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Committee Item	No.	5	
Board Item No.		-	

COMMITTEE/BOARD OF SUPERVISORS

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Committee:	Budget and Finance SUB-Commit	ttee
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	Motion Resolution Ordinance Legislative Digest Budget and Legislative Report Ethics Form 126 Introduction Form (for hearings Department/Agency Cover Lette MOU Grant Information Form Grant Budget Subcontract Budget Contract/Agreement Award Letter	5
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OTHER	(Use back side if additional spa	ce is needed)
	· -	Date: _April 1, 2011 Date:

An asterisked item represents the cover sheet to a document that exceeds 25 pages. The complete document is in the file.

Item 5	Department(s):	* .	
File 10-1519	Department of Technology		

EXECUTIVE SUMMARY

Legislative Objective

Hearing on the Committee on Information Technology's (COIT) request for release of \$6,393,373 placed on reserve by the Board of Supervisors for Information Technology (IT) salary expenditures in 14 City departments.

Key Points

During the FY 2010-11 budget deliberations, the Board of Supervisors placed \$6,393,373 on reserve, "pending information on the progress of IT consolidation". Although IT consolidation includes facilities, equipment, and positions, the current plan is to consolidate City departments' servers and data equipment at two facilities, the Airport and 200 Paul Street.

The Department of Technology does not anticipate cost savings in FY 2010-11 from data center consolidation, but estimates cost savings of \$308,739 in FY 2011-12.

While the City will incur certain costs for constructing the new consolidated data center at the Airport and leasing additional space for the consolidated data center at 200 Paul Street, the associated savings from the two new consolidated data centers is less certain. Any savings from data center consolidation will require City departments to reduce their expenditures for IT salaries and equipment.

Fiscal Impact

Approval of this request would result in the release of \$6,393,373 on reserve, which represents approximately ten percent of IT staff salaries in the 14 subject City departments. Not approving the requested release of \$6,393,373 in funds on reserve would result in the layoff of existing positions in the 14 City departments.

Policy Considerations

Because neither "progress on consolidation" was defined at the time of the establishment of the subject reserve nor specific guidelines for measurement of such progress were provided to either COIT or the Department of Technology, evaluation of the progress toward consolidation and therefore the release of the \$6,393,373 is a policy decision for the Board of Supervisors.

Recommendations

- 1. Request that the Department of Technology provide status reports on the data center consolidation project every six months, with the first report due on June 1, 2011. The status report should provide details on (1) the project costs and timelines for constructing the Airport data center, (2) increased license costs for 200 Paul Street, (3) the transfer of data equipment and positions from City departments to the consolidated data centers at the Airport and 200 Paul Street, and (4) specific reductions in City departments' IT budgets for equipment, positions and other costs related to data center consolidation. If the City departments have not achieved budgetary savings from the data center consolidation project, the Department of Technology should provide the reasons.
- 2. Release of the requested \$6,393,373 funds on reserve is a policy matter for the Board of Supervisors.

MANDATE STATEMENT AND BACKGROUND

Mandate Statement

Section 3.3 of the City's Administrative Code provides that the Board of Supervisors or the Budget and Finance Committee may place requested expenditures on reserve which are then subject to release by the Board of Supervisors or Budget and Finance Committee.

Background

Establishment of Reserve

During the consideration of the City's FY 2010-11 budget at the July 13, 2010 Board of Supervisors meeting, the Board of Supervisors placed \$6,393,373 on reserve in 14 City department's FY 2010-11 budgets as "IT salary expenditure appropriation reserves pending information on the progress of consolidation" (Annual Appropriations Ordinance; File 10-0701). According to staff from the Controller's Office, this \$6,393,373 reserve represents approximately ten percent of the IT staff budgets in the 14 subject departments (see Table 1 below for the funds reserved in each City department). Neither the Annual Appropriation Ordinance nor the Board of Supervisors provided a specific definition of the "progress of consolidation" that was required in order to release the subject funds on reserve.

