

**TOWN OF TRUMBULL, CONNECTICUT
TECHNOLOGY DEPARTMENT
REQUEST FOR PROPOSAL
STORAGE AREA NETWORK REFRESH**

BID NUMBER: 6322 DUE: December 11, 2018 @ 2:00PM

Addendum #1 Dated 12/3/2018

This addendum is issued to change equipment and clarify specifications, and replaces pages 5-20 of Bid 6322.

Note: this Addendum shall be used and be submitted in the proposal due December 11th at 2pm. Please do not use the scope and proposal pages in the original bid6322 document, it will not be recorded nor consider.

GENERAL / SCOPE

Objective

The Town of Trumbull is soliciting proposals from vendors for a storage area network refresh project. The qualified vendor will provide a fully configured and high availability storage area network comprised of three (3) storage hosts, redundant iSCSI SAN appliances(s), and networking equipment to replace our current infrastructure. Design, installation, configuration, and training shall be provided. The success of this project is dependent not only on the hardware and software, but also on the bidder's skill, effort, and experience working in a municipal environment and in accordance with the terms and conditions, specifications, and requirements contained herein.

Non-Exclusivity

The Town of Trumbull shall not be prevented by this bid or any contract expressed or implied by it or purchases made pursuant to it from purchasing the item(s) referred to herein from another contractor or vendor. This bid shall not establish an exclusive contract for the Contractor selected hereby.

SPECIFICATIONS / REQUIREMENTS

Experience

Bidder must show history of experience working with similar products and services specified in this bid by providing documentation of similar services the bidder has provided for three (3) other towns, cities, or municipalities in the State of Connecticut. (See Schedule A below)

Background/Existing Infrastructure:

The Town of Trumbull currently has a virtualization infrastructure at Town Hall and the Trumbull Police Department. The system is comprised of three (3) HP DL380p Gen8 servers running VMware vSphere 6 Enterprise configured for high availability.

Two servers are located at Town Hall while one server is located at the Police Department. The Town servers currently have a combined total of 576 GB of RAM allocated in the VMware environment. Current utilization is approximately 350 GB.

The Town currently has two (2) licenses of Microsoft Windows Datacenter 2012 R2 with up-to-date software assurance. Proposals should consider this information when suggesting a server configuration and try to minimize additional licensing costs. The Town will be responsible for purchasing any additional licensing, if required.

Town Hall SAN

The storage area network at Town Hall consists of two (2) HP Lefthand P4500 G2 SAN nodes for data configured in a RAID 5 array. The SAN is connected to the network via 1 Gbps links. There are 14.4 TB of raw storage and 10.7 TB usable storage. In total, approximately 6 TB of data is currently being used on the Town Hall SAN with two-way replication enabled.

Police Department SAN

The storage area network at the Trumbull Police Department consists of two (2) HP Lefthand P4530 G2 SAN nodes for data configured in a RAID 5 array. The SAN is connected to the network via 1 Gbps links. There are 7.2 TB of raw storage and 5.35 TB usable storage. In total, approximately 2 TB of data is currently being used on the Police Department SAN with two-way replication enabled.

Redundancy

To maximize redundancy, one SAN node for Town Hall data and one SAN node for Police Department data reside at each building. The solution is configured to automatically fail over to the other site if a problem occurs to keep critical business services accessible. A 1 GB fiber link between the two facilities allows for synchronous replication of data between the SANs.

Network Switches

The Town of Trumbull currently has a 8212zl (J9641A) at Town Hall switch that serves as the backbone for the network. The Police Department currently utilizes four (4) stacked HP 2920 (J9729A) switches. Power Over Ethernet ports are required to support the Town's Voice Over IP telephone system and other devices.

