contract approved by the City Council in June 2003. The approval of the CALNET contract and the proposed lease are attempts to reduce and contain the cost of telephone service to the City. The deployment of IP telephone technology allows for the reduction of telephone lines without penalty (minimum line requirements), effective utilization of all lines, reduction in feature

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charges associated with various telephones and the reduction of the City's overall maintenance costs.

Currently the City of Oakland pays various costs for telephone service. These costs include dedicated phone lines associated with the voice mail system, annual voice mail maintenance charges, telephone line installation charges from SBC, telephone instrument repair services and internal service charges. These costs are escalating as the equipment ages and requires frequent repairs. Many of the current 105 phone-systems were installed after the 1989 earthquake and are over 13 years old. Some of the newest equipment was installed in 1996 as part of the City Hall rebuild. It is some of the most expensive telephone equipment service.

During 2003, ITD conducted interviews and assessments as to determine the telephone service needs of City departments. ITD initiated a Request for Information (RFI) document on September 10, 2003. Twelve vendors responded to the RFI, each with a vested interest in the Voice over IP technology. Final RFI documents were received on September 17, and through a process of vendor ratings and site visits, a final vendor decision was made on October 31, 2003. ShoreTel (formerly Shoreline) Communications, Inc. appears best able to provide the City of Oakland with the services and technology necessary to implement VOIP as demonstrated in its pilot project.

KEY ISSUES AND IMPACTS

The City of Oakland relies on two main technology platforms for communication, voice and data. Large scale failure of either of these technologies can be catastrophic to the daily operation of the City. The City's current telephone systems consist of multiple systems that have served the City well but are old and showing signs of failure. This year alone there have been six separate system failures and a steady increase in minor equipment failures due to age. A single system failure causes disruption to as many as fifty-six lines and sets which can mean whole divisions without voice communications. The restoration of voice communications can take four to eight hours or more, depending on availability of equipment and resources.

The deployment of the new voice technology and the upgrade of the data network will replace outdated equipment with new more dependable equipment and services. All of the new costs will be funded using existing funds (currently within departmental telephone budgets) and estimated savings generated from the deployment of this technology.

One of the new technologies that will be deployed will be the "E911" capabilities. This feature allows for additional information to be transmitted to the Police E911 center when a City staff member places a 911 call from a City building. Presently, a call placed anywhere in City Hall simply is displayed at E911 as "#1 Frank H. Ogawa" with no floor designation. The failure to give floor designations can delay emergency services to the building. Since the implementation of the pilot project, four 911 calls have been generated from the Wilson Building. The pilot project demonstrated the capability of notifying the security guard on duty or police officer by text message that a 911 call has been placed with the exact location.

In implementing pilot program at the Wilson Building, disruption of services to citizens and staff was unnoticed. Implementation of the VOIP system City-wide will require a detail implementation plan in order to limit any disruption of services.

PROJECT DESCRIPTION

The purpose of this initiative is to provide a converged network where data and voice are one. This converged network will provide significant cost savings and at the same time expand telephone capabilities, provide cost containment and lower the City's overall maintenance costs. This model can help the City to contain the rising cost of technology by upgrading services utilizing existing dollars.

As part of the pilot project , ShoreTel installed 401 IP telephones, 52 IP-enabled devices (fax machines, conference phones), eliminated the need for 11 telephone instruments and eliminated 99 telephone lines. Also, ShoreTel was required to perform all of the requirements as set under the City of Oakland functional specifications (attachment A). A follow-up survey was conducted with responses from 100 users in the Wilson Building. The results of the survey showed a favorable response to the new system and its usefulness to productivity. On December 10, 2004, ITD concluded that ShoreTel successfully met all of the requirements of the pilot project.

With the approval to proceed with completion of the project, five additional buildings will be converted to the new network equipment and IP telephones. These locations are: 250 Frank Ogawa Plaza (the Dalziel Building), City Hall, Fire Station 1/Emergency Operations Center, Oakland Museum and the Municipal Service Center. It is anticipated that installation in the remaining locations will be completed prior to December 2005.

