



LAN-TEL

COMMUNICATIONS, INC.

Connecting & Protecting the Future

Critical Infrastructure Monitoring System (CIMS) 2015 Upgrade Proposal



LAN-TEL Communications, Inc.

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CIMS 2015 Upgrade Proposal

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Project Overview:

The current Critical Infrastructure Monitoring System (CIMS) has an immediate need to upgrade aging infrastructure that was installed during 2004-2011 time periods. The infrastructure does not conform to industry standard best practices for performance, reliability and quality that is expected in the public safety sector.

To achieve the maximum investment of the new infrastructure, all components will need to support camera images/video up to 1080P High Definition (HD), presenting at 30 Frames-Per-Second (FPS) and maintain thirty-days of protected recorded video.

As a result, all components of the aging infrastructure will need to be considered for upgrade. Aging cameras associated with this project that cannot support the new CIMS minimum standards should be replaced with cameras that can support 1080P HD at 30fps. Wireless infrastructure will require replacement of aging radios and antennas that can support and sustain the bandwidth of the high-resolution cameras that will be replaced in the upgrade effort. Server and video storage infrastructure is over five years in age meaning it is no longer under manufacturer warranty and is a single point of failure for the processing and storage of the recorded images. Where applicable, redundant enterprise class servers should be considered for deployment to protect the critical images that will be needed for future forensic analysis.

The project will enhance critical geographical areas that have accrued higher amounts of maintenance costs as well as poor quality and reliability due to the age of the infrastructure. Upon completion, the infrastructure that is upgraded will meet the minimum CIMS specifications and will serve as a model for upgrading other parts of the infrastructure, as funds are made available

Project Objectives:

- Target essential CIMS infrastructure that is in need of replacement due to age
- Replace aging infrastructure that conforms with CIMS best practices and will support future capabilities
- Lower maintenance costs by increasing capability and reliability as well as replacing end of life equipment
- Deploy backend infrastructure that will protect CIMS recordings from system failures

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The Proposed Solution:

LAN-TEL will install a combination of outdoor-rated DVTEL security cameras and Ubiquiti wireless transmission devices to connect all new cameras back to the existing CIMS stakeholders. All cameras will be recorded on existing DVTEL software which will be configured on the new redundant enterprise class servers. Site costs related to construction will be minimized by offsite preconstruction. The time for completion will be rapid and seamless to provide a fully operational system since we will have dual systems running while the integration takes place. Below is a picture of the actual assembly which is currently deployed around other areas of Boston and is monitored by Boston Police Department.



The cameras, made by DVTEL, are rugged and proven reliable in and around the City of Boston as well as in many other cities and towns in Massachusetts. Other large cities, such as Los Angeles and Baltimore, have been using DVTEL technology for almost 10 years.

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Coverage:

QTY:	LOCATION	TOTAL COST
1	BROOKLINE	\$66,698.97
1	CHELSEA	\$197,039.75
1	QUINCY	\$60,537.28
1	REVERE	\$84,561.93
1	WINTHROP	\$45,699.68
1	EVERETT	\$91,646.49
1	SOMERVILLE	\$52,220.62
		\$598,404.72

Brookline- \$66,698.97

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
11	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$28,314.00
11	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$3,146.00
11	NETGEAR		5 port Gig switch	\$65.00	\$715.00
11	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$572.00
11	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$755.04
11	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$314.60
22	UBIQUITI	NSM5 US	ANTENNAS	\$130.00	\$2,860.00
1	LABOR		152 HOURS	\$16,112.00	\$16,112.00
1	STOCK	SUPPLIES	ELECTRICAL, CABLE, HARDWARE	\$2,595.45	\$2,595.45
1	DVTEL	USS-ENT-20R5-16	SERVER	\$11,314.88	\$11,314.88

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Chelsea- \$197,039.75

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
35	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$90,090.00
35	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$10,010.00
35	NETGEAR		5 port Gig switch	\$65.00	\$2,275.00
35	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$1,820.00
35	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$2,402.40
35	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$1,001.00
98	UBIQUITI	NSM5 US	ANTENNAS	\$130.00	\$12,740.00
3	DVTEL	USS-ENT-24R5-20	SERVER	\$12,333.75	\$37,001.25
1	LABOR		339 HOURS	\$35,934.00	\$35,934.00
1	STOCK	SUPPLIES	HARDWARE /CABLE / SUPPLIES	\$3,766.10	\$3,766.10

