To: Michael McGovern
From: Gary Lanoie, Technology Director
Date: March 29, 2012
RE: Network Storage Device

The equipment proposal included in this packet would allow our department to finish a plan it has been working on for a couple of years now. This plan was to put in place a backup and disaster recovery situation for both our Town and School clients. We've moved into the realm of Virtual Servers and network storage and found them to be very effective but redundancy of hardware needed to be part of the plan. The equipment that is involved for virtual server and network storage tend to be on the pricey side and it certainly is a challenge to obtain in years of ever shrinking resources.

We have redundancy of our virtual servers in two physical locations (Town Hall & High School). The network storage solution (EMC Box) I purchased last year was around $15,000 and is located at the high school. Because of cost my plan was for adding the second EMC box in the 2012-13 budget. The redundancy of the network storage box became more important as it is now the primary source of data for our users. This became very obvious during the recent hardware failure. We had too many days of work interruption for many of our users. This proposal includes a second EMC Network storage box, additional drive space in our current box, replication software and hardware maintenance plan.

The costs total $25,620.77. My vendor has arranged for a short-term lease where we can pay over two budget years ($15,000 now and the balance after July 1st) if you would prefer.

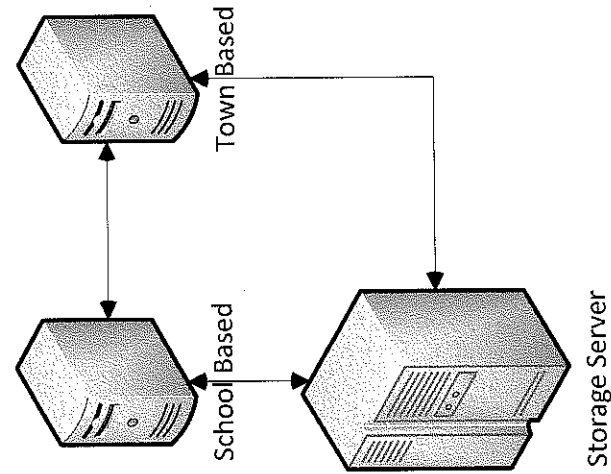Below is a description from Matthew Young our Network specialist:

Current Situation
- We have two XenServers and one EMC VNXe3100 storage server. The two XenServers control approximately 10 virtual servers each, with all of the physical data for those servers being housed on the EMC.
- If one of the XenServers has a problem, the information on the servers it controls is sent to the other XenServer which takes over control. This has occurred a few times and users are not aware as it all happens seamlessly.
- If the EMC fails however then all the data storage goes offline and those virtual servers become inaccessible, this was the case recently when a component failed and needed replacement.
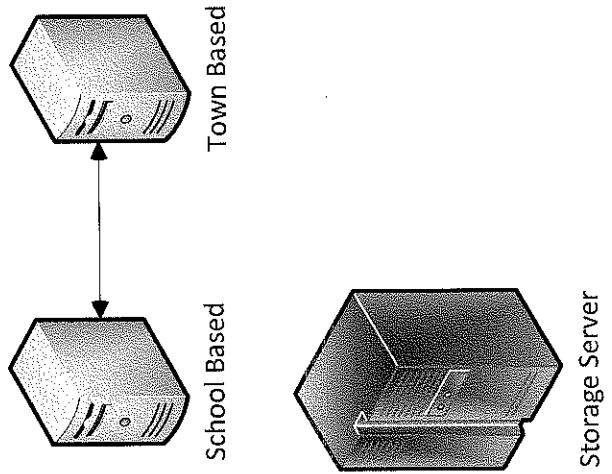
Proposal
- A second EMC, to be located in Town Hall would be set up as a replication server, meaning all the XenServers would still look at the first EMC for their data, but all that data would automatically be replicated to the second EMC.
- This would mean that if we had another failure, the second EMC could be promoted and would take over serving that data to the XenServers and the virtual servers would keep being accessible to users.
- It also provides a form of backup.

XenServer Failure:

If one XenServer fails it sends it's information to the other which then controls all the servers from both XenServers.

The Storage Server is not affected so the data is not affected and users should not even notice anything happening.

Town Based

School Based

Storage Server

Proposed Addition:

Adding a second storage server to be based in Town Hall would create a replicate of the first server.

