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Date: December 17, 2017

To: City Of Boston –Office of
Emergency Management
1 City Hall Sq. Room 204
Boston MA, 02201

From: Eric Johnson
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Re: Boston Phase IVa FATPOT Project (Camera Controls)
Boston Phase IVb FATPOT (Legacy Server Retirement)

Thank you for the opportunity to present LAN-TEL Communications, Inc.'s quote to expand the capabilities of the MBHSR fusionPLATFORM (formerly CADfusion) hub with automated camera controls to the region's UASI / CIMS FLIR camera system based on geo-coordinates of specific incidents that will be integrated within FATPOT fusionPLATFORM (Phase IVa). This project will also serve as the platform to migrate dependent functionality from the prior Legacy FATPOT server and work with each currently connected agency to migrate their CAD connection to be direct to the fusionPLATFORM servers (Phase IVa). Lan- Tel Communications is concurrently the local area vendor for FLIR, and is the contracted vendor for the Metro Boston Homeland Security Region (MBHSR) Urban Area Security region (UASI) Critical Infrastructure Monitoring System (CIMS) camera system.

Our quote is based upon the information, the instructions, and requirements, reviewed. I am confident you will find our quote to be complete in terms of scope, compliant and consistent with State contract FAC64 along with information received.

If you have any questions, please call me at (617) 785-8254, or simply e-mail me ejohnson@lan-tel.com.

I look forward to reviewing our proposal with you and thank you again for your consideration of LAN-TEL Communications, Inc. to provide expert security cameras work for the Metro Boston Homeland Security Region.

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Scope of Work: Incident Based Camera Controls (Phase IVa)

Lan- Tel technicians and FATPOT engineers will provide capabilities within the fusionPLATFORM to set up automated positioning of relevant cameras (pan, tilt, zoom, or PTZ) using the capabilities already provided by the existing FLIR camera API. This will enable the customer to: (a) instantly view the area of the incident using existing FLIR viewing capabilities, and/or (b) review recorded footage at a later time of the incident area using FLIR reviewing capabilities.

Organizational Architecture – VMS Servers: There are eight (8) FLIR Video Management System (VMS) servers in the UASI region. Each FLIR VMS server controls many cameras within a designated region. FATPOT will provide the customer with the capability of configuring communication between the fusionPLATFORM hub and each FLIR VMS server. It will include as a minimum:

- A descriptive name within each respected FLIR VMS server.
- User credentials that will be configured on the FLIR VMS server for the purpose of the fusionPLATFORM hub connection.
- Necessary networking parameters.

Camera Icons on fusionPORTAL map: Cameras will be enabled with the capabilities described in this SOW. For this purpose, the design of this deliverable will not include an automatic placement of the configured camera on fusionPORTAL maps. MBHSR customers will be able to easily and quickly set up camera icons on the map through the existing capabilities of fusionPORTAL for any cameras they desire to have on the map. By managing which of the camera icons should appear on the map, the customer can choose to selectively deploy these camera icons based on the camera's significance, within camera groupings and make them available based on user groups.

FLIR VMS Interface: FLIR engineers will be hired to provide an subscriber interface to fusionPLATFORM that will receive basic incident data from fusionPLATFORM (Ex: Lat/Long, Priority) in real time and automatically PTZ any relevant camera based on preconfigured zones as described in the next paragraph.

LAN-TEL Configuration: LAN-TEL Communications recommends a method of defining eight (8) presets positions for each camera (4 long range - 4 short range) that may be invoked by the interface. The intent of using preset positions is to take maximum advantage of the viewing range of each camera and to leverage lessons learned when LAN-TEL assisted in the implementation of "Shot Spotter." This configuration of presets for each camera will be performed by LAN-TEL.

Incident Geo-Location Required: Only incidents that are geo-verified (provide latitude and longitude coordinates) and are within the viewing range of a configured camera will have the capability of sending requested PTV positioning to a camera.

Configuration Responsibilities: FATPOT Technologies will be sub-contracted and work in conjunction with Lan-Tel Communications technicians to include professional services to set up the configuration of at least one FLIR VMS server in order to prove capabilities of the system. Lan-Tel Communication technicians will set up all other FLIR VMS servers and cameras.

Configuration Training and Documentation: Lan-Tel Communications will provide the customer with camera configuration documentation and remote training of up to four (4) hours to empower the customer to set up and configure all FLIR VMS servers in the Boston Region.

fusionCONNECT Server Connections: Each connection between the fusionPLATFORM and a FLIR VMS server will require a fusionCONNECT license. There will be eight (8) fusionCONNECT licenses under this SOW.

Scope of Work - Legacy Server Retirement (Phase IVb)

The legacy FATPOT server that was originally installed to facilitate the Phase I project will be retired, taken out of service, and replaced. The specific efforts to do this are as follows:

Interface Watchdog Migration: The watchdog process that provides alerts when an agency connection is disconnected or reconnects will be redeveloped and deployed in the fusionPLATFORM server environment with substantially similar functionality as the current watchdog process.

