

**Solicitation Tabulation Packet
for
Solicitation RFP-00327**

Acoustic Gunshot Detection Solution

Solicitation Designation: Public



Miami-Dade County

Solicitation #RFP-00327 - Acoustic Gunshot Detection SolutionCreation Date **Dec 17, 2015**End Date **Apr 18, 2016 6:00:00 PM EDT**Start Date **Mar 10, 2016 4:41:36 PM EST**Awarded Date **Not Yet Awarded**

RFP-00327--01-01 Acoustic Gunshot Detection Solution					
Supplier	Unit Price	Qty/Unit	Total Price	Attch.	Docs
ShotSpotter, Inc. (d/b/a SST, Inc)	First Offer - \$3,410,000.00	1 / See Bid Documents	\$3,410,000.00	Y	Y
Product Code: Agency Notes:			Supplier Product Code: Supplier Notes:		

Supplier Totals

ShotSpotter, Inc. (d/b/a SST, Inc)	\$3,410,000.00
Bid Contact Scott Beisner sbeisner@shotspotter.com Ph 510-794-3110 Fax 650-887-2106	Address 7979 Gateway Blvd Suite 210 NEWARK, CA 94560
Agency Notes:	Supplier Notes:

Award Total

\$3,410,000.00 (Does not apply to percentage or no price items.)

**

ShotSpotter, Inc. (d/b/a SST, Inc)

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RFP-00327--01-01	Acoustic Gunshot Detection Solution	Supplier Product Code:	First Offer - \$3,410,000.00	1 / See Bid Documents	\$3,410,000.00	Y Y
Supplier Total					\$3,410,000.00	

ShotSpotter, Inc. (d/b/a SST, Inc)Item: **Acoustic Gunshot Detection Solution****Attachments**

RFP-00327_-_Form_1 ShotSpotter Inc.pdf

RFP-00327_-_Proposer_Information ShotSpotter Inc.pdf

ShotSpotter Network Infrastructure Diagram.pdf

Key Personnel.pdf

ShotSpotter Flex Executive Summary.pdf

SSI Org Chart 4.8.16.pdf

SST Prosecutor and DA Resource Manual v11_2014.pdf

ShotSpotter - Customer References with Project Details.pdf

FED-72-01 Hosts and Services Required to Use ShotSpotter Flex Clients.pdf

Deployment Schedule Template.pdf

Release Bulletin^Notification API and Notification Engine 2.6^12-11-2012.pdf

ShotSpotterFlex-ServicesAgreement-2016.pdf

FORM 1

PRICE PROPOSAL SCHEDULE

FORM 1 - PRICE PROPOSAL SCHEDULE
ACOUSTIC GUNSHOT DETECTION SOLUTION

INSTRUCTIONS:

The Proposer's price shall be submitted on this Form 1 "Price Proposal Schedule". Proposer is requested to fill in the applicable blanks on this form. Pricing must include **all cost elements** including but not limited to the turnkey AGDS, all hardware and devices, software, implementation, training, customization, integration, and ongoing maintenance and technical support, any optional features/upgrades, ongoing hosting, and professional services required to meet the specifications outlined in Section 2.0 of this solicitation document.

A. PROPOSED PRICE

The Proposer shall state its price for providing all minimum and desired services as stated in Section 2.0 - Scope of Services. The pricing submitted below shall be used to evaluate Proposers.

TOTAL PROPOSED PRICE FOR THE
ACOUSTIC GUNSHOT DETECTION SOLUTION
FOR THE INITIAL FIVE (5) YEAR TERM:

\$ 3,410,000.00

Note: A payment schedule will be negotiated with the selected Proposer based upon project milestones and deliverables (e.g., installation, County's final acceptance of deliverables, etc.)

B. BREAKDOWN OF PROPOSED PRICE

The Proposer shall provide a breakdown of the "Proposed Price" stated in Section A, above, as provided for in the tables below. Items that are not applicable shall be identified as "N/A"; items that are at no charge to the County shall be identified as "N/C".

DESCRIPTION	TOTAL PRICE
Software License/Hosting/Maintenance/Technical Support Service/Acoustic Vetting Services Fees for the Acoustic Gunshot Detection Solution <i>(Please provide detailed cost breakdown in Table B1 (A) below)</i>	\$3,185,000.00
Storage Fees - (Short Term Storage / Long Term (Archive) Storage) <i>(Please provide detailed cost breakdown in Table B1 (B) below)</i>	\$0.00
Implementation and Configuration <i>(Please provide detailed cost breakdown in Table B2 below)</i>	\$117,000.00

Miami-Dade County, FL

RFP No. 00327

DESCRIPTION	TOTAL PRICE
Training (Please provide detailed cost breakdown in Table B3 below)	\$10,000.00
Hardware/Devices (Please provide detailed cost breakdown in Table B4 below)	\$98,000.00
Miscellaneous Costs including Travel, if applicable (Please provide a detailed cost breakdown in Table B5 Below)	\$0.00
*Total Proposed Price:	\$3,410,000.00

*** Note: Total Proposed Price shall be equal to the Proposed Price stated in Section A above.**

TABLE B1 (A)– SOFTWARE LICENSE, HOSTING, MAINTENANCE AND TECHNICAL SUPPORT SERVICES FEES		
Description	Monthly Fee	Extended Total
Software License, Hosting, Maintenance and Technical Support Services	53,083.33	\$637,000.00/year
Total for Software License, Hosting, Maintenance and Technical Support Services for Initial 5 Year Term:		\$3,185,000.00 (5 years)

TABLE B1 (B) – STORAGE FEES			
Description	Proposed Storage Size	Unit Price Per Gigabyte	Extended Total
Short Term Storage	Unlimited for length of subscription term	Unlimited for length of subscription term	\$Included with Hosting Fees
Long Term Storage (Archive)	Unlimited for length of subscription term	Unlimited for length of subscription term	\$Included with Hosting Fees
Total for Storage Fees:			\$0.00

TABLE B2 - PRICE BREAKDOWN FOR IMPLEMENTATION AND CONFIGURATION SERVICES	
Description	Cost
Service Initiation & Startup Fees for 9.8 mi ²	\$98,000.00
Notification Engine (API) Interface License	\$19,000.00
Click here to enter text.	\$Click here to enter text.
Click here to enter text.	\$Click here to enter text.
Total for Implementation and Configuration Services:	\$117,000.00

TABLE B3 - PRICE BREAKDOWN FOR TRAINING	
Description	Cost
SST GO Program – Onboarding, Training, & Best Practices Support	\$ 10,000.00
Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.
Total for Training:	\$ 10,000.00

TABLE B4: PRICE BREAKDOWN FOR PROPOSED HARDWARE/DEVICES		
Description of Hardware/Devices	Locations	Price Per Zone
Heavy-duty, wind-resistant sensor mounts (3.8 mi ²)	GDZ #1	\$ 38,000.00
Heavy-duty, wind-resistant sensor mounts (3.0 mi ²)	GDZ #2	\$ 30,000.00
Heavy-duty, wind-resistant sensor mounts (3.0 mi ²)	GDZ #3	\$ 30,000.00
Total for Proposed Hardware/Devices		\$ 98,000.00

TABLE B5 - PRICE BREAKDOWN FOR MISCELLANEOUS COSTS	
Description/Milestone	Price
No Additional Miscellaneous Costs	\$ 0.00
Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.
Total for Miscellaneous Costs:	\$ 0.00

C. OPTION TO RENEW FEES

The Proposer shall state its price for providing all Optional Products and Services as provided for in the tables below. **These prices should not be included in the Proposer’s Total Proposed Price.**

C1. OPTION-TO-RENEW (OTR) SOFTWARE LICENSE, HOSTING, MAINTENANCE AND SUPPORT SERVICE FEES

DESCRIPTION	ANNUAL FEE	EXTENDED TOTAL
OTR 1 – Software License, Hosting, Maintenance, and Technical Support Service Fees (Years 6, 7, 8, 9 & 10)		\$ 3,695,818.47
Software License, Hosting, Maintenance, and Technical Support Service Fees <i>Contract Year 6</i>	\$ 668,850.00	
Software License, Hosting, Maintenance, and Technical Support Service Fees <i>Contract Year 7</i>	\$ 702,292.50	
Software License, Hosting, Maintenance, and Technical Support Service Fees <i>Contract Year 8</i>	\$ 737,407.13	
Software License, Hosting, Maintenance, and Technical Support Service Fees <i>Contract Year 9</i>	\$ 774,277.48	
Software License, Hosting, Maintenance, and Technical Support Service Fees <i>Contract Year 10</i>	\$ 812,991.36	

D. OPTIONAL FUNCTIONALITY AND RELATED SERVICES

D1. Acoustic Gunshot Detection Solution – With High-Definition All Weather Video and Audio Cameras

TABLE D1: PRICE BREAKDOWN FOR PROPOSED ACOUSTIC GUNSHOT DETECTION SOLUTION WITH HIGH DEF ALL WEATHER VIDEO AND AUDIO CAMERAS		
Description of Hardware/Devices	Locations	Price Per Zone
Not Offered	GDZ #1	\$ Click here to enter text.
Not Offered	GDZ #2	\$ Click here to enter text.
Not Offered	GDZ #3	\$ Click here to enter text.
Total for Proposed Acoustic Gunshot Detection Solution:		\$ Click here to enter text.

Miami-Dade County, FL

RFP No. 00327

D2. Acoustic Gunshot Detection Solution – Additional Zones (Per Square Mile)

TABLE D2: PRICE BREAKDOWN FOR OPTIONAL ADDITIOANL ZONES (Per Square Mile)			
Acoustic Gunshot Detection Solution	Locations	Price Per Square Mile	Extended Total (Unit Price x Quantity)
	GDZ # TBD	\$ 69,000.00	\$ 345,000.00 (for 5 years, includes service initiation and mounts)
Total for Optional Additional Acoustic Gunshot Detection Zone:			\$ 345,000.00

D3. Optional Professional Services

TABLE D3 – OPTIONAL PROFESSIONAL SERVICES	
Description	Unit Price Per Hour
Not Applicable	\$ 0.00
Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.
Click here to enter text.	\$ Click here to enter text.

PROPOSER INFORMATION

ACOUSTIC GUNSHOT DETECTION SOLUTION

Experience and Past Performance of Proposer, Key Personal, and Subcontractors

1. Describe the Proposer's past performance and experience and state the number of years that the Proposer has been in existence, the current number of employees, and the primary markets served.

SST is the only company in the world that has successfully deployed wide-area gunfire detection/location systems in urban environments. With over 20 years of experience, we specialize in supporting over 90 law enforcement organizations throughout the world in their gun violence reduction efforts, and in addition to delivering real-time actionable gunfire intelligence, we bring to bear a formal onboarding process that provides comprehensive training, best practices, strategies and ongoing webinars that drive positive outcomes.

SST owns and maintains the largest database of gunfire events and other impulsive noise detections on the planet allowing us to continually refine and improve our machine classification techniques, as well as analyzing gunfire trends. Over a 2 year period, ShotSpotter Flex customers have experienced a median decrease of 34.7% in shooting incidents, with corresponding decreases in homicides, and shootings with injuries. A Google search of "ShotSpotter success" reveals 10's of thousands of media news stories depicting how ShotSpotter alerts have led to arrests, gun seizures, identification of crime scenes, evidence recovery, life rendering aid, and safer communities.

SST provides the ShotSpotter Flex system as a subscription-based service (SaaS model). We own and take 100% responsibility for maintaining the entire network infrastructure, with all of our gunfire data residing on our servers, which means that our customers do not have to worry about IT overhead, and can stay focused on what they do best, which is to fight crime, and make their communities safer.

Headquartered in Newark, CA, SST employs approximately 55 people. We're 100% focused on developing gunfire/explosive detection systems. Our primary market has been in public safety, and in the last year, we've taken our experience in outdoor gunfire detection, to develop indoor/outdoor gunfire detection solutions for active shooter incidents on educational and corporate campuses.

2. Provide a detailed description of comparable contracts (similar in scope of services to those requested herein) which the Proposer has either ongoing or completed within the past three years. The description should identify for each project: (i) client, (ii) description of work, (iii) total dollar value of the contract, (iv) dates covering the term

of the contract, (v) client contact person and phone number, (vi) statement of whether Proposer was the prime contractor or subcontractor, and (vii) the results of the project. Where possible, list and describe those projects performed for government clients or similar size private entities (excluding any work performed for the County).

Please refer to the attached "ShotSpotter Customer References with Project Details" document which contains a sampling of SST customers with projects similar in scope and size to the Miami-Dade project. The dollar value of the individual projects is considered confidential information, but they range in value from \$250K to \$3M+, depending on the size of the coverage area. SST was the prime contractor on all of those projects, and all were successfully deployed. Nationally, the median reduction in gunfire activity for ShotSpotter Flex customers is 34.7% over the first 2 years of service. Many if not all of these agencies can also testify to how the ShotSpotter Flex system has led to arrests, gun seizures, recovery of evidence, provided critical information in shooting investigations, and has enabled proactive strategies to reducing gun violence.

3. List all contracts which the Proposer has performed for Miami-Dade County. The County will review all contracts the Proposer has performed for the County in accordance with Section 2-8.1(g) of the Miami-Dade County Code, which requires that "a Bidder's or Proposer's past performance on County Contracts be considered in the selection of Consultants and Contractors for future County Contracts." As such the Proposer must list and describe all work performed for Miami-Dade County and include for each project: (i) name of the County Department which administers or administered the contract, (ii) description of work, (iii) total dollar value of the contract, (iv) dates covering the term of the contract, (v) County contact person and phone number, (vi) statement of whether Proposer was the prime contractor or subcontractor, and (vii) the results of the project.

SST has never contracted with the Miami-Dade County government, although in 2011, the Federal Bureau of Investigations contracted with SST to provide 2 square miles of Acoustic Gunshot Detection Services in the Northside Brownsville area of the county, for a period that lasted approximately 18 months.

4. Provide an organization chart showing all key personnel, including their titles, to be assigned to this project. This chart must clearly identify the Proposer's employees and shall include the functions to be performed by the key personnel. All key personnel includes all partners, managers, seniors, Subject Matter Experts, and other professional staff that will perform work and/or services in this project.

Please refer to Organization chart attached

5. Describe the experience, qualifications and other vital information, including relevant experience on previous similar projects, of all key personnel, including those of subcontractors, who will be assigned to this project.

Note: After proposal submission, but prior to the award of any contract issued as a result of this Solicitation, the Proposer has a continuing obligation to advise the County of any changes, intended or otherwise, to the key personnel identified in its proposal.

Please refer to Key Personnel document attached

Services To Be Provided

6. Describe the approach to satisfying the Acoustic Vetting services definition in Section 1.2 of the Request for Proposal Document including any qualifications, related accreditation, military or equivalent training related to gunshot detection.

Our 24x7x365 commitment coupled with unparalleled acoustic expertise provides an instant assessment of all incidents, freeing up time that dispatchers and officers would otherwise spend analyzing alerts. We provide a 2 tier incident classification process that insures a very high level of accuracy and contextually rich and relevant so that first responders are equipped with the critical situational awareness to effect a fast, consistent and precise response. The 1st tier analysis of any detected explosive incident is performed by highly sophisticated machine software that has been developed over 20 years of experience in specifically analyzing gunfire events. The 2nd tier analysis is performed by SST's expert Incident Review Team at our National Incident Review Center in Newark, CA. Drawing on their experience, SST experts add critical situational intelligence to alerts, that can help personnel respond more safely and successfully. After an explosive (or impulsive) sound triggers ShotSpotter sensors that an incident is detected and located, audio from the incident is sent to the SST Incident Review Center via secure, high-speed network connections for real-time qualification. Within seconds, an SST professional reviewer analyzes audio data and recordings to confirm gunfire. Within 30 to 60 seconds of a shooting incident, the qualified alert is then sent directly to the dispatch center, PSAP, mobile/patrol officers and any other relevant safety or security personnel. SST's team of expert reviewers has direct experience reviewing thousands of incidents captured by SST systems. Reviewed alerts help law enforcement respond safely and effectively to gunfire by providing: Precise location of gunfire, both latitude/longitude and street address. Number and exact time of shots fired. Shooter position, speed and direction of travel (if moving). Faster, more accurate alerts. Gunfire incident history and pattern analysis. SST's incident reviewers hear thousands of gunfire incidents during their training, and each incident is presented to them from the perspective of multiple sensors. SST incident reviewers have reviewed and analyzed more acoustic gunfire incidents, from more perspectives, than quite literally anyone else in the world. SST's Real-Time Incident Review Center operates 24 hours a day, 365 days a year in a protected and fully redundant environment. Our software provides live chat functionality for immediate communication and assistance when required.

7. Describe the proposed specific project plan and the procedures to be used in providing the services in the Scope of Services (see Section 2.0).

Please refer to the ShotSpotter Flex Executive Summary document which provides an overview of our project plan methodology and procedures. The specific technical requirements outlined in Section 2.0 are each addressed in the functionality table below.

8. Provide a detailed description of how the proposed Acoustic Gunshot Detection Solution will address catastrophic failures that result in loss of data, including backup and restore functionality. This should include information on how the application as well as data will be recovered without disruption to current operations.

SST operates fully redundant data centers on both the East and West Coasts, both of which have doubly-redundant power and HVAC, and triply-redundant

Internet connectivity. The company has invested in full data redundancy and backups, as well as offsite backup, and provides a level of 24x7x365 fault tolerant hardware and network uptime that would be cost prohibitive for any agency—even the largest—to procure, let alone maintain, on its own.

9. List which Performance Testing Tools, if required, are to be provided by the Proposer.

There are no performance testing tools required. SST will conduct a Data Quality Verification (DQV) test before the system goes live.

10. Provide a detailed explanation of the approach to maintenance services, including but not limited to the Proposer's policy regarding new software releases, software upgrades, updates, patches, bug fixes, optional software features, etc. Include approximate frequency at which updates and/or upgrades are released as well as the method for deploying such updates and/or upgrades. Provide a detailed explanation of how maintenance services will be provided for equipment/devices including the recommended maintenance schedules. This should also include information regarding preventative maintenance services on equipment as well as methodologies for developing potential predictive maintenance. Only maintenance services that are included in the cost proposal being proposed to the County should be included in the response to this question. Do not include information regarding services that are provided at an additional cost.

Because SST provides Gunshot Detection as a managed service, all maintenance services, software updates and software/firmware releases are included with the data subscription. There is no customer premises equipment (CPE) to maintain. Maintenance windows are announced on all data access portals in advance of any anticipated down time. Any updates are automatically pushed to the workstation. Users will be prompted to restart the data access portal if any updates are received. No additional user intervention will be required for updates. As to the sensor array, the health performance of each sensor is continuously monitored by SST, and any firmware updates are automatically pushed out to the sensors. Redundancy is built into the sensor array design, and if necessary SST will initiate any sensor repairs. Since SST owns and maintains the entire sensor infrastructure, all hardware repairs/firmware updates to the sensors are transparent to our customers. This is similar to any other company that provides data service for its customers (ie. Cellular companies, cable tv), where all the work that goes into maintaining the network infrastructure is transparent to the customer.

11. Provide a detailed description of the proposed technical support services including telephone and email support, response times, escalation procedures, days and hours available, etc.

Almost all support services are available 24/7 through an online chat feature accessible through any of our data access portal. Please refer to the ShotSpotter Flex Services Agreement (Page 6, Section 4) for details on technical support services.

Implementation & Training To Be Provided

12. Provide a detailed description of training that is offered as part of the Proposal to MDPD. Provide the recommended number of on-site training hours, as well as any other type of training, including, but not limited to on-line tutorials, web seminar training (if available), training documentation, etc.

The Training Team consists of former law enforcement professionals with over 50 years of combined experience. Our mission is to maximize customer success

and drive positive outcomes. We do this through continued and on-going support to help you learn how to get the most benefit from the services we offer. All the training modules we offer are included in the price of the service, so never hesitate to request training if your agency is in need.

Getting Started

Early in the engagement process, one of our trainers will be assigned to the agency to ensure that wide-ranging and consistent training is delivered based on the agency customer's need. While the system is being installed, we will schedule a Best Practices meeting with command staff personnel and key identified stakeholders. This Best Practices Presentation is based on knowledge of law enforcement practices and learning from our customer agencies that have been successful with incorporating ShotSpotter services into the fabric of the department. The idea is to get the agency thinking about success and ways to achieve it right from the beginning.

As we approach the go-live date, our trainers will work with you to coordinate onsite training. We have a number of training modules depending on the users' profile, including for patrol, investigators, crime analysts, and prosecutors.

Last but not least, we can also offer for some of your personnel to attend our Train The Trainer course, which is a week long intensive course on all of our best practices and training modules. At the end of that week, your personnel will be able to fully and confidently train others in your agency.

On-Going Educational and Best Practices Webinars

To help support you in your deployment process, SST has a number of training webinars to help you get your team trained internally on how to use our products and services. We also offer a series of archived best practices webinars on a variety of law enforcement topics, including reducing celebratory gunfire, media communications strategies, funding resources, and data-driven strategies that have produced positive outcomes. These webinars are led by our internal SST experts and ShotSpotter users, many of whom have an extensive background in public safety and progressive approaches in reducing gun violence.

13. Describe the proposed Project Management methodology and recommended strategies in performing the services described in the Section 2. The Proposer shall describe its approach to project organization and management, to include the various project stages and milestones, change of Scope management, implementation and training strategies, responsibilities of the Proposer's management team, and the necessary Proposer and County staffing required to complete the project.

ShotSpotter is delivered as a managed service, so other than training coordination, there is very little County staffing required to complete the project. Upon a contract being executed, the SST Project Manager will meet with the MDPD team to review the desired coverage area, and project plan. The SST Project Manager may request information from the MDPD POC as to the location of any government owned locations within and around the coverage area, and at some point will also need information relating to MDPD beats/sectors, and county GIS parcel information, which will be integrated in the ShotSpotter Flex system, so that when MDPD receives our alert notifications, they will receive not only a dot on the map, but also the address parcel and beat information. The SST Project Manager will conduct a site survey, and then will design the sensor array. At this point, the SST Project Manager will start to work on collecting sensor site permissions. As the SST Project Manager closes in on collecting all the necessary sensor site permissions, the SST installation team will then start the sensor installations. As the sensor array installations approaches completion, the SST PM will coordinate with MDPD training dates. Once all the sensors have been installed, the SST PM will then coordinate with MDPD to conduct a live fire Data Quality Verification (DQV), which is designed to help calibrate the sensors, and ensure maximum detection accuracy right out of the gate. During this time period, the SST PM will also coordinate with MDPD to ensure that all user credentials are issued, and to assist in the installation of the ShotSpotter Flex consoles. For additional details, please refer to the ShotSpotter Flex Executive Summary, Key Personnel, and Deployment Schedule Template documents attached.

14. Describe the Proposer's approach to project organization and management, including the responsibilities of the management and staff personnel that will perform the requested work in this project.

Please refer to the Key Personnel document attached

15. Provide a project schedule identifying specific key tasks and duration.

Please see the Deployment Schedule Template attached

16. The Proposer must submit a Project Plan to include approximate timeframes for all implementation phases and key tasks to include activities such as business process review; software customization; site preparation; unit, system and acceptance testing; load and balance testing; a phased approach to the training and implementation of the solution and post-implementation support. The Proposer should allocate sufficient time for comprehensive user acceptance testing.

Please see the Deployment Schedule Template attached.

17. Describe the Proposer's experience with providing information related to court proceedings.

ShotSpotter Flex data is also useful for detailed forensic analysis that helps reveal and clarify what actually occurred during a gunfire incident, including the identification of weapon type (i.e. automatic vs. semi-automatic), the number of rounds fired, the number of shooters involved, and the direction and speed of a shooter-in-motion for drive-by shootings. The audio clips also provide conclusive evidence to prosecutors to allow jurors to directly experience the incident and gain a more detailed firsthand awareness of what are often horrifying moments for the victims. In support of prosecutions, SST offers key members of its staff to provide expert witness testimony to help interpret and clarify crime scene activity

derived from the system's data. In addition to predefined and customer-generated reports, ShotSpotter experts can create a detailed forensic report of any single gunfire incident. ShotSpotter detailed forensic reports have helped with many convictions and also to clarify what occurred during officer involved shootings. Nearly all of the criminal proceedings in which its experts have been called to testify, SST has been able to produce a detailed, round-by-round analysis of the timing and location of the shots fired by one or more weapons. To the best of our knowledge, no other acoustic-based gunshot detection system has been accepted in a court of law as providing this kind of forensic evidence.

ShotSpotter evidence has been submitted in 100's of court case proceedings, both at the federal and local levels, including in the State of Florida, and SST expert witness testimony has been successfully admitted in over 50 court cases. In four states (CA,NY,MO,NE), ShotSpotter scientific technique was subject to Kelly (Frye) or Daubert challenges and was found to be admissible. For additional details on the use of ShotSpotter evidence in court proceedings, please see the attached "SST Prosecutor and DA Resource Manual".

18. Describe the approach to ensure any installed equipment will withstand south Florida windstorm and other harsh climate conditions.

Over the last 6 years, hundreds of ShotSpotter sensors have been successfully deployed throughout the state of Florida, and Caribbean region. SST sensors and the heavy-duty wind-resistant mounts we use in this region are designed to handle all the weather conditions found in this environment, including hurricane strength winds. Over those years, very few if any of those sensors have suffered weather related damage. Since SST maintains ownership of all sensors, any sensors that are damaged either accidentally or intentionally, are replaced by SST at no cost to our customers.

19. Describe the approach to integrate the proposed solution with gunshot detection solutions implemented in areas that are contiguous to MDPD-patrolled territory. Areas with deployed gunshot detection solutions currently include the City of Miami and the City of Miami Gardens.

Both the City of Miami and Miami Gardens are current SST customers and therefore compatible with the services proposed in this project. Therefore no additional technical integration is necessary. Once the City of Miami, Miami-Gardens, and Miami-Dade agree to share each other's information, SST can enable the participating jurisdictions to view each other's systems. This is currently being done by the Miami-Dade County School Police which has access to ShotSpotter alerts in both the City of Miami and Miami-Gardens, so that they can quickly respond to any gunfire incidents on or near schools in the coverage areas.

20. To ensure accountability and decrease the quantity of "outside" personnel who are aware of the location of deployed hardware, MDPD desires that the Proposer must be the only entity involved in the installation and maintenance; no outside contractors. Please describe the approach to satisfy this.

SST retains ownership of all equipment deployed under this contract. Therefore SST will be entirely responsible for installation and maintenance. Sensor locations are not shared with any outside entity, unless compelled by lawful court order. The installation of the sensor array is supervised by an SST Project Manager, and performed

by a pre-vetted SST installer, who is bound by Non-Disclosure Agreements to not divulge any information related to the project.

Solution Functionality

21. Describe the software component of the proposed Solution. If applicable, include the functionality of each module and how the individual modules interface. Provide printed screen shots and diagrams to illustrate each component (client and server). This should include a diagram of the technical components of the proposed Solution and a description of where such components are installed and a schematic of the data model as well as the application language used in the proposed Solution. Additionally, this should include a description of the client portion of the software, including the application type (web based or client installation required, etc.).

The alerts that are generated by ShotSpotter are delivered in the following forms (please see the attached Executive Summary for screen shots):

i. Alerts Console

The ShotSpotter Flex Alerts Console is the user interface most often used by Call Takers, Dispatchers, and Patrol Officers in the field. Real-time notifications of gunfire incidents are delivered to this console.