4. Project Objectives:

The following are the objectives of the project:

- Replace existing VMware hosts, SAN storage environment, and network equipment with new technology to ensure 24/7 availability of Town of Trumbull and Trumbull Police Department applications and data.
- Implement a SAN environment that improves storage management operations, increases data throughput performance, integrates data backup and recovery operations, and allows for capacity growth.
- Replace existing network switch at Town Hall and add HPE Aruba 3810M switches for fiber connectivity to the new infrastructure.
- Add fiber ports to the existing HP 2920 switches at the Trumbull Police Department to support the new infrastructure.

5. Details:

All hardware, software and labor must be itemized.

6. Hardware requirements:

VMware Host Specifications:

The Town of Trumbull requests three (3) HPE Proliant DL380 Gen 10 Servers (2U Rackmount). High speed processors are requested for each server. A suggested configuration of equipment is as follows:

Quantity	Description	Part Number
3	HPE DL380 Gen10 8SFF CTO Server	868703-B21
3	HPE DL380 Gen10 6136 Xeon-G FIO Kit	826874-L21
3	HPE DL380 Gen10 6136 Xeon-G Kit	826874-B21
24	HPE 32GB 2Rx4 PC4-2666V-R Smart Kit	815100-B21
3	HPE DL38X Gen10 Universal Media Bay	826708-B21
6	HPE 240GB SATA Mixed Use SFF SC DS SSD	875483-B21
3	HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21
3	HPE Ethernet 10Gb 2-port 562SFP+ Adapter	727055-B21
3	HPE 96W Smart Storage Battery 145mm Cable	P01366-B21
3	HPE Smart Array P408i-a SR Gen10 Controller	804331-B21
3	HPE Ethernet 1Gb 4P 331FLR Adapter	629135-B22
6	HPE 800W FS Plat Hot Plug LH Power Supply Kit	865414-B21
6	HPE 1.83m 10A C13-UL Dom Power Cord	AF556A
3	HPE iLO Adv 1-svr License 3yr Support	BD505A
3	HPE 2U SFF Easy Install Rail Kit	733660-B21
3	HPE DL38x Gen10 Support	H7J34A3#WAH
6	HPE Aruba 10GBE SFP+ Transceiver	J9150D

SAN Storage Array Requirements:

The Town of Trumbull requests an HPE Nimble Storage Array:

Quantity	Description	Part Number
2	HF20, 2x10GbaseT, Dual 10GbE Optical (Qty. 1 pair), 21x1TB HDD, 6x480GB,	HF20-2P-21T-K
2	4Hr Parts Del, SW Sup & InfoSight - NextGen Arrays, 36 months	SLA-4HR-36
8	HPE Aruba 10GBE SFP+ Transceiver	J9150D

Networking Requirements:

The Town of Trumbull plans to replace the existing 8212zl (J9641A) switch at Town Hall with a HP 5412R (J9822A) switch and add two (2) Aruba 3810 (JL075A) switches for fiber connectivity to the new SAN. We plan to utilize the existing four (4) stacked HP 2920 (J9729A) switches at the Police Department and add fiber connectivity to support the new SAN. In December of 2018, the Town will be upgrading its 1 GB fiber link

between Town Hall and the Police Department with a 10 GB fiber connection for data replication between the two sites. The new switches will require 10 GB fiber connections to support the new infrastructure.

Town Hall Networking:

Quantity	Description	Part Number
1	HPE Aruba 5412R z12 Switch	J9822A
1	HPE 3YR Foundation Care 24x7 Aruba 541	H1NC1E
1	HPQ Care Pack Install/Startup Most 48PT	U4832E
4	HP 5400R 1100W POE+ ZL2 Power Supply	J9829A#ABA
2	HPN 20P POE+ 4P SFP+ V3 ZL2 Module	J9990A
10	HPN 24P 10/100/1000BT POE+ V3 ZL2 Module	J9986A
4	HPE Aruba 10GBE SFP+ Transceiver	J9150D
1	HPE Networking BTO J9151A X132 10G SFP+ LC LR Transceiver	J9151D
1	HPE 5400R z12 Management Module	J9827A