SUSTAINABLE OPPORTUNITIES

As part of the lease agreement, ShoreTel Communications Inc. has worked to incorporate local companies into its deployment. As part of the pilot and the final project, ShoreTel has trained local vendors and City staff on the deployment and maintenance of their system. City staff will start implementing and maintaining the system as part of the next phase.

DISABILITY AND SENIOR CITIZEN ACCESS

VOIP technology provides a significant advantage to disabled individuals. VOIP has the ability to transfer text messaging to the telephone, facilitating communication to disabled individuals.

RECOMMENDATION(S) AND RATIONALE

Staff recommends that the City Council authorize the City Administrator to negotiate and execute a seven year contract with Shoreline Communications Inc., to provide telephone equipment and services to the City of Oakland. This lease will cover the cost of equipment, software and maintenance to provide the City with Voice over IP telephones and related

equipment. The deployment of the new voice technology and the upgrade of the data network will combine maintenance contracts, consolidate equipment types, replace outdated equipment and replace it with new equipment and services.

ALTERNATIVE RECOMMENDATION(S)

As part of the 2003-2005 budget process, staff looked at the possibility of doing nothing or maintaining our existing systems. In order to accomplish this alternative, the project money would need to be allocated towards system's maintenance and additional funds would need to be allocated in FY04-05 for network and telephone maintenance contracts.

ACTION REQUESTED OF THE CITY COUNCIL

Staff requests that the City Council authorize the City Administrator to execute a seven year contract with ShoreTel Communications Inc., to provide telephone equipment and services to the City of Oakland.

That the City hereby finds and determines that pursuant to Chapter 2.04, Article I, section 2.04.050.I.5, it is in the best interests of the City to waive bidding requirements of 2.04.050 and authorize the competitive process undertaken by staff, and authorizes the City Administrator or her designee to negotiate and award a contract with Shoreline Communications Inc., for an amount not to exceed \$275,000 annually or \$1,650,000 over the term of the contract.

Respectfully submitted,



**William Noland, Director
Finance and Management Agency**

Prepared by:
Bob Glaze, Chief Technology Officer
Information Technology Division

APPROVED AND FORWARDED TO THE
FINANCE AND MANAGEMENT COMMITTEE



OFFICE OF THE CITY ADMINISTRATOR

ATTACHMENT A

ACCEPTANCE CRITERIA

Item	PROOF OF CONCEPT FOR INFORMATION TECHNOLOGY Shoreline must demonstrate the following:	Item	PROOF OF CONCEPT FOR KEY CITY MGMT PERSONNEL Shoreline must demonstrate the following:
1	Paging through an IP set (one to many)	1	Placing and receiving internal and external calls (LAN/LAN & LAN/WAN - PSTN)
2	Integration of Shoreline IP phones with the City's existing Voicemail system (Octel)	2	Using CFW, Transfer, Conf, Autodial & Speed dial
3	E911 - Placing an E911 call before an IP phone is moved and after an IP phone is moved	3	Scrolling through a Directory on the phone (If available)
4	Moving an IP phone from one cubicle to another	4	Personal Call Manager (on the PC)
5	Multiple line appearances on various sets (comparable to MADNS on existing EBS sets)	5	Paging through the sets (one to many)
6	Interfacing with Overhead Paging system; paging from the set through the OH paging system	6	Using a Shoreline IP phone with the user's existing voice mailbox (Octel)
7	Placing a phone call to an IP phone that is behind a Firewall and receiving a phone call to the IP phone that is behind a Firewall	7	Using a Shoreline IP phone with the Shoreline Voicemail/Unified Messaging
8	Using an IP phone that is powered by a Cisco switch that has Cisco inline power (Note: Vendor to supply dongle/ power adapter)	8	Music-On-Hold (System wide or Department level)
9	Using an IP phone that is powered by a Cisco switch that has Industry Standard 802.3AF inline power (Note: Shoreline will need to provide a switch that is 802.3AF compliant)	9	Moving a phone
10	Placing phone calls from an IP phone that is in a separate Voice VLAN (802.1PQ).	10	E911
11	Show that the User's PC is in a separate data VLAN.	11	User Documentation (Quick Reference, Wallet Card, Guides, on-line etc)
12	Show that the IP phones on a Shore gear system that fails will "fail over" to another Shore gear system in the same building that will handle these sets internal and external call flow		
13	Show that the IP phones on a Shore gear system that fails will "fail over" to another Shore gear system in a different building that will handle these sets internal and external call flow		
14	Scrolling through a Directory on the IP phone (Does Shoreline have this?)		
15	Door intercom/Buzzing someone in via the IP phone		

