TO: **Office of the City Manager**
ATTN: **Deborah Edgerly**
FROM: **Finance and Management Agency (FMA)**
Office of Information Technology (OIT)

RE: An informational report on the status of Finance and Management Agency, Information Technology, cost savings initiatives and projects

SUMMARY

The Information Technology (IT) Division of the Finance and Management Agency is currently engaged in a number of projects that will improve services and provide significant cost savings to the City. For budget year 2003-2005, IT has proposed a number of projects intended to improve the delivery of technology services to City of Oakland employees and residents.

The replacement of old antiquated equipment will reduce maintenance and support costs, provide increased services, and better protect City resources in the event of failure. In addition, enhanced capabilities provide indirect savings in increased employee productivity, reduced staff overtime and increased reliability. These projects, which are being reviewed and/or implemented are:

Voice over Internet Protocol (VOIP) – Voice over IP involves converging the voice and data networks into one, thereby reducing maintenance costs.

Network Upgrade – The proposed network upgrade will replace aging network equipment and provide the foundation upon which VOIP can be implemented. The result is a secure, reliable network with reduced maintenance and staff costs.

Miscellaneous Cabling - Large cabling jobs will be contracted out to a company specializing in cabling, resulting in costs savings through decreased overtime and capped expenditures.

Radio Upgrade – Replacement of outdated equipment and standardization will result in increased coverage and increased communication between Public Safety organizations while decreasing maintenance costs.

Cellular Phone Services - Cellular plans have been converted to "consolidated minutes" or "bucket plans" which has resulted in significant reduction of cellular phone costs for the City.

Windows 2003 Upgrade – City applications reside on server software called Windows NT 4.0. This software is no longer sold or supported by Microsoft. The upgrade of this software will lead to

a supported operating system with increased interoperability, productivity, security and network stability.

Integrated Public Safety System (IPSS) – The current Public Safety System is out of date and does not provide redundancy or adequate communications between Public Safety Agencies. The new Integrated Public Safety System will consolidate all Public Safety networks into one, lower maintenance and monitoring costs, and provide redundancy in a disaster situation.

Burglar/Fire Alarm – This project will standardize burglar and fire alarm systems, making them easier to maintain and provide better customer service due to improved response times to alarms and repairs.

AS/400 Application Migration – The AS/400 system contains critical applications such as automated collections, business tax, mandatory garbage and permit tracking. The system's age has resulted in increased costs in maintenance and hardware replacement costs. All applications currently on the AS/400 must be moved to a supported environment in order to provide application stability and protect the City revenue stream from failure.

SUN Technology Refresh – This technology refresh allows the City to meet the increased processing needs of critical applications and provide necessary storage space for emerging applications. The technology refresh will replace outdated equipment and increase services to all City agencies and departments.

This report will provide a summary of each proposed technology upgrade and the current status of the proposed technology projects.

FISCAL IMPACT

IT strives to cap technology costs and provide significant cost saving benefits, while maintaining the quality of service for the citizens of Oakland. In general, cost savings are a direct result of decreased maintenance costs when replacing old equipment with newer, more efficient equipment, decreased staff labor cost due to less overtime expenditures, increased productivity due to significant software upgrades and increased security to the entire City infrastructure. A breakdown of the fiscal impact of all ongoing technology projects undertaken by IT follows:

> **VOIP** - Through the deployment of Voice over IP equipment, the City will be able to reduce its SBC Centrex charges (currently $2,400,000 per year) by almost $1,000,000 per year. The resulting savings will cover the cost of this initiative along with that of the network equipment replacement covered below and provide on-going cost savings in future years.

> **NETWORK UPGRADE** – The costs for this initiative will be funded by the near term cost saving benefits from the installation of the new technology (IP telephones). IP telephones utilize the same data network on which computers receive their information. This combination of voice and data (converged network) allows for the use of a single network in order to provide telephone and computer services and results in reduced maintenance costs.

The $1,000,000 savings obtained via the VOIP project will be utilized for network upgrade and cover the cost of this initiative.

MISCELLANEOUS CABLING – The ability to cap cabling costs by hiring an outside contractor will result in efficiencies of time and reduction of City staff overtime. These costs will be charged back to departments and agencies that request the work. The result is a potential cost savings of $102,000.00 over the 2003-2005 fiscal years. Due to current staffing levels, cabling projects are handled on overtime typically on Saturdays. Many of these projects experience delays due to the limited City resources to accomplish these projects. Indirect cost savings will include more efficient use of existing staff resources and increased productivity due to reduced overtime.