The console provides the type of gunfire (single round, multiple round), a unique identification number (Flex ID number), a date and time of the muzzle blast (trigger time), latitude-longitude of the location of the muzzle blast, nearest address of the location of the muzzle blast, number of shots, direction of travel (moving shooter, multiple rounds), speed of travel (moving shooter, multiple rounds), district identification, and beat identification.

An SST analyst may add other contextual information related to the event such as the possibility of multiple shooters, high capacity weapons, full-automatic weapons, and the shooter's location related to a building (front yard, back yard, street, etc.). An audit trail of the time the alert was published, acknowledged and closed at customer facility is also contained in the report. All notes by Call Takers and Dispatchers are added to the alert are time and date stamped and indicate the operator's identification. For Patrol Officers, an audio clip of the incident is provided with the alert.

ii. Investigator Portal

All historical incident data in the ShotSpotter Flex database can be viewed, searched, sorted, and filtered using the ShotSpotter Investigator Portal. Reports for single incidents and groups of incidents can be run. Parameters and filter settings may be used to select incidents grouped into a single report. Any predefined reports may be viewed on a monitor, printed, or exported to standard CSV format.

End-users can create their own custom reports or otherwise analyze the data using standard COTS products such as Microsoft SQL Server Report Builder, Crystal Reports, ArcGIS including Spatial Analyst, and any other SQL tools or SQL Server compatible tools. Because the system stores all incident details into an SQL database, generating reports is relatively simple.

The Investigator Portal also includes the ability to save any audio clip as a standard MP3 file to any recordable media (e.g., CDROM, USB drive).

iii. Mobile Alerts

Using ShotSpotter Siren, real-time gunfire alert data may also be delivered to smartphones through email and SMS text messages. The location of gunfire is represented as a dot on a map in addition to the number of rounds fired, including access to the incident audio. A native smartphone app is under development and will soon be available for use on iPhones and Android platforms.

22. Describe your Solution's video management system functionality and ability to integrate with existing closed-circuit television (CCTV) functionality.

The ShotSpotter Notification Engine Interface permits client applications such as video management systems, Computer-Aided Dispatch (CAD), Records Management Systems (RMS), video analytics, automated license plate number readers (ALPR), camera management systems, crime analysis and statistics packages (including COMPSTAT software), and common operating picture (COP) software to receive accurate, timely, and detailed information about ShotSpotter gunfire alerts, including precise latitude and longitude (geolocation), GPS-synchronized timestamps, incident audio, and situational context provided by the 24x7x365 SST Incident Review Center.

Integration of ShotSpotter data with other systems has already proven successful in cities across the United States. For example, police in Minneapolis, MN used the ShotSpotter Notification Engine to trigger video recordings of certain key intersections in high crime areas. Soon thereafter, a ShotSpotter alert triggered those cameras to capture the image of a murderer fleeing the scene of a shooting. Similarly, in Boston, MA, police correlate ShotSpotter data with surveillance cameras and parolee ankle bracelet tracking data to maintain 24x7x365 awareness of any parolee who may be violating the terms of parole by committing crimes or consorting with those doing likewise.

For additional details, please refer to our "Release Bulletin Notification API and Notification" document.

23. Provide description of anything (functionality, software, or hardware) not identified in the RFP that will be required to make proposed Solution meet the Scope of Services.

Customer requirements are detailed in #26 below and the minimum specifications the attached document called, "FED-72-01 Hosts and Services Required to Use ShotSpotter Flex Clients."

24. Describe the key value-added features of the proposed Solution (products or services) that differentiate it from other proposed solutions.

To date, no other company has ever successfully deployed a gunshot detection/location system over a wide urban area. SST, Inc. holds the deepest patent portfolio in the industry, the result of nearly 20 years of innovation in the area of acoustic gunshot location technology. Our solutions are protected by the 33 patents listed at www.shotspotter.com/patents, and other domestic and foreign patents are pending. Those patents protect sensor array designs that have been proven to be the most effective way to detect and locate gunfire incidents in wide-area urban environments. For example, no other company can provide a networked sensor array, which is critical in the ability to accurately detect/locate gunfire incidents. To our knowledge, no other company can provide detailed incident alerts that contain the exact location of the event (not just proximity to a sensor), number of shots fired, and contextual information (ie. Possible multiple shooters), and have those alerts be simultaneously pushed out to dispatchers, real-time crime center, mobile computers, and even to smart phone devices (currently as an email notification, but an app for IOS and Android devices will be rolled out in very near future).

In addition, no other company delivers gunfire detection/location as a subscription-based service, so that no additional IT overheads (ie. Out-of-pocket expenses for sensor repairs/replacements and server maintenance) are incurred over the life of the subscription. Related to our service capabilities, no other company has a 24/7/365 Incident Review Center, where we monitor gunfire incidents for nearly 90 other agencies, and which is staffed by highly trained personnel who have listened to and analyzed 1000's of gunfire incidents, so that when our customers receive an alert notification, they can have a high-level of confidence in the accuracy of the information.

SST is in the unique position of having worked with over 90 agencies over the last 20 years, and we have aggregated a wealth of knowledge and expertise in the area of using real-time gunfire intelligence to reduce/prevent gun violence. No other company can deliver a training program that has been proven to deliver positive outcomes.

No other company can point to customers who have used their system with demonstrable results in terms of gunfire reductions, arrests, gun seizures, evidence collection, and even providing life rendering aid to victims.

ShotSpotter Flex is the only other gunfire detection/location system that is being used by other jurisdictions in Florida, and therefore, no other company can offer a seamless regional view of gunfire intelligence. As previously stated in another part of this RFP, through a simple inter-agency agreement, MDPD can have access to the ShotSpotter systems in the City of Miami, Miami-Gardens, and other jurisdictions that may come onboard later. It also facilitates partnerships with federal law enforcement agencies that may want to participate in a regional gunfire reduction/casing collection/analysis/tracing program.

25. Describe in detail the portions of the proposed Solution that will require configuration (setup) versus customization (additional development).

There will be no customization (additional development) required for the proposed solution. The system will be configured utilizing GIS data provided by the county.

26. Provide the recommended hardware and software requirements for the software component of the proposed Solution, including any information regarding requirements for dedicated application servers, storage devices or other hardware as well as information regarding the ability to function in a virtual environment.

Customer Requirements:

- Provision network access required to meet SST minimum specifications and requirements (ref attached "Host and Services Required to Use ShotSpotter Flex Clients" SST FED-72-01) for all computers (PC and MDC) which will access the ShotSpotter Flex Service.
 - Run the SST System Profiler (a web-based analyzer) to verify system configuration and network access required for each computer (PC or MDC) which will access the ShotSpotter Flex service.
27. Provide a detailed description of the detection equipment/devices being proposed. This should include information regarding all aspects of functionality. Please provide images or diagrams to illustrate each component. Additionally, Proposers should provide the recommended life cycle of the equipment and associated components to ensure optimal performance.

SST retains all ownership of the sensors and all other equipment deployed. In order to protect those assets from vandalism, SST considers images, diagrams, and the sensor site locations as confidential information. However, we can share that the sensors are relatively small, and that they are innocuous looking in that they blend-in with other telemetry devices often found in urban environments. The sensors have integrated GPS and cellular radios that enable them to communicate with our network infrastructure, so that they can not only push out data relevant to an incident, but they are also capable of being remotely monitored for system performance, and firmware updates. Redundancy is built into the sensor array design, and the system is continuously monitored for optimum performance. SST will deliver gunshot detection at the service levels described in the ShotSpotter Flex Services Agreement attached. Therefore, any defective or damaged equipment will be repaired or replaced to maintain the service levels promised, regardless of life cycle or cause of damage. All sensor repairs/upgrades are included in the annual subscription fee.

28. Describe the approach to configuring and synchronizing data between the software component and other County software systems.

Please refer to the Notification Engine document attached for API information.

29. Provide a detailed description of the network infrastructure component to be provided to connect the software component to the detection equipment/devices. This should include information regarding all aspects, including equipment to be provided.

In addition to owning and operating the underlying sensor network, SST also owns and operates the data center infrastructure which provides the 24x7x365 real-time data. Sensors operate on "machine-to-machine" (M2M) data contracts provided by our cellular provider partners. Because SST maintains thousands of

live sensor connections with those partners, we achieve per-sensor connectivity savings far beyond what a single agency could negotiate, and we pass those savings along to our customers in the form of a fixed price subscription. Please refer to attached Network Infrastructure Diagram document.

30. Provide a detailed description of any available Application Programming Interfaces (APIs) for the proposed Solution. Include information regarding successful interfaces that have been completed.

Please refer to the Notification Engine document attached for API information. The ShotSpotter API has been successfully used by many other agencies throughout the country with various video management systems, as well with Domain Awareness Systems and Crime Analysis Systems.

31. Provide a detailed description of how the proposed Solution will operate as requested within the desired solution functionality outlined in Section 2.4. If the proposed System requires additional items in order to operate that are not addressed in the current environment, provide a detailed description of such additional items.

Gunshot detection data generated by SST is not CJIS sensitive because the data itself does not consist of information with respect to an identifiable person or group of persons. Regardless, SST will deliver gunshot detection data in compliance with Section 2.4 without a requirement of additional items.

32. Describe the reporting functionality of the proposed Solution and its ability to meet the needs outlined in Section 2.9.

All historical incident data in the ShotSpotter Flex database can be viewed, searched, sorted, and filtered using the ShotSpotter Investigator Portal. Reports for single incidents and groups of incidents can be run. Parameters and filter settings may be used to select incidents grouped into a single report. Any predefined reports may be viewed on a monitor, printed, or exported to standard CSV format.

End-users can create their own custom reports or otherwise analyze the data using standard COTS products such as Microsoft SQL Server Report Builder, Crystal Reports, ArcGIS including Spatial Analyst, and any other SQL tools or SQL Server compatible tools. Because the system stores all incident details into an SQL database, generating reports is relatively simple.

The Investigator Portal also includes the ability to save any audio clip as a standard MP3 file to any recordable media (e.g., CDROM, USB drive).

Functionality Table

Proposers are required to complete the chart below indicating whether the proposed Solution meets, does not meet, or requires customization to meet the outlined functionality. **Proposers should provide a detailed description of how the functionality is or is not met in the “Response Description” field for ALL items included in the table.** This should include a description of any customization required to meet the functionality. A blank or N/A in any box will be interpreted as an "N".

The acceptable response codes are as follows:

- **“Y” - “Yes”** - Indicates that the requested functionality is currently available in the proposed System.
- **“N” – No”** - Indicates that the requested functionality is not available in the proposed System.
- **“C” - “Custom”** - Indicates that the requested functionality can be accommodated through a customization.

Functionality Number	Functionality Description	Response (Y, N, C)	Response Description
1.	Provide vetted confirmation within 60 seconds of gunshot detection.	Y	Refer to Exhibit A in the ShotSpotter Flex Services Agreement (attached) for Reviewed Alert Service Levels
2.	Provide exact positional data in one if the two following projections/coordinate systems: <ul style="list-style-type: none"> • NAD_1983_StatePlane_Florida_East_FIPS_0901_Feet coordinate system (x, y, and z) WKID: 2236 Authority: EPSG Projection: Transverse_Mercator • WGS_1984_Web_Mercator_Auxiliary_Sphere WKID: 3857 Authority: EPSG Projection: Mercator_Auxiliary_Sphere 	Y	WGS 1984 latitude/longitude in decimal degrees up to six decimal places.
3.	Ensure that acoustic vetting is conducted by Subject Matter Experts.	Y	Refer to Exhibit A in the ShotSpotter Flex Services Agreement (attached) for Reviewed Alert Service Levels
4.	Provide addresses that adhere to the United States Postal Service standards as outlined in Attachment B.	Y	Address format is first georeferenced from the parcel or address (GIS) information provided by the County. If no parcel or address (GIS) information is available, address information is georeferenced from Microsoft Bing data.
5.	Provide mapping capability, including overlay of incident location.	Y	Microsoft Bing or Google maps including street, aerial, and oblique "birds-eye" or "street view" view are provided. Incident location is indicated with a red dot in every map view.
6.	Provide a date and time-stamped digital recording of the incident for immediate playback.	Y	Both the Alert Console (Patrol View) and the Investigator Portal provide immediate playback of gunfire audio from multiple sensors. The Investigator Portal provides the ability to download and save the audio file in MP3 format.
7.	Provide the ability to record the event and save all corresponding information/data.	Y	The Investigator Portal provides access to all historical data which can be exported to a CSV formatted file. Individual incident reports may be printed which contain all metadata and comments added to the incident.
8.	Provide the ability for acoustic sensors to withstand south Florida windstorm and other harsh climate conditions.	Y	Over the last 6 years, SST has deployed through the Florida and Caribbean region. The sensors are designed to withstand all weather conditions in these regions including hurricane conditions.
9.	Provide the ability to timestamp individual gunshots to at least 1/10 of a second utilizing a Global Positioning System clock.	Y	Gunshots are timed down to the 1/1000 th of a second using GPS satellite time.

Miami-Dade County, FL

RFP No. 00327

10.	Provide the ability to network acoustic sensors together in a Wide Area Network (WAN) utilizing any/all of the following communication methods: wireless 900 MHz, hardwire, existing WAN access point, public wireless/cellular carriers (encrypted in compliance with the Federal Bureau of Investigation's Criminal Justice Information System (CJIS) Security Policy referenced in section 2.4 of the RFP document).	Y	Public wireless cellular carriers are used
11.	Provide the option to interface with networked video surveillance cameras remotely controlled by the MDPD.	Y	ShotSpotter Notification Engine (API) License is included.
12.	Provide the ability to capture forensic information such as: exact location of each shot, exact time of each shot, and matching forensic-grade digital recordings.	Y	Please see SST Prosecutor and DA Resource Manual attached for an example of a detailed forensic report.
13.	Provide the ability to integrate with other gunshot detection solutions.	Y	The proposed ShotSpotter system will be fully compatible with other ShotSpotter systems deployed in southern Florida, including the City of Miami and Miami Gardens.
14.	Provide a web-based user interface that is accessible via various web browsers for an unlimited number of MDPD users with a minimum uptime of 99.99%	Y	Please refer to the Executive Summary for a description of the user interfaces offered.
15.	Provide various role-based access levels (user, administrator, etc.)	Y	Click here to enter text.
16.	Provide the ability to monitor the status of sensors to verify if they are online and working properly or faulty and require maintenance.	Y	Sensors are owned and monitored by SST and maintained without customer intervention.
17.	Provide the ability to track reported gunshots for further investigation.	Y	The Investigator Portal can be used for post event investigations as well as for analysis purposes to inform targeted investigations of active locations.
18.	Server and related systems must be secured per Center for Internet Security (CIS) Benchmarks (Level I) as further outlined at the following link: http://benchmarks.cisecurity .	Y	Click here to enter text.

	org/downloads/browse/index.cfm?category=benchmarks		
19.	All vulnerabilities identified by the County's current vulnerability management platform (Qualys) using the Common Vulnerability and Exposure (CVE) system ranked as Medium or above remediated within 30 days.	Y	Click here to enter text.
20.	Web applications must be free from OWASP top 20 application vulnerabilities, verified by ongoing vulnerability scans using the County's current web application vulnerability management platform (IBM Rational App Scan).	Y	Click here to enter text.
21.	Must participate in the County's patch management program – any vulnerabilities discovered during security assessments, continuous monitoring or incident response activities must be patched within 30 days.	Y	Click here to enter text.
22.	Event auditing and accountability must be implemented in accordance with CJIS Security Policy, section 5.4	Y	Click here to enter text.
23.	Access control must be implemented in accordance with CJIS Security Policy, section 5.5	Y	Click here to enter text.
24.	User identification and authentication must be implemented in accordance with CJIS Security Policy, section 5.6	Y	Click here to enter text.
25.	System and Communications Protection and Information Integrity must comply with CJIS Security Policy, section 5.10	Y	Click here to enter text.
26.	The API should be exposed via a RESTful web service	Y	Click here to enter text.
27.	The content type which is returned by the web service should default to XML, but JSON should be returned if the client calls the web service with an HTTP header value of Accept:	Y	Click here to enter text.

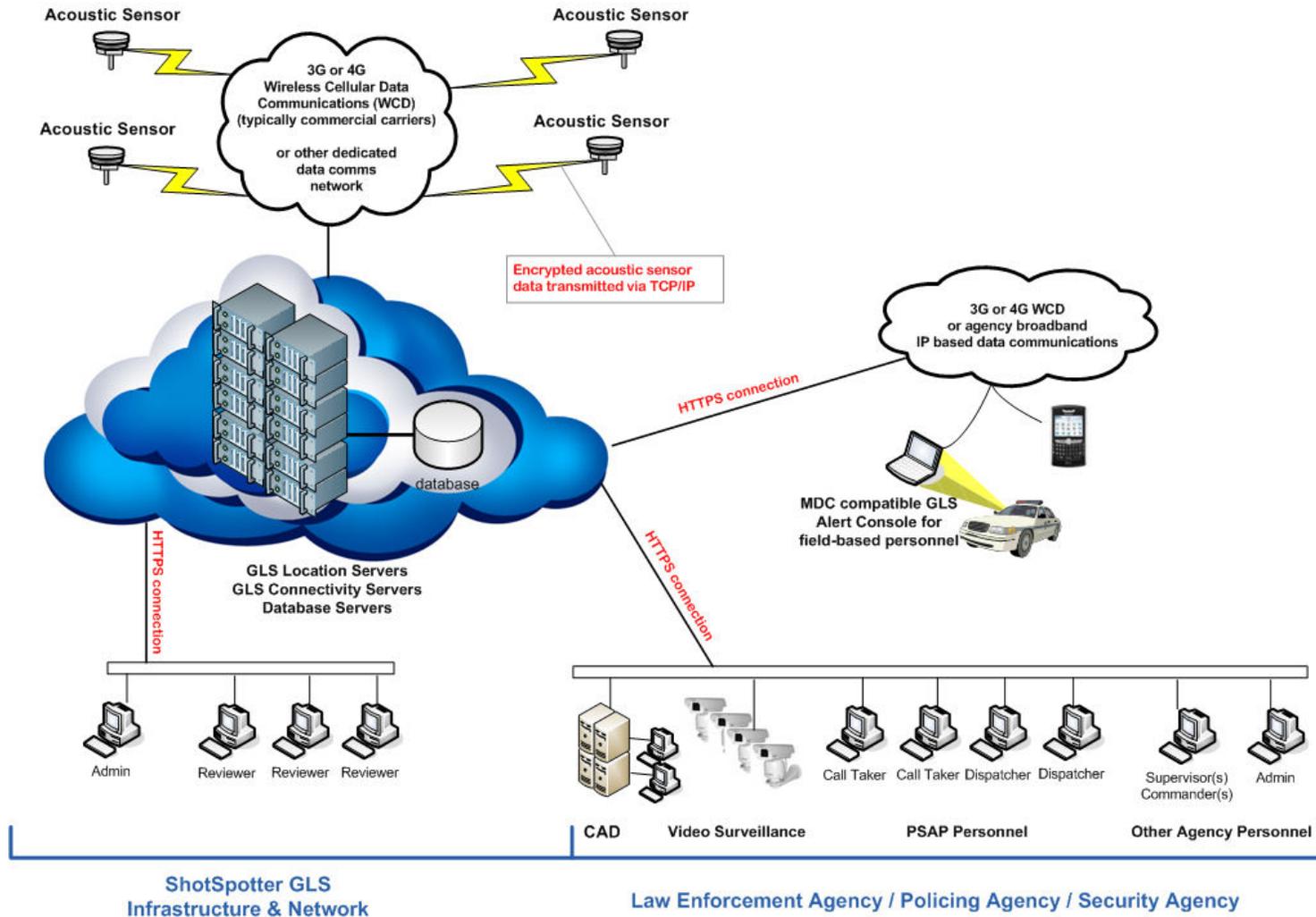
	application/json; charset=utf-8		
28.	The content type which is returned by the web service should be gzip compressed if the client calls the web service with an HTTP header value of Accept-Encoding: gzip	Y	Click here to enter text.
29.	Any web service must use SSL via HTTPS	Y	Click here to enter text.
30.	The selected Proposer may secure the web service via a means of authentication (Basic, Digest, etc.)	Y	Click here to enter text.
31.	The selected Proposer must provide MDPD with the query criteria which must be passed when calling the web service	Y	Click here to enter text.

Exceptions To Terms

33. Identify if the Proposer has taken any exception to the terms of this Solicitation. If so, indicate what alternative is being offered and the cost implications of the exception(s).

No exceptions to terms.

ShotSpotter Flex – Architecture



INFORMATION FOR THE KEY PERSONNEL

Below a complete list of the key personnel and on-site supervisory personnel to be assigned to this contract.

1. Name of Individual Assigned: Mario Barrionuevo
2. Position/Title on This Contract: Project Manager
3. E-mail Address: mbarrionuevo@shotspotter.com
4. Proposed Function/Role On This Contract:

Responsible for overall project management, planning and coordination of all internal SST work products and deliverables, design of acoustic sensor array and securing of site installation agreements in all coverage areas, coordination and scheduling of service delivery with Miami-Dade PD. Primary point of contact between SST and Miami-Dade PD on all project activities. Mr. Barrionuevo has 15 years of technical project management experience in telecommunications and wireless technology industries, including three years as Senior Project Manager for SST, Inc. He has led the successful delivery of over a dozen ShotSpotter deployments in cities across the U.S. and Puerto Rico. Mr. Barrionuevo is PMP certified as holds a Bachelor's Degree in Computer Science.

1. Name of Individual Assigned: Nikhil Mehta
2. Position/Title on This Contract: Director of Network Services
3. E-mail Address: nmehta@shotspotter.com
4. Proposed Function/Role On This Contract:

Working in conjunction with the Project Manager, he is responsible for provisioning of cloud-based Flex gunshot detection application, database and network services, including ShotSpotter integration with video management and other third party systems. Mr. Mehta has over 15 years of experience in network operations and systems engineering in the wireless telecommunications industry and has completed network retrofits and systems integration projects for over two dozen ShotSpotter customers. Mr. Mehta is PMP certified and holds a Bachelor's Degree in Electrical and Electronics Engineering.

1. Name of Individual Assigned: Dorothy Jensen
2. Position/Title on This Contract: Director of Field Service and Logistics
3. E-mail Address: djensen@shotspotter.com
4. Proposed Function/Role On This Contract:

Working in conjunction with the Project Manager, she is responsible for supply of acoustic sensor hardware and related materials, subcontractor management, and scheduling and oversight of sensor installations in the field using SST field service technicians and local electricians from our Miami-based partner. Ms. Jensen has over 15 years of large scale project management experience in both engineering and public safety fields, including construction of metropolitan broadband networks and 9-1-1 emergency communications facilities for the cities of San Francisco and Chicago. Ms. Jensen is PMP certified and holds a Bachelor's Degree in Electrical Engineering.

1. Name of Individual Assigned: Ed Flosi
2. Position/Title on This Contract: Program Development and Training
3. E-mail Address: eflosi@shotspotter.com
4. Proposed Function/Role On This Contract:

Working in conjunction with the Project Manager and closely with the customer, responsible for overall ShotSpotter Program Development and training for ShotSpotter customers, including specialized training and "best practices" consultation for Dispatch, Patrol, Investigations, Crime Analysis, and District Attorney/Prosecution. Mr. Flosi has 30 years of experience in law enforcement, having retired as Sergeant with the San Jose Police Department in California, 15 years of experience in law enforcement training, and three years of experience as ShotSpotter Director of Training.

1. Name of Individual Assigned: Mark Jones
2. Position/Title on This Contract: Sr. Director of Customer Success
3. E-mail Address: mjones@shotspotter.com
4. Proposed Function/Role On This Contract:

Oversees all Program Development and Training for SST, and responsible for developing an intelligence program to help customers achieve the best possible results from their investment. Mr. Jones will be working closely with key customer stakeholders to develop strategies on how to maximize the use of the ShotSpotter Flex intelligence to reduce gun violence. Mr. Jones also serves as law enforcement advisor for the University of Chicago Crime Lab in Chicago, Illinois and is a policy consultant for several private organizations, non-profits and news outlets. Mr. Jones retired at the end of 2011 following a successful 31-year career in municipal and federal law enforcement; his last official assignment was as the U.S. Department of Justice Regional Firearms Advisor for Central America. Posted to the U.S. Embassy San Salvador, he was responsible for the U.S. government's small arms violence reduction efforts under the Central American Regional Security Initiative (CARSI). Mr. Jones held this ground breaking position from August 2009 through November 2011 and helped develop violence reduction policies for the governments of all seven Central American countries. Mr. Jones previously served as a supervisory special agent with the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Kansas City, Washington, D.C., Chicago field divisions, as well as several positions in ATF headquarters including ATF liaison to the FBI Counter Terrorism Center and Criminal Investigation Division (1999–2001) and Deputy Division Chief for Arson & Explosives Programs (2006-2008.) Mr. Jones was formerly employed by the U.S. Department of State, Diplomatic Security Service where he held assignments as the chief of security for the U.S. Ambassador to Lebanon (1988-1989), team leader for the Mobile Security Division (1989-1991) and internal affairs investigator (1985-1988.) Mr. Jones began his public service career with the Village of Glencoe, Illinois as a police officer, firefighter and detective (1980-1985.) Mr. Jones received a Bachelor of Arts degree in criminal justice from the University of Illinois at Chicago (1985) and a Master of Science in Management from the Johns Hopkins University, Carey Business School (2005).

1. Name of Individual Assigned: Michelle Rippy
2. Position/Title on This Contract: Manager, Real Time Incident Review Center (IRC)
3. E-mail Address: mrippy@shotspotter.com
4. Proposed Function/Role On This Contract:

Working in conjunction with the Project Manager and SVP Operations, she is responsible for delivery and oversight of the ShotSpotter Flex Reviewed Alerts Service and first line customer support for gunshot incident response via Flex Online Chat. Ms. Rippy has 15 years of experience in public safety, forensic science and management experience, including past positions as a Death Investigator, Deputy Coroner, and Police Officer. She is currently a Reserve Police Officer with the Hayward (CA) Police Department and Adjunct Faculty member teaching Criminal Justice Administration at the California State University East Bay. She has a Master's Degree in Forensic Science.

1. Name of Individual Assigned: Mike Will
2. Position/Title on This Contract: Senior Director of Customer Support
3. E-mail Address: mwill@shotspotter.com
4. Proposed Function/Role On This Contract:

Working in conjunction with the Project Manager and SVP Operations, he is responsible for delivery and oversight of SST Customer and Technical Support, including remote monitoring and management of the ShotSpotter sensor network and fulfillment of all customer service requests from basic technical support to forensic data services, gunshot investigation support, and expert witness testimony for ShotSpotter Flex customers. Mr. Will has over 25 years of experience delivering customer service and technical support for terrestrial and wireless data and telecommunications networks. Mr. Will holds a Bachelor's Degree in Computer Science.