Additionally, according to Mr. Jon Walton, Director of the Committee on Information Technology (COIT) ¹, no specific metrics for evaluating progress were provided to him when the reserve was established. According to the July 22, 2010 COIT meeting minutes, the "Board of Supervisor's IT reserve release was dependent on the Data Center Plan", discussed below, and "on all of the IT centralization issues (email, fiber, licensing, etc.)". The letter requesting release of the \$6,393,373 reserve states that the funds were placed on reserve "pending a progress review on the consolidation, standardization, and optimization of City and County of San Francisco (City) technology operations and applications."

Initial COIT Discussions on IT Consolidation

COIT first formally discussed consolidating City departments' IT resources in January 2010. At the May 20, 2010 meeting, COIT members endorsed data center consolidation, and created a working group, comprised of approximately 15 to 20 City department IT and budget managers, to develop a plan for consolidating City departments' IT resources. While consolidation of City departments' IT resources includes consolidating facilities, equipment, and staff, the working group has focused on facility and equipment consolidation.

¹ The Committee on Information Technology is comprised of 13 members representing the Mayor, Board of Supervisors, and City departments whose purpose is to provide the necessary technology policy, procedures, and oversight to ensure that the City meets its goals and objectives, in accordance with Administrative Code Section 3.24.

The Data Center Consolidation Project

City Departments' Existing Data Centers

The City and County of San Francisco currently houses its IT equipment (approximately 1,500 servers plus storage and mainframe computers) in a number of data centers, rooms and closets throughout the City. According to one COIT report², "this dispersed approach leads to duplicated support costs and greater exposure to risks such as power failures, excessive heat and tampering...Currently, City departments are competing for limited funds to build and operate standalone data centers. In other cases they are housing servers in unsuitable locations."

Facility and Equipment Consolidation

The COIT working group analyzed 12 potential data center locations and scored each alternative according to a set of criteria. This numeric scoring data was evaluated by the working group in conjunction with other information related to total available space, availability of non-General Fund sources, ability to replicate servers in remote locations, business alignment, and time to execute.

Subsequently, based on the information gathered and analysis performed by the COIT working group, the COIT members at the December 16, 2010 COIT meeting approved a plan to have two consolidated data centers for the City, one of which is located at the Airport.

200 Paul Street received the second highest score for locating a consolidated data center, based on the working group's scoring of alternative data center locations³. After reviewing options for reducing the costs of a second consolidated data center, COIT members approved 200 Paul Street as the location of the second consolidated data center in the February 24, 2011 meeting.

DETAILS OF PROPOSED LEGISLATION

The proposed request is to release \$6,393,373 previously placed on reserve by the Board of Supervisors in the following 14 City departments, as shown in Table 1 below.

SAN FRANCISCO BOARD OF SUPERVISORS

² "City and County of San Francisco Data Center Consolidation: Final Report and Recommendations," Committee on Information Technology, December 9, 2010.

³ As noted in the Fiscal Impact section of this report, the Department of Technology currently has a five-year license agreement with UnitedLayer, from February 1, 2011 through January 31, 2016, in which the Department of Technology leases server cabinet and cage space at 200 Paul Street from UnitedLayer to house the City's mainframe, server, and data equipment. The Board of Supervisors approved the license agreement in January 2011 (File 10-1495).

Table 1:
FY 2010-11 IT Salary Expenditure Appropriation Reserves by Department

Department	Reserve
Airport	\$ 638,684
Controller	459,193
Department of Building Inspection	147,976
Department of Emergency Management	168,796
Administrative Services (General Services Agency)	115,840
Public Works (General Services Agency)	314,593
Technology (General Services Agency)	887,550
Human Services Agency	570,305
Police	327,314
Public Health	1,465,780
Public Library	111,354
Public Utilities Commission	914,398
Retirement System	103,266
Treasurer/Tax Collector	168,325
Total	\$ 6,393,3734

Source: Annual Appropriations Ordinance

As noted above, according to the Controller's Office, the subject \$6,393,373 reserve represents approximately ten percent of the IT staff budgets in the 14 above-noted City departments.