RADIO UPGRADE – Upon approval, the replacement of old radio equipment with more efficient equipment will result in no fiscal impact for the first year of a 10 year lease. The second through the ninth year fiscal impact is expected to be covered by the revenue generated by the radio replacement fund. Yearly payments to the lease provider shall not exceed $1.3 million. This expenditure will result in increased coverage in the Eastern Hills, reduced maintenance costs through standardization, increased over the air security, better response times and improvement in communications between public safety agencies.

CELLULAR COST REDUCTION – City of Oakland has aggressively pursued cost containment of cellular services. Cost containment measures have resulted in a reduction of expenditures from AT&T totaling $71,000 per year and $125,000 from Nextel, yielding an annualized total result of $196,000 per year. Next steps in this process are the modifications of the existing Administrative Instruction (AI) for Cellular Services. In conjunction with this modification, Information Technology is drafting recommendations concerning the use of a technology allowance and fixed rate cellular phones. This recommendation will include some additional cost savings proposals for cellular Cost containment.

WINDOWS 2003 (W2k3) – The existing operating system upon which most City applications reside is no longer supported by Microsoft. Emerging solutions to email spam and pop-ups require that a supported operating system be utilized, which ensures better security and additional stability for any emerging application. This upgrade will include the contracting of a Professional Services group which will assist in the transition to the new operating system. The budgeted amount of $616,450 will include hardware purchases, professional services and maintenance agreements for this upgrade.

IPSS – The Integrated Public Safety System (IPSS) project budget consists of the following:

1) A one time not to exceed amount of $8,774,750 for Motorola's IPSS solution, which is comprised of a Police and Fire Computer Aided Dispatch (CAD) System, Police and Fire Records Management System (RMS), Police Corrections Management System (CMS) and Police and Fire Mobile Data Communications Systems. This amount will be paid from FY 2002-03 through FY 2004-05.

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2) A five (5) year agreement with Motorola for maintenance, new software release commitment, and installation services for FY 2005-06 through FY 2009-10 for an amount not to exceed $5,250,000.

3) Additional supporting third party vendor agreements for non-recurring costs for products and services for an amount not to exceed $3,097,000 and recurring costs for communications services, for an amount not to exceed $760,000 for FY 2002-03 through FY 2004-05.

4) A contingency amount not to exceed $500,000 for FY 2002-03 through FY 2004-05.

Indirect fiscal impacts include the increased presence of police officers on the street due to increased communication, a more efficient public safety services to the citizens, enhanced emergency services and increased operating efficiencies throughout the public service sector for Oakland.

BURGLAR/FIRE ALARM CONTRACT – The City supports and maintains the majority of burglar and fire alarm systems for City owned buildings. Current costs for maintaining outdated burglar and fire alarm systems total over $31,000 in material and vendor costs and over $20,000 in internal labor costs for a total of $51,000 per year. Initial costs for upgrading the systems will be determined upon responses from the RFP. The result of this contract would be increased efficiency and response times for burglar and fire alarm installations and repairs.

AS/400 APPLICATION MIGRATION – The hardware maintenance cost of the IBM AS/400 is currently $50,000 per year, and is due to start increasing by 18-25% per year. Over the next five years Oakland would need to budget between $400,000 and $450,000 for AS/400 hardware maintenance and replacement parts. The current maintenance contract will terminate in August 2004. This future escalating cost will be removed from the City's budget by July 2004, replacing it with a much lower and fixed cost on the SUN system.

Costs to move from the IBM AS/400 platform include hardware costs and professional services. These costs will be covered with the savings reaped from transfer of applications and data to the newer supported system and the added protection provided to the City's revenue stream.

SUN REFRESH – The technology refresh is a part of the existing lease agreement with GE Capital. Up front costs for the project would be $300,000 from the CEDA PERTS project, $200,000 from the AS/400 Application Migration project, and $641,800 approved by Council for the SUN Refresh, spread out over 2 years. All other costs to the City will not exceed already budgeted amounts for the Sun system over the next five years.

BACKGROUND

IT continues to be proactive in analyzing what existing technology can benefit the City of Oakland. Most technology implementations are viewed with long term financial gains, many of which can be seen in increased productivity and lower staffing costs. Immediate fiscal gains are realized when expensive, outdated systems are replaced with more efficient, less costly systems. IT intends to continue to provide both long and short term financial benefits by choosing and implementing projects that will continue to provide lower maintenance and monitoring costs, reduce expenditures and expand capabilities.

Immediate cost reductions have been realized by optimizing cellular service plans, while larger projects such as Voice over IP, AS400, W2k3 and Network Upgrades promise to provide millions of dollars in cost savings within the next five years.