1. Name of Individual Assigned: Doris Cohen
2. Position/Title on This Contract: Manager of Training and Customer Development
3. E-mail Address: dcohen@shotspotter.com
4. Proposed Function/Role On This Contract:

Working in conjunction with the Project Manager and closely with the customer, responsible for ShotSpotter Program Development and training for ShotSpotter customers, including specialized training and "best practices" consultation for Trend Analysis, Hotspot Mapping, and Forecasting. Ms. Cohen has over 20 years of experience working as a crime analyst with law enforcement departments throughout northern California and five years of experience as ShotSpotter Manager of Training. Ms. Cohen holds a Masters in Emergency Services Administration and a Bachelor's in Public Administration. She is actively involved in the Bay Area Crime and Intelligence Analysts Association (BACIAA) and was the Vice President from 2011-2014.



confidential

**EXECUTIVE SUMMARY
FOR SUBSCRIPTION-BASED
SHOTSPOTTER® FLEX™ GUNFIRE LOCATION,
ALERT AND ANALYSIS SERVICE FOR
MIAMI-DADE POLICE DEPARTMENT, FLORIDA**



**Executive Summary for Subscription-Based
ShotSpotter® Flex™ Gunfire Location, Alert and Analysis Service**

Prospect: Miami-Dade Police Department, Florida

Proposal ID: RFP No. 00327

Date: April 18, 2016

Submitted by: Phil Dailly, Director – Southeast Region
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Table of Contents

SST Introduction and Background	4
About SST, Inc.	4
Our Core Beliefs	4
Our Experience	5
Our Service and Product Offerings	5
About Our Service – ShotSpotter Flex	6
Real Time Gunfire Data	6
Sensor Platform	7
Subscription-based and Software as a Service	7
Incident Review Center	8
Best Practices and Onboarding Training	9
Gunfire Data and Alerts	10
Additional Services & Support	15
Coverage Area(s)	16

SST Introduction and Background

About SST, Inc.

SST was founded in 1995 and with 33 issued patents, and over 90+ successful agency engagements covering over 300 square miles, SST has become the de-facto leader in the development and deployment of wide area acoustic gunshot surveillance systems. Our sensor-based technology detects, locates and alerts on all outdoor urban gunfire on a real time and precise basis. These alerts are then vetted by an acoustic reviewer in our 24/7 Incident Review Center before getting pushed to a customer web accessible laptop or mobile device. The alerts will show a precise dot on a map with the real recording of the actual gunfire event. The situational intelligence advantage and ground truth that our alerts bring to a tactical response provides for enhanced officer safety. At an agency level, it provides for an efficient and effective way to respond to and investigate gun crime.

Our service is delivered as an easily implemented Software as a Service (SaaS) solution requiring no investment in or maintenance of expensive hardware or software. Our contracts are based on an affordable one year subscription agreement providing for maximum flexibility and the de-risking of a ShotSpotter deployment.

Our Core Beliefs

Our inspiration comes from our Principal Founder, Dr. Bob Showen's core belief that technology in its highest and best use should be harnessed for social good. The collective passion of our employees, investors and partners is based on providing a compelling solution and consulting expertise focused on helping reduce gun violence and creating safer more vibrant communities coping with the epidemic of gun violence. We are committed to developing comprehensive, respectful and intimate partnerships with agencies and their respective cities organized around making a positive difference. Today, ShotSpotter is highly regarded as a critical component of a comprehensive gun violence reduction strategy and is playing an active part in making communities safer for our future generations. We aspire to make that both our individual and firm wide legacy.

Our Experience

Our company has had over 20 years of successful experience in designing and deploying ShotSpotter arrays in a number of diverse urban environments with various acoustic and environmental challenges. We have the largest database of gunfire events and other impulsive noise detections on the planet allowing us to continually refine and improve our machine classification techniques. Our data is scientifically sound and used in court cases at both the state and federal levels.

Most importantly, we have over the years, been able to learn alongside our clients, a number of best practices techniques to improve on measurable outcomes and the operational effectiveness of our solution. We take a consultative approach to our client engagements and bring to bear a formal on boarding process and provide comprehensive training and ongoing webinars to advance the state of gun violence abatement.

Our Service and Product Offerings

SST is well known and respected for its gunshot detection solutions that have historically helped police identify, analyze and respond to violent gun crime in urban cities. The ShotSpotter product continues to become a household name in law enforcement agencies across the world. Today, the company has expanded its solution offering to include small area and indoor gunshot detection. This new security solution is focused on K-12 schools, college and university campuses, corporate facilities and other key critical infrastructure that are vulnerable to unpredictable active shooter attacks.

An overview of our suite of services include the following:

- **ShotSpotter[®] Flex[™]** – gunfire alerting and analysis of gunfire for local law enforcement agencies in urban areas.
- **ShotSpotter[®] SiteSecure[™]** for Critical Infrastructure – physical security designed to detect gunfire attacks on commercial and federal buildings, electrical substations, airports, and large outdoor structures.
- **SST SecureCampus[®]** – designed to provide indoor and outdoor gunfire coverage at university and school campuses.



About Our Service – ShotSpotter Flex

Real Time Gunfire Data

ShotSpotter Flex helps law enforcement agencies by directing police to the precise location of illegal gunfire incidents. ShotSpotter instantly notifies officers of shootings in progress with real-time data delivered to dispatch centers, patrol cars and even smart phones. Instant alerts enable first responders to aid victims, collect evidence and quickly apprehend armed, dangerous offenders.

ShotSpotter’s actionable intelligence can then be used to prevent future crimes by positioning law enforcement when and where crime is likely to occur. Police now possess a scientific barometer of success: smart policing leads to fewer shootings.

Key Features	Key Benefits
<ul style="list-style-type: none"> Constant, 360-degree wide-area acoustic surveillance throughout large coverage areas. 	<ul style="list-style-type: none"> Enhanced situational awareness and officer safety.
<ul style="list-style-type: none"> Immediate alerts when no one calls 9-1-1. 	<ul style="list-style-type: none"> Faster evidence collection and witness identification.
<ul style="list-style-type: none"> Precise location including latitude/longitude, street address. 	<ul style="list-style-type: none"> Court-admissible, detailed forensic reports (DFRs).
<ul style="list-style-type: none"> Number and exact time of rounds fired. 	<ul style="list-style-type: none"> Increased gun crime arrests.
<ul style="list-style-type: none"> Identification of fully-automatic or high-capacity weapons. 	<ul style="list-style-type: none"> Improved community relations and collaboration.
<ul style="list-style-type: none"> Identification of multiple shooters. 	<ul style="list-style-type: none"> Proactive gun crime pattern analysis and strategic deterrence.
<ul style="list-style-type: none"> Shooter position, speed and direction of travel. 	<ul style="list-style-type: none"> No need to buy/manage a complex technology infrastructure.
<ul style="list-style-type: none"> Detailed forensic data for investigation, prosecution, analysis. 	<ul style="list-style-type: none"> Expedited response to shooting victims.
<ul style="list-style-type: none"> Easily-accessible single and cumulative historical reports. 	<ul style="list-style-type: none"> Increased suspect leads, suspect arrests.
<ul style="list-style-type: none"> Annual subscription-based service is a hosted cloud-based solution. 	<ul style="list-style-type: none"> Increased ability to identify homicides and injured victims.

Sensor Platform

Our detection solution is enabled through proprietary special purpose-built sensors that are designed to trigger and time-stamp impulsive acoustic events that spike above ambient noise. When three or more sensors “trigger” the software system is able to triangulate the exact location of the event within 82 feet.

SST designs and deploys a sensor array of typically 15-20 sensors per square mile in order to support a coverage area. Although the company may seek assistance from the city/agency for permissions to mount the sensors, the ownership and maintenance of the sensors is the sole responsibility of SST.

Subscription-based and Software as a Service

SST’s cloud-based system is cost effective.

In addition to owning and operating the underlying sensor network, SST also owns and operates the data center infrastructure which provides the 24x7x365 real-time data. Sensors operate on "machine-to-machine" (M2M) data contracts provided by our cellular provider partners. Because SST maintains thousands of live sensor connections with those partners, we achieve per-sensor connectivity savings far beyond what a single agency could negotiate, and we pass those savings along to our customers in the form of a fixed price subscription.

Built-in redundancy eliminates any single point of failure.

SST operates fully redundant data centers on both the East and West Coasts, both of which have doubly-redundant power and HVAC, and triply-redundant Internet connectivity. The company has invested in full data redundancy and backups, as well as offsite backup, and provides a level of 24x7x365 fault tolerant hardware and network uptime that no agency—even the biggest—could afford to procure, let alone maintain, on its own.

Subscription Based

The subscription-based cost structure of ShotSpotter Flex not only makes sophisticated gunshot detection a reality for your agency, it helps you maximize your people by speeding investigations, supporting prosecutions and deploying



patrol officers where and when they're needed most to successfully prevent gun violence.

Annual terms provide the maximum flexibility and reduction of risks as an agency can opt out after the one year term (although we trust our service will provide positive outcomes that you will want to continue to receive).

Incident Review Center

Our 24x7x365 commitment coupled with unparalleled acoustic expertise provides an instant assessment of all incidents, freeing up time that dispatchers and officers would otherwise spend analyzing alerts. We provide the level of data qualification needed to have confidence when dispatching based on alerts. Drawing on their experience, SST experts add critical situational intelligence to alerts, that can help personnel respond more safely and successfully.

After an explosive (or impulsive) sound triggers ShotSpotter sensors that an incident is detected and located, audio from the incident is sent to the SST Incident Review Center via secure, high-speed network connections for real-time qualification. Within seconds, an SST professional reviewer analyzes audio data and recordings to confirm gunfire. The qualified alert is then sent directly to the dispatch center, PSAP, mobile/patrol officers and any other relevant safety or security personnel.

SST's team of expert reviewers has direct experience reviewing thousands of incidents captured by SST systems. Reviewed alerts help law enforcement respond safely and effectively to gunfire by providing:

- Precise location of gunfire, both latitude/longitude and street address.
- Number and exact time of shots fired.
- Shooter position, speed and direction of travel (if moving).
- Faster, more accurate alerts.
- Gunfire incident history and pattern analysis.

SST's incident reviewers hear thousands of gunfire incidents during their training, and each incident is presented to them from the perspective of multiple sensors. SST incident reviewers have reviewed and analyzed more acoustic gunfire incidents, from more perspectives, than quite literally anyone else in the world.

SST's Real-Time Incident Review Center operates 24 hours a day, 365 days a year in a protected and fully redundant environment. Our software provides live chat functionality for immediate communication and assistance when required.

Best Practices and Onboarding Training

The SST Training Team

The Training Team consists of former law enforcement professionals with over 40 years of experience. Our mission is to make the customer as successful as possible. We do this through continued and on-going support to help you learn how to get the most benefit from the services we offer. All the training modules we offer are included in the price of the service, so never hesitate to request training if your agency is in need.

Getting Started

Early in the engagement process, one of our trainers will be assigned to the agency to ensure wide-ranging but consistent training is delivered based on the agency customer's need. While the service is being deployed, we first present to command staff personnel and key identified stakeholders in the service. This Best Practices Presentation is based on knowledge of law enforcement practices and learning from our customer agencies that have been successful with incorporating ShotSpotter services into the fabric of the department. The idea is to get the agency thinking about success and ways to achieve it right from the beginning.

Educational and Best Practices Webinars

To help support you in your deployment process, SST has a number of training webinars to help you get your team trained internally on how to use our products and services. We also offer a series of archived best practices webinars on a variety of law enforcement topics from reducing celebratory gunfire to keeping neighborhoods safer. These webinars are led by our internal SST experts, many of whom have an extensive background in both public safety and business.

Gunfire Data and Alerts

The alerts that are generated by ShotSpotter are delivered in the following forms:

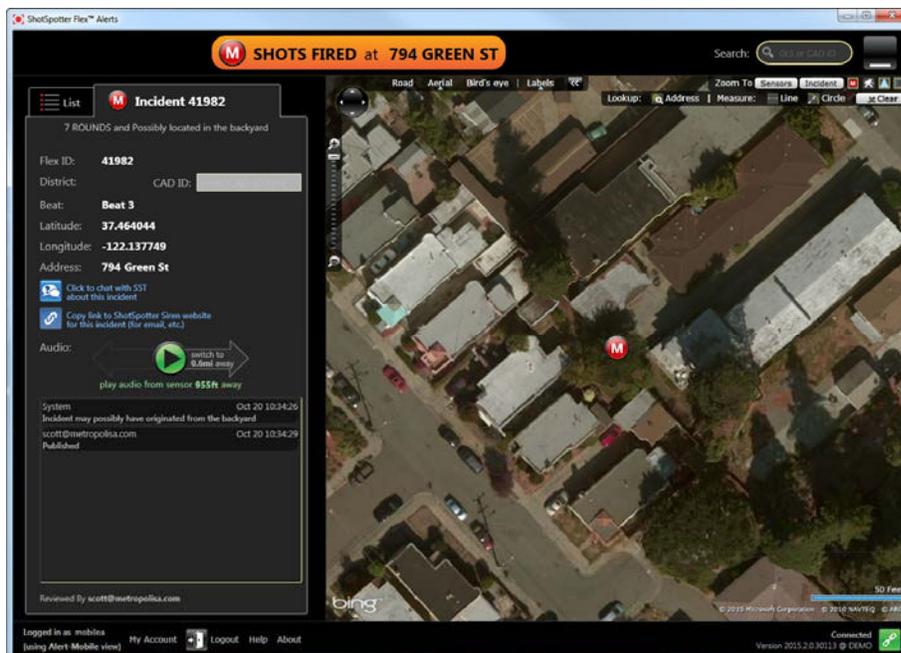
i. Alerts Console

The ShotSpotter Flex Alerts Console is the user interface most often used by Call Takers, Dispatchers, and Patrol Officers in the field. Real-time notifications of gunfire incidents are delivered to this console.

The console provides the type of gunfire (single round, multiple round), a unique identification number (Flex ID number), a date and time of the muzzle blast (trigger time), latitude-longitude of the location of the muzzle blast, nearest address of the location of the muzzle blast, number of shots, direction of travel (moving shooter, multiple rounds), speed of travel (moving shooter, multiple rounds), district identification, and beat identification.

An SST analyst may add other contextual information related to the event such as the possibility of multiple shooters, high capacity weapons, full-automatic weapons, and the shooter's location related to a building (front yard, back yard,

street, etc.). An audit trail of the time the alert was published, acknowledged and closed at customer facility is also contained in the report. All notes by Call Takers and Dispatchers are added to the alert are time and date stamped and indicate the operator's identification. For Patrol Officers, an audio clip of the incident is provided with the alert.



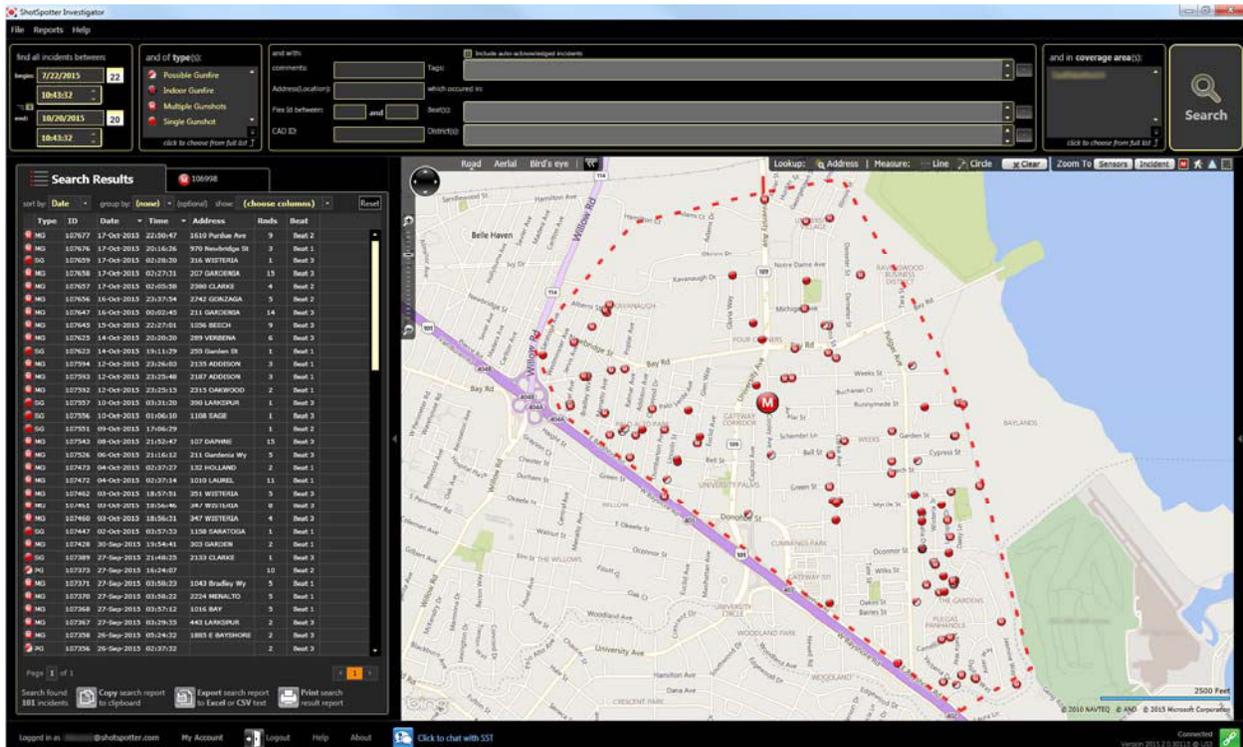


ii. Investigator Portal

All historical incident data in the ShotSpotter Flex database can be viewed, searched, sorted, and filtered using the ShotSpotter Investigator Portal. Reports for single incidents and groups of incidents can be run. Parameters and filter settings may be used to select incidents grouped into a single report. Any predefined reports may be viewed on a monitor, printed, or exported to standard CSV format.

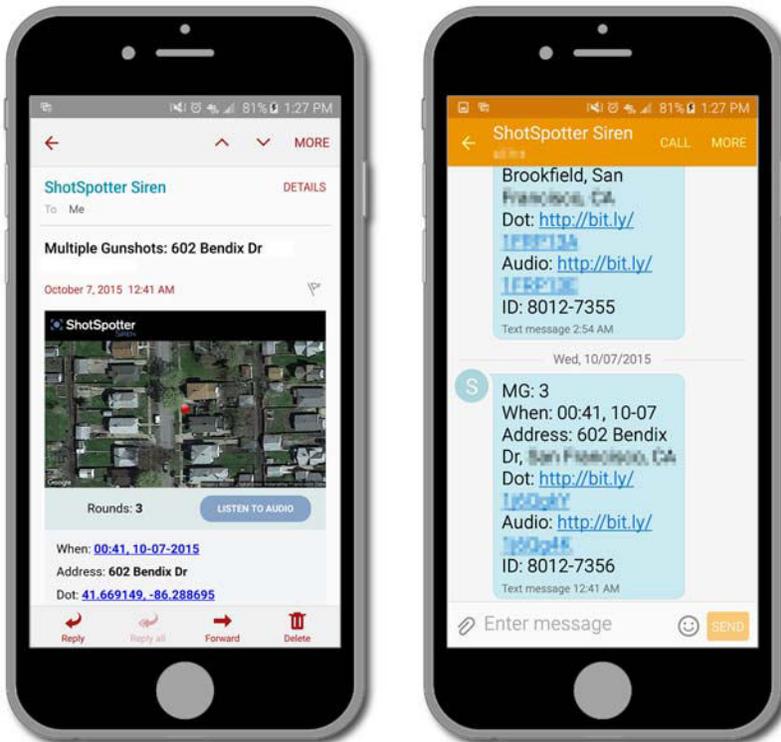
End-users can create their own custom reports or otherwise analyze the data using standard COTS products such as Microsoft SQL Server Report Builder, Crystal Reports, ArcGIS including Spatial Analyst, and any other SQL tools or SQL Server compatible tools. Because the system stores all incident details into an SQL database, generating reports is relatively simple.

The Investigator Portal also includes the ability to save any audio clip as a standard MP3 file to any recordable media (e.g., CDROM, USB drive).



iii. Mobile Alerts

Using ShotSpotter Siren, real-time gunfire alert data may also be delivered to smartphones through email and SMS text messages. The location of gunfire is represented as a dot on a map in addition to the number of rounds fired, including access to the incident audio. A native smartphone app is under development and will soon be available for use on iPhones and Android platforms.





iv. Notification Engine (machine based)

The ShotSpotter Notification Engine Interface permits client applications such as video management systems, Computer-Aided Dispatch (CAD), Records Management Systems (RMS), video analytics, automated license plate number readers (ALPR), camera management systems, crime analysis and statistics packages (including COMPSTAT software), and common operating picture (COP) software to receive accurate, timely, and detailed information about ShotSpotter gunfire alerts, including precise latitude and longitude (geolocation), GPS-synchronized timestamps, incident audio, and situational context provided by the 24x7x365 SST Incident Review Center.

Integration of ShotSpotter data with other systems has already proven successful in cities across the United States. Police in Minneapolis, MN used an earlier version of the ShotSpotter Notification Engine to trigger video recordings of certain key intersections in high crime areas. Soon thereafter, a ShotSpotter alert triggered those cameras to capture the image of a murderer fleeing the scene of a shooting. Similarly, in Boston, MA, police correlate ShotSpotter data with surveillance cameras and parolee ankle bracelet tracking data to maintain 24x7x365 awareness of any parolee who may be violating the terms of parole by committing crimes or consorting with those doing likewise.

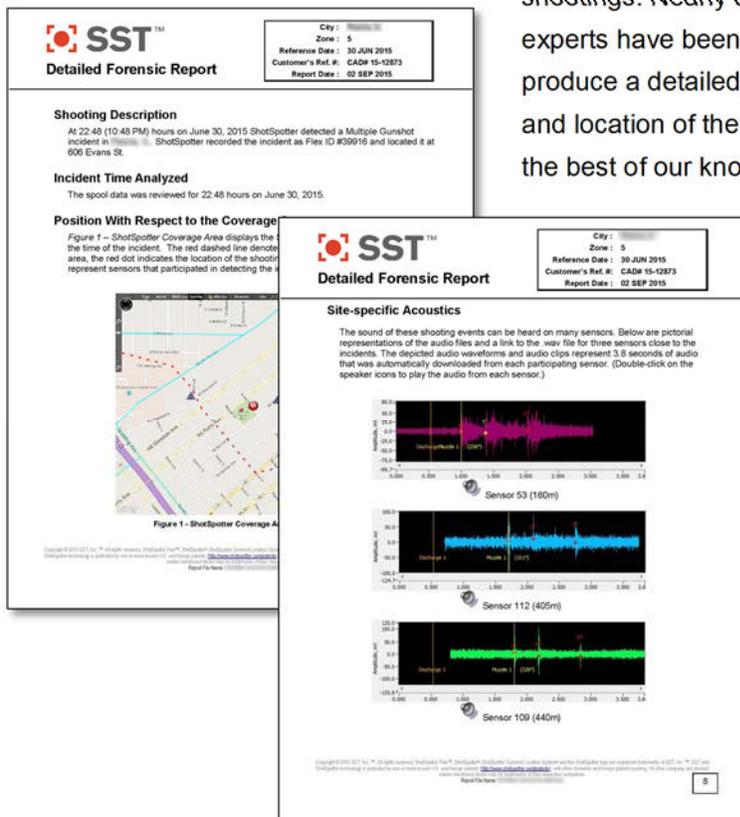


v. Forensic Reports & Certified Expert Witness Services

ShotSpotter Flex data is also useful for detailed forensic analysis that helps reveal and clarify what actually occurred during a gunfire incident, including the identification of weapon type (i.e. automatic vs. semi-automatic), the number of rounds fired, the number of shooters involved, and the direction and speed of a shooter-in-motion for drive-by shootings. The audio clips also provide conclusive evidence to prosecutors to allow jurors to directly experience the incident and gain a more detailed firsthand awareness of what are often horrifying moments for the victims. In support of prosecutions, SST offers key members of its staff to provide expert witness testimony to help interpret and clarify crime scene activity derived from the system's data. In addition to predefined and customer-generated reports, ShotSpotter experts can create a detailed forensic report of any single gunfire incident. ShotSpotter detailed forensic reports have helped with many convictions and also to clarify what occurred during officer involved

shootings. Nearly all of the criminal proceedings in which its experts have been called to testify, SST has been able to produce a detailed, round-by-round analysis of the timing and location of the shots fired by one or more weapons. To the best of our knowledge, no other acoustic-based gunshot detection system has been accepted in a court of law as providing this kind of forensic evidence.)

In 11 states and in the District of Columbia, ShotSpotter evidence and SST expert witness testimony have been successfully admitted in over 50 court cases. In four of those states (CA,NY,MO,NE), ShotSpotter scientific technique was subject to Kelly (Frye) or Daubert challenges and was found to be admissible.





Additional Services & Support

SST, Inc. ShotSpotter Flex subscription service offering includes the following:

Coverage Area Details:

- Coverage area footprint is determined by customer's needs and requirements.
- SST hosts, secures, monitors and maintains all infrastructure.
- Qualified, reviewed and analyzed gunfire alerts verified by SST acoustic analysts.
- Allocation of Alert Consoles, dispatcher or mobile, is configured at the discretion of the customer.

Data Retention:

- SST guarantees 2 years of alert/incident history (additional years at a fee).
- Stored gunfire incidents and a complete summary report of gunfire and fireworks activity is available for analysis.
 - High-level Summary and Basic Incident Reports
 - Detailed Forensic Reports

Training:

- Comprehensive Onboarding Program tailored to customer's needs.
- Customers are eligible for an in-person training program which include the following:
 - Best Practices
 - Recommended TTPs
 - End-user documentation
 - Administrator training
 - Online end-user training

Support:

- Standard customer support includes 24/7 assistance with user account, software interface, tools, features, incident (re)classification and review.
- Investigative and consultative support for gunfire incidents, forensic reports, expert witness services, and integration services.

**Customer Requirements:**

- Provision network access required to meet SST minimum specifications and requirements (ref "Host and Services Required to Use ShotSpotter Flex Clients" SST FED-72-01) for all computers (PC and MDC) which will access the ShotSpotter Flex Service.
- Run the SST System Profiler (a web-based analyzer) to verify system configuration and network access required for each computer (PC or MDC) which will access the ShotSpotter Flex service.