If the primary storage server crashed the secondary one would pick up and take over. There may be small disruption but only very minor.

Town Based

Storage Server

School Based

Storage Server

Current Situation:

Two XenServers which control the servers and one Storage Server which actually holds all the data.

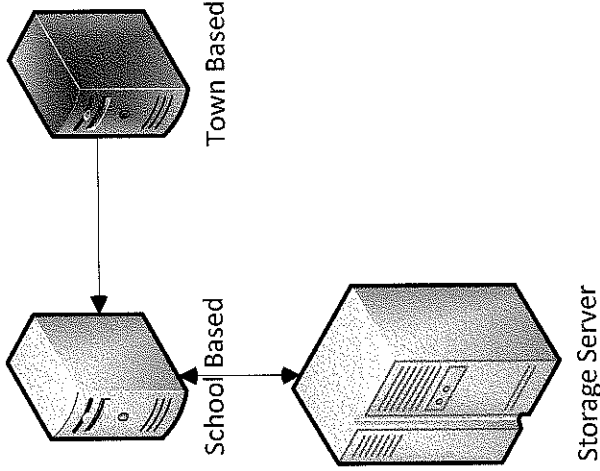The XenServers are located in CEHS and in Town Hall, the Storage Server is located in CEHS.

Town Based

School Based

Storage Server

Storage Server Failure:

If the storage server fails (as happened recently), the XenServers can still communicate with each other but they cannot access the data they need as the storage server is down.
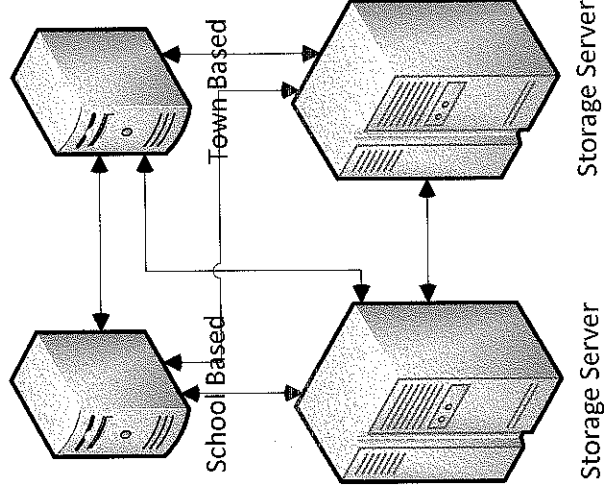
This takes all servers offline and in our recent case also caused data corruption.

Town Based

School Based

Storage Server

GovConnection™
IT Solutions for Government and Education

7503 Standish Place
Rockville, MD 20855

QUOTATION

Quote # 23139265.02

PLEASE REFER TO THE ABOVE
QUOTE NUMBER WHEN ORDERING

Date:	March 22, 2012
Valid through:	March 29, 2012
Account #:	K00630

Account Executive:	Amy Dos Santo
Phone:	(800) 800-0019 ext. 33479
Fax:	(603) 683-1485
Email:	awilber@govconnection.com

QUOTE PROVIDED TO:
AB#: 29127
CAPE ELIZABETH SCHOOL
ACCOUNTS PAYABLE
PO BOX 6267
CAPE ELIZABETH, ME   04107

SHIP TO:
AB#: 6371170
CAPE ELIZABETH SCHOOL
SUPERINTENDENTS OFFICE
2ND FLOOR, 320 OCEAN HOUSE ROAD
CAPE ELIZABETH, ME   04107