Town Hall Networking:

Quantity	Description	Part Number
2	HPE Aruba 3810M 16SFP+ 2 Slot Switch	JL075A
2	HPE Care Pack 3yr FC 24X7 Aruba 3810M 16SFP+	U6TD8E
4	HPE Aruba X371 12VDC 250W Power Supply	JL085A#ABA
2	HPE Aruba 3810M 4-port Stacking Module	JL084A
2	HPE 3800 1m Stacking Cable	J9665A
12	HPE Aruba 10GBE SFP+ Transceiver	J9150D

Police Department Switching Module for 2920:

Quantity	Description	Part Number
4	HPE 2920 2-port 10GbE SFP+ Module	J9731A
6	HPE Aruba 10GBE SFP+ Transceiver	J9150D
1	HPE Networking BTO J9151A X132 10G SFP+ LC LR Transceiver	J9151D

Miscellaneous Fiber Cables:

Quantity	Description	Part Number
6	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 2m (Town Hall DL380 to 3810 switch)	33173
4	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 2m (Town Hall SAN to 3810 switch)	33173
4	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 8m (Town Hall 5412 switch to 3810 switch)	33176
2	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 6m (PD DL380 to switch LC Fiber Cables)	33109

4	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 6m (PD SAN to 2920 switches)	33109
1	LC-LC 9/125 OS2 Duplex Single-Mode PVC Fiber Optic Cable – Yellow – 6m (Town Hall Fiber WAN to 3810 switch)	37461
1	LC-LC 9/125 OS2 Duplex Single-Mode PVC Fiber Optic Cable – Yellow – 2m (PD Fiber WAN to 2920 switch)	26264

7. Installation Requirements:

The selected vendor will install and configure all infrastructure using industry best practices for high availability and disaster recovery.

- Vendor will be required to minimize service outages during the project and conduct off-hours installation. Outages must be coordinated with the Town of Trumbull’s Information Technology Department.
- Vendor will be responsible for migrating virtual machines and data.
- Vendor must be able to diagnose network issues to ensure a smooth transition to the new infrastructure.
- Vendor must ensure new network infrastructure properly supports existing systems and services.

8. Facility Review:

Potential bidders may contact William Chin, Director of Information Technology, at wchin@trumbull-ct.gov to schedule a walk-through of the Town Hall (5866 Main Street) and Police Department (158 Edison Road) data centers. This will be an opportunity to address any bidder questions regarding any facility and network infrastructure.

8. Non-Conformance:

The Town will accept and consider proposals that contain alternate configurations and substitutions of equipment.

Bids submitted that do not conform to the spec must include a completed “Notice of nonconformance”. The bidder must explain where equipment does not conform, what is offered in its place, and why. While conformance to specs is desirable it is not absolutely required.

9. Delivery:

Bidder shall commit to a delivery date and this will be a consideration in awarding the bid.

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STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS (To be submitted with proposal)

Submitted by:

Name of Organization _____

Name of Individual _____

Title _____

Address _____

Telephone _____ Fax: _____ Cell: _____

General Business Information

Check If: Corporation Partnership Joint Venture Sole Proprietorship

If Corporation:

a. Date and State of Incorporation

b. List of Officers

Name Title

If Partnership

a. Date and State of Organization

b. Names of Current General Partners

c. Type of Partnership

General Publicly Traded

Limited other (describe): _____

If Joint Venture:

a. Date and State of Organization

b. Name, Address and Form of Organization of Joint Venture Partners: (Indicate managing partner by an asterisk*)

If Sole Proprietorship:

a. Date and State of Organization

b. Name and Address of Owner or Owners

1. On Schedule A, attached, list major engineered construction projects completed by this organization in the past five (5) years. (If a joint venture list each participant's projects separately).

2. On Schedule B, attached, list current projects under construction by this organization. (If joint venture, list each participant's projects separately).