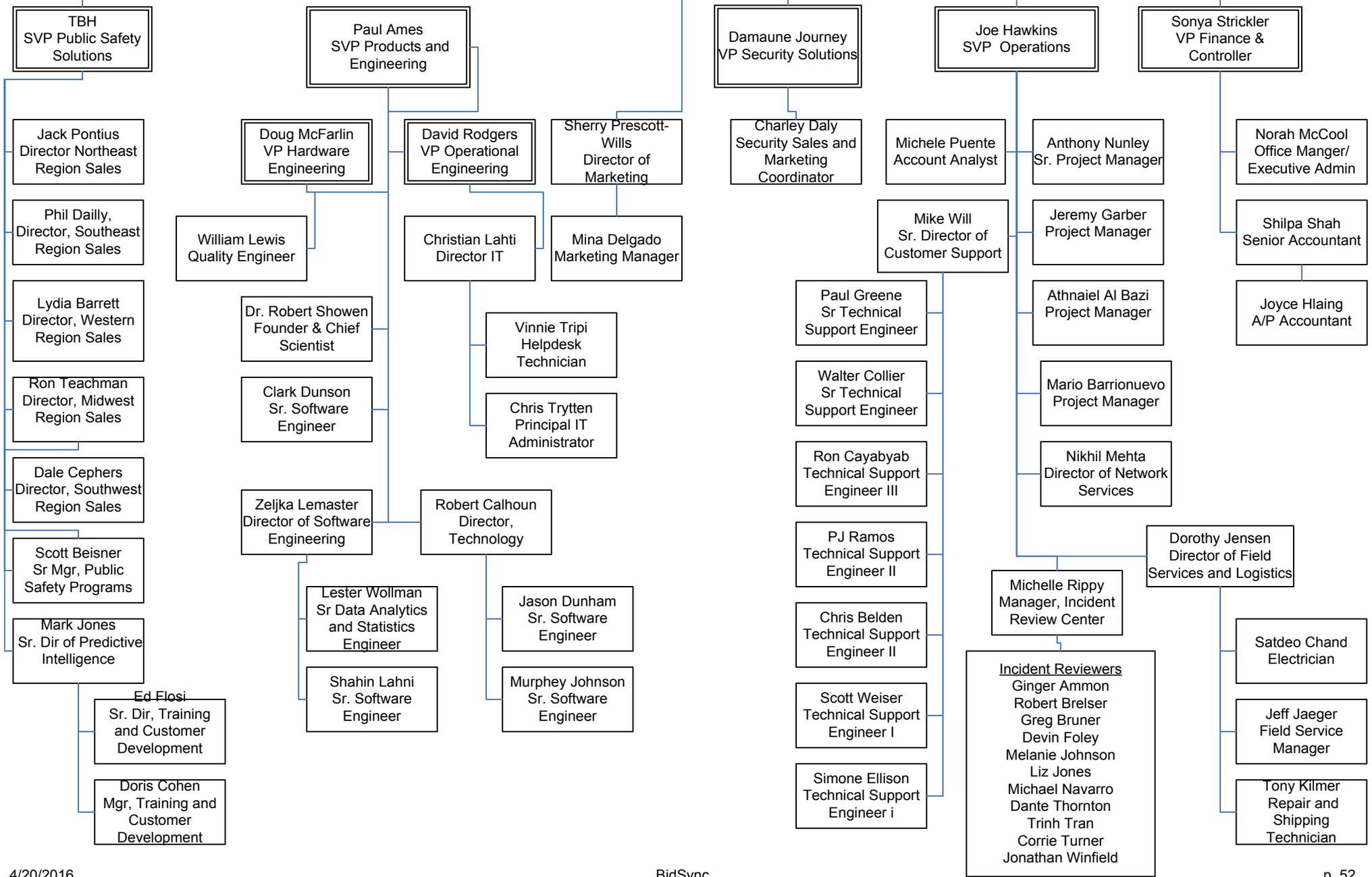
Coverage Area(s)

Systems are deployed to provide a dome of coverage for one or more specified areas. Each area is bounded by a specific coverage area perimeter. The area(s) to be covered are shown in the aerial map image below, with each coverage area perimeter denoted by a boundary line. The areas outlined in the images are rough estimates of the requested coverage area(s) and are not exact as they cannot be verified with actual acoustic propagation information to determine the precise size(s) of each area (e.g., in square miles or square kilometers). This verification can only be accomplished during the installation process, therefore the shapes may vary. Additionally if there is a discrepancy between the identified area(s) as defined by the square mileage listed in the caption and the area(s) outlined in any aerial image, the size listed in the caption text shall take precedence and be considered the true size and therefore what SST shall maximally deploy.



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Miami-Dade County
 Ralph Clark
 President and CEO





Prosecutor/District Attorney Reference Document

SST/ShotSpotter data has been instrumental in numerous gun violations, officer involved shootings and homicide cases around the US for many years.

The company has pioneered this technology and has overwhelming market share worldwide. The technology has been in service for 15 plus years and is extremely reliable. The science is generally accepted within the field of acoustic science as the speed of sound is constant; mathematical calculations determine distance to sensor and Intersecting Hyperbolae provide precise location. The data has been presented in numerous Daubert/Frye evidence challenges and continued to trial.

SST provides professional services to our clients that consists of incident diagnostics, audio interpretation and detailed forensic reports (DFR's). If a case is going to trial, we also provide expert witness testimony services as part of our contract. DFR's include:

- About ShotSpotter technology
- Shooting Description: Date, time, location
- Incident Time Analyzed: Date, time of analysis
- Position with respect to coverage area with map
- Auto-detected: Yes or No
- Audio from the incident
- Analysis of location provided originally by ShotSpotter, called "dot on the map"
- Detailed analysis of each shot
- Relation to other shots (time and location)
- Each shot placed on a map
- Site specific acoustics with audio and visual waveforms
- Possible sources of error
- Conclusion/Summary
- Certification & Acknowledgment statement

SST "experts"

- Provide support and services to your agency at no hourly fee
- The agency will only pay travel, lodging and per diem
- Submitted 100's of DFR's and evidentiary support requests
- Have qualified many time in dozens of cases
- Never "not qualified" by a court

SST Resources to support our clients

- Transcripts from previous cases with SST expert witnesses, no written briefs
- List of attorneys that have presented SST evidence
- Prepared questions for expert witness
- Comprehensive library on published articles related to Gunshot location technology
- Independent acoustic experts list
- Independent legal experts list



Prosecutor/District Attorney Reference Document

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Exhibits that follow include 2 case studies/outlines and a sample detailed forensic Report



A ShotSpotter Case Study

ShotSpotter Gunfire Data Recreates Crime Scene for Jurors

*Data Instrumental in Getting
First-Degree Intentional Murder Conviction*

Milwaukee Police Department (MPD) is exemplary in its comprehensive usage of ShotSpotter and other technologies and intelligence to develop data-driven strategies and tactical operations. ShotSpotter gunfire alerts, data and analysis are instrumental in MPD’s day-to-day work in all aspects of patrol, investigations, prosecutions and crime analysis. This case study shows how the ShotSpotter data made the critical difference in getting a conviction and life sentence for a first-degree intentional murder.



Milwaukee Police Department

Milwaukee, WI
Population: 600,000+
Sworn Officers: 2,000
Civilian Employees: 700
Chief Edward A. Flynn

The Shooting Incident—A Shopkeeper is Murdered

#11-3010083-Shooting

Occurred on 10-27-11 at 6:13 p.m. at 3211 W. Burleigh Street

Victim- Jenkins, Shawn J. B/M 4-29-70

Owner of Midtown Auto & Metal Recycling

The victim was securing the business in the evening on 10-27-11 when he was confronted by several suspects during a robbery. The suspects chased the victim back into the junk yard and executed him. He was shot three times with one shot penetrating a van. Four casings from a 9mm were also found, and a long blood trail was also documented. The victim’s body was not discovered until the next day on 10-28-11 at 11:14 a.m. when other employees arrived at work. Several suspects were arrested during the investigation.

Suspect #1 (Shooter) Byrd,

David D - m/b 12-18-91

Suspect #2 (Co-Actor) Byrd,

Derrick D - m/b 10-5-90

Suspect #3 (Driver) Williams,

Jimmy L - m/b 8-14-88

The homicide trial commenced on 6-18-12 and concluded on 6-23-12 with a guilty verdict.



The Fight to Stop Gun Violence Starts with ShotSpotter



Investigations & Prosecutions

The homicide investigation was all-consuming and protracted and required collaboration among many people from various functions throughout MPD. As the trial was in process, it became clear that the testimony of the lead MPD detective regarding the ShotSpotter incident data was critical. The lead homicide investigator requested to interview the jury after the deliberations, and was impressed with the depth of influence the ShotSpotter data had on the outcome of the trial.

The detective was assisted by ShotSpotter in preparing him for his testimony, so he was best able to articulate the details of the case based on his own analysis and experience, as well as the technical and operational aspects of ShotSpotter evidence and data. Having 24/7 access with ShotSpotter experts and resources was also valuable.

This case is an excellent example of exceptional police work in using data in combination with experienced and methodical investigative methods. It's also demonstrates outstanding teamwork and collaboration between investigators, patrol and prosecutors. Ultimately, a life sentence was imposed on the shooter, and serious sentences for his accomplices.

In the MPD's Own Words

"This homicide was a very lengthy and intense investigation which involved many police employees from various operations. The lead detective's testimony regarding ShotSpotter appears to have been critical during the trial. Questions about how ShotSpotter was received as evidence were asked of the jury as well as informing them that this was the first case that ShotSpotter was used in an evidentiary manner in Wisconsin. Several jurists were extremely impressed with the acoustical sounds of the gunshots that we played during the trial. The shots were audible and jurists commented on the ability to actually 'hear' the time frame of when the shots were fired. One jurist commented that ShotSpotter gave instant credibility to what the detective testified to. Testimony about the scene along with ShotSpotter testimony gave a complete picture of what took place that night. Hearing the first gunshot explained the blood trail, and the rapid succession of the next three helped them justify the first degree intentional homicide charge instead of the lesser included offense of Felony Murder."



...ShotSpotter testimony gave a complete picture of what took place that night. Hearing the first gunshot explained the blood trail, and the rapid succession of the next three helped justify the first degree intentional homicide charge instead of the lesser offense of felony murder.

Comments from the MPD Lead Investigator regarding the jury's feedback on ShotSpotter evidence in this case

About SST, Inc.

SST, Inc. is the world leader in gunshot detection, and its ShotSpotter solutions are the leading gunfire alert and analysis solutions. Its public safety technology solutions are focused on helping reduce and prevent gun violence and improving intelligence-led policing and community policing initiatives. SST solutions protect cities and countries around the world, with more than 80 installations in four countries and in more than 70 US cities.

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ShotSpotter®

Sense. Target. Protect.

Case Study

CONVICTED

The ShotSpotter Gunshot Location System® (GLS) captures critical forensic evidence that assists the Los Angeles County District Attorney's Office in convicting two gang members of murder.



Aerial image shows the geolocated position and sequence of each individual shot fired by Shooter A (red circles) and Shooter B (blue circles). Data analysis revealed the distance between Shot 7 (fired by Shooter B) and Shot 8 (fired by Shooter A) to be 15 feet and were fired a tenth of a second apart. This revealed that two shooters had committed the crime because a single shooter could not have fired both rounds from the two locations a tenth of a second apart.

The Search for Evidence

Due to rampant gang violence, the region of South Los Angeles, Calif., has a reputation as one of the most dangerous inner city areas within the U.S. To combat the violence, the Los Angeles County Sheriff's Department deployed the ShotSpotter Gunshot Location System® (GLS) as a wide-area acoustic surveillance system to target gun violence within the Century Station zone. Since its introduction, the ShotSpotter GLS has been used to accumulate data on gunfire happening within its coverage area, revealing the area's true level of gun violence.

System data are used by deputies and crime analysts to develop violence suppression strategies and programs, while at the same time allowing officers to respond to gunshot incidents on a tactical basis as they occur. When admitted into evidence in trial proceedings, incident data have helped prosecuting attorneys obtain plea bargains, resulting in shortened trial times, thus reducing associated legal and court costs.

Last year, the Los Angeles District Attorney's Office and the Los Angeles County Sheriff's Department were faced with the challenge of successfully prosecuting two known gang members for murder. As a result of the ShotSpotter GLS detecting, locating, and alerting deputies to the precise location of the crime, crucial physical evidence had already been

seized, including shell casings, but could ShotSpotter provide additional acoustic evidence to strengthen the case?

"Recovering those shell casings was huge," said Detective Ty Labbé. According to Labbé, the only witness to the murder identified the shooters and testified that one perpetrator shot the victim, "fir-

"The ShotSpotter data and expert witness testimony provided unbiased corroboration for the eyewitness's description of the shooting and the number of shots fired, as well as the fact that there were two different shooters using different firearms."

Deputy District Attorney Hector E. Gutierrez
Los Angeles County District Attorney's Office,
Hardcore Gang Division

ing multiple times from a MAC-10 type machine gun pistol" while the other shooter fired a revolver. The shell casings recovered at the crime scene matched the weapons described by the eyewitness as being used in the murder.

Labbé stated that the .38 caliber casings recovered matched the only murder weapon recovered, and the Los Angeles County Sheriff's Crime Lab-Firearms Unit confirmed that the primer stamp of the other casings were, "consistent with the primer stamp of a MAC-10 or Uzi-type machine gun."

Still, Labbé and his partner Detective Martin Rodriguez, felt additional evidence was needed to corroborate the witness's testimony because the witness was a drug addict. He added, "You need to be able to corroborate a one-on-one I.D. Someone who witnesses someone else do something: we need additional evidence to corroborate that fact."

The prosecuting lawyer on the case, Deputy District Attorney Hector E. Gutierrez, agreed with their assessment that finding



compelling evidence to corroborate the witness was critical. “There was only one eyewitness whose character was less than ideal and the victim’s wounds were also ‘through and through,’ meaning we had no bullets,” explained Gutierrez. According to Gutierrez, additional evidence was needed in order to place two shooters at the crime scene, confirm the events as described by the witness, and negate any possible defense strategy.

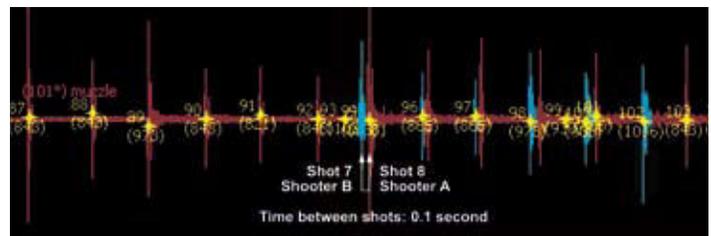
According to Labbé, they needed to prove that one person holding two guns could not have committed the crime. Knowing that the ShotSpotter GLS system had documented the event, detectives called the company and spoke with Customer Solutions Manager, Dana Kirsch Ray. They requested a detailed forensic analysis of the incident, a service provided by ShotSpotter to GLS customers.

Clear and Compelling Evidence

Ray recalled that, “the first question the detectives wanted to know was whether our system could tell if there were two people shooting at the victim.”

Because the ShotSpotter GLS detects gunfire activity 24 hours a day and permanently stores all incident information in an auditable, verifiable database repository, Ray was able to perform a detailed analysis of incident data. Her analysis quickly established that weapons of two different calibers had fired a total of 18 rounds during the incident. She then gave investigators a timeline of shots fired: the timeline showed which gun had fired which round; that the time between shots proved that two weapons were involved; and confirmed due to their physical separation, two different individuals firing two different weapons had perpetrated the crime. Ray then further analyzed the data to identify “a shot-by-shot chronology which identified the precise location of each and every round fired.”

The case presented unique challenges said Ray. “In most cases when you have a shootout, the shooters are firing in opposite directions because they’re shooting at each other. In this case, the two shooters were standing next to each other shooting towards



(Above) Detailed timeline and shot frequency analysis of each round fired revealed that two guns were fired in the crime.

a third person [the victim]. They were firing at the same time, in the same direction, using bullets of nearly the same caliber. These circumstances made it harder to differentiate between the sounds of the two gunshots, and we had to rely on other data from the ShotSpotter system, such as the timing and physical separation of each shot, to positively determine the number of weapons and individuals shooting them.”

According to Labbé, “the ShotSpotter GLS provided an absolute court-admissible corroboration of the statement made by the lone witness to the crime.”

“The ShotSpotter GLS system was able to show that two different weapons were being fired as well as the sequence in which those weapons, Weapon A and Weapon B, were fired,” said Labbé. “It was also able to show distance, which put Shooter A and Shooter B where the witness said they were standing in relationship to the victim. These distance measurements corroborated the location where the physical evidence—shell casings—were located by investigators, giving us evidence to recreate the crime scene, further corroborating the testimony of the lone witness to the murder.”

Additionally, Ray was able to confirm that Shooter B had only fired six rounds. According to Labbé, that evidence was also essential to the case. “We know where Shooter B was standing based on the witness and we know the revolver he had on him

“ShotSpotter’s combination of technology and data analysis, in my opinion, was crucial to convince the jury,” said Labbe. “It corroborated a witness at the scene who was no longer available to be questioned.”

Detective Ty C. Labbé
Los Angeles County Sheriff's Department, Homicide Division

only shoots six bullets without a reload.”

Beyond Reasonable Doubt

As the trial date neared, the value of the ShotSpotter data took on an increasing and essential importance to the case and its ultimate verdict.

“The eyewitness to the murder was [himself] murdered in the weeks prior to the trial,” said Gutierrez. “When I tried this case we did not have live eyewitness testimony.” Though the witness’s testimony had been read into the court record, this presented a challenge for Gutierrez. “Our concern was that without that witness it was possible that a juror or some jurors might feel there was insufficient evidence or that they needed to see the person in court.”

Ray testified as an expert witness and explained how the system works, how it stores incident information in a historical database, and how incident data confirmed the witness’s story of events.

An audio recording of the event, automatically captured by the ShotSpotter GLS, was played for the court while Ray explained to jurors how she analyzed the audio to distinguish differences in weapon caliber, identify the number of shooters, plot the sequence of shots fired by each gun, and pinpoint the location of each round fired.

For Gutierrez and the members of the jury, hearing the actual audio from the event was “very powerful.”

“When the sound of the gunshots was played, the jurors realized ‘we are hearing the shots fired at this person who ultimately died,’” said Gutierrez.

Guilty as Charged

According to those involved in the case, the scientific nature of the forensic data, analysis, and expert witness testimony provided by the ShotSpotter GLS and the company’s expert personnel provided circumstantial evidence essential to proving beyond a reasonable doubt that the defendants were guilty of murder in the

first-degree, with all special allegations true.

“ShotSpotter’s combination of technology and data analysis, in my opinion, was crucial to convince the jury,” said Labbé. “It corroborated a witness at the scene who was no longer available to be questioned.”

For Gutierrez, the ShotSpotter data was compelling in two ways. “The jurors were able to hear the sound of these two different firearms being used,” said Gutierrez. “The ShotSpotter GLS data and expert witness testimony provided unbiased corroboration for the eyewitness’s description of the shooting and the number of shots fired, as well as the fact that there were two different shooters using different firearms.”

To law enforcement personnel working to alleviate violence on the streets of South Los Angeles, the ShotSpotter GLS has repeatedly proven itself to be a mission-essential tool. By providing persistent wide-area acoustic surveillance that captures and stores unbiased forensic evidence of weapons fire, the ShotSpotter GLS proves its value beyond use in police communications and dispatch centers. Crime investigators, as shown in this case study, use system data in cooperation with prosecutors to strengthen court cases, secure convictions, and obtain more plea bargains.

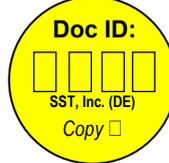
When case trials conclude faster or result in a plea bargain as a result of ShotSpotter GLS evidence, prosecutors and members of a district attorney’s office can address additional court cases with greater efficiency and reduced costs for the court, prosecution, jail, and armored transport of defendants between jail and court. The result is a reduction in gun violence and improved community and law officer safety while the police department and judicial organization achieve greater effectiveness with available resources.



Corporate Headquarters

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Mountain View, CA 94043-1881
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Fax: +1 650 887 2106
Toll Free: +1 888 274 6877
www.shotspotter.com

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City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Shooting Description:

At 16:02 (4:02 PM) hours on January 20, 2013 ShotSpotter detected a Multiple Gunshot incident in Metropolis, US. ShotSpotter recorded the incident as Flex ID #1101 and located it at 103 Fordham St.

Incident Time Analyzed

The spool data was reviewed for 16:02 hours on January 20, 2013.

Position With Respect to the Coverage Area

Figure 1 – ShotSpotter Coverage Area displays the ShotSpotter coverage in Metropolis, US at the time of the incident. The red dashed line denotes the edge of the ShotSpotter coverage area, the red dot indicates the location of the shooting incident, and the triangle symbols represent the sensors that participated in detecting the incident.

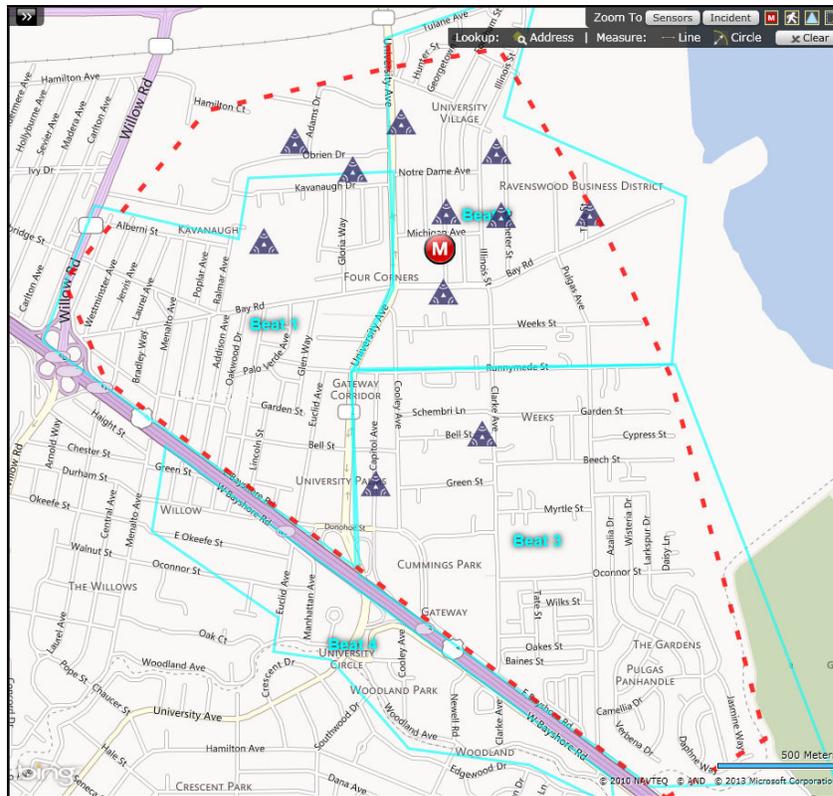


Figure 1 - ShotSpotter Coverage Area Metropolis, US

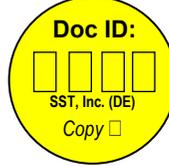
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Report File Name: SST_METROPOLIS-2013-01-20.1101.DOC



Detailed Forensic Report

Miami-Dade County



City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Auto-detected by ShotSpotter? Yes

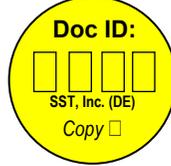
About ShotSpotter

ShotSpotter was installed in Metropolis, US in 2012. ShotSpotter has three primary components: acoustic sensors, a Location Server application, and the ShotSpotter Flex user interface. The ShotSpotter Location Server is hosted by SST, Inc. and runs on a virtual server at a remote facility, the Flex user interface resides on a PC at the customers dispatch center, and the acoustic sensors are deployed in areas designated by the customer.

Each sensor is triggered by impulsive sounds in its environment. These impulsive sounds are passed to the Location Server as possible gunshot sounds. The Location Server analyses the data received and determines if the impulsive sound can be located and classified as gunfire. If the impulsive sound can be located and classified as gunfire it reports the incident to the user interface. The user interface, referred to as the Flex Alert Console, provides an actionable view of the incident with an emphasis on when and where it occurred.

ShotSpotter detects and properly geo-locates (provides latitude and longitude) over 80% of incidents within the coverage area, accurate to within a circle whose radius is 25 meters. SST, Inc. does not guarantee 100% detection because real world, urban environments may contain intervening buildings, topography, foliage, periods of increased traffic or construction noise, and other urban acoustic noises.

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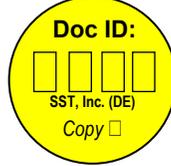
City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Analysis

Figure 2 – Incident review At 16:02:14 on January 20, 2013, ShotSpotter detected and located a Multiple Gunshot incident in Metropolis, US. The ShotSpotter Incident Review Center published the event at 16:02:47. Below is a table which shows the timeline of the user 'Mtrammel' updating and publishing the incident.

Source:	MetropolisUS
Details:	10 ROUNDS
Rounds:	10
Address:	2483 Fordham St
District:	
Beat:	Beat 2
Latitude:	37.123456
Longitude:	122.123456
CAD ID:	11X0110011
Mtrammel	Jan 20 16:02:47
Published	
Genericct	Jan 20 16:02:59
Acknowledged at customer facility	
Genericct	Jan 20 16:09:10
Closed at customer facility	

Figure 2 – Flex ID #1101 Incident review



City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Figure 3 – Address Location displays the locations calculated by ShotSpotter. The address of 103 Fordham St. was read from a database of parcel information provided by the city or county and uploaded into ShotSpotter. The red dot indicates the location of the shooting incident as calculated by ShotSpotter in real-time and reported to the ShotSpotter operator.

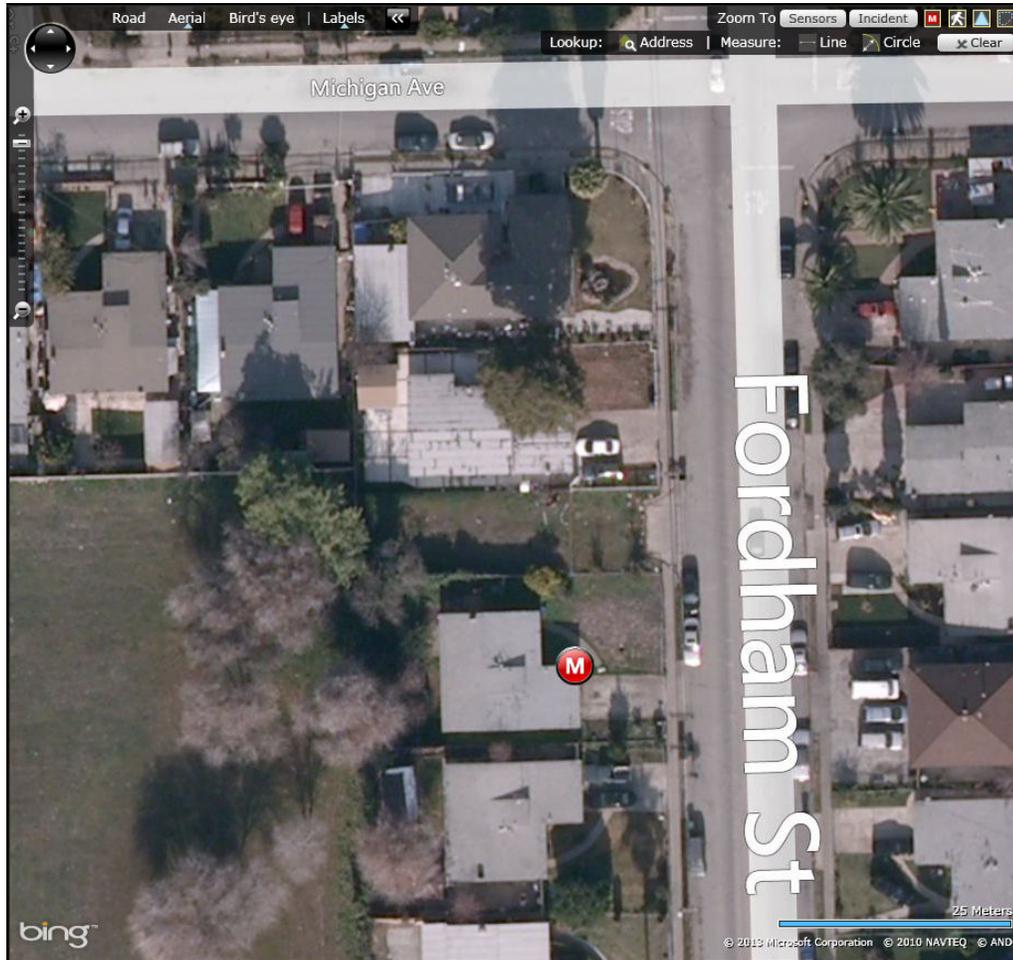
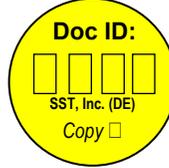


Figure 3 – Flex ID #1101 Location



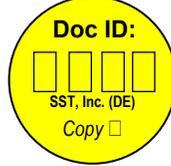
City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Detailed Forensic Report

Table 1 – Timeline of Discharge of Shots: The following table shows the time of discharge for each of the rounds which comprise this shooting event. The times listed below are the time the system calculated the trigger was pulled based on the environmental conditions at the time of the event. These times precede the time at which the system notified the ShotSpotter Operator listed because of small radio, computational, and network delays. All times are obtained from system and sensor clocks that are synchronized to GPS time, which is in turn synchronized with the atomic clock at the National Institute of Standards and Technology in Boulder, CO.