GeoCoding Service: Some agencies have CAD systems that do not provide real-time geocoding services. As a result, incident data coming from those CAD systems come into the fusionPLATFORM without any lat/long coordinates. A new geocoding service will be developed to supplement lat/long coordinates for the fusionPLATFORM so that incidents can be plotted on the map and take advantage of geospatial business rules available in the fusionPLATFORM.

CAD Adapter Migration: Nine (9) MBHSR agencies are currently connected to the Legacy server with publish-only capabilities. These agencies are named below and are within the scope of this SOW. Lan-Tel Communications and FATPOT will work directly with each of these agencies by describing the nature of the migration, what is needed from them, and re-engineering the CAD adapters (formerly known as "the CADi agent process") to enable them to communicate with the fusionPLATFORM environment. These agencies and their CAD systems listed as follows:

- *Brookline - Larimore CAD*
- *Cambridge - QED CAD*
- *Somerville PD - QED CAD*
- *Somerville Fire - QED CAD*
- *Quincy - QED CAD*
- *Revere - TriTtech IMC CAD*
- *Chelsea - TriTech IMC CAD*
- *Winthrop - TriTech IMC CAD*
- *Everett - Microsystems CAD*

Customer Responsibilities

Design Review: The customer will carefully review and approve design specifications provided by Lan-Tel Communications for each deliverable and provide timely and specific feedback within the scope of the defined features in this SOW.

Access to FLIR Servers and Cameras: The customer will be responsible for providing FATPOT with remote access to at least one FLIR VMS server and its cameras (configuration and content) to support rapid development and debugging during the implementation and testing periods of this project.

Networking between fusionPLATFORM and FLIR Camera Servers: The customer will be responsible for discovery and the implementation of all networking paths and firewall rules related to the deliverables in this project, including but not necessarily limited to the networking between the fusionPLATFORM environment and the FLIR VMS servers.

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MBHSR Contacts: MBHSR is responsible for providing willing and responsive contacts for Lan-Tel Communications to work with for each of the participating UASI locations. These contacts will be expected to carry out their duties as part of this project. Lan-Tel Communications will not be held responsible for MBHSR municipalities who have not been reasonably responsive or fail to cooperate. Final acceptance of both phases will not be withheld based on the lack of an agency connections where an agency has been unresponsive. Work to connect any MBHSR municipality to the new fusionPLATFORM hub *after* final acceptance because of a lack of cooperation while the project is active, could result in an additional fee.

Total Project Price

Incident Based Camera Controls (Phase IVa) Price:

All deliverables in this SOW for Phase IVa total **$123,841**. All pricing listed in this SOW is payable in full upon completion of , Information below outlines the fees set forth for software licensing, professional services and system implementation of this provided set of capabilities.

Phase IVa – Incident Based Camera Controls

Item	Price Ea.	Qty	Extended Price
FLIR Interface	$20,000	1	$20,000
Professional Services: Design Development, Project Management, Implementation	$68,625	1	$68,625
FATPOT fusionPLATFORM Camera System Connection Licenses:	$4,402	8	$35,216
TOTAL			**$123,841**

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Legacy Server Retirement (Phase IVb) Price:

All deliverables in this SOW for Phase IVb total **$76,159**. All pricing listed in this SOW is payable in full upon completion of each described milestone. Information below outlines the fees set forth for software licensing, professional services and system implementation of this provided set of capabilities.

Phase IVb – Legacy Server Retirement

Item	Price Ea.	Qty	Extended Price
Geocoding Interface	$10,000	1	$10,000
Professional Services: Design, Development, Project Management, Implementation	$66,159	1	$66,159
TOTAL			**$76,159**

Total Combined Price for Phase IVa and IVb	**$200,000**
Lan-Tel Communications Labor and Project Management	**$40,000**
TOTAL PROJECT PRICE	**$240,000**

Acceptance by Customer: Acceptance by the customer shall be deemed as given under any of the following circumstances: Completion of Acceptance tests for each respective deliverable and confirmed by MBHSR stakeholders

MBHSR Annual Licensing and Technical Support Maintenance: Licensing rights and technical support will continue under the current maintenance contract governing the MBRSH fusionPLATFORM (phases I through III) through the implementation cycle of this Phase IV agreement. After customer has accepted each deliverable related to Phase IVa (Camera Controls) in this project, additional annual licensing and technical support fees will be provided to MBHSR for consideration within one year following the signing of this proposal.

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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 work is to be performed by Lan-Tel Communications and contracted subcontractors.
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 only fire stop and seal only those sleeves, conduits, cores, and/or 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.
6. All cabling will be supplied and installed by the LAN-TEL.
7. All Cabling will be Plenum rated if required by LAN-TEL.
8. Warranty does not include any repairs of equipment damaged by vandalism, misuse, or "Acts of God".
9. Underground utilities are to be marked and located by the owner. LAN-Tel will not be responsible for any underground utilities improperly marked.
10. Job permits are included in the total proposal cost.
11. Full and uninterrupted access to all the work locations is required.
12. This proposal is in effect for 60 days.

LAN-TEL Communications, Inc.	**City Of Boston –O.E.M**
By: *Eric Johnson*	**By: _____**
Date: 12/17/2017	**Date: _____**

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