3. Name of Surety Company and name, address, and phone number of agent.

4. Is your organization a member of a controlled group of corporations as defined in I.R.C. Sec. 1563?

Yes___ No ___

If yes, show names and addresses of affiliated companies.

5. Furnish on Schedule C, attached, details of the construction experience of the principal individuals of your organization directly involved in construction operations.

6. Has your organization ever failed to complete any construction contract awarded to it?

Yes___ No ___

If yes, describe circumstances on attachment.

7. Has any Corporate officer, partner, joint venture participant or proprietor ever failed to complete a construction contract awarded to him or her in their own name or when acting as a principal of another organization?

Yes___ No ___

If yes, describe circumstances on attachment.

8. In the last five years, has your organization ever failed to substantially complete a project in a timely manner?

Yes___ No ___

If yes, describe circumstances on attachment.

I hereby certify that the information submitted herewith, including any attachment is true to the best of my knowledge and belief.

Name of Organization: _____

By: _____

Title: _____

Dated: _____ **TOWN OF TRUMBULL, CONNECTICUT**

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**SCHEDULE A
REFERENCES**

(To be submitted with proposal – attach additional pages as necessary)

List references for similar services provided for at least three (3) clients in the past five (5) years (attach any other client references if desired). **PLEASE NOTE IT IS THE TOWN'S INTENT TO COMMUNICATE WITH THE REFERENCES LISTED HEREIN.**

CLIENT 1:

Organization Name: _____

Contact Name: _____ Phone: _____

Service Dates: _____

Project(s):

CLIENT 2:

Organization Name: _____

Contact Name: _____ Phone: _____

Service Dates: _____

Project(s):

CLIENT 3:

Organization Name: _____

Contact Name: _____ Phone: _____

Service Dates: _____

Project(s):

TOWN OF TRUMBULL, CONNECTICUT

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PROPOSED SUBCONTRACTORS

If none, write "None" _____.

*Description of Work _____
Proposed Subcontractor Name _____
Address _____

*Description of Work _____
Proposed Subcontractor Name _____
Address _____

*Description of Work _____
Proposed Subcontractor Name _____
Address _____

*Description of Work _____
Proposed Subcontractor Name _____
Address _____

*Insert description of work and subcontractors' names as may be required.

This is to certify that the names of the above-mentioned subcontractors are submitted with full knowledge and consent of the respective parties.

The Proposer warrants that none of the proposed subcontractors have any conflict of interest as respects this contract.

Proposer _____
(Fill in Name)

By _____
(Signature and Title)

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BID FORM / PROPOSAL

Proposal of _____ (hereinafter called "Proposer, Bidder"); organized and existing under the laws of the State of Connecticut, doing business Town of Trumbull, Connecticut (hereinafter called the Town).

The undersigned is aware that the Town of Trumbull may reject any and all bids; that the award will be based on the combination of items that will best serve the interest of the Town; that the bid price does not include any taxes for which the town is not liable; and that acceptance of the bid will establish no exclusive contract by which the Town of Trumbull will be required to purchase from the undersigned.

By submission of this Proposal, the Proposer certifies, that this Proposal has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Proposal with any other Proposer or with any competitor.

The undersigned is aware that the Town of Trumbull may reject any and all bids, that the award will be based on price and the method of calculations set forth within the bid invitation, and that the bid prices do not include any taxes for which the Town is not liable. The bid is made without collusion with any other person, individual, or corporation.

Proposer agrees that this proposal shall be good and may not be withdrawn for a period of one hundred and eighty (180) calendar days after the scheduled closing time for receiving proposals.

This bid shall be valid for a period of _____ days. Delivery shall be made within _____ working days from when order is placed.

