CITY OF STOUGHTON
FINANCE DEPARTMENT
207 S Forrest, Stoughton, WI 53589

(608) 873-6677 www.ci.stoughton.wi.us

Date: July 24, 2021

To: Finance Committee

From: Jamin Friedl

Subject: 2021 IT Department CIP Budget Amendment

The City's IT and Media Services Director has requested an amendment to the 2021 Technology Fund CIP Budget to take advantage of an offer to upgrade the City's Storage Area Network (SAN) that will result in savings of $59,000. The total cost of this project if agreed to by 8/11/21 is $78,780. If this is pushed into the 2022 CIP budget, the total cost is estimated to be $137,843. It is for this reason the IT and Media Services Director is requesting this amendment to the 2021 CIP Budget.

The City's Technology Fund balance through 7/26/21 is at $87,603 with remaining 2021 spending anticipated to total $10,000. This leaves a forecasted 12/31/21 balance of $87,603. The budget amendment being requested includes a funding request through the Technology Fund and Contingency Fund as noted below.

TECHNOLOGY FUND AMENDMENT		
EMC Unity 380 SAN	$	42,390
Vmware vSphere STND	$	13,516
	$	55,906

CONTINGENCY FUND AMENDMENT		
Base E5 Server	$	21,675
Labor	$	1,200
Project Contingency	$	2,125
	$	25,000
TOTAL	$	80,906

If this amendment is approved, the remaining balances in the Technology Fund and Contingency Fund are anticipated to be $21,937 and $20,935, respectively. It should be noted that while creating the 2021 budget the City increased the Contingency amount from $80,000 to $100,000 due to the uncertainty of the pandemic at that time. The City also chose to fund the entire $100,000 Contingency, which had not been done in the past.

Respectfully,

Jamin Friedl

With the ever-increasing need for storage, as well as hardware and software enhancements, I am requesting consideration for an early purchase.

EMC Unity is mass storage device similar to the current SAN (Storage Area Network) but will greater capacity and enhanced performance. With the end of quarter for EMC, Heavy discounts are available at this time. Example: the proposed Unity 380 has a list price of $101,452.82. With the end of quarter, that price has dropped to $42,389.50. However, this quote **is valid only until AUGUST 11, 2021.**

The narrative below explains each of the line items, there purpose and justification for this early purchase.

Base E5 Server System:

> These are our virtual server HOSTS. Each HOST contains the computer resources for all the virtual machines contained within the HOST. (Memory, CPU processor, virtual network Interface...etc). At the moment there are 23 virtual servers load balanced between the two HOSTS. A third HOST is housed elsewhere for disaster recovery. That HOST has a second production domain controller and all server replications.

EMC Unity 380

> The EMC Unity 380 is a mass storage device that has both more RAW and USABLE storage. In addition, it also is more efficient in handling data. If replaced, the current SAN will be re-tasked, replacing the storage at the Disaster site.

Vmware VSphere upgrade

> Will need to upgrade from the Essentials version we currently have to the Standard kit. One of the key features in the Standard kit is the ability to migrate not only servers from one to another but also migrate the datastore (all the data associated with the server) while still in production. This means there will be no interruption of workflow while new hardware is installed and all data is moved.

The following tables show both a preferred option as well as the minimum requirements for the hardware/software. Regardless of the option, professional services for installation would be ~$1,520.

Preferred:

QTY	Description	Unit cost	Extended Cost
1	EMC Unity 380 SAN (DPE and DAE)	$42,389.50	$42,389.50
1	Upgrade to Vmware vSphere Stnd Accelerator kit	$13,516.00	$13,516.00
		TOTAL	$55,905.50

Minimum:

QTY	Description	Unit cost	Extended Cost
2	Base E5 Server (sheet document for configuration details)	$10,837.31	$21,674.62
1	EMC Unity 380 SAN (DPE and DAE)	$42,389.50	$42,389.50
1	Upgrade to Vmware vSphere STND Accelerator kit	$13,516.00	$13,516.00
		TOTAL	$77,580.12