Quincy- \$60,537.28

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
10	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$25,740.00
10	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$2,860.00
10	NETGEAR		5 port Gig switch	\$65.00	\$650.00
10	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$520.00
10	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$686.40
10	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$286.00
20	UBIQUITI	NSM5 US	ANTENNAS	\$130.00	\$2,600.00
1	LABOR		140 HOURS	\$14,840.00	\$14,840.00
1	STOCK	SUPPLIES	ELECTRICAL, CABLE, HARDWARE	\$1,040.00	\$1,040.00
1	DVTEL	USS-ENT-20R5-16	SERVER	\$11,314.88	\$11,314.88

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Revere- \$84,561.93

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
15	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$38,610.00
15	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$4,290.00
15	NETGEAR		5 port Gig switch	\$65.00	\$975.00
15	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$780.00
15	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$1,029.60
15	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$429.00
2	fisher	FP283A-1-048-NNN	PHOTO ADAPTERS	\$143.00	\$286.00
30	UBIQUITI	NSM5 US	ANTENNAS	\$130.00	\$3,900.00
1	LABOR		192 HOURS	\$20,352.00	\$20,352.00
1	STOCK	SUPPLIES	ELECTRICAL, CABLE, HARDWARE	\$2,595.45	\$2,595.45
1	DVTEL	USS-ENT-20R5-16	16TB SERVER	\$11,314.88	\$11,314.88

Winthrop- \$45,699.68

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
7	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$18,018.00
7	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$2,002.00
7	NETGEAR		5 port Gig switch	\$65.00	\$455.00
7	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$364.00
7	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$480.48
7	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$200.20
2	fisher	FP283A-1-048-NNN	PHOTO ADAPTERS	\$143.00	\$286.00
14	UBIQUITY	NSM5 US	ANTENNAS	\$130.00	\$1,820.00
1	LABOR		104 HOURS	\$11,024.00	\$11,024.00
1	STOCK	SUPPLIES	ELECTRICAL, CABLE, HARDWARE	\$1,040.00	\$1,040.00
1	DVTEL	USS-ENT-12R5-09	SERVER 9TB	\$10,010.00	\$10,010.00

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Everett- \$91,646.49

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
11	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$28,314.00
6	DVTEL	CM-6208-11-I	4k cameras	\$1,066.00	\$6,396.00
6	DVTEL	CM-CAPX-OUT-W	4K HOUSING AND BRACKET	\$146.58	\$879.45
13	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$3,718.00
13	NETGEAR		5 port Gig switch	\$65.00	\$845.00
15	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$780.00
11	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$755.04
10	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$286.00
4	DVTEL	LAT-EN-CHAN	Camera Licenses	\$160.88	\$643.50
28	UBIQUITY	NSM5 US	ANTENNAS	\$130.00	\$3,640.00
1	LABOR		182 HOURS	\$19,292.00	\$19,292.00
1	STOCK	SUPPLIES	HARDWARE	\$1,430.00	\$1,430.00
2	DVTEL	USS-ENT-24R5-20	SERVER	\$12,333.75	\$24,667.50

Somerville- \$52,220.62

QTY	VENDOR	PART#	DESCRIPTION	COST	EXT
6	DVTEL	CP-4221-301	Dvtel HD 30 x Zoom CP 4221-201	\$2,574.00	\$15,444.00
4	DVTEL	CM-6208-11-I	4k cameras	\$1,066.00	\$4,264.00
4	DVTEL	CM-CAPX-OUT-W	4K HOUSING AND BRACKET	\$146.58	\$586.30
8	MIER	BW/SL16147	NEMA Enclosure 16 x 14	\$286.00	\$2,288.00
8	NETGEAR		5 port Gig switch	\$65.00	\$520.00
8	ALTRONIX	T2428175	24 v Power Supplies	\$52.00	\$416.00
6	DVTEL	CX-ARMX-1	Dvtel Bracket Arm	\$68.64	\$411.84
6	DVTEL	CX-F150-0	1/12 Aluminum Pipe MOUNT	\$28.60	\$171.60
2	DVTEL	LAT-EN-CHAN	Camera Licenses	\$160.88	\$321.75
16	UBIQUITY	NSM5 US	ANTENNAS	\$130.00	\$2,080.00
1	LABOR		108 LABOR HOURS	\$11,448.00	\$11,448.00
1	STOCK	SUPPLIES	ELECTRICAL,CABLE HARDWARE	\$1,295.45	\$1,295.45
1	DVTEL	USS-ENT-24R5-22	SERVER	\$12,973.68	\$12,973.68