Proposer acknowledges receipt of the following Addendum:

Addendum #1 Dated 12/3/2018 _____

Note any exceptions or clarifications :(use additional pages as necessary)

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PROPOSAL

The undersigned will provide equipment and services herein described at the following prices:

Unit Price in Figures \$ each

VMware Host					
Item	Quantity	Description	Part Number	Unit Price	Total
1	3	HPE DL380 Gen10 8SFF CTO Server	868703-B21	\$	\$
2	3	HPE DL380 Gen10 6136 Xeon-G FIO Kit	826874-L21	\$	\$
3	3	HPE DL380 Gen10 6136 Xeon-G Kit	826874-B21	\$	\$
4	24	HPE 32GB 2Rx4 PC4-2666V-R Smart Kit	815100-B21	\$	\$
5	3	HPE DL38X Gen10 Universal Media Bay	826708-B21	\$	\$
6	6	HPE 240GB SATA Mixed Use SFF SC DS SSD	875483-B21	\$	\$
7	3	HPE 9.5mm SATA DVD-RW Optical Drive	726537-B21	\$	\$
8	3	HPE Ethernet 10Gb 2-port 562SFP+ Adapter	727055-B21	\$	\$
9	3	HPE 96W Smart Storage Battery 145mm Cable	P01366-B21	\$	\$
10	3	HPE Smart Array P408i-a SR Gen10 Controller	804331-B21	\$	\$
11	3	HPE Ethernet 1Gb 4P 331FLR Adapter	629135-B22	\$	\$
12	6	HPE 800W FS Plat Hot Plug LH Power Supply Kit	865414-B21	\$	\$
13	6	HPE 1.83m 10A C13-UL Dom Power Cord	AF556A	\$	\$
14	3	HPE iLO Adv 1-svr License 3yr Support	BD505A	\$	\$
15	3	HPE 2U SFF Easy Install Rail Kit	733660-B21	\$	\$
16	3	HPE DL38x Gen10 Support	H7J34A3#WAH	\$	\$

BID PROPOSAL FORM (CONTINUED)

17	6	HPE Aruba 10GBE SFP+ Transceiver	J9150D	\$	\$
				Total Items 1-17	\$

SAN Storage Array					
Item	Quantity	Description	Part Number	Unit Price	Total
18	2	HF20, 2x10GbaseT, Dual 10GbE Optical (Qty. 1 pair), 21x1TB HDD, 6x480GB,	HF20-2P-21T-K	\$	\$
19	2	4Hr Parts Del, SW Sup & InfoSight - NextGen Arrays, 36 months	SLA-4HR-36	\$	\$
20	8	HPE Aruba 10GBE SFP+ Transceiver	J9150D	\$	\$
				Total Items 18-20	\$

Town Hall Networking					
Item	Quantity	Description	Part Number	Unit Price	Total
21	1	HPE Aruba 5412R z12 Switch	J9822A	\$	\$
22	1	HPE 3YR Foundation Care 24x7 Aruba 541	H1NC1E	\$	\$
23	1	HPQ Care Pack Install/Startup Most 48PT	U4832E	\$	\$
24	4	HP 5400R 1100W POE+ ZL2 Power Supply	J9829A#ABA	\$	\$
25	2	HPN 20P POE+ 4P SFP+ V3 ZL2 Module	J9990A	\$	\$
26	10	HPN 24P 10/100/1000BT POE+ V3 ZL2 Module	J9986A	\$	\$
27	4	HPE Aruba 10GBE SFP+ Transceiver	J9150D	\$	\$
28	1	HPE Networking BTO J9151A X132 10G SFP+ LC LR Transceiver	J9151D	\$	\$
29	1	HPE 5400R z12 Management Module	J9827A	\$	\$
				Total Items 21-29	\$

BID PROPOSAL FORM (CONTINUED)