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Prepared By:
Robert C. Carns MCSE, CCNA, CCDA, MCNE, CCA

768GB RAM

Qty.	Description		Price
1	**Base E5 Server System Assembled As Follows:**	$	10,837.31
	Intel R2208WFTZS Chassis - RDNT 1300W Power		
	Intel Server Board S2600WT		
	2 x Intel Xeon 4208 CPU Octo-Core 2.10GHz		
	24 x 32GB Registered ECC DDR4-2933 (768GB Total)		
	Intel RAID Controller RS3DC080 w/ Cable Kit		
	3 x Intel 480GB SSD Hard Drives - RAID1, HS		
	No DVD-ROM		
	Integrated Graphics Controller		
	Integrated Intel Dual 10GbE NIC		
	Rail Kit		
	Intel RMM4 Lite		
	No Keyboard / Mouse		
	3 Year Warranty		
	2 x Intel X540 Dual Port 10GBase-T NIC		

Total **$ 10,837.31**

630 Pate Street, Baraboo, Wisconsin 53913
608•356•1700 / Fax 608•356•9223

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Qty.	Description		Price
1	Upgrade Vmware vSphere Essential Plus Kit to Vmware vSphere Standard Accelerator Kit - 6 Processors	$	7,398.00
1	1 Year Production Support vSphere 7 Standard Accelerator Kit - 6 Processors	$	3,482.00
2	Vmware vSphere 7 Standard - 1 Processor License	$	1,990.00
2	1 Year Production Support vSphere 7 Standard - 1 Processor	$	646.00

Total **$ 13,516.00**

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Qty.	Description		Price
1	EMC Unity 380 DPE - 25 x 2.5"	$	42,389.50
	EMC Unity 380 DAE - 25 x 2.5"		
	Dual Storage Processor		
	2 x 4 port 10GBaseT IO		
	36 x 1.8TB 10k SAS Hard Drive		
	58.94TB RAW - 38.67TB Useabe - RAID 4+1 - 2 Hot Spares		
	60 Month ProSupport 4Hr Mission Critical		

List Price - $101,452.82

Total **$ 42,389.50**

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Technology Fund Funding Forecast

	2021	2022	2023	2024	2025	2026
Beginning Balance	$ 95,146	$ 21,697	$ 21,697	$ 21,697	$ 21,697	$ 21,697
Technology Fund Expenditures	$ (73,448)	$ -	$ -	$ -	$ -	$ -
Annual Funding	$ -	$ -	$ -	$ -	$ -	$ -
Ending Balance		**$ 21,697**	**$ 21,697**	**$ 21,697**	**$ 21,697**	**$ 21,697**

12/31/20 Fund Balance	$ 95,146
YTD 6/30/21 Expenditures	$ (7,543)
Remaining anticipated 21 Expenditures	$ (10,000)
Sum of **A**'s	$ (55,906)
12/31/21 Forecasted Fund Balance	$ 21,697

Sum of **B**'s From Contingency	$ (22,875)
Added Contingency	$ (2,125)
	$ (25,000)

Budget Amendment:		
EMC Unity 380 SAN	$ 42,390	**A**
Vmware vSphere STND	$ 13,516	**A**
Base E5 Server	$ 21,675	**B**
Labor	$ 1,200	**B**
	$ 78,780	

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2021	BUDGET	$ 100,000
AMENDMENT	REASON	
10/27/2020	Liquor License Revocation Legal Fees	$ (3,105)
2/9/2021	RDA Grant Writing Services	$ (2,500)
6/15/2021		$ 94,395

CONTINGENCY ACCOUNT EARMARKED

AMENDMENT	REASON	
2/9/2021	RDA Grant Writing Services	$ -
6/8/2021	Speed Board	$ (31,760)
Pending 7/27 Decision	Fire Ladder #4 Repairs	$ (11,700)
Pending 7/27 Decision	Court Clerk Office Modifications	$ (5,000)
Pending 8/10 Decision	IT Dept Base E5 Server	$ (25,000)
AVAILABLE BALANCE @ 6/15/21		$ 20,935