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OAKLAND CITY COUNCIL
RESOLUTION No. _____ C.M.S.

OFFICE OF THE CITY CLERK

2005 JAN 13 PM 8:19

A Resolution approving the successful completion of the Voice over IP pilot project and authorizing the City Administrator or her designee to execute a seven year contract for the lease of Telephone equipment and services with ShoreTel (formerly Shoreline) Communications Inc., for an amount not to exceed \$275,000 annually or \$1,650,000 over the term of the contract without return to Council.

WHEREAS, the Finance and Management Agency (FMA) is working to update and improve the service and reliability of the City's Telephone infrastructure; and

WHEREAS, the implementation of a new telephone technology (Voice over IP) can reduce the cost of telephone line charges; and

WHEREAS, the existing cost of maintaining our present telephone equipment is rising on equipments that is as much as fourteen years old ; and

WHEREAS, staff from the FMA Information Technology prepared and distributed a Request for Information to numerous Voice over IP equipment manufactures; and

WHEREAS, the FMA Information Technology received twelve responses to the Request for Information and an interdepartmental selection committee evaluated all respondents based on the City's Telecommunications needs; and

WHEREAS, the selection committee recommended Shoreline Communications Inc. and their associated team to provide the City with Voice over IP equipment and services; and

WHEREAS, on June 15, 2004, the City Council approved resolution 78613 authorizing a pilot project in 150 Frank H. Ogawa plaza in order to demonstrate the vendors ability to perform large installations; and

WHEREAS, ShoreTel communications completed a successful pilot project in 150 Frank H. Ogawa plaza which demonstrated the vendors ability to perform large installations; and

WHEREAS, the successful completion of the pilot project provided additional data to demonstrate the actual cost savings of the new system; and

WHEREAS, the City finds that the services provided pursuant to the agreement authorized hereunder are of a professional, scientific or technical nature and are temporary in nature; and

WHEREAS, the City finds that this contract shall not result in the loss of employment or salary by any person having permanent status in the competitive service; now, therefore, be it

RESOLVED: That the City hereby finds and determines that pursuant to Chapter 2.04, Article I, section 2.04.050.I.5, it is in the best interests of the City to waive bidding requirements of 2.04.050 and authorize the competitive process undertaken by staff, and authorizing the City Administrator or her designee to negotiate and award a seven year contract for the lease of telephone equipment and services with Shoreline Communications Inc., for an amount not to exceed \$275,000 annually or \$1,650,000 over the term of the contract and approving the successful completion and acceptance by the City Council of the pilot voice over IP project at 150 Frank H. Ogawa Plaza with telephone equipment furnished to the City of Oakland at no cost during the pilot project; and be it

FURTHER RESOLVED: That the City Administrator or her designee is hereby authorized to take whatever action is necessary with respect to the agreement consistent with this Resolution and its basic purpose; and be it

FURTHER RESOLVED: That the contract shall be reviewed and approved by the City Attorney's Office for form and legality prior to execution, and a copy shall be placed on file with the City Clerk.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 2005 .

PASSED BY THE FOLLOWING VOTE:

AYES-

NOES-

ABSENT-

ABSTENTION-

ATTEST: _____

CEDA FLOYD

City Clerk and Clerk of the Council of
the City of Oakland, California