Shot	Time
1	16:02:13.7
2	16:02:14.1
3	16:02:14.4
4	16:02:14.8
5	16:02:15.1
6	16:02:15.3
7	16:02:15.6
8	16:02:15.9
9	16:02:16.2
10	16:02:16.4

Table 1 – Shot timeline, Flex ID #1101



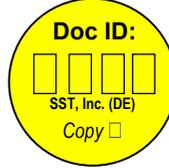
City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Figure 4 – Individual Shots Fired The following image plots the location of each round fired in Google Earth. This image is created by post-processing the archived data. Post-processing is a “manual” re-evaluation of the archived data through software tools that duplicate the real-time location algorithms that are a resident part of the ShotSpotter Location Server. Post-processing can be selectively performed on subsets of the raw data so that noises from different sources can be isolated for analysis.

In the image below the red dots indicate the location of each of the rounds fired. The locations calculated in post-processing are not identical to but within normal limits of what the ShotSpotter calculated in real-time. The red circle indicates a 25m margin of error radius for gunshot incidents that occur within the boundaries of the coverage area depicted on page 1 and is present in the image for reference only.



Figure 4 – Individual Shots Fired, Flex ID #1101



Possible Sources of Error:

The firing of a gun or an explosive device creates a loud, impulsive sound that is detectable above urban background noise up to two miles away from the firing incident location. The operation of ShotSpotter is understandably subject to the laws of physics and acoustic propagation.

The source of a pulse (a bang boom or pop) is located using triangulation. Triangulation requires a minimum of three sensors that surround the source to accurately measure the time when the sound was detected by each sensor. When more than three sensors participate in the detection, an automatic calculation will find a solution which minimizes the error to the greatest extent possible.

Figure 5 – Triangulation Flex ID #1101 was detected by five sensors.

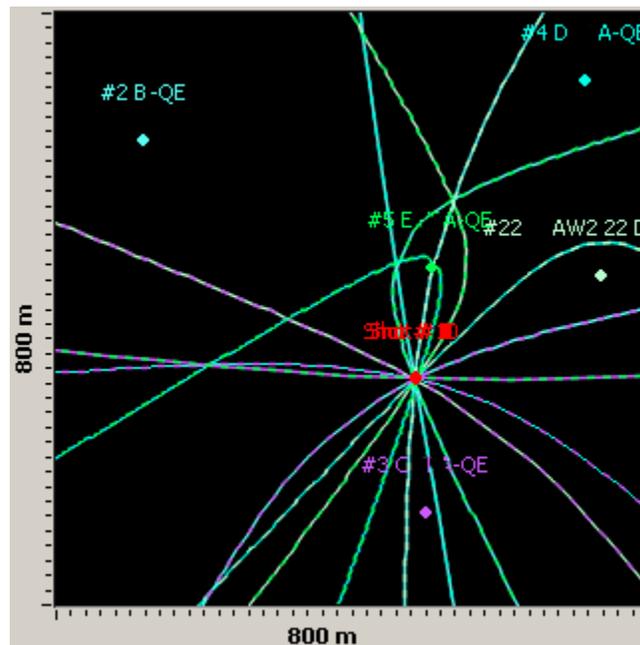
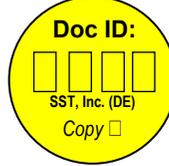


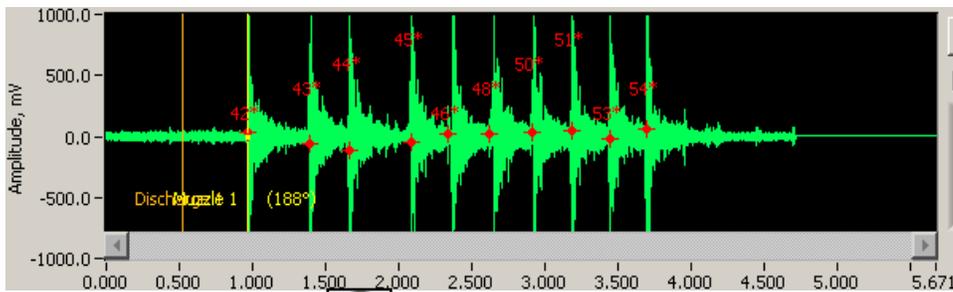
Figure 5 - Triangulation, Flex ID #1101

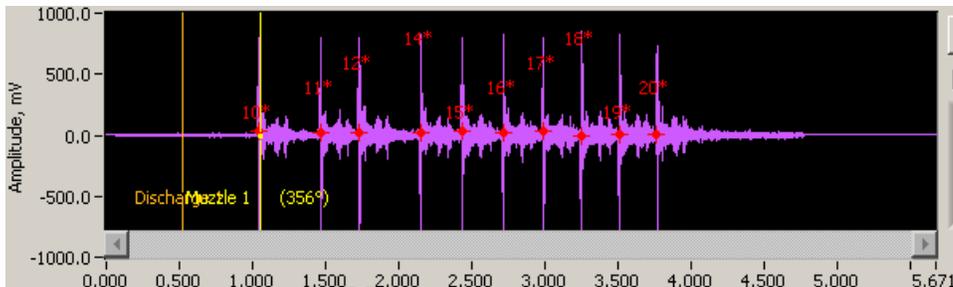


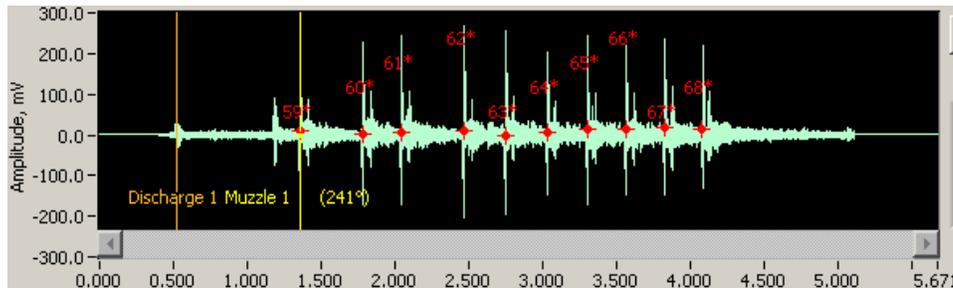
Detailed Forensic Report

Site-specific Acoustics:

The sound of these shooting events can be heard on many sensors. Below are pictorial representations of the audio files and a link to the .wav file for three sensors close to the incidents. The depicted audio waveforms and audio clips represent 5.6 seconds of audio that was automatically downloaded from each participating sensor. (Double-click on the speaker icons to play the audio from each sensor.)



 Sensor 5 (158m)


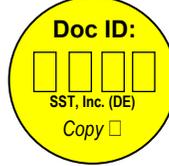
 Sensor 3 (179m)


 Sensor 22 (296m)



Detailed Forensic Report

Miami-Dade County



City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Conclusion

At 16:02 (4:02 PM) hours on January 20, 2013 ShotSpotter detected a Multiple Gunshot incident in Metropolis, US. ShotSpotter recorded the incident as Flex ID #1101 and located it at 103 Fordham St.

After review, the locations and times of 10 rounds fired were calculated.

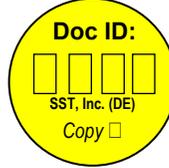
Acoustical data analysis of a gunfire incident is complex and not comprehensive. The conclusions above should be corroborated with other evidentiary sources such as recovered shell casings, and witness statements.

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Detailed Forensic Report

Miami-Dade County



City :	Metropolis, US	RFP-00327
Zone :	Beat #2	
Reference Date :	20 JAN 2013	
Customer's Ref. #:	CAD# 11X0110011	
Report Date :	02 FEB 2013	

Certification and Acknowledgement

Certification

I, John Smith, declare that I am, Customer Support Engineer at SST Inc. I have personal knowledge of the matter referred to in this report, and, if called as a witness, could and would testify thereto. I declare that the above is true and correct.

Executed this _____ of _____, 20____,
at _____, _____.

John Smith

SST, Inc.
7979 Gateway Blvd.
Suite 210
Newark, CA 94560-1156
+1 (510) 794-3100 x000
+1 (650) 887-2106 fax
jsmith@shotspotter.com

US All-Purpose Certificate of Acknowledgement

State of US)
County of Centralia)

On _____

before me Charlie Brown, Notary Public personally appeared John Smith who provided to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of US that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature _____

Notary Public

(Seal)



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

REFERENCE FOR SERVICES PERFORMED

Miami-Gardens (FL) Police Department

1020 Northwest 163rd Drive, Miami Gardens, FL 33169

Assistant Chief Al Lewers (alewersjr@yahoo.com ; 954.822.6966)

(A.C. Lewers recently retired, but good contact to fully understand all facets of successful deployment) Coverage Area: 4.5 square miles

2012 to Present

- Full integration of ShotSpotter data throughout Patrol, Community Policing Program, Investigations, and Crime Analysis
- Coordinated teamwork with ATF and use of NIBIN; MGPD proactively collects shell casings on ShotSpotter incidents and develops linkages with weapons, casings and suspects
- In process of implementing Real-Time Crime Center where ShotSpotter will be integrated with other systems, including video

Hillsborough Sheriff's Office

District 1 – 14102 N. 20th Street, Tampa, FL 33613

Captain David Fleet (dfleet@hcsotampa.fl.us ; 813.247.0658)

Coverage Area: 4.5 square miles

2016 to Present

- Full implementation of ShotSpotter data in patrol, investigations, and crime analysis. Leveraging ShotSpotter data in enhanced community policing contacts, and pro-active patrols.
- Using ShotSpotter in conjunction with video cameras.

Riviera Beach (FL) Police Department

600 West Blue Heron Blvd, Riviera Beach, FL 33404

Assistant Chief Michael Madden (mmadden@rivierabch.com ; 561.845.4153)

Coverage Area: 1 square mile (As of March 2016 RBPB has contracted to expand to 3 square miles)

2010 to Present

- Full implementation of ShotSpotter data in patrol, investigations, and crime analysis. Leveraging ShotSpotter data in enhanced community policing contacts, and pro-active patrols.
- Using ShotSpotter in conjunction with video management system.

Miami Police Department

400 NW 2nd Avenue, Miami, FL 33128

Detective Jorge Agrait (Jorge.Agrait@miami-police.org ; 305.603.6176)

Coverage Area: 4.5 square miles

2015 to Present



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

- Full implementation of ShotSpotter data in patrol, investigations, and crime analysis. Leveraging ShotSpotter data in enhanced community policing contacts, and pro-active patrols.

Puerto Rico Police Department

601 Ave. Franklin Delano Roosevelt, San Juan, PR

Governor's Security Advisor Maria Theresa Rivera Corujo (marivera@fortaleza.pr.gov; 787.721.0435)

Izaak Rivera, RTC Liaison Officer (iprivera@policia.pr.gov; 787.210.4400)

Coverage Area: 28.5 square miles (3 expansions, covering 6 municipalities)

2012 to Present

- Full integration of ShotSpotter data into PRPD Real-Time Crime Intelligence Center
- Implementation of ShotSpotter Task Force Unit focused on responding to ShotSpotter alerts and proactive patrol strategies based on gunfire analysis.
- Working with municipal police departments to leverage their patrol resources
- Use of strategic press events to relay success of program and further drive crime deterrence effect

Milwaukee (WI) Police Department

749 W. State Street, Milwaukee, WI 53233

James "Ryan" McNichol, Police Officer (jmctic@milwaukee.gov; 414.477.8273)

Coverage Area: 12 Square Miles (3 expansions)

2010 to Present

- Full integration of ShotSpotter gunfire data in the MPD Intelligence Fusion Center & the Southeast Wisconsin Threat Analysis Center (STAC); Expansive use of gunfire data in crime analysis and proactive, predictive planning and intervention programs (such as MPD's TAAP – Technology-Assisted Apprehension and Prevention Program; and integration of gunfire data with other intelligence sources – social media, ALPR, parolee/probationer info, etc.)
- Specialized ShotSpotter patrol, response and investigative teams
- ShotSpotter data reported and reviewed daily and weekly in CompStat and Command Staff meetings for targeted strategies and deployments
- Collaborative teamwork with ATF and FBI using ShotSpotter intelligence (NIBIN, eTrace)
- Extensive use of gunfire intelligence to support proactive, violence intervention initiatives
- ShotSpotter results and use shared with community, city management and other key stakeholders
- Gunfire data and evidence actively used by prosecutors to make convictions and close cases

Washington (DC) Metropolitan Police Department

300 Indiana Avenue NW, Washington, DC 20001

Commander (Retired) Larry McCoy (lmccoy9@verizon.net; 703.408.7321)

Coverage Area: 17 Square Miles (multiple expansions)

2005 to Present

- MPD currently migrating to new Flex Platform, and implementing all system capabilities.



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

- Video Integration, mobile alerts, crime analysis software
- Integration within the Joint Operations Command Center

New York City Police Department

1 Police Plaza, New York, NY 10007

Sergeant Joe Freer (joe.freer@nypd.org; 646.610.8676)

Coverage Area: 24 Square Miles (2 expansions and planning on 3rd major expansion)

2015 to Present

- ShotSpotter is integrated in NYPD Domain Awareness System, where all surveillance feeds are assimilated.

Minneapolis (MN) Police Department

350 South 5th Street, Minneapolis, MN 55415

Chief Janee Harteau (janee.harteau@minneapolismn.gov; 612.673.3559)

Commander Scott Gerlicher (scott.gerlicher@minneapolismn.gov ; 612.935.4495)

Coverage Area: 6 square miles

2006 to Present

- Camera integration with ShotSpotter system
- Full integration of ShotSpotter data into MPD Real-Time Crime Intelligence Center
- Coordinated teamwork with ATF and use of NIBIN, IBIS and eTrace; MPD proactively collects shell casings on ShotSpotter incidents and develops linkages with weapons, casings and suspects
- Extensive firearms tracing efforts (recovers on average 700+ guns annually)
- Community and youth-based programs coordination

Boston (MA) Police Department

One Schroeder Plaza, Boston, MA 02120

Commissioner William Evans (wevans.bpd@cityofboston.gov; 617.343.4200)

Lt. Harry Cataldo (cataldoh.bpd@cityofboston.gov; 617.343.5999)

Coverage Area: 12 square miles (expansion included covering 5 Boston communities)

2007 to Present

- Inclusion of ShotSpotter gunfire data in BPD's BRIC (Boston Regional Intelligence Center) and its RTCC (Real-Time Crime Center)
- BPD reviewing ShotSpotter incident data in real-time integrated with parolee/probationer GPS bracelet locations, video cameras, ALPRs, and other GIS and data-sorting technologies (to quickly show recent incidents and known offenders)
- ShotSpotter intelligence used daily and weekly in CompStat and PACT (Partners Advancing Community Togetherness) person-based strategic approach (group violence intervention)



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

- Gunfire data and evidence actively used by prosecutors to make convictions and close cases

Kansas City (MO) Police Department

700 Minnesota Avenue, Kansas City, KS 66101

Chief Darryl Forte (darryl.forte@kcpd.org; 816.234.5015)

Commander Scott Caron (scott.caron@kcpd.org; 816.234.5000)

Coverage Area: 4.5 square miles

2012 to Present

- ShotSpotter data and intelligence used in KCPD's Law Enforcement Resource Center (LERC), its Real-Time Crime Center; Gunfire data supporting intelligence & comprehensive crime analysis, and terrorism threats
- ShotSpotter data used to support planning of strategic and targeted deployments
- Collaborative partnership with ATF in actively using ShotSpotter data and evidence found at incidents (shell casings) to develop weapons, suspect and victims linkages

San Francisco (CA) Police Department

1245 3rd Street, San Francisco, CA 94158

Chief Greg Suhr (greg.suhr@sfgov.org; 415.553.1551)

Commander Bob Moser (bob.moser@sfgov.org; 415.553.1565)

Coverage Area: 15 square miles (3 expansions)

2009 to Present

- Extensive use of ShotSpotter audio and forensic evidence in prosecutions; has served very successful in getting a number of convictions of violent and repeat offenders
- ShotSpotter has supported and cleared officer-involved shootings, minimizing liability for the officers, police department and the city
- ShotSpotter data is used as a critical intelligence source in CompStat and regular crime analysis and planning, particularly for strategic deployments
- Integration with other intelligence sources, including cameras and ALPRs

Richmond (CA) Police Department

1701 Regatta Blvd., Richmond, CA 94804

Chief Chris Magnus (cmagnus@richmondpd.net; 510.620.6655)

Lt. Eric Smith (esmith@richmondpd.net; 510.620.6647)

Coverage Area: 6 square miles

2008 to Present

- Extensive use of ShotSpotter audio and forensic evidence in prosecutions; has served very successful in getting a number of convictions of violent and repeat offenders
- ShotSpotter intelligence used in violence intervention initiatives targeting violent and repeat offenders



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

- Communication and outreach with community to support use of ShotSpotter as an intelligence and safety tool for RPD; Has garnered significant community support and trust for RPD

Omaha (NE) Police Department

505 South 15th Street, Omaha, Nebraska 68102

Chief Todd Schmaderer (tschmaderer@ci.omaha.ne.us; 402.444.5863)

Captain Kerry Neumann (kerry.neumann@ci.omaha.ne.us; 402.444.3555)

Coverage Area: 4 square miles

2012 to Present

- Specialized ShotSpotter patrol, response and investigative teams
- Investigative teams in particular have had significant results from the use of the gunfire data to close cases and make prosecutions and convictions
- ShotSpotter data actively used in crime and intelligence analysis, and supports strategic deployments

South Bend (IN) Police Department

701 W. Sample Street, South Bend, IN 46601

Chief Scott Ruskowski (sruszkow@southbendin.gov; 574.235.9313)

Deputy Chief Gary Horvath (ghorvath@southbendin.gov; 574.235.5564)

Coverage Area: 3 square miles (expanding to 4 in 2015)

2013 to Present

- Targeted policing focus in areas of gunfire incidents based on ShotSpotter data
- Enhanced community interaction on all gunfire incidents by new protocol of knocking on doors of all surrounding homes and businesses at incident sites to engage with residents and reinforce message of public safety commitment by the PD
- Regular updates on successes using ShotSpotter data has helped significantly in improving trust from community members previously feeling disenfranchised
- Coordinated teamwork with federal partners and SBPD proactively collects shell casings on ShotSpotter incidents and develops linkages with weapons, casings and suspects

Stockton (CA) Police Department

22 E. Market Street, Stockton, CA 95202

Chief Eric Jones (eric.jones@stocktongov.com; 209.937.8217)

Captain Aaron Rose (aaron.rose@stocktongov.com; 209.937.8377)

Coverage Area: 2 square miles

2013 to Present

- Full integration of ShotSpotter data throughout Patrol, Community Policing Program, Investigations, and Crime Analysis
- Coordinated teamwork with ATF and use of NIBIN; SPD proactively collects shell casings on ShotSpotter incidents and develops linkages with weapons, casings and suspects



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

- Use of ShotSpotter gunfire data in Ceasefire Program and other community and youth-based programs
- Regular press and community outreach and events on SPD successes using ShotSpotter data has resulted in broad-based community and philanthropic community support

Denver (CO) Police Department

1331 Cherokee Street, Denver, CO 80204

Sergeant Jason Carrigan (jason.carrigan@denvergov.org ; 720.913.6979)

Coverage Area: 9 square miles (1 expansion)

2015 to Present

- Full integration of ShotSpotter data throughout Patrol, Community Policing Program, Investigations, and Crime Analysis
- Coordinated teamwork with ATF and use of NIBIN; DPD proactively collects shell casings on ShotSpotter incidents and develops linkages with weapons, casings and suspects
- Significant early successes with linking casings in cases with use of E-Trace and NIBIN.

Wilmington (NC) Police Department

615 Bess Street, Wilmington, NC 28401

Chief Ralph Evangelous (Ralp.Evangelous@wilmingtonnc.gov ; 910.343.3610)

Commander James Varrone (jim.varrone@wilmingtonnc.gov ; 910.343.3666)

Coverage Area: 6 square miles (doubled original coverage area in 2014)

2011 to Present

- Full integration of ShotSpotter data throughout Patrol, Community Policing Program, Investigations, and Crime Analysis
- Coordinated teamwork with ATF and use of NIBIN; WPD proactively collects shell casings on ShotSpotter incidents and develops linkages with weapons, casings and suspects

Rocky Mount (NC) Police Department

One Government Plaza, Rocky Mount, NC 27801

Sergeant Ryan Hepler (ryan.hepler@rockymountnc.gov ; 252.972.1475)

Coverage Area: 3 square miles

2011 to Present

- Full integration of ShotSpotter data throughout Patrol, Community Policing Program, Investigations, and Crime Analysis

Birmingham (AL) Police Department

1710 1st Avenue N., Birmingham, AL 35203

Deputy Chief Jamal McCaskey (jamal.mccaskey@birminghamal.gov ; 205.254.6524)



Sampling of ShotSpotter Customer Cities Using Gunfire Data in Comprehensive Strategies

Coverage Area: 7 square miles

2007 to Present

- Completed migration to new Flex platform, and working on plan to fully integrate ShotSpotter in patrol, crime analysis, community policing, and investigations.

Baton Rouge (LA) Police Department

704 Mayflower Street, Baton Rouge, LA 70802

Sergeant Eric Burkett (mburkett@brgov.com ; 225.268.0248)

Coverage Area: 7 square miles

2007 to Present

- Completed migration to Flex platform in 2012. ShotSpotter Flex is now fully integrated both within Baton Rouge Police Department, as well as the Sheriff's Office Operations.

Palm Beach Sheriff's Office

District 13 – Belle Glade, 38840 SR 80, Belle Glade, FL 33430

Captain Ed Luty (luty@pbso.org ; 561.996.1677)

Major Tony Araujo (araujot@pbso.org ; 561.790.5180)

Coverage Area: 2 square miles

2013 to Present

- Full implementation of ShotSpotter data in patrol, investigations, and crime analysis. Leveraging ShotSpotter data in enhanced community policing contacts, and pro-active patrols.
- Integration of ShotSpotter with video management system.



Hosts and Services Required for ShotSpotter Services

Version:	3.4	Date:	04/15/2016
Status:	APPROVED		

Purpose

This document describes the Internet host names, services, and TCP ports required to use the ShotSpotter Flex client software and web applications.

- ShotSpotter Flex Alerts Console
- ShotSpotter Flex Investigator Portal
- ShotSpotter Siren
- ShotSpotter Briefing Room

Future releases may change these requirements, at which point this document will be updated. A web-based tool called the [SST System Profiler](#), can provide an automated assessment of whether a particular computer has the necessary proxy and content type access. See the *Verifying Access Using System Profiler* section below.

Required Access

To permit the collection of incident information for display, ShotSpotter Flex client software must be able to access services and specific data using network references outside the customer's network. Traffic is primarily HTTPS and is customarily provided via an internal proxy server that also provides security from external intrusions and allows access to information and services that are within the access policies of the organization.

The ShotSpotter Alerts Console and Investigator Portal run within a Silverlight executable and reference ShotSpotter software services for access to customer specific data, incident notifications, historical incident lists. The ShotSpotter Briefing Room is an *in-browser* Silverlight application requiring similar access. ShotSpotter Siren requires only port 80 and 443 access. Here is a complete list of required access to host names, services, and TCP ports:



Hosts and Services Required for ShotSpotter Services

Host Name	Purpose	Service(s)	TCP Port(s)
us1.shotspotter.net us2.shotspotter.net us3.shotspotter.net us4.shotspotter.net us6.shotspotter.net us7.shotspotter.net us8.shotspotter.net us11.shotspotter.net sitesecure.shotspotter.net securecampus.shotspotter.net	ShotSpotter Flex datacenter. These servers act as the primary application servers.	HTTPS	443
*.shotspotter.net	Additional wildcard access for *.shotspotter.net will permit Siren and Briefing Room access. For Siren, a single FQDN (e.g., cityname.shotspotter.net) will actually be used.	HTTP HTTPS	80 443
ne.shotspotter.com	ShotSpotter Notification Engine server for camera integration or other.	HTTP HTTPS	80 443
chat.shotspotter.com	Encrypted incident chat between users and SST, Inc. review center, 24x7x365. System profiler functionality to confirm required network access.	HTTPS	443
auth.shotspotter.com or auth.shotspotter.net	User authentication and login (redirect)	HTTP HTTPS	80 443
dev.virtualearth.net	API authentication and redirect	HTTP	80
ecn.t0.tiles.virtualearth.net	Map tiles (Microsoft)	HTTP	80
ecn.t1.tiles.virtualearth.net		HTTPS	443
ecn.t2.tiles.virtualearth.net			
ecn.t3.tiles.virtualearth.net	(Microsoft-recommended wildcard rule)		
ecn.t*.tiles.virtualearth.net			
verisign.com	SSL Certificate root authorities sometimes required if workstation has an out-of-date list of authorized root certificates.	HTTP	80
usertrust.com		HTTPS	443
netsolssl.com			



Hosts and Services Required for ShotSpotter Services

Technical Description of Network Activities

In addition to application data, files are retrieved from the Virtual Earth sites and the ShotSpotter servers in benign compressed media file formats (.jpg, .png, and .mp3) which are interpreted by the ShotSpotter application in the most restricted execution environment within Silverlight. File system access to cache the retrieved data and log the user's activity is done within Isolated Storage provided by the Silverlight virtual file system and limited to a maximum total size with a default of 25MB. If a user clicks the "Copy to Clipboard" in order to copy incident details to the clipboard button (for pasting into a CAD or RMS system, for example) in the ShotSpotter Flex Alert Console, the application are done through the Silverlight Safe-Critical Code method that, when requested by user interaction, validates both user initiation and the information to be passed.

The network traffic generated by ShotSpotter Flex applications varies according to the number of incidents processed and previously cached items. On initial startup, applications gather general information regarding the customer's coverage area and recent activity so that users can browse, search for, and display historical incident records. When handling a gunshot incident, location specific mapping and audio information is retrieved by the client.

With the exception of publicly-available map tiles provided by Microsoft, certain API access steps, and help files, all traffic is encrypted using Transport Layer Security (TLS, the successor to Secure Socket Layer, SSL). The IP addresses of *.virtualearth.net, e.g. dev.virtualearth.net 65.55.84.143, is authoritatively supplied by glb1.glb dns.microsoft.com and glb2.glb dns.microsoft.com and the domain is registered by CSC Corporate Domains. SST, Inc. servers present valid SSL certificates provided by Network Solutions, Inc., which confirm the IP addresses of each server.

