City of Fort Lauderdale #12-1250
City Commission Agenda Item

TO: Honorable Mayor & Members
Fort Lauderdale City Commission

FROM: Lee Feldman, City Manager

DATE: August 21, 2012

TITLE: Motion to approve purchase of computer software and hardware to upgrade the Public Works and City Hall Data Centers - $334,348.01

Recommendation

It is recommended that the City Commission approve the purchase of system hardware and software for the Public Works and City Hall Data Center, purchase an email archiving system, and virtualize databases for a total cost of $334,348.01 utilizing the following vendors and contracts:

- Computer Systems Support, Inc. (CSS) State of Florida IT Contract #250-000-09-1 - $176,043.70
- Dell Marketing Corporation, Western States Contracting Alliance (WSCA) Contract - $11,393.71
- Dell Marketing Corporation, State of Florida IT Contract #250-000-09-1 - $4,999.04
- Software House International (SHI), State of Florida Contract #252-030-09-ACS - $15,557.50
- Software House International (SHI), State of Florida Contract #252-001-09-1 - $126,354.10

Background

Several core components of the computer infrastructure located in the Public Works Administration Data Center are at end-of-life. For instance, the domain controllers (needed for such things as user authentication, directory services, and password policies) are more than 9 years old. Most of the essential components (operating systems, disk storage, databases) are no longer supported by the manufacturers (Microsoft and Dell) which means technical support is not available and replacement parts must be found from 3rd party sources. These systems either directly or indirectly support email, file storage, work order creation (Hansen), employee time keeping (Kronos), backflow monitoring (Tokay), Graphical Information Systems (GIS), printing, and user login and security.

Staff believes that these systems should be replaced with a newer technology known as "Virtualization." Virtualization allows for the consolidation of systems which requires less hardware, space, and power requirements. It also enhances disaster recovery capabilities by allowing the systems to be run on similar hardware located in other data centers. For instance, if the Public Works Data Center were to be damaged in a hurricane, most of the systems could still be run using the hardware located at City Hall. And the same applies for the systems already virtualized at City Hall. That is, those systems could be run on the hardware located at Public Works if the City Hall Data Center were damaged.

Moving to virtualization requires an upfront cost to purchase the necessary hardware and virtualization software. Because of this factor, multiple system upgrades must occur at the same time to make the transition cost effective. The level of high-availability and redundancy offered by the recommended system would be the equivalent of purchasing over 27 physical servers, plus the added benefits of disaster recovery. The virtualization system can be expanded in the future to support over 100 additional virtual servers at a fraction of the cost of stand-alone servers.

In addition to the hardware upgrades, Public Works must purchase an email archiving system. The email system has grown to the point where a backup cannot be performed in one evening. Because of this backups can only be performed on the weekends. This creates the potential of losing a week's worth of emails and prevents the ability to back up the email system during hurricane preparation procedures. This condition is also impacting our ability to fulfill public records requests.

Due to recent changes in how Microsoft licenses database software (by the number of 'cores' in a server rather than by the number of processors), it has become very expensive to purchase database licenses for stand-alone machines requiring processor/core licenses. The City Hall Data Center has 7 database servers that need to be replaced this year due to their age and manufacturer support expiration. For the same price of upgrading those seven database servers separately, the City can utilize virtualization to upgrade and consolidate over 20 of our databases. Virtualizing databases across the City offers the same disaster recovery abilities mentioned above.

Resource Impact
There is a fiscal impact to the City in the amount of $334,348.01.
Funding for this item is contingent upon approval by the City Commission of the FY2012 consolidated budget amendment scheduled for the August 21, 2012 agenda and as follows:

Funds Availability Location:

FUND	SUB FUND	FUND NAME	INDEX #	INDEX NAME	SUB OBJECT #	SUBOBJECT NAME	AMOUNT
001	01	GENERAL FUND	ITS010301	INFRASTRUCTURE & OPER	3401	COMPUTER MAINT	76529.7
450	01	WATER & SEWER	PBS010601	COMMUNICATIONS SUPPORT	3401	COMPUTER MAINT	7,791.80
450	01	Water & Sewer Operations	**PBS010601***	COMMUNICATIONS SUPPORT	3907	DATA PROC SUPPLIES	**84,454.56**
450	01	Water & Sewer Operations	**PBS010601***	COMMUNICATIONS SUPPORT	3946	TOOLS/EQUIP < $5,000	**4,338.60**
450	01	Water & Sewer Operations	**PBS010601***	COMMUNICATIONS SUPPORT	6404	COMPUTER EQUIPMENT	**90,175.85**
450	01	Water & Sewer Operations	**PBS010601***	COMMUNICATIONS SUPPORT	6405	COMPUTER SOFTWARE	**71,057.50**
				TOTAL			334,348.01

***Pending appropriation approval via Consolidated Budget Amendment**

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Department Director: Mike Maier

Finance Director Certification: _____