SANTA BARBARA COUNTY
BOARD AGENDA LETTER

Agenda Number:
Prepared on: 10/9/03
Department Name: Auditor-Controller
Department No.: 061
Agenda Date: 10/21/03
Placement: Administrative
Estimate Time: 5 min
Continued Item: NO
If Yes, date from:

TO: Board of Supervisors

FROM: Bob Geis, Auditor-Controller

STAFF   Project Manager, Property Tax Integration,
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SUBJECT: Replacement of Mainframe Equipment

Recommendation(s):

That the Board of Supervisors:
Approve the attached Budget Revision Request to appropriate $120,000 to procure equipment to replace the existing mainframe machine.

Alignment with Board Strategic Plan:
Goal 1: An efficient government able to anticipate and respond effectively to the needs of the community.

Executive Summary and Discussion:

Staff is requesting an equipment appropriation from the existing Auditor Automation Designation (9734) to purchase replacement equipment for the mainframe. While 2/3 of mainframe expense is comprised of system labor costs and associated overhead, this board letter is focused specifically on mainframe hardware and licensing of software costs. Staff will research the potential of optimizing labor costs at a future date.

The benefits of the new equipment are twofold: 1) cost savings; and 2) reduce the risks long term for the remaining system.

There is sufficient cost data to support the procurement of replacement equipment using mainframe emulation software to run the existing mainframe applications. It is very possible that the County will be able to run on a smaller machine thus optimizing cost savings. Since there are too many variables to determine the exact size of the machine, staff is proposing to pay for a trial service to run the systems on the new equipment. The initial trial cost of $5,000, would be credited to the final contract, assuming the County decided to procure the new equipment. Once the data from the trial run is available staff will determine the size of machine and corresponding additional options at a price not to exceed $120,000.

What kind of hardware is being considered?

The recommended machine to replace the existing mainframe equipment is an Intel box with mainframe emulation software. The box has "enabling" software that allows Intel-based processing of mainframe software. Estimated costs include onsite installation by the vendor, training for County staff, and technical support. The vendor performs the conversion to the new equipment and assists in verifying that the system is running accordingly. General Services has upgraded mainframe equipment several times over the years without significant impact to the mainframe customers and does not foresee any additional risk with using this particular technology.

The vendor is proposing a PC based machine instead of a mainframe box because IBM no longer provides systems under 30 MIPS (MIPs refers to speed of machine, MIPS discussion to follow), or smaller sized machines. Since licensing costs are determined by the size of machine, it is important that the mainframe is sized according to the optimal minimum computing needs. Since the county-wide migration of systems from the mainframe, the remaining systems are running on a machine much larger than necessary (22 MIPS).

What Systems would share the machine?

The three remaining systems on the machine are Property Tax, Sheriff and Probation and have all agreed to participate in the hardware purchase.

Probation case management system expects to migrate off the mainframe in July of 2004, which is six months after the implementation of the new equipment in January 2004. It is cost effective to participate in the new equipment rather than bearing the full license and hardware maintenance for the existing machine for six months. Furthermore, participation on the new machine will serve as an insurance policy for cost savings in the event Probation experiences delays in their project.

Finally, the Property Tax team has projected to leave the mainframe in July 2005. The goal is to operate the new equipment at an efficient cost so that if opportunities arise to expand the scope of the property tax system, it will not be cost prohibitive to extend the Tax system migration date.

What are the cost savings for purchasing new equipment?

Since the hardware and licensing costs are significant, upgrading equipment with one-time fees is cost effective. The total mainframe hardware and licensing costs would be reduced by approximately $285,000 over a three year period by converting to the smallest 8 MIP machine and $188,000 for the 18 MIP machine, assuming a January, 2004 implementation.

What's are MIPS and how many MIPS are required?

MIPS refer to the sizing of the machine and the capacity at which it processes Million Instructions Per Second. The vendor will assist staff with the selection of an 8 MIPS vs. an 18 MIPS machine. We are waiting to conduct the sizing analysis during the trial. In addition, Alan Dipirro, a professional contractor,

has been hired to provide sizing analysis through a contract not to exceed $1,000. The general consensus is that the 8 MIP machine will be sufficient, particularly since Probation is planning to migrate off the machine after six months. An upgrade to 18 MIPS would take one hour of notice for the vendor to make the switch remotely. Concurrently, the software licensing agreements for non-IBM software would have to be upgraded as well.

Who is in charge of the new equipment and who will run the billing?

General Services has determined that the management of the mainframe will transfer to the departments upon purchase of the new equipment. Auditor-Controller is proposing to provide the upfront funds for the equipment from the automation designation. Cost allocation to the mainframe partners will be determined via an MOU prior to acceptance of the equipment.

How will the equipment be purchased?

The County of Santa Barbara conducted three open bids and intend to select a vendor from the approved list from the Purchasing division. All vendors and related manufacturers have been verified as low risk businesses through Dun & Bradstreet reports.

What are the risks for swapping out new equipment?

The risk is limited to $5,000 in trial cost since the vendor and staff will verify that the new machine meets production expectations during the trial run. The General Services team has upgraded hardware several times over the life of the mainframe with minimal impact to service.

Are there any benefits beyond cost?

The main benefit would be the ability to extend the life of the mainframe applications because the new equipment is capable of upgrading to a new operating system, unlike the existing equipment. IBM may not support the existing operating system starting Fall of 2004. Due to Sheriff's recent delays with the development of an alternative system, it is probable that they will continue to operate on the new equipment beyond two years, thus creating additional hardware savings for the project. It should be noted that upgrading the operating system will result in additional software expense that has not been included in the provided cost analysis.

Are there cost savings related to the decentralization of the mainframe?

The determination of policy issues and establishment of the rates for the mainframe was historically centralized with General Services. General Services has determined that the responsibility of the mainframe will transfer to the departments upon purchase of the new equipment. It is important to note, that while this management structure may be more efficient with so few customers, **responsibilities are simply being shifted to the departments and do not necessarily result in cost savings.** Substantial department staff time will continue to be focused on mainframe operations and management.

Staff will continue to observe and report the cost impact of decentralization as data becomes available.

Mandates and Service Levels:
None.

Fiscal and Facilities Impacts:
Up to $120,000 for replacement mainframe equipment and associated software, 0001, 061, Acct 7455, Prog 1011.

Special Instructions:
None.