DELIVERY	FOB	TERMS	CONTRACT ID #
		NET 30	

*	Line #	Qty	Item #	Manuf. Part #	Description	Price	Ext
	1	1	13241911	V2-DAE-12	DAE w / (12) x 3.5" Drive Slots EMC Corp.	$1,231.88	$1,231.88
	2	1	13238974	V2-PS07-0206U	12TB SAS Hard Disk Pack Upgrade (6 X 2TB 7200RPM Hard Drives) EMC Corp.	$5,021.62	$5,021.62
	3	1	12716250	V13-PWR-12	Power Cord NEMA 5-15P 125V 10A, Qty (2) EMC Corp.	$0.00	$0.00
	4	1	12452160	456-102-467	REMOTE PROTECTION SUITE FOR VNXE3100 EMC Corp.	$2,652.04	$2,652.04
	5	1	12479274	V2-1GB-IO	1GB IO Module EMC Corp.	$652.61	$652.61
	6				***** Replicvation SAN ****		
	7	1	13260768	V211D08A12CM	VNXE3100 2XSP Dpe 8GB-12X3.5 DS 6X2TB NL SAS Storage EMC Corp.	$6,242.47	$6,242.47
	8	1	12716250	V13-PWR-12	Power Cord NEMA 5-15P 125V 10A, Qty (2) EMC Corp.	$0.00	$0.00
	9	1	12440994	V21-SWFEATURE	VNXE3100 - Software Features EMC Corp.	$0.00	$0.00
	10	2	12441022	456-102-458	VNXE UniSphere - Included in Base SW EMC Corp.	$0.00	$0.00
	11	1	12441057	456-102-459	VNXE iSCSI - Included in Base SW EMC Corp.	$0.00	$0.00
	12	1	12441073	456-102-460	VNXE Local Protection Suite - Included in Base SW EMC Corp.	$0.00	$0.00
	13	1	12441102	456-102-461	VNXE Thin Provisioning - Included in Base SW EMC Corp.	$0.00	$0.00
	14	1	12441129	456-102-462	VNXE NFS - Included in Base SW EMC Corp.	$0.00	$0.00
	15	1	12441153	456-102-465	VNXE CIFS - Included in Base SW EMC Corp.	$0.00	$0.00
	16	1	12441188	456-102-466	VNXE File Deduplication - Included in Base SW EMC Corp.	$0.00	$0.00
	17	1	12452160	456-102-467	REMOTE PROTECTION SUITE FOR VNXE3100 EMC Corp.	$2,652.04	$2,652.04
	18	1	12441209	457-100-349	VNXE Base SW Including OE 2.0 2 SP (EMC Ecosys) EMC Corp.	$2,557.13	$2,557.13

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Rockville, MD 20855

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CAPE ELIZABETH SCHOOL
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CAPE ELIZABETH, ME   04107

DELIVERY	FOB	TERMS	CONTRACT ID #
		NET 30	

*	Line #	Qty	Item #	Manuf. Part #	Description	Price	Ext
	19	1	12441241	WU-ENHHW-001	Enhanced Hardware Support - Warranty Upgrade EMC Corp.	$762.87	$762.87
	20	1	12441284	M-ENHSW-011	Enhanced Software Support - Platform / ELM EMC Corp.	$2,542.89	$2,542.89
	21	2	12479274	V2-1GB-IO	1GB IO Module EMC Corp.	$652.61	$1,305.22
	Lines: 20					Total Merchandise	$25,620.77
						Fee	
						Ship Via: Small Pkg Ground	143. pounds
						Shipping and Handling	$0.00
						Tax	
						TOTAL	**$25,620.77**
						* Lease for as low as:	

March 29, 2012

EMC Global Financial Services is pleased to provide the following lease proposal:

Lessee:	**CAPE ELIZABETH SCHOOL DISTRICT**
Solution Provider:	**GovConnection**
Equipment Location:	**CAPE ELIZABETH,ME 04107**
Equipment:	**VNXe solution—Please See Proposal**
Total Sale Price:	**$25,620.77**

Purchase Option:	**$1.00 Buy Out**
Lease Options:	1 payment at **$15,000.00** 2 monthly payments at **$0.00** 1 payment equal to **$11,206.56.**
End of Lease:	At the end of the lease term, the Lessee will own the equipment.

	Payments calculated in arrears. Payment amounts do not include sales, use and property taxes, freight and insurance.
Commencement:	Lease will commence following the Delivery and Acceptance of the equipment.
Conditions:	This proposal is valid until March 29, 2012 and is subject to credit approval and final lease documentation. This proposal is based on assumptions regarding the Equipment configuration and sale and is subject to change if the configuration, software, services, rates or Sales Price changes.

David Soligon
Finance Manager
Office: 508-346-9365
Cell: 617-803-8883
*E-mail: Dave.soligon@emc.com