KEY ISSUES AND IMPACTS

Key issues and impacts of all ongoing technology projects consist of the following:

Aging equipment – Costs to maintain aging equipment far surpass the cost of replacing the equipment. With newer equipment, standardizing can occur and maintenance and monitoring costs can be contained.

Increased technology – The replacement of old technology opens the door for new capabilities. In the case of the AS400, replacement of this system would allow applications to be web-enabled. Replacement of the telephone systems with VOIP will allow for enhanced 911 capability (where individuals can be pinpointed by emergency services personnel by the location of the phone), while the W2k3, Radio and IPSS project will provide enhanced capability and interoperability between public safety agencies.

Increased security – Safe guarding City resources is critical. The technology being implemented in the VOIP, Radio, Networking Upgrade, AS400, W2k3, IPSS and Burglar/Fire Alarm systems, all encompass security as a critical component. For example, replacement of the Radio Systems will ensure that conversations between police and fire remain confidential, while networking and W2K3 upgrades will ensure that outside hackers will be constrained from invading sensitive City data. The Sun Refresh project and IPSS will expand storage capabilities and place critical data in a location that can survive a natural disaster.

In general, the cost of not implementing the above named projects will result in escalating costs throughout fiscal year 2003-2005 and in future years, compromising the ability to maintain a reliable, secure network and affecting revenue streams by interrupting continuity of business practices.

PROJECT DESCRIPTIONS/STATUS

VOIP- Escalating costs due to an aging telephone system needed to be contained while improving telephone services. By integrating the data and telephone network, the City will cut costs, improve communications, upgrade the data network and replace aging telephone systems. The proposed combination of the telephone and data network into a converged system is called Voice over Internet Protocol (VOIP).

> **Status:** Requests for Information were due on September 17. Shoreline Communications was chosen as the final vendor on October 31. Currently, a scope of work has been submitted to the City for review and upon completion of negotiations, the contract will be presented to Council. Installation and implementation is expected to take 6 months.

NETWORK UPGRADE – The data network is the structure upon which all information transfer takes place. The ability to provide a reliable and secure platform is essential for City functions. The proposed network upgrade will replace aging network equipment with a more robust, secure and reliable network, giving City of Oakland employees results that include increased speed, more uptime, and increased security. The Network Upgrade will place the network on a supported maintenance agreement and provide a solid platform upon which the VOIP implementation can reside.

> **Status:** In the 2003-2005 budget, Council approved $500,000.00 in Capital improvement funds, in order to bridge the period between cost realization and the cost incurred by the requested lease. Cisco Systems has been in contact with and will propose the use of Oakland vendors as part of this overall project. It is anticipated that with the City Council's approval, the upgrade of the network in Frank H. Ogawa Plaza, Municipal Service Center and Museum will be completed by December 2004.

MISCELLANEOUS CABLING – This contract covers wiring for telephone and computers systems. The City will contract large cabling projects to a company who specializes in cabling. By contracting large cabling jobs, the City can shorten cabling project durations, reduce cabling project costs & better utilize established staff.

> **Status:** Tucker Technologies was chosen as a final vendor through an RFP process. The Cabling Contract will be presented to Committee upon completion of negotiations.

RADIO UPGRADE- The radio systems currently in place are those used by the public safety employees to communicate. Over time, current radio equipment has become out of date and radio coverage has been compromised. By standardizing on new equipment the radio upgrade will improve coverage area (particularly in the Eastern Hills), reduce maintenance costs, improve safety

communications, replace old technology, improve security, enhance data capabilities, and increase efficiency.

> **Status:** The Radio upgrade will consist of a sole source provider. M/A-Com is the provider of choice and will be submitting a final cost proposal for the project. It is anticipated that a formal proposal will be obtained and authorization sought from Council by Summer 2004. The upgrade will be complete by December 2005.

CELLULAR COST REDUCTIONS – The need to reduce City expenditures resulted in a re-valuation of cellular plans. Cellular phone costs are being reduced by switching from an individual minute plan to a consolidated "bucket plan" from which all cellular phones are serviced. The result is a decrease of over $16,000 dollars per month and approximately $196,000 per year.

> **Status:** Phase 1, the consolidation of cellular plans into two providers under bucket plans, is complete. IT has seen a significant reduction in cellular expenses and will continue to monitor the bucket plans for additional cost savings. Additional recommendations will be presented by May 2004 for consideration.