Town Hall Networking					
Item	Quantity	Description	Part Number	Unit Price	Total
30	2	HPE Aruba 3810M 16SFP+ 2 Slot Switch	JL075A	\$	\$
31	2	HPE Care Pack 3yr FC 24X7 Aruba 3810M 16SFP+	U6TD8E	\$	\$
32	4	HPE Aruba X371 12VDC 250W Power Supply	JL085A#ABA	\$	\$
33	2	HPE Aruba 3810M 4-port Stacking Module	JL084A	\$	\$
34	2	HPE 3800 1m Stacking Cable	J9665A	\$	\$
35	12	HPE Aruba 10GBE SFP+ Transceiver	J9150D	\$	\$
				Total Items 30-35	\$

Police Department Switching Module for 2920					
Item	Quantity	Description	Part Number	Unit Price	Total
36	4	HPE 2920 2-port 10GbE SFP+ Module	J9731A	\$	\$
37	6	HPE Aruba 10GBE SFP+ Transceiver	J9150D	\$	\$
38	1	HPE Networking BTO J9151A X132 10G SFP+ LC LR Transceiver	J9151D	\$	\$
				Total Items 36-38	\$

Miscellaneous Fiber Cables					
Item	Quantity	Description	Part Number	Unit Price	Total
39	6	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 2m (Town Hall DL380 to 3810 switch)	33173	\$	\$
40	4	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 2m (Town Hall SAN to 3810 switch)	33173	\$	\$
41	4	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 8m (Town Hall 5412 switch to 3810 switch)	33176	\$	\$

BID PROPOSAL FORM (CONTINUED)

42	2	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 6m (PD DL380 to switch LC Fiber Cables)	33109	\$	\$
43	4	LC-LC 62.5/125 OM1 Duplex Multimode PVC Fiber Optic Cable – Orange – 6m (PD SAN to 2920 switches)	33109	\$	\$
44	1	LC-LC 9/125 OS2 Duplex Single-Mode PVC Fiber Optic Cable – Yellow – 6m (Town Hall Fiber WAN to 3810 switch)	37461		
45	1	LC-LC 9/125 OS2 Duplex Single-Mode PVC Fiber Optic Cable – Yellow – 2m (PD Fiber WAN to 2920 switch)	26264	\$	\$
				Total Items 39-45	\$

Consulting Services			
Item	Description	Unit Price	Total
46	Consulting Services: design, configuration, installation, and data migration. Turnkey installation of hardware, includes: <ul style="list-style-type: none"> • SAN configuration and installation • Server configuration and installation • Switch configuration and installation • VMware host and data migration • Post sales support, knowledge transfer, and documentation 	\$	\$
		Total Items 46	\$

BID PROPOSAL FORM (CONTINUED)

Cost Summary		
VMware Host	Total Items 1-17	\$
SAN Storage Array	Total Items 18-20	\$
Town Hall Networking	Total Items 21-29	\$
Town Hall Networking	Total Items 30-35	\$
Police Department Switching Module for 2920	Total Items 36-38	\$
Miscellaneous Fiber Cables	Total Items 39-45	\$
Consulting Services	Total Items 46	\$
	Grand Total	\$

How many TB of space will be available when this project is completed (after RAID, deduplication, and two-way replication)?	TB
<ul style="list-style-type: none"> Please indicate how much space will be used in terms of percentage on the new SAN when the project is completed. 	%

To assist in our analysis, please also include estimated costs for support and maintenance for years 4 through 6 for servers and storage.	
Support and Maintenance: Servers	
Year 4	\$
Year 5	\$
Year 6	\$
Support & Maintenance: Storage	
Year 4	\$
Year 5	\$
Year 6	\$

_____	_____
Company Name	by (Signature)
_____	_____
Address	Print Name
_____	_____
Town/State/Zip	Title
_____	_____
Date	Telephone/Fax
_____	_____
Email	Emergency Phone

All technical inquiries regarding this request may be directed to William Chin, Director of Information Technology, at wchin@trumbull-ct.gov or 203-452-5101. All other questions shall be directed to Kevin Bova, Purchasing Agent, at kbova@trumbull-ct.gov or 203-452-5042.

END of Addendum 1 BID 6322