FISCAL IMPACT

Approval of this request would result in the release of \$6,393,373 that is currently on reserve, to fund the ongoing salaries and fringe benefits to pay the existing IT staff in each of the 14 City departments listed above. Since the reserve amounts applied to each of the 14 departments were calculated based on approximately ten percent of each department's IT staff budget, the reserves do not represent the costs of specific positions in the departments.

Not approving the requested release of \$6,393,373 in funds on reserve would result in the layoff of existing positions in the 14 City departments. However, the specific positions that would be laid off have not been identified.

⁴ The table included in the FY 2010-11 Annual Appropriations Ordinance shows the individual departmental reserve amounts as listed in Table 1 above. Note that due to rounding, the sum total listed in the FY 2010-11 Annual Appropriations Ordinance erroneously shows \$6,393,373, which is one dollar less than the sum of the amounts shown for each department.

COIT's Estimates of Data Center Consolidation Costs and Savings

COIT does not anticipate cost savings in FY 2010-11 from data center consolidation, but as shown in the Attachment provided by the Department of Technology, COIT estimates cost savings of \$308,739 in FY 2011-12.

While the City will incur certain costs for constructing the new consolidated data center at the Airport and leasing additional space for the consolidated data center at 200 Paul Street, the associated savings from the two new consolidated data centers is less certain. Any savings from data center consolidation will require City departments to reduce their expenditures for IT salaries and equipment.

Estimated Costs of the Consolidated Data Center at the Airport

The Airport has begun planning and designing a new consolidated data center located at 26 McDonnell Road adjacent to the Airport's existing data facility, with expected development costs of approximately \$6 million and a completion date in approximately May 2012. Development of the proposed consolidated data center would be financed by Airport revenue bonds over 20 years, with the initial debt service payment of an estimated \$495,400 in FY 2012-13. Ongoing operating and maintenance costs for the new Airport data center are estimated to be \$743,320 per year, beginning in FY 2012-13 (see Attachment).

Airport revenue bonds to finance the proposed consolidated data center were previously approved by the Board of Supervisors in May 2008 (File 08-0590). Debt service and ongoing operating/maintenance costs would be allocated to the General Fund and non-General Fund departments using the consolidated data center.

Estimated Costs of Locating a Second Consolidated Data Center at 200 Paul Street

The Department of Technology currently has a five-year license agreement with UnitedLayer, from February 1, 2011 through January 31, 2016, to lease 30 server cabinets and two caged areas at 200 Paul Street. The annual cost of the license for the first year is \$1,770,180. According to Mr. Ken Bukowski, Department of Technology Chief Financial Officer, consolidating the second data center at 200 Paul Street could be achieved within the existing license agreement between the Department of Technology and UnitedLayer. Under the existing license agreement, the Department of Technology can increase the number of racks used for data equipment, with estimated increased annual costs of \$179,400 in FY 2011-12 and FY 2012-13. Therefore, the annual license cost would be \$1,949,580 (\$1,770,180 plus \$179,400).

Consolidated Data Center Cost Savings

COIT anticipates that consolidation of City departments' servers and data equipment would reduce the need for the additional 200 Paul Street data center space after FY 2012-13. Therefore, according to Mr. Bukowski, although the Department of Technology would continue to lease space at 200 Paul Street under the existing license agreement, which expires on January 31, 2016, the additional \$179,400 in increased license costs for the consolidated data center at 200 Paul Street would be eliminated beginning in FY 2013-14.

While the City will incur initial costs of \$1,550,000 in FY 2011-12 and FY 2012-13 for the "virtualization" of servers⁵, these costs are offset by estimated reductions for the purchase of new servers of \$1,697,000, as shown in the Attachment.

Additionally, COIT projects salary savings of \$591,139 in FY 2011-12 through attrition of an unspecified number of Citywide data center related IT position.