W2K3 MIGRATION – Most critical City services (including email) currently reside on NT 4.0, an operating system that is no longer supported by Microsoft. As the operating system ages, maintenance and software licensing costs will escalate and below-standard security could compromise critical City applications. The upgrade will diminish spam, increase security and decrease the use of staff resources due to centralized management.

> **Status:** Currently, the Windows 2003 team has been assembled and the RFP was released to the public on January 21, 2004. RFP submissions are due by February 23 and final vendor selections to be completed by March 8, 2004. The implementation is expected to take 8 months.

IPSS – The ability to communicate effectively between public safety organizations is critical. The existing Public Safety system is outdated and incapable of providing the necessary support due to diminishing vendor support and antiquated equipment. IT is updating and consolidating all public safety systems into a consolidated network, ensuring increased communication, better reliability and superior public service to the citizens of Oakland.

> **Status:** This Project is slated for completion by September 2004.

BURGLER/FIRE ALARM CONTRACT – The City's current alarm system needs standardizing and upgrading in order to effectively protect City employees and assets. In order to provide better customer service, improve response times for maintenance and better utilize existing resources, the City will use a contractor to provide all alarm installation and maintenance services.

> **Status:** The RFP is being drafted and is targeted for completion on March 15, 2004. IT proposes to have a contractor selected by May 2004 and the work will be complete by September, 2004.

AS/400 APPLICATION MIGRATION – The AS/400 contains applications which are of a critical nature to the City. These applications (e.g. Automated Collections, Business Tax, Permit Tracking) track over $100 million of annual revenues.

The IBM/AS/400 has reached obsolescence. IBM no longer supports the system software. Hardware can only be maintained with salvaged and refurbished parts. In order to ensure continuity of City processes, it is necessary to transfer these applications to a supported system (SUN). Moving the AS/400 applications to the new SUN server will lower maintenance costs, provide enhanced application capabilities, and insure a more stable and inexpensive platform for mission critical City applications.

> **Status:** A Request for Information on the methodology that companies would use to convert the AS/400 programs to the SUN Microprocessor platform was completed on November 21, 2003. Over 80 vendors were contacted. Only 6 Vendors replied. The responding vendors have since been requested to respond to a Request for Quotation. The replies are due by January 20, 2004. All responses will be evaluated no later than January 30. Selection of vendor is planned for February 20. Completion is planned for 4 months following Council approval.

SUN REFRESH – E10 TO F15 – The SUN server supports mission critical applications such as the payroll, finance, and budgeting systems. In order to maintain functionality of these mission critical systems, the City included in the Council Approved Lease Agreement with GE Capital a clause allowing them to refresh technology mid-way during the lease. This technology refresh will result in more storage capacity and processing power for the increasing demands of City applications *without increasing lease amounts.*

> **Status:** A recommendation will be presented to Council in February. Upon Council approval, implementation is tentatively scheduled 60 days after the execution of the contract.

SUSTAINABLE OPPORTUNITIES

ENVIRONMENTAL
Old, hazardous equipment will be replaced with newer up to date and more environmentally friendly equipment.

Enhanced communications will result in the elimination of transportation costs and pollution.

ECONOMIC
Local vendors will be utilized wherever possible, providing direct economic benefits to the City.

DISABILITY AND SENIOR CITIZEN ACCESS

The AS400 transfer will enable applications to become Web capable, allowing disabled and senior citizens to easily avail themselves of city services.

VOIP and Network Upgrade technology will allow text messaging to the telephone, facilitating communications for both senior and disabled individuals.
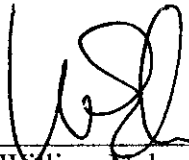
RECOMMENDATIONS AND RATIONALE

The purpose of this document is to delineate the actions of the Finance and Management Agency Information Technology Division in actively pursuing means to contain the overall costs of information technology. IT believes that these projects present a unique opportunity to enhance existing technological capabilities by upgrading/replacing obsolete equipment, software and hardware while cutting costs.

The deployment of new technology will result not only in cost containment but also improved City services for the City of Oakland citizens.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the Finance and Management Committee accept this informational report.

Respectfully submitted,

William Noland, Interim Director
Finance and Management Agency

Prepared by:

Bob Glaze, Manager
Damaris Sambajon, Project Manager II
Jane Postiglione, Telecom Supervisor
Terry Allen, Network Architect
Dennis Doss, Electronics Supervisor
Sam Thomas, Information Systems Supervisor
Jim Mahoney, Project Manager I
Randall Sacrison, Information Systems Supervisor

APPROVED AND FORWARDED TO THE FINANCE
AND MANAGEMENT COMMITTEE

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