The following table summarizes the network traffic including protocol overhead under various conditions.



Hosts and Services Required for ShotSpotter Services

Alert Console

Action	Estimated Data Transfer
Installation/Upgrade (download local web app)	2.4mb
Launch + login (no tiles cached)	750kb
Launch + login (tiles cached)	25kb
New Incident (no tiles cached)	950kb
Incident Refresh (tiles cached)	13kb
Zoom In, Road Map (no cache)	980kb
Switch to Birds-Eye View (no cache)	870kb
Audio Clip (Mobile/Patrol only), per clip	20kb

Investigator Portal

Action	Estimated Data Transfer (kb)
Installation/Upgrade (download local web app)	2mb
Launch + login (no tiles cached)	200kb
New Incident (no tiles cached)	950 kb
Audio Clip, per clip	20kb

Verifying Access Using Compatibility Checker



SST has developed a web-based tool to aid in verifying system configuration and network access required for using the ShotSpotter Flex clients. The client can be accessed at <http://chat.shotspotter.com/profiler>. Customers or customers' IT representatives may use this tool *at each computer* which will access the ShotSpotter Flex service.



Hosts and Services Required for ShotSpotter Services

Step 2: Analyze Computer

- A) Right click [Download SST Analyzer](#), select 'Save Link As', then save to Desk
- B) Double-click 'sst_analyzer.bat' on the Desktop (*may take several minutes to complete*)
- C) Upload sst.data from your Desktop using the form provided below

sst.data

- Computer Properties
- Display Properties
- Network Properties
- Software Properties

Step 3: Data Tests

- Latency Test**
 - www.shotspotter.com
 - www.sst-inc.com
 - www.bing.com
 - maps.live.com
- Bandwidth Test**
 - download speed
 - upload speed
- Content Type Test**
 - text/html
 - text/xml
 - application/javascript
 - image/jpeg
 - image/png

The Profiler lists basic system configuration and verifies access to all of the above host names and services. In addition to tests run from within the web-browser, users will download and execute a small batch (.bat) file, the contents of which are available for inspection before use. Users may also review the data collected by this batch file before it is uploaded to SST for debugging and support purposes.



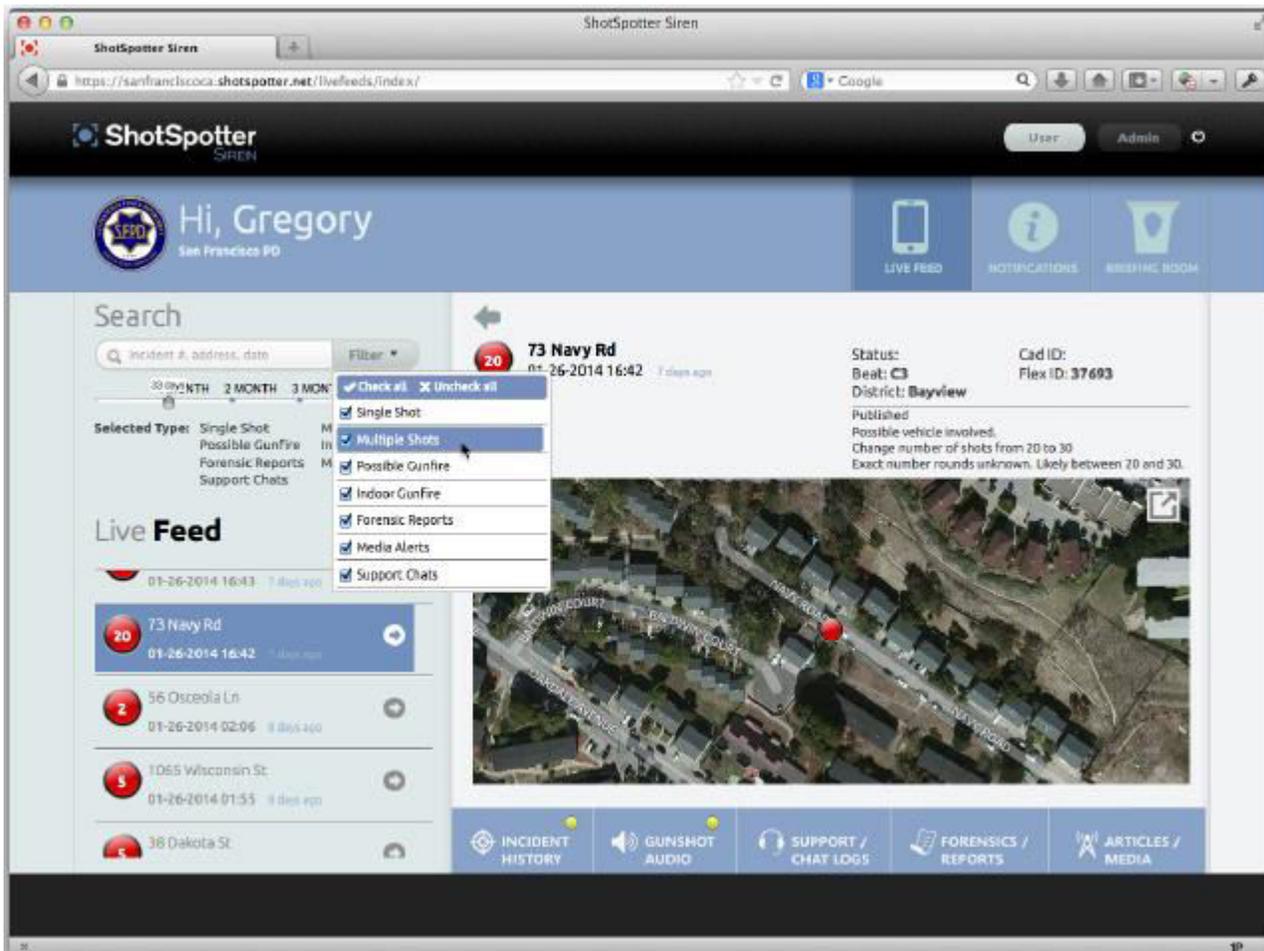
Hosts and Services Required for ShotSpotter Services

Siren

Siren is a web-based application for user management and email alert notification. Siren provides near-realtime gunfire alerts to auxiliary and support personnel with maps, gunfire details and addresses. Alerts can be customized by geographic areas to tailor alerts to an officer's patrol area. Unlimited customizing of your 24/7 alerting schedule. Send alerts only during specified hours; even breaks for lunch or off duty times if need be. One click in the email and you are able to view larger interactive maps on Siren's web portal. Listen to the gunshot audio from our sensors in your desktop or mobile browser.

Minimum Browser Requirement for Siren:

- Internet Explorer 9 or above
- Firefox 31 or above
- Chrome 33 or above
- Safari 5.1 or above





Hosts and Services Required for ShotSpotter Services

Briefing Room

Briefing room is a web based tool used for crime analysis and mapping. Agencies and crime analysts utilize briefing room for investigations, deployment, and emergency management.



System Requirement:

Microsoft Silverlight version 5 application is required for briefing room features to work properly.



Hosts and Services Required for ShotSpotter Services

Notification Engine

SST Notification API for providing gunshot detection and location data to a consumer application. The API uses the HTTP POST method to deliver XML documents that describe new incidents as they occur.

For the integration, packets can be sent using HTTPS over public IP address. Other option is to use HTTP connection over a secure IPsec VPN tunnel.

Standard HTTP/S ports (80, 443), if HTTPS is used the end server should have an SSL certificate installed. Public IP address can be used to send XML packets over HTTPS.

If private IP addressing is required, then a secure IPsec VPN is setup and all the incident packets are sent encrypted over VPN connection.

Support

SST Customer Support is available to all customers with valid ShotSpotter Flex Support contracts. You may contact SST Customer Support:

Via Live Chat:

From either the ShotSpotter Flex Alert Console or the ShotSpotter Flex Incident & Reports Portal, look for the chat links:



or by following this link in any web browser:

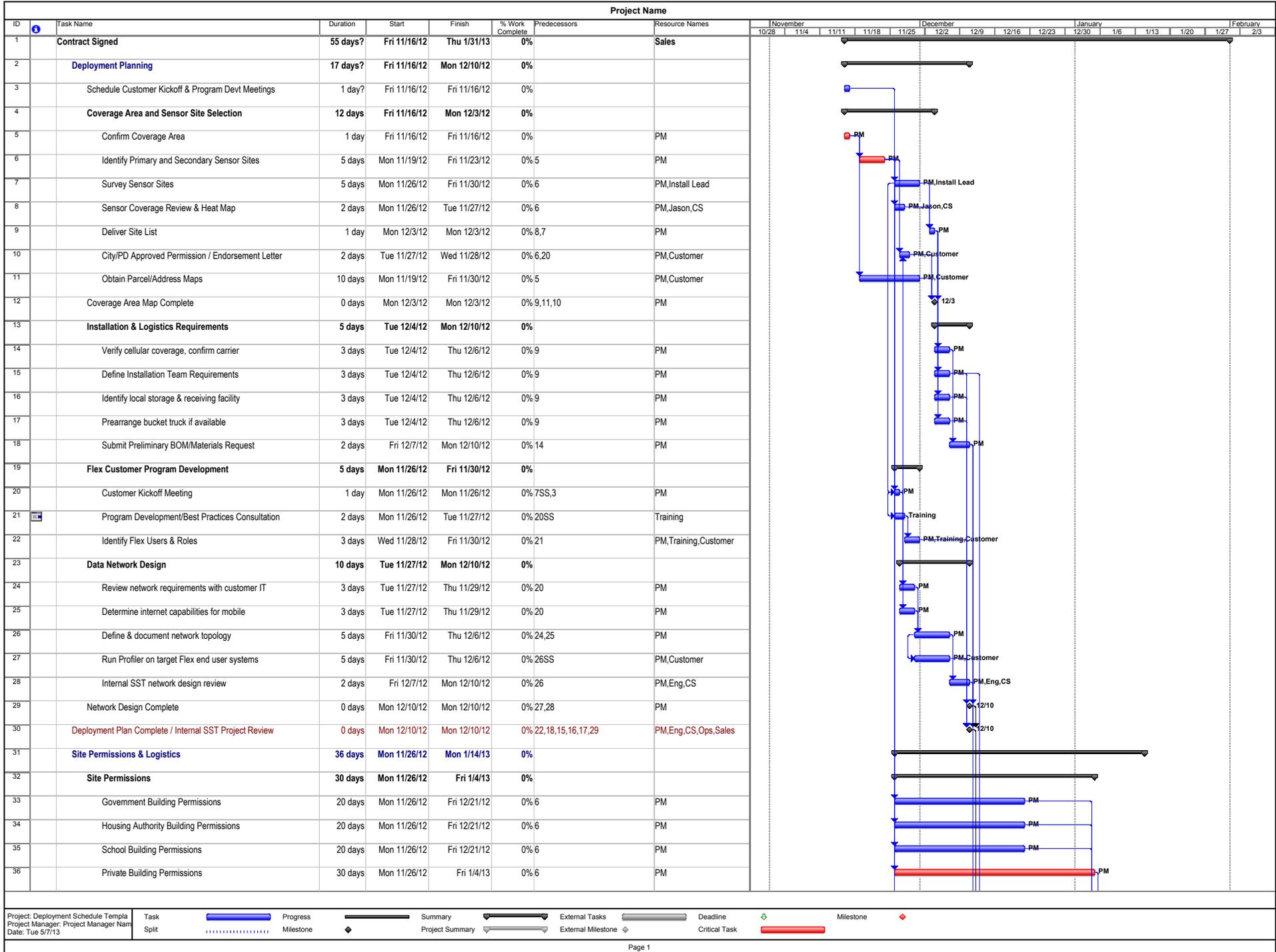
<https://chat.shotspotter.com/chatrequest>

Via Phone:

Phone support is available Monday-Friday, 8:00 am to 5:00 pm Pacific Standard Time. Please contact our support team during these hours at: +1 (888) 274-6877, then dial option 4.

Via Email:

Email support@shotspotter.com. Please include as much detail as possible so we may better serve you quickly.



Project: Deployment Schedule Tempa
 Project Manager: Project Manager Nam
 Date: Tue 5/7/13

Task Progress Summary External Tasks Deadline Milestone

Split Milestone Project Summary External Milestone Critical Task

Project Name							Timeline																
ID	Task Name	Duration	Start	Finish	% Work Complete	Predecessors	Resource Names	November	December	January	February												
								10/28	11/4	11/11	11/18	11/25	12/2	12/9	12/16	12/23	12/30	1/6	1/13	1/20	1/27	2/3	
37	Utility Pole Site Permissions	20 days	Mon 11/26/12	Fri 12/21/12	0% 6		PM																
38	Site Permissions & Final BOM Complete	0 days	Fri 1/4/13	Fri 1/4/13	0% 36,37,35,33,34		PM																
39	Materials & Logistics - California Build & Ship	25 days	Tue 12/11/12	Mon 1/14/13	0%																		
40	Order/allocate Sensor & Mounting HW	2 days	Tue 12/11/12	Wed 12/12/12	0% 18		Supply																
41	Assemble & Schedule Installation & Support Teams	10 days	Thu 12/13/12	Wed 12/26/12	0% 40,15		PM,Supply																
42	Confirm Local Storage Facility Readiness	2 days	Tue 12/25/12	Wed 12/26/12	0% 40FS+8 days		PM																
43	Build & Ship Sensor Kits	5 days	Tue 1/1/13	Mon 1/7/13	0% 40FS+10 days,42,38FF+1 day		Supply																
44	Shipping	5 days	Tue 1/8/13	Mon 1/14/13	0% 43		Supply																
45	FLEX Ops Provisioning	5 days	Tue 12/11/12	Mon 12/17/12	0%																		
46	Allocate and provision Flex DB & servers	3 days	Tue 12/11/12	Thu 12/13/12	0% 30		Eng																
47	Install GIS/Parcel maps on Flex Host	2 days	Fri 12/14/12	Mon 12/17/12	0% 46		Eng																
48	Provision Flex user accounts	2 days	Fri 12/14/12	Mon 12/17/12	0% 46		Eng																
49	Deployment	10 days	Fri 1/11/13	Thu 1/24/13	0%																		
50	Materials & Logistics - Local Staging	3 days	Fri 1/11/13	Tue 1/15/13	0%																		
51	Install Teams Arrive & Setup (Staging & Survey)	2 days	Fri 1/11/13	Mon 1/14/13	0% 43FS+3 days		Install Lead																
52	Receive Sensor Kit Shipment	1 day	Tue 1/15/13	Tue 1/15/13	0% 44		Install Lead																
53	Sensor Installation	5 days	Wed 1/16/13	Tue 1/22/13	0%																		
54	Install Sensors	5 days	Wed 1/16/13	Tue 1/22/13	0% 52		Install Lead																
55	Point Installed Sensors to Production / Begin IRC Monitoring	3 days	Fri 1/18/13	Tue 1/22/13	0% 54FF		CS																
56	Update Emplacement Tables, Ops Support Systems	3 days	Fri 1/18/13	Tue 1/22/13	0% 54FF		PM,CS																
57	Installation Complete	0 days	Tue 1/22/13	Tue 1/22/13	0% 54,55,56		PM																
58	Post Installation Launch Prep	5 days	Fri 1/18/13	Thu 1/24/13	0%																		
59	Inventory, Pack & Return Ship Extra Hardware	2 days	Wed 1/23/13	Thu 1/24/13	0% 57		Install Lead																
60	Install Flex Software on User Stations	2 days	Fri 1/18/13	Mon 1/21/13	0% 57FS-3 days		PM,Customer																
61	System Calibration & Tuning	5 days	Fri 1/18/13	Thu 1/24/13	0% 57FS-3 days		Eng,CS																
62	DQV / Live Firing Exercise	0 days	Thu 1/24/13	Thu 1/24/13	0% 61		PM,Customer																
63	User Training	2 days	Tue 1/22/13	Wed 1/23/13	0% 60		Training																
64	Delivery of User Manuals and Materials	2 days	Tue 1/22/13	Wed 1/23/13	0% 63SS		Training																
65	System Acceptance / GO LIVE	0 days	Thu 1/24/13	Thu 1/24/13	0% 64,62,63		PM,Customer,CS,IRC																
66	Project Closeout	5 days	Fri 1/25/13	Thu 1/31/13	0%																		
67	DQV Report	5 days	Fri 1/25/13	Thu 1/31/13	0% 62		PM,CS																
68	Project Closeout Report	5 days	Fri 1/25/13	Thu 1/31/13	0% 65		PM																
69	Project Complete	0 days	Thu 1/31/13	Thu 1/31/13	0% 67,68		PM																

Project: Deployment Schedule Tempa
 Project Manager: Project Manager Nam
 Date: Tue 5/7/13

Task Split: [Blue bar] Progress Milestone: [Black bar]

Summary: [Grey bar] External Tasks: [Grey bar] Deadline: [Green bar]

Project Summary: [Grey bar] External Milestone: [Grey bar] Critical Task: [Red bar]

Milestone: [Red diamond]



Release Bulletin Notification Engine 2.6

Date	11 December 2012
Bulletin Revision	Distribution
Release Status	Approved for Release
Notification Engine: 2.6.1612 (ECO 1113)	
Release Date	11 December 2012

Release Description

This version of the Notification API and Notification Engine 2.6 delivers on SST's commitment to making ShotSpotter easily accessible to external systems such as video surveillance (CCTV) systems. The release supports new functionality for Reviewed Alerts customers, a suite of new and more robust message packets, support for recent Microsoft Windows server environments, and a number of support and compatibility upgrades.

New Functionality

New upgrades to the ShotSpotter Notification API and Notification Engine 2.6 are substantial:

- The upgrades permit client applications such as video management systems, Computer-Aided Dispatch (CAD), Records Management Systems (RMS), video analytics, automated license plate number readers, camera management systems, crime analysis and statistics packages (including COMPSTAT software), and common operating picture (COP) software to receive accurate, timely, and detailed information about ShotSpotter gunfire alerts, including precise latitude and longitude (geolocation), GPS-synchronized timestamps, incident audio, and situational context provided by the 24x7x365 SST Incident Review Center™.
- This version of the Notification API is the first in the industry to enable subscribers to receive updates about gunfire alerts throughout a multi-stage, possibly multi-site incident review process, thus permitting sophisticated, responses involving multiple resources to be coordinated in near real-time.
- The release delivers new functionality critical to technically-focused security and systems integrators through its support of fourteen (14) different notification packet types, each available in as XML, query string, or pure ASCII stream format, via HTTP, TCP/IP socket connection, directly to a Google Earth overlay, or to a custom-developed plugin.
- Version 2.6 can calculate the direction, range, and elevation angle from many different points of view towards a single gunfire incident and transmits appropriately-calculated pan-tilt-zoom (PTZ) slewing (aiming) data to each respective endpoint.
- The release supports the industry's first variable content multi-media notification scheme, which permits incident audio and other incident-specific information to be shared with systems subscribing to incidents.



- This new version also permits customers to specify two different levels of geospatial boundaries (or “geofences”) which permit incidents to be grouped and reported, for example, by patrol beats or command districts.

Support for Incident Review Workflow (Unreviewed/Raw Incidents and Reviewed Alerts)

For customers of SST’s ShotSpotter FlexSM subscription based service, raw incident data are reported directly to the SST Incident Review CenterTM (IRC) where our Reviewed Alerts ServiceSM provides immediate assessment and qualification of gunshot alerts by a highly trained team of SST gunfire and acoustics experts, 24x7x365. For customers of SST’s ShotSpotter OnSite (capital equipment) products, the Reviewed Alert Service is available as an option, or customers can choose to review all the raw incidents themselves. Over time, most SST customers have chosen to avoid the expense and effort of training their own 24x7x365 staff and now rely on SST’s Reviewed Alerts Service. SST incident reviewers have quite literally heard more gunfire incidents, from a wider variety of distances and acoustic environments, than anyone else in the world. After review and subsequent customer alert, many customers seek to have ShotSpotter data automatically transmitted (notified) to external systems which had not been previously notified of the raw (unreviewed) alert.

Thus there are two types of notifications:

- 1) Instantaneous notification of **raw (unreviewed) alerts** is appropriate for “low cost to respond” assets, such as PTZ cameras, for which the cost of turning in the direction of a sound is negligible.
- 2) By contrast, “high cost to respond” assets, such as police officers, or the creation of a CAD (Computer-Aided Dispatch) record, or the triggering of a Common Operating Picture (COP) system, are typically notified only of **reviewed alerts**.

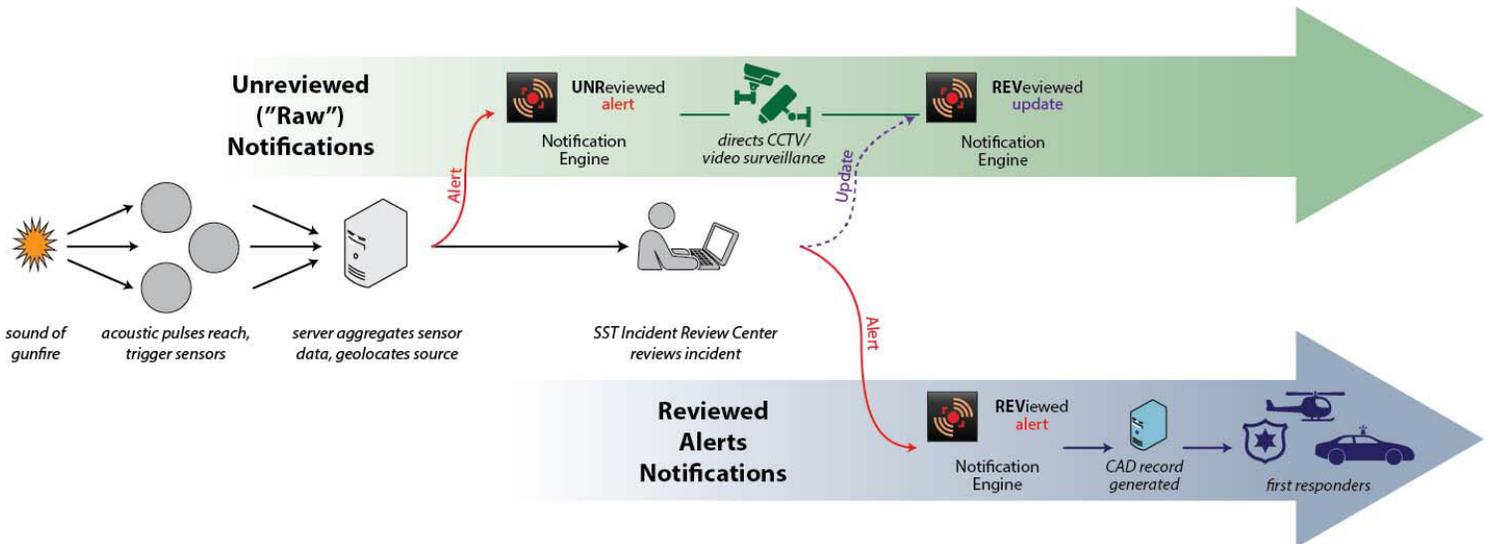
There are several other differences between the two classes of notifications:



Release Bulletin Notification Engine 2.6

	<i>Unreviewed ("Raw")</i>	<i>Reviewed</i>
<i>Classification</i>	Machine only	Machine + Reviewer
<i>Other Situational Context</i>	None	Provided when available
<i>Timing</i>	< 1 second after location	SLA 90% within 60 seconds of receipt of data; average < 20 seconds
<i>Notification Appropriate for</i>	<p>Relatively low cost to respond, fast response (< 10 seconds) actions:</p> <ul style="list-style-type: none"> • PTZ Cameras • DVR timestamp/tagging • UAV look-at-target (camera slew) • Other Sensor triggering 	<p>Relatively high cost to respond, slower response (> 10 seconds) actions:</p> <ul style="list-style-type: none"> • Officer or first responder dispatch • CAD record creation • Air (helicopter) asset mission • UAV fly-to-target
<i>Typical Daily Volumes</i>	Hundreds	Tens
<i>Peak Volumes (holidays)</i>	Thousands	Hundreds
<i>Updates Sent by ShotSpotter</i>	Review	None
<i>Supported in Notification Engine version</i>	2.0+	2.6+

The ShotSpotter Notification API™ can report new incidents or updated information about incidents previously reported. As its name suggests, the design of the Notification API focuses heavily on notification of new (or recently updated) incidents and not on making historical data available for analysis. Reviewed and unreviewed (raw) alerts follow slightly different notification workflows, as depicted in the following diagram.





Release Bulletin Notification Engine 2.6

Incident-by-incident notification is performed by the **ShotSpotter Notification Engine**. The Notification Engine runs on most modern Microsoft Windows operating systems and:

1. **polls** for new ShotSpotter incidents
2. **filters** new incidents by type (gunfire, firework, etc.) and workflow stage (unreviewed, reviewed)
3. **notifies** multiple subscribers of multiple types by sending one or more **message packets**
4. **receives** confirmation of receipt if desired and **retries** if configured to do so

Version 2.6 delivers substantial upgrades over previous versions. In the table below, capabilities new since prior versions are highlighted in **blue**:

<i>Incident Workflow Status</i>	Unreviewed Alerts, Reviewed Alerts, Reviewed Updates to Unreviewed Alerts
<i>Incident Types</i>	Single Gunfire, Multiple Gunfire, Possible Gunfire , Firecracker/Fireworks, Backfires, Others
<i>Packet Types</i>	9 Generation I Packets 5 Generation II (Advanced) Packets
<i>Geospatial Boundary Awareness ("geofences")</i>	Two-levels of customizable geographic boundaries reported for each incident
<i>Street Address Lookup (Reverse Geocoding)</i>	Parcel map, address point, or Bing maps web service
<i>Operating System Support</i>	32-bit Windows XP, Windows 7, Windows Server 2003, 2008 64-bit Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012 (beta)
<i>ShotSpotter Product Support</i>	ShotSpotter OnSite ShotSpotter Flex ShotSpotter SpecialOps ShotSpotter CIKR
<i>Transport Channels</i>	HTTP POST (XML payload) HTTP GET (query string) Socket Google Earth .KML Plugin (.dll)



Payload Encoding ASCII stream
HTTP query string (key=value)
XML

Generation II Message Packets

With Version 2.6 of the ShotSpotter Notification API and Notification Engine, SST has introduced a new family of message packets designed for both the ShotSpotter OnSite (capital equipment) and ShotSpotter Flex (subscription) products and business models. We refer to this new family of message packets as **Generation II message packets**. Message packets supported by earlier API versions are referred to as **Generation I message packets**.