Summary of Costs and Savings

As shown in the Attachment, COIT estimates that the data center consolidation project would incur increased costs, as follows:

(1) Development of the new consolidated data center located at the Airport,

- (2) An increase in the existing license agreement between the Department of Technology and UnitedLayer for the consolidated data center space located at 200 Paul Street,
- (3) Purchase of new "virtualization" equipment and services, and
- (4) Staff training.

As shown in the Attachment, COIT estimates that the data center consolidation project would incur savings, as follows:

- (1) Reduced purchases of hardware and data equipment, and
- (2) Salary savings from reductions in City departments' IT positions.

Based on the costs and savings reported by COIT as shown in the Attachment, COIT projects net savings to the City of \$308,739 in FY 2011-12, \$29,386 in FY 2012-13, and \$1,714,980 per year in FY 2013-14 through FY 2015-16.

As noted above, while the City will incur certain costs for the consolidated data center project, the associated savings are less certain.

Consolidation Project Staffing Proposal by the Department of Technology

According to Mr. Walton, the data center consolidation project will require two years to complete and the resources of seven full-time staff for project management, technical work, change management, communications and quality assurance, as shown in Table 3 below.

⁵ Currently, the City uses one or more servers for each operating system or application, such as the City's Financial and Accounting Management Information System (FAMIS). Under virtualization, physical servers are augmented by "virtual" servers, which are software programs that serve in place of physical servers. By purchasing "virtual" or software-based servers, the City can run several applications on one physical server, reducing the number and location of physical servers, and the staff costs necessary to maintain physical servers.

Table 3:
Cost of Proposed Consolidation Project Staff

	Total Cost	Number of	Total
Job Class	per Position	Positions	Annual Cost
0932 Data Center Consolidation Manager	\$169,550	1.00	\$169,550
1043 Senior IS Engineer	156,442	4.00	625,768
1042 IS Engineer	141,469	2.00	282,938
Total	\$467,461	7.00	\$1,078,256

The Department of Technology has hired the 0932 Data Center Consolidation Manager as of April 4, 2011. This position will be responsible for developing the detailed data center consolidation project plan to complete the project within two years.

According to Mr. Walton, in an effort to minimize project costs, COIT requested that departments with the highest IT staff budgets on reserve offer staff or vacant positions to collectively provide funding for the seven project positions, as shown in Table 4 below.

Table 4:

<u>Positions Offered by Departments to Fund the Seven Consolidation Project Staff</u>

Department	Filled/ Vacant	Job Class	Hire As
			0932 Data Center
Technology	Filled	0932 Manager IV	Consolidation Manager
Public Works	Filled	1043 Senior IS Engineer	1043 Senior IS Engineer
Police	Vacant	1043 Senior IS Engineer	1043 Senior IS Engineer
Public Health	Vacant	0933 Manager V	1043 Senior IS Engineer
Public Utilities Commission	Filled	1043 Senior IS Engineer	1043 Senior IS Engineer
		1824 Principal	
Controller	Vacant	Administrative Analyst	1042 IS Engineer
Human Services Agency	Vacant	1042 IS Engineer	1042 IS Engineer

According to Mr. Walton, the data center consolidation project will not incur new salary and benefit costs because the seven data center consolidation project positions are existing positions in the respective City departments' FY 2010-11 budgets. Mr. Walton states that these seven City departments will retain these seven project positions in their base budgets in FY 2011-12 and FY 2012-13.

POLICY CONSIDERATIONS

Since "progress on consolidation" was neither defined in writing in the Annual Appropriation Ordinance reserve nor specified by the Board of Supervisors in the July 13, 2010 Board of Supervisors meeting, and since no specific guidelines for measurement of such progress were provided to either COIT or the Department of Technology, evaluation of the progress toward consolidation and therefore release of the requested \$6,393,373 in funds on reserve are policy decisions for the Board of Supervisors.