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Deployment:

LAN-TEL employs a large crew of union-based field installation technicians. The team of LAN-TEL employees, who currently manage the systems in the surrounding CIMS communities of Boston, Winthrop, Revere, Everett, Chelsea, Somerville, Brookline, and Quincy, will be responsible for deploying the cameras for this system-wide upgrade project. The team will utilize company owned bucket trucks to assist with mounting all cameras to the existing locations. LAN-TEL is familiar with the jurisdiction of local authorities and can work with the authorities to provide site access and traffic control to allow for a safe system deployment.

Cameras will be aligned and focused to cover the existing areas of interest and the corresponding wireless antenna will be adjusted and tuned to transmit on established paths of transmission. All field wiring will be dressed for an outdoor environment and comply with local codes.

Maintenance and Service:

Upon completion of this total upgrade, the system is designed to be low maintenance due to the proposed electronics which are all solid state with minimal moving parts. In accordance with Massachusetts State Contract FAC64, there will be a one year warranty on the parts and labor provided for this upgrade.

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Date: February 11, 2015

To: Michael Kane
Office of Emergency Management
Metro Boston Homeland Security Region
City Hall, Boston MA

From: John Bartolomucci
LAN-TEL Communications Inc.
1400 Providence Highway
Suite 2000
Building 2
Norwood, Ma. 02062
(Ph) 781-352-4056
(Fax) 781-551-8667
Jbarts@lan-tel.com

Re: Critical Infrastructure Monitoring System (CIMS) 2015 Upgrade Proposal

LAN-TEL is pleased to submit the attached proposal. This is based on the information, instruction and requirements mutually reviewed. This proposal will include the installation of the required monitors upgrade.

I am confident you will find our quote to be complete in terms of scope, and compliance, with FAC 64 as well as consistent with information received.

If you have any questions, please call me at (781) 352-4056, or simply e-mail me at jbarts@lan-tel.com.

We look forward to reviewing our proposal with you and thank you again for your continued consideration of LAN-TEL Communications, Inc.

Quote Summary:

LAN-TEL Communications, Inc.'s lump sum quotes include the supply of all labor, cable, coring, required equipment, project management, insurances and permits for successful installation of the equipment reviewed and stated herein.

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LAN-TEL will provide, install and program the following:

<u>LOCATION</u>	<u>CAMERAS</u>	<u>ANTENNAS</u>	<u>SERVERS</u>	<u>LABOR</u>
Brookline	11	22	1	\$16,112.00
Chelsea	35	98	3	\$ 35,934.00
Quincy	10	20	1	\$ 14,840.00
Revere	15	30	1	\$ 20,352.00
Winthrop	7	14	1	\$ 11,024.00
Everett	17	28	2	\$ 19,292.00
Somerville	10	16	1	\$ 11,448.00
TOTAL	105	228	10	\$129,002.00

Total Cost of Stock: \$469,402.72

Total Cost of Labor: 129,002.00

Total Cost of the installation will be: 598,404.72

Qualifications:

1. Normal working hours are between 7:00AM and 4:00PM Monday through Friday, excluding holidays, unless otherwise directed, with premium labor adjustments applied per approved change order protocol.
2. All security work is to be coordinated and completed by LAN-TEL.
3. We assume all conduits, coring, sleeves, workboxes, floor boxes, poke-thrus with trim flanges, grounding backbone & bus bars, power, and rubbish removal from the central sweep point will be completed by LAN-TEL.
4. We shall fire-stop and seal only those sleeves, conduits, cores, utilized by LAN-TEL for the work specified.
5. We shall provide a one year product warranty under FAC64 against defects and on overall craftsmanship, starting from the date of substantial completion.
6. Warranty does not include any repairs of equipment damaged by vandalism, misuse, or "Acts of God".
7. Underground utilities are to be marked and located by the owner. LAN-TEL will not be responsible for any underground utilities improperly marked.
8. Job permits are included in the total proposal cost.
9. Full and uninterrupted access to all the work locations is required.
10. This proposal is in effect for 60 days unless otherwise extended by LAN-TEL.

LAN-TEL & DVTEL

CIMS 2015 Upgrade Proposal

LAN-TEL Communications, Inc.

Name

By John Bartolomucci

By: _____

Date 2/11/2015

Date: _____