	<i>Generation II (Fully Supported)</i>	<i>Generation I (Deprecated)</i>
<i>Simple Alert</i>	IALRT01	INCAUPD
<i>Extended Alert</i>	IALRT02	INCAUPE INDAUPE
<i>Extended Alert with Multimedia (audio) URLs</i>	IALRT03	n/a
<i>Incident Update</i>	IUPDT02 IUPDT03	INCIUPD
<i>Response Packet</i>	<i>scheduled for future release</i>	INCARSP

The Generation II packet formats provide incident **notification (alert)** via the IALRT0x group of packets, three of which are introduced with **API Version 2.6**. To accommodate Incident Review Center (or customer-premises) incident review workflow, a new IUPDT0x group of packets is introduced to permit subsequent update to incident information after initial (raw) alert. Developers have often asked for API-level access to ShotSpotter sensor audio (*e.g.* an .mp3 recording of the gunfire incident as heard at each sensor, plus one to two seconds of audio before and after). The new Generation II packet IALRT03 and IUPDT03 provide audio URLs to all available sensor audio and are structured to provide support in the future for other multimedia types, including for example aerial imagery of the incident location showing a “dot on the map.” The packet types available are:



Release Bulletin Notification Engine 2.6

<i>Purpose</i>	<i>Message Packet Prefix (Opcode)</i>	<i>Generation I Equivalent</i>	<i>Purpose</i>
<i>Simple Alert</i>	IALRT01	INCAUPD	“Basic” alert with minimal information to pan-tilt-zoom devices, can accept a geo-referenced endpoint and will calculate relative range/bearing/elevation.
<i>Extended Alert</i>	IALRT02	INCAUPE INDAUPE	“Detailed” alert packet with detailed information regarding the incident, can accept a geo-referenced endpoint and will calculate relative range/bearing/elevation.
<i>Extended Alert with Multimedia (audio) URLs</i>	IALRT03	n/a	Extended “detailed” alert packet with detailed information regarding the incident and provides a variable number of associated URLs for incident audio, etc.
<i>Incident Update</i>	IUPDT02	INCIUPD	Update packet supporting Reviewed Alerts and other after-detection updates (classification change, etc.). Issued to subscribers of IALRT02 messages.
	IUPDT03	n/a	Update packet supporting Reviewed Alerts and other after-detection updates (classification change, etc.). Issued to subscribers of IALRT03 messages.

Documentation

Documentation for the ShotSpotter Notification API and Notification Engine 2.6 have been fully updated and revised. Developers, data scientists, and third-party software integrators should request copies of the following documents from their SST points of contact or from SST Customer Support:

- *Notification API Reference, version 2.6*
- *Notification Engine User’s Manual, version 2.6*

Availability

Due to patent licensing restrictions, the software cannot be made available for free download. However, Version 2.6 of the Notification Engine software is available as a no-cost upgrade to all customers and integrators with current Integration API licenses. Furthermore, integrators, software



Release Bulletin Notification Engine 2.6

developers, and technology partners can receive special development copies of the software free of charge by contacting ShotSpotter Product Management or Sales Operations:

Product Management

James G. Beldock
SVP Products & Marketing
jbeldock@shotspotter.com
+1 (510) 794-3117

Sales Operations

Scott Beisner
Manager, Sales Operations
sbeisner@shotspotter.com
+1 (510) 794-3110

Support

SST Customer Support is available to all customers with valid ShotSpotter Flex Support contracts. You may contact SST Customer Support:

Via Live Chat:

From either the ShotSpotter Flex Alert Console or the ShotSpotter Flex Incident & Reports Portal, look for the chat links:



or by following this link in any web browser:

<https://chat.shotspotter.com/chatrequest>

Via Phone:

Phone support is available Monday-Friday, 8:00 am to 5:00 pm Pacific Standard Time. Please contact our support team during these hours at: **+1 (888) 274-6877**, then dial option **4**.

Via Email:

Email support@shotspotter.com. Please include as much detail as possible so we may better serve you quickly.

SERVICES AGREEMENT

 **ShotSpotter**[®] FlexSM

confidential

 **SST**TM

SST, Inc.
7979 Gateway Blvd, Suite 210
Newark, California 94560
+1.888.274.6877
info@ShotSpotter.com
www.ShotSpotter.com



SST, Inc. (also “ShotSpotter,” “we,” “us,” or “our”) and the end-user customer (also “Customer,” “you” or “your”) agree to the following Services and License Agreement and General Terms and Conditions (hereinafter, “Agreement”).

The following Agreement is an essential part of the “Purchase Documents” (which term shall include this Agreement and all executed proposals and purchase orders, together with all attachments and appendices) under which you purchase ShotSpotter Gunshot Location services identified in the Purchase Documents and described herein (“Service”). Your access, or use of any part of the Service (and/or signature on the purchase order and/or agreement) shall constitute your representation that you have read all the terms and conditions of this Agreement, and your acceptance of them as an integral part of the Agreement and your purchase or order of the Service. If you do not agree to be bound by these terms and conditions, do not access or use any part of the Service.

1. SERVICES

In consideration of the parties’ mutual undertakings set forth in the Purchase Documents and in this Agreement, you and we agree as follows:

For purposes of this Agreement, the Service shall consist of (i) providing access by the Customer to Reviewed Alerts delivered via a password-protected internet portal (“Alert Console”) and user interface supplied by SST (together the Alert Console and interface shall be called the “Software”) (ii) providing access to historical Reviewed Alerts and incident information via the

Software; and (iii) other services as specified in the Purchase Documents.

Reviewed Alerts consist of data for gunfire incidents, detected by the ShotSpotter Gunshot Location System and reviewed by a SST incident reviewer employee (see Exhibit A).

SST will install or convert the ShotSpotter Gunshot Location System in the coverage area specified in the Purchase Document. SST will host the Service and may update the functionality and Software of the Service from time to time in its sole discretion and in accordance with this Agreement.

Except in the circumstances where a system has been previously purchased and is being converted, SST shall retain ownership of, and all rights to, all components of the ShotSpotter Gunshot Location System, including hardware components, Software and firmware. Under this Agreement the Customer is only licensing rights to access the incident information detected by the ShotSpotter Gunshot Location System.

2. LICENSE

The following sets forth the terms and conditions of your non-exclusive, non-transferable and terminable license to use the Service and Data (as those terms are defined herein).

This License creates important legal rights and obligations, so please read it carefully before using the Service. This License constitutes an offer by us to you. **By manifesting electronically your assent to these terms, using the service, or by issuing a purchase order or signing a purchase**



agreement, you agree to be bound by the terms and conditions of this license. If you do not agree to be bound by the terms of this License, do not issue or execute a Purchase Document, or use the Service.

A. RIGHTS IN DATA.

All Data created, generated, modified, compiled, stored, kept or displayed by SST through the Subscription Service in the course of providing the Subscription Service and related Services to Customer, remains the sole and exclusive property of SST. Subject to subparagraph (ii) below, SST expressly reserves the rights to copy, publish, display, adapt, modify, translate, perform publicly, make works derived from, transfer, sell, offer for sale, and to use any and all Data for any purpose. Notwithstanding the foregoing sentence and although SST owns the Data with respect to the Subscription Service, SST will provide reasonable notice if any Data to be released is specific forensic or law enforcement sensitive incident information – For discussion that may pertain to any active investigation or prosecution. At no time, either in a non-exclusive or exclusive data ownership, does SST release, sell, license, or otherwise distribute the gunfire alert Data to the press or media without the prior express consent, which shall not be unreasonably withheld.

If the customer purchases the exclusivity option, then SST will not distribute to any third party any Data related to or generated by ShotSpotter Gunshot Location System in Customer's coverage area, unless in response to a valid order or

subpoena issued by a court or other governmental body, or as otherwise required by law.

SST expressly reserves the rights to copy, publish, display, adapt, modify, translate, perform publicly, make works derived from, transfer, sell, offer for sale, and to use any and all Data (including, without limitation, Reviewed Alerts) for any purpose, and to authorize, license, and sublicense others to do any or all of the same.

B. RESTRICTIONS.

The Software and Data are our proprietary products, may incorporate components supplied to us under license by third-party suppliers, and may be protected by United States patent, trade secret, copyright law and international treaty provisions. All such rights in and to Software and Data and any part thereof are the property of us or our suppliers. By virtue of this License, you acquire only the right to use the Software and Data in accordance with this Agreement, but otherwise acquire no license, title or ownership rights, express or implied, in or to the Software or Data, or any right to use or practice any of our patents, copyrights, trademarks, or trade secrets, all of which rights are reserved expressly by us or our suppliers. You may not make any copies of the written materials or documentation that accompanied any component of the Software, or use them, or any other information concerning the Service that we have designated as confidential, for any purpose other than bona fide use of the Service or Software for the specific purposes contemplated herein, nor allow anyone else to do so. You shall not, without our express



written consent, which may be withheld or conditioned in our sole discretion: (i) modify, adapt, alter, translate, copy, perform or display (publicly or otherwise) or create compilations, derivative, new or other works based, in whole or in part, on the Software or Data, or on the Service; (ii) merge, combine, integrate or bundle the Software or the Data, in whole or in part, with other software, hardware, data, devices, systems, technologies, products, services, functions or capabilities; (iii) transfer, distribute, make available the Service, Data, or Software to any person other than the specific end-user customer identified to SST in the Purchase Documents, sell, resell, sublicense, lease, rent, or loan the Service, Data, or Software, in whole or in part, or (iv) provide use or permit operation of any of the Service, Software or Data by any person other than the original end-user customer designated in the Purchase Documents, nor in or through any application service provider, service bureau, rental or time-sharing arrangement; (v) disassemble, decompile, or otherwise reverse engineer or attempt to reconstruct, derive, or discover, any source code, underlying ideas, algorithms, formulae, routines, file formats, data structures, programming, routines, interoperability interfaces, drawings, or plans from the Data or Software, or any data or information created, compiled, displayed, or accessible through the System, in whole or in part; or (vi) remove, modify or obscure any identification or proprietary or restrictive rights markings or notices from the Data, Software or any component thereof.

SST and its licensors retain all ownership of all intellectual property rights in and to all Data, Software, all computer programs, related documentation, technology, knowhow and methods and processes embodied in or made available to you in connection with the Service, including, without limitation, all patent rights, copyrights, trade secret rights, trademarks and service marks. All rights not expressly granted to you herein are reserved by SST. You shall take all reasonable measures to protect SST's intellectual property rights in the Service and Software, including providing assistance and measures as are reasonably requested by SST from time to time.

You are hereby placed on notice that alteration or removal of copyright management information (including, without limitation, licensor's name and other identifying information, name of the Service, the terms and conditions of this License, and identifying numbers or symbols) embodied in or associated with the Service is prohibited, because such conduct may cause others to infringe our rights in and to the system, Service and/or Software. You may also not obscure or remove any confidentiality, patent, trademark or copyright notices on any component of the Service, or any documentation.

C. TERMINATION.

You agree that your right to use the Service, Software and Data will terminate automatically if you violate any of the terms of this License, or fail to timely pay any sums you owe to us or resellers



or integrators of our Service, or fail to renew the Service upon expiration of the Service term. In the event of termination, your access to the Data and Software will be terminated, and SST will cease delivering Reviewed Alerts, and disable your access to the Data. Customer agrees that SST shall not be liable to Customer nor to any third party for any suspension of the Service resulting from Customer's nonpayment of fees as described in this section.

D. MODIFICATION TO OR DISCONTINUATION OF THE SERVICE.

SST reserves the right at any time and from time to time to modify, temporarily or permanently, the Service (or any part thereof). In the event that SST modifies the Service in a manner which removes or disables a feature or functionality on which Customer materially relies, SST, at Customer's request, shall use commercially reasonable efforts to restore such functionality to Customer. In the event that SST is unable to substantially restore such functionality, Customer shall have the right to terminate the Agreement and receive a pro-rata refund of the annual Service fees paid under the Agreement for use of the Service which was paid for by Customer but not yet furnished by SST as of the date of such termination. Customer acknowledges that SST reserves the right to discontinue offering the Service at the conclusion of Customer's then current term. Customer agrees that SST shall not be liable to Customer or to any third party for any modification of the Service as described in this section.

E. OTHER RESTRICTIONS.

You acknowledge and agree that the source code and internal structure of the Software, Data and Service, as well as documentation, operations manual and training material are our confidential property, and trade secrets, the value of which would be destroyed by disclosure to the public. Use by anyone other than you of the Service, documentation, and Data is prohibited, unless pursuant to a valid assignment under this Agreement.

3. LIMITED EXCLUSIVE WARRANTY.

Provided that you comply with your obligations under the terms and conditions stated herein, we warrant that the Software (as defined herein) will be free of defects in workmanship which materially impair the functioning of the Service and Software in substantial conformity with the specifications documentation accompanying the Service. The Software covered under this limited exclusive warranty consists exclusively of ShotSpotter Alert Console software and user interface, installed and operated locally on customer's computers and devices supplied by SST for your use by on and in connection with a ShotSpotter System, subject to the terms and conditions of the License between you and us.

A. REVIEWED ALERT SERVICE LEVELS.

As regards to sonic event review and alert services, subject to the Customer's compliance with its obligations hereunder, and to the disclaimers and limitations set forth in Exhibit A, and in Sections



5(C), 6, 7, 13 and 15 of this Agreement, we agree to provide the service levels set forth in Exhibit A, attached hereto.

B. SYSTEM CONFIGURATION AND SERVICE LEVELS.

As regards to System configuration, subject to the Customer's compliance with its obligations hereunder, and to the disclaimers and limitations set forth in Exhibit B, and in Sections 5(C), 6, 7, 13 and 15 of this Agreement, we agree to provide the service levels set forth in Exhibit B, attached hereto.

C. OTHER WARRANTY.

SST warrants that the Service, Data and Software shall be free of viruses, Trojan horses, worms, spyware, or other malicious code or components.

The limited exclusive warranties expressly set forth in this Agreement are the only warranties made to you and are provided in lieu of any other warranties (if any) created by any documentation or packaging, or otherwise express or implied. These limited exclusive warranties give you specific legal rights, and you may also have other rights which vary by jurisdiction.

4. SST SUPPORT.

During the term of the Services, SST will make commercially reasonable efforts to promote Customer's successful utilization of the Service, including but not limited to providing Customer with user guides, online help, online training

presentation, and online training sessions (as available). SST will provide reasonable efforts to respond via email to requests for support relating to incident classification within 8 hours of the request.

In addition, SST will use commercially-reasonable efforts to respond to other support requests within 24 hours of receipt of the request during the period of 8am to 5 pm Monday through Friday. The e-mail support specialist shall be responsible for receiving Customer reports of missed incidents, or errors in the Service, and, to the extent practicable over email or telephone, making commercially-reasonable efforts to assist the Customer in resolving the Customer's reported problems. In the event the problem cannot be resolved telephonically, then SST will use commercially-reasonable efforts to restore functionality of the Service to Service specifications within 72 business hours of receipt of the report.

A. FORENSIC REPORTS.

SST, at the specific request of the customer, will produce and provide a reasonable quantity of detailed incident forensic reports for any ShotSpotter detected incidents, including Reviewed Alerts, if such information is deemed by the customer to be valuable to the customer for investigation follow-up, prosecutorial requirements, or after action review.

Such reports must be requested a minimum of 5 days in advance of when needed, and all such requests must be in writing and addressed to the SST Customer Service Department. Customer



should expect delivery of these reports within 5 days after receipt of the request. This benefit shall only be available to Customer if Customer is fully current with payments due under this Agreement. In the case that Customer is not current with their payments, then forensic reports shall not be generated nor provided to Customer until Customer becomes current with its payment obligations.

B. EXPERT WITNESS SERVICES.

SST offers reasonable expert witness services. The Customer will be responsible for all travel and per diem reimbursement. At the specific request of the customer, SST will provide individual(s) for the purposes of expert witness testimony for any ShotSpotter detected incidents, including Reviewed Alerts, for which the incident information is deemed by the customer to be valuable to the customer's prosecutorial requirements. Customer understands that SST undertakes to provide individuals whose qualifications are sufficient for such services, but does not warrant that any person or his or her opinion will be accepted by every court. SST requires at least fourteen (14) days prior notice of such a requirement in writing from the Customer. Customer must include dates, times, specific locations and a point of contact for SST personnel. Due to the nature of legal proceedings, SST cannot guarantee that its services described in this section shall produce the outcome, legal or otherwise, which Customer desires. Payment for expert witness services described shall be due and payable when services

are rendered regardless of the outcome of the proceedings.

5. TERM, RENEWAL

A. TERM AND COMMENCEMENT.

The Service term shall be specified in the Purchase Document and will commence on the date that the Service is available to the Customer via the Alert Console.

B. RENEWAL.

The Service may be renewed for successive periods of one year each, in accordance with the following procedure. Not later than thirty (30) days prior to the expiration of the Service term then in effect, Customer shall issue a purchase order and tender payment in full for the next annual renewal (unless otherwise agreed in writing by SST), and the term shall be renewed for another year. SST shall provide Customer with renewal fees, terms and conditions for the next successive renewal term upon Customer's request but no later than 90 days from the expiration date. Customer acknowledges that the Service fees, terms and conditions and service levels hereunder are subject to change and that such fees, terms and conditions, and service levels may vary from those applicable to this Agreement in successive renewal terms.

If Customer fails to renew in a timely manner and hence allows the Service term to expire then the Service will terminate in accordance with Section 2. C. At its discretion, SST may remove the ShotSpotter Gunshot Location System and any



components from the coverage area at that time. If SST does not remove the ShotSpotter Gunshot Location System from the coverage area, Customer may reinstate the Service at a later date by renewing, however Customer will not have access to any Reviewed Alerts that they would have had access to during the lapsed period.

C. COMMERCIAL CARRIER DATA SERVICES.

The ShotSpotter Gunshot Location System may use wired, wireless or cellular wireless acoustic sensor communications which necessitates the existence of a real-time data communications channel from each sensor to the hosted servers via a commercial carrier. The unavailability or deterioration of the quality of such wired, wireless or wireless cellular communications may impact the ability of SST to provide the Service. In such circumstances SST will use commercially reasonable efforts to obtain alternate wired or wireless cellular communications or adjust the coverage area as necessary. In the event SST is unable to do so, SST will terminate the Service and refund a pro-rata portion of the annual Service fee to Customer.

6. IP INFRINGEMENT; EXCLUSIVE REMEDY.

Subject to the terms and conditions hereof, SST agrees to defend and indemnify Customer (provided it is the actual End-user Customer of the Service) from and against losses, suits, damages, liability and expenses (including reasonable attorney fees) arising out of a claim asserted in a lawsuit or action against the end-user customer by a third party unrelated to the customer, in which

such third party asserts a claim that the Service and/or Software, when used in accordance with SST's specifications and for the purposes intended, infringes any United States patent which was issued by the U.S. Patent and Trademark Office, or United States copyright which was registered by the U.S. Copyright Office, as of the effective date of Customer's agreement to purchase the ShotSpotter Flex System.

Provided, however, that SST shall have the right to choose counsel to defend such suit and/or action, and to control the settlement (including determining the terms and conditions of settlement) and the defense thereof, and that Customer shall provide SST with reasonably prompt written notice of any such suit or action, and of any oral, written or other communication or other information or circumstances of which Customer becomes aware that could reasonably be expected to lead to such a suit or action (including any and all cease and desist demands or warnings, and offers or invitations to enter license agreements), and shall provide SST all reasonable assistance and information in connection with SST's investigation and defense of any claim of infringement.

Further provided, however, that this section shall not apply and SST shall have no obligation to defend and indemnify Customer in the event the Customer or a reseller, integrator, service provider or supplier modifies, alters, substitutes, or supplements any of the Service, or Software, or to the extent that the claim of infringement arises from or relates to the integration, bundling, merger or combination of any of the same with other



hardware, software, systems, technologies, or components, functions, capabilities or applications not licensed by SST as part of the Service, nor shall it apply to the extent that the claim of infringement arises from or relates to meeting or conforming to any instruction, design, direction or specification furnished by the Customer, nor to the extent that the Service or Software are used for or in connection with any purpose, application or function other than detecting and locating gunshots exclusively through acoustic means.

If, in SST's opinion, the Service, or Software may, or is likely to become, the subject of such a suit or action, does become the subject of a claim asserted against a customer in a lawsuit which SST is or may be obliged to defend under this section, or is determined to infringe the foregoing patents or copyrights of another in a final, non-appealable judgment subject to SST's obligations under this section, then SST may in full and final satisfaction of any and all of its obligations under this section, at its option: (1) procure for Customer the right to continue using the affected Service or Software, (2) modify or replace such Service or Software to make it or them non-infringing, or (3) refund to the purchaser a pro-rata portion of the annual Service price paid for the Service System.

The foregoing section states the entire liability of SST and customer's and its suppliers' exclusive remedy for or relating to infringement or claims or allegations of infringement of any patent, copyright, or other intellectual property rights in or to the system, system components, and software. This section is in lieu of and

replaces any other expressed, implied or statutory warranty against infringement of any and all intellectual property rights.

7. LIMITED WARRANTIES EXCLUSIVE; DISCLAIMERS IMPORTANT; PLEASE READ CAREFULLY

To the maximum extent permitted by applicable law, the limited warranties expressly set forth above are exclusive, and in lieu of all other warranties, whether written, oral, express, implied or statutory. There are no warranties that extend beyond those expressly set forth herein, and no prior statements, representations, or course of dealing by any SST representatives shall vary, expand or modify these warranties.

To the maximum extent permitted by applicable law, all other representations or warranties, express, implied, or statutory, including without limitation, any warranties of non-infringement, quality, suitability, merchantability, fitness for a particular purpose or otherwise of any services or any goods provided incidental to the services provided under this agreement are hereby expressly disclaimed and superseded by the exclusive limited express warranty and disclaimers set forth herein.

Without limiting the generality of the foregoing limitations and disclaimers, while the Service is not designed, sold, or intended to be used to detect, intercept, transmit or record oral or other communications of any kind, SST cannot



control how the Service is used, and, accordingly, SST does not warrant or represent, expressly or implicitly, that use of the Service will comply or conform to the requirements of federal, state or local statutes, ordinances and laws, or that use of the Service will not violate the privacy rights of third parties. You shall be solely responsible for using the Service in full compliance with applicable law and the rights of third persons.

Further, regardless of any prior statements, representations, or course of dealings by any SST representatives, we do not warrant or represent, expressly or implicitly, that the Service or its use will: result in the prevention of crime or hostile enemy action, apprehension or conviction of any perpetrator of any crime, military prosecution of any enemy force, or detection or neutralization of any criminal, combatant or threat; prevent any loss, death, injury, or damage to property due to the discharge of a firearm or other weapon; in all cases result in a Reviewed Alert for all firearm discharges within the designated coverage area; or that the SST-supplied network will remain in operation at all times or under all conditions.

SST expressly disclaims, and does not undertake or assume any duty, obligation or responsibility for any decisions, actions, reactions, responses, failure to act, or inaction, by Customer as a result of or in reliance on, in whole or in part, any Services or Reviewed Alerts provided by SST, or for any

consequences or outcomes, including any death, injury, or loss or damage to any property, arising from or caused by any such decisions, actions, reactions, responses, failure to act, or inaction. It shall be the sole and exclusive responsibility of the Customer to determine appropriate decisions, actions, reactions or responses, including whether or not to dispatch emergency responder resources. The Customer hereby expressly assumes all risks and liability associated with any and all action, reaction, response, and dispatch decisions, and for all consequences and outcomes arising from or caused by any decisions made or not made by the Customer in reliance, in whole or in part, on any Services provided by SST, including any death, injury, or loss or damage to any property.

Any and all warranties, express or implied, of fitness for high risk purposes requiring fail-safe performance are hereby expressly disclaimed.

You and we each acknowledge and agree that the Service is not a consumer good, and is not intended for sale to or use by or for personal, family or household use.

8. YOUR OBLIGATIONS.

You acknowledge and agree that SST's duties, including warranty obligations, and ability to perform its obligations to you shall be predicated and conditioned upon your timely performance of and compliance with your obligations hereunder, including, but not limited to:



A. You agree to pay all sums due under the purchase agreement or order as and when they are due pursuant to the terms of such agreement or order. Actual access and use of the SST Service shall constitute evidence that the Service is active and the final payment is due.

B. You agree to use your best efforts to timely perform and comply with all of your obligations allocated to you in the Purchase Documents and/or other contract documents, including, without limitation, provisions regarding assisting SST in obtaining sensor site permissions from premises owners or lessors, in locations reasonably acceptable to SST, which obligations are incorporated by reference and made a part hereof. Unless the Statement of Work or other contract documents signed by SST allocates such obligations to SST expressly, customer shall be responsible for securing from premises owners or lessors all rights necessary to enter onto their premises to install sensors, and to place, operate and maintain such sensors on such premises. SST's duties, including warranty obligations to you shall be predicated and conditioned upon your timely performance of and compliance with your obligations set forth herein, and in the Purchase Documents.

C. You shall not permit any alteration, modification, substitution or supplementation of the SST Service or web portal, or the combining, connection, merging, bundling, or integration of the SST Service or web portal into or with any other system, equipment, hardware, software, technology,

function or capability, without our prior written consent.

D. Unless otherwise expressly agreed in advance in writing by SST, you shall not resell, transfer, distribute or allow access to the Service or web portal or any portion thereof, to any person other than the specific end-user previously identified to SST in the Purchase Documents, and shall not authorize or appoint any contractors, subcontractors, original equipment manufacturers, value added integrators, systems integrators or other third parties to operate, have access to, or sublicense the Products.

E. Customer Must Have Internet Access. In order to use the Service, Customer must have or must obtain access to the World Wide Web to enable a secure https connection from the customers work station to SST's hosted services, either directly or through devices that access Web-based content. Customer must also provide all equipment necessary to make such (and maintain such) connection.

F. Passwords and Access. Customer may designate up to the number of users under Customer's account which corresponds to the access required by assigning unique passwords and user names. Customer will be responsible for the confidentiality and use of Customer's password and user names, and agrees that sharing passwords and/or user names with unauthorized users is prohibited.



G. You shall comply with all applicable laws, rules and regulations relating to the goods and services provided hereunder.

9. INTELLECTUAL PROPERTY RIGHTS; LIMITED LICENSE.

We or our licensors retain all ownership of all intellectual property rights in and to all data, software, computer programs, related documentation, technology, knowhow and processes embodied in or made available to you in connection with the Service, and Software, including, without limitation, all patent rights, copyrights, trade secret rights, trademarks and service marks. Your rights to install and use the Data and Software are limited, and shall be strictly in accordance with the License set forth in Section 2 hereof. Any and all rights not granted expressly in such License are hereby reserved.

10. EXPORT CONTROL.

You acknowledge that the ShotSpotter Flex System is the subject of a Commodity Jurisdiction determination by the United States Department of State, and has been determined to be a controlled commodity, software and/or technology subject to the United States Export Administration Regulations of the U.S. Department of Commerce. Accordingly, no part of the Data, Software, ShotSpotter Flex System or any GLS System component thereof may be transferred, consigned, shipped, delivered, received, exported or re-exported, nor may any technical data directly relating to any of the same or the underlying information or technology be disclosed,

downloaded, uploaded, transmitted, received, furnished, or otherwise provided, to, by or through any person, government, country, or to any end-user, or for any end-uses, except in compliance with applicable U.S. export control laws administered by the U.S. Government, and any other applicable U.S. laws, including the sanctions laws administered by the U.S. Department of Treasury, Office of Foreign Assets Control (OFAC), the U.S. Anti-Boycott regulations, and any applicable laws of your country. In this respect, no resale, transfer, or re-export of any ShotSpotter Flex System exported to you pursuant to a license from the U.S. Department of Commerce may be resold, transferred, or reported without prior authorization by the U.S. Government. Customer agrees not to export, re-export or engage in any “deemed export,” or to transfer or deliver, or to disclose or furnish, to any foreign (non- U.S.) government, foreign (non-U.S.) person or end-user, or to any U.S. person or entity, any of the ShotSpotter Flex System, GLS System components, Data, Software, Services, or any technical data or output data or direct data product thereof, or any service related thereto, in violation of any such restrictions, laws or regulations, or without all necessary registrations, licenses and or approvals. Unless otherwise agreed and so specified in the Purchase Documents, you shall obtain and bear all expenses relating to any necessary determinations, registrations, licenses and/or exemptions with respect to its exportation, re- exportation or “deemed export” of the ShotSpotter Flex System, Data, Software or any GLS System Components or Services, as well as



with respect to the disclosure or furnishing of any technical data or other information and services relating to any of the same.