Because savings from the proposed data center consolidation project are uncertain, the Board of Supervisors should request the Department of Technology to provide status reports on the data center consolidation project every six months, with the first report due on June 1, 2011. The status report should provide details on (1) the project costs and timelines for constructing the Airport data center, (2) increased license costs for 200 Paul Street, (3) the transfer of data equipment and positions from City departments to the consolidated data centers at the Airport and 200 Paul Street, and (4) specific reductions in City departments' IT budgets for equipment, positions and other costs. If the City departments have not achieved budgetary savings from the data center consolidation project, the Department of Technology should provide the reasons.

RECOMMENDATIONS

- 1. Request that the Department of Technology provide status reports on the data center consolidation project every six months, with the first report due on June 1, 2011. The status report should provide details on (1) the project costs and timelines for constructing the Airport data center, (2) increased license costs for 200 Paul Street, (3) the transfer of data equipment and positions from City departments to the consolidated data centers at the Airport and 200 Paul Street, and (4) specific reductions in City departments' IT budgets for equipment, positions and other costs related to data center consolidation. If the City departments have not achieved budgetary savings from the data center consolidation project, the Department of Technology should provide the reasons.
- 2. Release of the requested \$6,393,373 of funds on reserve is a policy matter for the Board of Supervisors. Not approving the requested release of \$6,393,373 in funds on reserve would result in the layoff of existing positions in the 14 City departments.

Harvey M. Rose

cc: Supervisor Chu
Supervisor Mirkarimi
Supervisor Kim
President Chiu
Supervisor Avalos
Supervisor Campos
Supervisor Cohen
Supervisor Elsbernd
Supervisor Farrell
Supervisor Mar
Supervisor Wiener
Clerk of the Board
Cheryl Adams
Controller
Greg Wagner

Data Center Consolidation - Projecte	Projected	d Return o	d Return on Investment	ent				
	CY FY10-11	BY FY 11-12	BY+1 FY 12-13	BY+2 FY 13-14	BY+3 FY 14-15	BY+4 FY 15-16	8Y+19 FY17-FY31	Total Through FY 29-31
Baseline - Estimated Data Conter Expenditures	nditurae					:		
Power	\$ 331 408	331 408	331 408	331 408	231 400 0	221 400	4 074 446	00100
Rent	\$ 1880.478	1 880 478	-	4 331,400	331,400	331,400	4,971,116	595,959,563
Staffing	\$ 11,822,779	\$ 11.822.779	\$ 11.822.779	\$ 11,822,779	4 11 822 779 9	1,880,478	0/1,/02,82	\$ 39,490,038
Equipment Refresh	\$ 3,394,000	\$ 3,394,000	\$ 3,394,000	\$ 3,394,000	\$ 3,394,000	3,394,000	\$ 50.910.000	\$ 71.274,000
1.000 M. W.	\$-17/428/665±	\$ \$4.590.077.437.5	\$ 17.428,665	\$\$#\$\#\#428\665#	\$# 317/428/665#E	\$\$17.4281665 XK	\$ 261/429 968	
Data Center Consolidation - Estimated Project Cost	Project Costs	- 10						
Phase I - Facilities								
Airport Investments, Tier II Facility	· ·		\$ 495,400	\$ 495.400	\$ 495,400	495 400	7.431.000	0412 600
Airport, New Ongoing Maintenance	69		\$ 743,320	\$ 743,320	\$ 743,320	743.320	11 149 800	\$ 14.123.080
200 Paul Transition, Additional Racks*		179,400	\$ 179,400	€	49			358 800
Subtotal	*	179,400	\$ 1,418,120	\$ 1,238,720	\$ 1,238,720 \$	1.238.720	18.580.800	\$ 23.894.480
Phase II - Equipment & Training								
Virtualization Equipment & Services	· ·	1,550,000	\$ 1,550,000	€	φ.	1		\$ 3,100,000
Training	· ·	5 250,000	Уэ	· ·	· 69		1	\$ 250,000
Subtotal		1,800,000	\$ 1,550,000		-	,		\$ 3,350,000
Establication Costs		\$_007,67,617,334	\$1. 2,968,120°	\$ 1.2387.20 1. \$		F 1.238,7/20	087367720 \$ # 0.238720 \$ 718580800 \$ 1207724480	\$ 27/244 480
Baseline Operational Savings								
Baseline Operations	\$ 17,428,665	17,428,665	\$ 17,428,665	\$ 17,428,665	\$ 17,428,665 \$	17,428,665	\$ 261,429,968	\$ 366,001,955
Savings from Consolidation - Equipment**	1 .	(1,697,000)	\$ (1,697,000)	\$ (848,500)	\$ (848,500) \$	(848,500)	(12,727,500)	\$ (18,667,000)
Savings from Consolidation - Staffing***	·	(591,139)	\$ (1,300,506)	\$ (2,105,200)	\$ (2,105,200) \$	(2,105,200) \$		
Subtotal	\$ 17,428,665	\$ 15,140,526	\$ 14,431,159	\$ 14,474,965	\$ 14,474,965 \$	14,474,965	217,124,473	\$ 307,549,716
The state of the s								
Fiolal Baseline - Consolidation costs - Fig. 1972 - Fig. 1974 - Fi		076671 11	6/7/660//1/-5	Self (1999 G. Self (1992) 9-58 (6-1/1685 Self (1971) 686-58 (777) (66-58)	107/4/16) (10)	10463006326	
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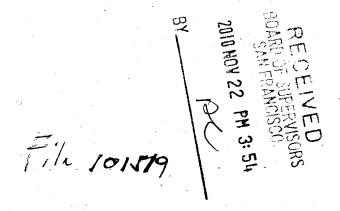
^{*} Assumes reduction in rack space over time at 200 Paul. ** In order to achieve early ROI, equipment refresh funding is reduced by 50% in first two years and 25% ongoing.

^{***} Staffing savings to come from elimination of vacant positions through attrition, increasing from 5% in FY11-12 s to 15% ongoing starting in FY13-14 after consolidation.



November 10, 2010

Honorable John Avalos, Supervisor Chair, Budget and Finance Committee Board of Supervisors 1 Dr. Carlton B. Goodlett Place City Hall, Room 244— City and County of San Francisco San Francisco, CA 94102



Dear Supervisor Avalos:

Included in the FY 10-11 Annual Appropriation Ordinance, the Board of Supervisors placed \$6,393,373 on reserve pending a progress review on the consolidation, standardization, and optimization of City and County of San Francisco (City) technology operations and applications. On behalf of the City's Committee on Information Technology (COIT), I respectfully request release of that reserve.

Airport Commission	638,684
Controller	459,193
Department of Building Inspection	147,976
Department of Emergency Management	168,796
General Services Agency – City Administrator	115,840
General Services Agency - Public Works	314,593
General Services Agency – Telecom & Info Services	887,550
Human Services Agency	570,305
Police	327,314
Public Health	1,465,780
Public Library	111,354
Public Utilities Commission	914,398
Retirement System	103,266
Treasurer/Tax Collector	<u> 168,325</u>
Total	6,393,373

COIT has diligently worked on a plan to consolidate the City's multiple data centers, while at the same time, ensuring that the hundreds of mission critical systems and applications are operational. In addition, COIT has moved the project of consolidating the City's current email systems to a hosted Microsoft Exchange email system forward with an aggressive rollout schedule which starts this month. Finally, the partnership of the Office of Contract Administration, the City Attorney's Office and the Department of Technology has moved enterprise technology contracts forward.

I am proud to say the City has come together like never before to address these issues. While much work is yet to be completed, the forward momentum is stronger than ever experienced in the City. I credit the leadership of Mayor Newsom and Supervisor Chiu with enabling our success to date.

The Committee is at your disposal should you have any questions.

1 11 1

Chris A. Vein

Chair, Committee on Information Technology

CC:

Ben Rosenfield Harvey Rose Greg Wagner