In addition to compliance with the foregoing, and without limiting the generality thereof, Customer shall not disclose, discuss, download, ship, transfer, deliver, furnish, or otherwise export or re-export any such item(s) to or through: (a) any person or entity on the U.S. Department of Commerce Bureau of Industry and Security's List of Denied Persons or Bureau of Export Administration's anti-proliferation Entity List; (b) any person on the U.S. Department of State's List of Debarred Parties; (c) any person or entity on the U.S. Treasury Department Office of Foreign Asset Control's List of Specially Designated Nationals and Blocked Persons; or (d) any other end-user or for any end-use prohibited by law or regulation, as any and all of the same may be amended from time to time, or any successor thereto.

11. PROTECTION OF CONFIDENTIAL INFORMATION.

Unless either party (the "Receiving Party") obtains prior written consent from the other (the "Disclosing Party"), the Receiving Party agrees that it will not reproduce, use for purposes other than those expressly permitted herein, disclose, sell, license, afford access to, distribute, or disseminate any information: i) obtained from the Disclosing Party in connection with the System purchase, installation or operation, and designated by it from time to time as confidential; ii) the documentation, use and operations manuals; and output data created or

compiled by the ShotSpotter Flex System; iii) your use of the ShotSpotter Flex System or technology, your deployment methodology, results, or related facts; iv) the contractual terms and payment terms applicable to the purchase of the ShotSpotter Flex System or technology, except as required by local law (collectively, "Confidential Information") Unless a section of the Purchase Document(s) specifically identifies the identity of Customer as Confidential Information, the fact that Customer is a customer of SST shall not itself be considered Confidential Information, nor shall the name of any city in which the ShotSpotter GLS System is deployed be considered confidential information. Recipient's obligations under this section shall not apply to any of Discloser's Confidential Information that Recipient can document: (a) was in the public domain at or subsequent to the time such Confidential Information was communicated to Recipient by Discloser through no fault of Recipient; (b) was rightfully in Recipient's possession free of any obligation of confidence at or subsequent to the time such Confidential Information was communicated to Recipient by such Discloser; (c) was developed by employees or agents of Recipient independently of and without reference to any of Discloser's Confidential Information; or (d) was communicated by Discloser to an unaffiliated third party free of any obligation of confidence. A disclosure by Recipient of any of Discloser's Confidential Information (a) in response to a valid order by a court or other governmental body; (b) as otherwise required by law; or (c) necessary to establish the rights of either party under this Agreement shall not be considered to be



a breach of this Agreement by such Recipient; provided, however, such Recipient shall provide prompt prior written notice thereof to such Discloser to enable Discloser to seek a protective order or otherwise prevent such disclosure. Receiving Party shall use reasonable controls to protect the confidentiality of and restrict access to all such Confidential Information to those persons having a specific need to know the same for purposes expressly authorized herein, and render unreadable prior to discarding, all records containing our Confidential Information. In any event such controls shall not be less protective than those Receiving Party uses to secure and protect its own confidential, but not "Classified" or otherwise Government-legended, information.

12. NOTICES.

Any notice or other communication required or permitted to be given under this Agreement shall be in writing at such party's address or number or at such party's last known address or number. The party's addresses may be changed by written notice to the other party as provided herein.

13. FORCE MAJEURE.

In no event shall SST be liable for any delay or default in its performance of any obligation under this or any other agreement caused directly or indirectly by an act or omission of Customer, or persons acting under its direction and/or control, fire, flood, act of God, an act or omission of civil or military authority of a state or nation, strike, lockout or other labor disputes, inability to secure, delay in securing, or shortage of labor, materials, supplies,

transportation, or energy, failures, outages or denial of services of wireless, power, telecommunications, or computer networks, acts of terrorism, sabotage, vandalism, hacking, natural disaster or emergency, war, riot, embargo or civil disturbance, breakdown or destruction of plant or equipment, or arising from any cause whatsoever beyond SST's reasonable control. At SST's option and following notice to Customer, any of the foregoing causes shall be deemed to suspend such obligations of SST so long as any such cause shall prevent or delay performance, and SST agrees to make and Customer agrees to accept performance of such obligations whenever such cause has been remedied.

14. DEFAULT; REMEDIES.

Upon the occurrence of any default by or breach of your obligations, we may at our option, effective immediately, either: (i) terminate our future obligations under this agreement, terminate your License to use the Service and Software, or (ii) accelerate and declare immediately due and payable all remaining charges for the remainder of the agreement and proceed in any lawful manner to obtain satisfaction of the same. In either case, you shall also be responsible for paying court costs and reasonable attorneys' fees incurred by or on behalf of us, as well as applicable repossession, shipping, repair and refurbishing costs.

15. LIMITATIONS ON LIABILITY.

In no event shall either party, or any of its affiliates or any of its/their respective directors, officers, members, attorneys, employees, or agents, be



liable to the other party under any legal or equitable theory or claim, for lost profits, lost revenues, lost business opportunities, exemplary, punitive, special, or consequential damages, each of which is hereby excluded by agreement of the parties, regardless of whether such damages were foreseeable or whether any party or any entity has been advised of the possibility of such damages.

In any event, except for its IP infringement indemnity obligations under section 6 hereof, SST's cumulative liability for all losses, claims, suits, controversies, breaches or damages for any cause whatsoever (including, but not limited to, those arising out of or related to this agreement) and regardless of the form of action or legal theory shall not exceed two times the amount paid to SST under this agreement, or the amount of insurance maintained by SST available to cover the loss, whichever is greater. The foregoing limitations shall apply without regard to any failure of essential purpose of any remedies given herein.

16. GENERAL PROVISIONS.

A. NO AGENCY.

Neither SST nor any of its employees is an agent or representative of Customer and the Customer is solely responsible for obtaining any required authorizations from any governmental agency, body or commission and for compliance therewith.

B. COMPLIANCE WITH LAWS AND TAXES.

You shall comply with all applicable laws, statutes and regulations relating to the sale, distribution, and use of the Service and the performance of your duties and obligations hereunder. All prices are exclusive of all tariffs, customs duties, imposts, national, federal, provincial, state, and local VAT, excise, sales, use and similar taxes. You will be pay and be responsible for paying any and all such taxes and tariffs, when applicable.

C. EQUAL OPPORTUNITY CONTRACT CLAUSE.

SST is committed to the provisions outlined in the Equal Opportunity Clauses of Executive Order 11246, (41 CFR 60- 1.4), section 503 of the Rehabilitation Act of 1973, (41 CFR 60-741.5(a)), section 402 of the Vietnam Era Veterans Readjustment Act of 1974, (41 CFR 60-250.5(a)), and, the Jobs for Veterans Act of 2003, (41 CFR 60-300.5(a)) as well as any other regulations pertaining to these orders.

D. SEVERABILITY AND INTERPRETATION.

If any provision, in whole or in part, of this Agreement and/or the Purchase Documents of which it is a part is held invalid or unenforceable for any reason, the invalidity shall not affect the validity of the remaining provisions, and there shall be substituted for the invalid provision a valid provision which most closely approximates the intent and economic effect of the invalid provision. No part or provision shall be interpreted in favor or against any party because such party or its counsel drafted



the relevant provision. No course of dealing, usage, custom of trade, or communication between the parties shall modify or alter any of the rights or obligations of the parties under this Agreement and Purchase Document(s).

E. INTEGRATION, AMENDMENT AND WAIVER.

This Agreement, and the Purchase Document(s) of which it is a part, together with any other exhibits or appendices thereto, constitute the entire understanding between SST and you. No other documents or representations shall be used in interpreting it. Any and all written or oral agreements heretofore existing between the parties are expressly cancelled and/or superseded. Any other document, proposal, specification, statement of work, marketing collateral, or representation which may vary, alter, amend or supplement these terms and conditions will not be binding unless agreed to in a writing signed by appropriate representatives of both SST and Customer. No modification, variance, amendment or waiver of any part of Agreement or Purchase Document(s) shall be binding upon either party, whether written, oral, or in any other medium, unless made in writing and signed by authorized representatives of both parties. All the parties' rights and duties are material and time is of the essence; no waiver of any rights hereunder shall be deemed effective unless in writing executed by the waiving party; no waiver of either party's breach of any provision of this Agreement or Purchase Documents shall constitute a waiver of any prior or subsequent breach of the same or any other provision, and no failure to exercise, and no delay

in exercising, any right(s) hereunder on either party's part shall operate as a waiver of any such right; all of the parties' rights are cumulative; and, no single or partial exercise of any right hereunder shall preclude further exercise of such right or any other right.

F. BENEFIT AND BURDEN; ASSIGNMENT.

Subject to the following provisions, this Agreement and the Purchase Documents of which they are a part shall be binding upon permitted successors and assigns and shall inure to the benefit of the parties and their respective permitted successors and assigns only. Notwithstanding that the Service and Software, and its output data may be used for law enforcement, military, public safety, and force protection purposes, there are no third party beneficiaries intended to benefit from these general terms and conditions of sale, or the agreement or order of which they are a part. Customer may not assign or transfer this Agreement and the Purchase Documents of which they are a part, or any of the rights granted therein, in whole or in part, by operation of law or otherwise, without SST's express prior written consent. SST may assign or transfer this Agreement and the Purchase Documents and/or SST's rights and obligations hereunder, in whole or in part, to any third party without the necessity of obtaining Customer's consent. No assignee for the benefit of Customer's creditors, custodian, receiver, trustee in bankruptcy, debtor in possession, sheriff or any other officer of a court, or other person charged with taking custody of Customer's assets or business, shall have any right to continue or to



assume or to assign these without SST's express consent.

G. GOVERNING LAW AND DISPUTE RESOLUTION.

The validity, performance, and construction of this agreement shall be governed by the laws of the laws of the State of California, without giving effect to the conflict of law principles thereof. The United Nations Convention on Contracts for the International Sale of Goods is expressly disclaimed and shall not apply. If the parties disagree as to any matter arising under this Agreement or the relationship and dealings of the parties hereto, then SST and Customer shall promptly consult with one another and make diligent, good faith efforts to resolve the disagreement, by negotiation. Should the dispute not be resolved within a reasonable time after commencement of such negotiations, it shall be mediated before one or more mediators mutually acceptable to both parties. Costs of mediation will be allocated as part of the resolution in mediation, but absent such resolution, shall be paid equally by the parties. If such effort is unsuccessful, any controversy or claim arising out of or relating to this Agreement or the validity or breach of any of the provisions thereof, or the relationship, dealings, rights, and obligations of the parties, or use of the Service, shall be settled by binding arbitration, before three arbitrators, in or as near as possible to Newark, California, United States of America, or in such other location as the parties may agree, in accordance with the Commercial Rules of the American Arbitration Association in effect on the date of this agreement.

Such arbitration shall be conducted before three arbitrators. The parties acknowledge and agree that this agreement involves a commercial transaction in commerce and that arbitration and award hereunder shall be governed by the federal Arbitration Act. Judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof. In addition to any other remedies to which it may be entitled, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs (including expert witness fees and costs) incurred in connection with enforcing its rights or defending itself.

All parties hereby irrevocably waive any and all rights they may have to a trial by jury in any judicial proceeding involving any claim relating to or arising under this agreement or any other agreement between the parties hereto.



EXHIBIT A – Reviewed Alert Service Levels

The ShotSpotter Flex System detects loud impulsive incidents, classifies them as gunfire, fireworks, or other, and sends them to the SST Incident Review Center. Within 15 seconds of receiving the incident audio download, SST review personnel will begin analysis of the incident, which will include observing sensor audio wave files and listening to sensor audio. The outcome of this review is intended to confirm or change the System's classification of the incident type, and, depending on the reviewer's confidence level that the incident is or may be gunfire, will result in an alert ("Reviewed Alert") sent to the Customer's **Alert Console**, based on the following criteria:

Incident Type	Action
High confidence incident is gunfire	Reviewed Gunfire Alert sent to Customer Alert ConsoleUncertain
ConsoleUncertain if incident is gunfire or not	Reviewed Possible Gunfire Alert sent to Customer Alert
ConsoleLow confidence incident is gunfire	No alert will be sent; incident available for customer review in the incident history available through the Customer Alert Console

Reviewed Alerts are sent to the Customer Alert Console. Information in a Reviewed Alert will include the location of the incident, the reviewer's qualitative assessment of the confidence level that the incident is or may be gunfire, along with other pertinent information and data.

Specifically, information provided in a Reviewed Alert may include any or all of the following:

- "Dot on the map" and closest parcel address denoting the location of the incident
- Qualitative Confidence that the incident is gunfire: High or Uncertain
- Qualitative Severity: Single shot, multiple shots, drive by shooting, full automatic
- Comments (if any)

The majority of incidents will be processed within 45 seconds of the System notifying the SST Incident Review Center of an incident and 90% of the incidents will be processed in less than 60 seconds. In the unlikely event that the review center loses connection to the hosting facility or the review center is unable



to process the incident within approximately 60 seconds for some reason, the system will automatically route unreviewed incidents directly to the customer based on the systems classification of the incident. In the event the reviewed incident data reveals information that will aid in responder situational awareness, SST may (but is not obligated to) include this information as Comments in the Reviewed Alert.

During major holidays such as in the case of New Years Eve, Independence Day, and Cinco de Mayo, most communities experience a large increase in firework activity. During these periods, usually at least 48 hours in advance of the holiday, during the holiday and 48 hours following the holiday, SST will put the system into fireworks suppression mode so that the reviewers can focus their response to incidents classified as gunfire. SST will inform the customer prior to the system being placed in fireworks suppression mode and when fireworks suppression mode is disabled. The actual timing of fireworks suppression mode being active is determined by the review center based on the level of fireworks being discharged. While in fireworks suppression mode, fireworks incident alerts are not sent to the reviewer nor the customer alert console, however all firework incidents continue to be stored in the data base should any of this information be needed at a later time.

The purpose of the Reviewed Alert Service is to provide incident data to the Customer, reviewed, analyzed and classified in the manner described above, in situations where the analyst's qualitative confidence that an incident is or may be gunfire meets the criteria set forth above. However, it is the sole responsibility of the Customer to interpret the data provided, and to determine any appropriate follow-up reaction or response, including whether or not to dispatch emergency responder resources based on a Reviewed Alert. SST does not undertake any obligation, duty or responsibility for reaction, response, or dispatch decisions, which are solely and exclusively the responsibility of Customer, or for the consequences or outcomes of any decisions made or not made by the Customer in reliance, in whole or in part, on any services provided by SST.

The Incidents & Reports Portal provides the Customer with full and immediate access to all incident history including the same information SST uses in its internal review process. This information includes, among other things, the initial incident classification and any reclassifications of an incident, incident audio wave forms, and incident audio files. This enables the Customer to perform its own incident reviews and run various reports. This data access is available as long as the Customer is under active subscription.



EXIHBIT B – System Configuration and Service levels

SST will deploy or have deployed a ShotSpotter Flex system over the agreed upon coverage area. The system will be designed to detect at least 80% of the unsuppressed outdoor gunfire, with a location accuracy to the shooter's location within 25 meters, after sensor calibration. These performance levels are predicated on the deployment of sensors at all such sites, the foregoing performance levels may be compromised.

The sensors send incident information to a server in a SST hosting facility via third party cellular, wireless or wired networks. SST is not responsible for outages on the third party networks. SST will be responsible for installation and maintenance of the sensors and cost of the sensor communications to the hosted location server. The hosted server infrastructure (exclusive of communications networks) shall be maintained at 99.9% application availability exclusive of scheduled maintenance that SST will make reasonable efforts to coordinate with the customer.

The connection between the reviewer's console and the Customer's Alert Console is secured using a secure message protocol over http connection, where individual messages are encrypted using the same Public Key Infrastructure ("PKI") as a secure VPN connection.

Providing local access to the internet for the Alert Console is the responsibility of the Customer, as is providing a work station with access to the internet. The Customer may choose to set up multiple sessions of Alert Consoles as a form of redundancy.

Supplier: **ShotSpotter, Inc. (d/b/a SST, Inc)**



**Miami-Dade Count
Procurement Management Service
Proposal Submittal For**

111 NW 1st Street, Suite 1300, Miami, FL 3312

Solicitation No. RFP-00327		Solicitation Title: Acoustic Gunshot Detection Solution		
Legal Company Name (include d/b/a if applicable): ShotSpotter, Inc. (d/b/a SST, Inc.)		Federal Tax Identification Number: 470949915		
If Corporation - Date Incorporated/Organized: 06/30/2004		State Incorporated/Organized: Delaware		
Company Operating Address: 7979 Gateway Blvd., Suite 210		City Newark	State CA	Zip Code 94560
Company Contact Person: Phil Dailly		Email Address: phild@shotspotter.com		
Phone Number (include area code) 704-470-5501	Fax Number (include area code) 650-887-2106	Company's Internet Web Address: www.shotspotter.com		

Pursuant to Miami-Dade County Ordinance 94-34, any individual, corporation, partnership, joint venture or other legal entity having an officer, director, or executive who has been convicted of a felony during the past ten (10) years shall disclose this information prior to entering into a contract with or receiving funding from the County.

Place a check mark here only if Proposer has such conviction to disclose to comply with this requirement.

LOCAL PREFERENCE CERTIFICATION: For the purpose of this certification, a "local business" is a business located within the limits of Miami-Dade County (or Broward County in accordance with the Interlocal Agreement between the two counties) that has a valid Local Business Tax Receipt, issued by Miami-Dade County; has a physical business address located within the limits of Miami-Dade County from which business is performed; and contributes to the economic development of the community in a verifiable and measurable way. This may include, but not be limited to, the retention and expansion of employment opportunities and the support and increase to the County's tax base.

Place a check mark here only if affirming Proposer meets requirements for Local Preference. **Failure to complete this certification at this time (by checking the box above) may render the vendor ineligible for Local Preference.**

LOCAL CERTIFIED VETERAN BUSINESS ENTERPRISE CERTIFICATION: A Local Certified Veteran Business Enterprise is a firm that is (a) a local business pursuant to Section 2-8.5 of the Code of Miami-Dade County and (b) prior to proposal submission is certified by the State of Florida Department of Management Services as a veteran business enterprise pursuant to Section 295.187 of the Florida Statutes.

Place a check mark here only if affirming Proposer is a Local Certified Veteran Business Enterprise. A copy of the certification must be submitted with this proposal.

SMALL BUSINESS ENTERPRISE CONTRACT MEASURES (If Applicable)

An SBE/Micro Business Enterprise must be certified by Small Business Development for the type of goods and/or services the Proposer provides in accordance with the applicable Commodity Code(s) for this Solicitation. For certification information contact Small Business Development at (305) 375-2378 or access <http://www.miamidade.gov/business/business-certification-programs.asp>. The SBE/Micro Business Enterprise must be certified by proposal submission deadline, at contract award, and for the duration of the contract to remain eligible for the preference. Firms that graduate from the SBE program during the contract may remain on the contract

Is your firm a Miami-Dade County Certified Small Business Enterprise? Yes No

If yes, please provide your Certification Number:

SCRUTINIZED COMPANIES WITH ACTIVITIES IN SUDAN LIST OR THE SCRUTINIZED COMPANIES WITH ACTIVITIES IN THE IRAN PETROLEUM ENERGY SECTOR LIST:

By executing this proposal through a duly authorized representative, the Proposer certifies that the Proposer is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, as those

terms are used and defined in sections 287.135 and 215.473 of the Florida Statutes. In the event that the Proposer is unable to provide such certification but still seeks to be considered for award of this solicitation, the Proposer shall execute the proposal through a duly authorized representative and shall also initial this space: **SS**. In such event, the Proposer shall furnish together with its proposal response a duly executed written explanation of the facts supporting any exception to the requirement for certification that it claims under Section 287.135 of the Florida Statutes. The Proposer agrees to cooperate fully with the County in any investigation undertaken by the County to determine whether the claimed exception would be applicable. The County shall have the right to terminate any contract resulting from this solicitation for default if the Proposer is found to have submitted a false certification or to have been placed on the Scrutinized Companies for Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

The submittal of a proposal by a Proposer will be considered a good faith commitment by the Proposer to negotiate a contract with the County in substantially similar terms to the proposal offered and, if successful in the process set forth in this Solicitation and subject to its conditions, to enter into a contract substantially in the terms herein.

Proposer's Authorized Representative's Signature:

Sonya Strickler

Date:

4/7/2016

Type or Print Name

Sonya Strickler

Supplier: **ShotSpotter, Inc. (d/b/a SST, Inc)**



FAIR SUBCONTRACTING PRACTICES

In compliance with Miami-Dade County Code Section 2-8.8, the Bidder/Proposer shall submit with the proposal a detailed statement of its policies and procedures (use separate sheet if necessary) for awarding subcontractors.

Subcontract will be awarded to an existing subcontractor who has experience on previous ShotSpotter installations and with whom we already have a contract with set pricing.

NO SUBCONTRACTORS WILL BE UTILIZED FOR THIS CONTRACT

Sonya Strickler
Signature

4/7/2016
Date

Supplier: ShotSpotter, Inc. (d/b/a SST, Inc)



SUBCONTRACTOR/SUPPLIER LISTING
(Miami-Dade County Code Sections 2-8.1, 2-8.8 and 10-34)

Name of Bidder/Proposer: **ShotSpotter, Inc. (d/b/a SST, Inc.)** FEIN No. **470949915**

In accordance with Sections 2-8.1, 2-8.8 and 10.34 of the Miami-Dade County Code, this form must be submitted as a condition of award by all Bidders/Proposers on County contracts for purchase of supplies, materials or services, including professional services which involve expenditures of \$100,000 or more, and all Proposers on County or Public Health Trust construction contracts which involve expenditures of \$100,000 or more. The Bidder/Proposer who is awarded this contract shall not change or substitute first tier subcontractors or direct suppliers or the portions of the contract work to be performed or materials to be supplied from those identified, except upon written approval of the County. The Bidder/Proposer should enter the word "NONE" under the appropriate heading of this form if no subcontractors or suppliers will be used on the contract and sign the form below.

In accordance with Ordinance No. 11-90, an entity contracting with the County shall report the race, gender and ethnic origin of the owners and employees of all first tier subcontractors/suppliers. In the event that the recommended Bidder/Proposer demonstrates to the County prior to award that the race, gender, and ethnic information is not reasonably available at that time, the Bidder/Proposer shall be obligated to exercise diligent efforts to obtain that information and provide the same to the County not later than ten (10) days after it becomes available and, in any event, prior to final payment under the contract.

(Please duplicate this form if additional space is needed.)

Business Name and Address of First Tier Direct Supplier	Principal Owner	Supplies/Materials/Services to be Provided by Supplier	Principal Owner (Enter the number of male and female owners by race/ethnicity)							Employee(s) (Enter the number of male and female employees and the number of employees by race/ethnicity)								
			M	F	White	Black	Hispanic	Asian/Pacific Islander	Native American/Native Alaskan	Other	M	F	White	Black	Hispanic	Asian/Pacific Islander	Native American/Native Alaskan	Other
			ShotSpotter, Inc., 7979 Gateway Blvd., Ste. 210, Newark, CA 94560	Corporation	Acoustic Gunshot Detection service													
Business Name and Address of First Tier Subcontractor/Subconsultant	Principal Owner	Scope of Work to be Performed by Subcontractor/Subconsultant	Principal Owner (Enter the number of male and female owners by race/ethnicity)							Employee(s) (Enter the number of male and female employees and the number of employees by race/ethnicity)								
M	F	White	Black	Hispanic	Asian/Pacific Islander	Native American/Native Alaskan	Other	M	F	White	Black	Hispanic	Asian/Pacific Islander	Native American/Native Alaskan	Other			
Atlantic Technology Solutions, LLC	Paola Colmenares	Installation of Sensors		X			X			N/A								

Mark here if race, gender and ethnicity information is not available and will be provided at a later date. This data may be submitted to contracting department or on-line to the Small Business Development of the Internal Services Department at <http://www.miamidade.gov/business/business-development-contracts.asp>. As a condition of final payment, Bidder/Proposer shall provide subcontractor information on the Subcontractor Payment Report Sub 200 form which can be found at <http://www.miamidade.gov/business/library/forms/subcontractors-payment.pdf>.

I certify that the representations contained in this Subcontractor/Supplier listing are to the best of my knowledge true and accurate.

Sonya Strickler
Signature of Bidder/Proposer

Sonya Strickler
Print Name

VP Finance & Controller
Print Title

4/7/2016
Date

Supplier: **ShotSpotter, Inc. (d/b/a SST, Inc)**



**AFFIDAVIT OF MIAMI-DADE COUNTY
LOBBYIST REGISTRATION FOR ORAL PRESENTATION**

(1) Solicitation Title: **Acoustic Gunshot Detection Solution** Solicitation No.: **RFP-00327**

(2) Department: **Police Department**

(3) Proposer's Name: **ShotSpotter, Inc. (d/b/a SST, Inc.)**

Address: **7979 Gateway Blvd., Suite 210, Newark, CA Zip: 94560**

Business Telephone: **888-274-6877** E-Mail: **sbeisner@shotspotter.com**

(4) List All Members of the Presentation Team Who Will Be Participating in the Oral Presentation:

Name	Title	Employed By	Email Address
Phil Dailly	Director, Southeast	ShotSpotter, Inc.	phild@shotspotter.com
Mario Barrionuevo	Project Manager	ShotSpotter, Inc.	mbarrionuevo@shotspotter.com
Ralph Clark	President & CEO	ShotSpotter, Inc.	rclark@shotspotter.com
Mark Jones	Sr. Director, Customer Success	ShotSpotter, Inc.	mjones@shotspotter.com

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

The individuals named above are Registered and the Registration Fee is not required for the Oral Presentation ONLY.

Any person who appears as a representative for an individual or firm for an oral presentation before a County certification, evaluation, selection, technical review or similar committee must be listed on an affidavit provided by the County. The affidavit shall be filed with the Clerk of the Board at the time the response is submitted. The individual or firm must submit a revised affidavit for additional team members added after submittal of the proposal with the Clerk of the Board prior to the oral presentation. Any person not listed on the affidavit or revised affidavit may not participate in the oral presentation, unless he or she is registered with the Clerk's office and has paid all applicable fees.

Other than for the oral presentation, Proposers who wish to address the county commission, county board or county committee concerning any actions, decisions or recommendations of County personnel regarding this solicitation in accordance with Section 2-11.1(s) of the Code of Miami-Dade County MUST register with the Clerk of the Board and pay all applicable fees.

I do solemnly swear that all the foregoing facts are true and correct and I have read or am familiar with the provisions of Section 2-11.1(s) of the Code of Miami-Dade County as amended.

Signature of Authorized Representative: **Scott Beisner** Title: **Sr. Manager, Public Safety Programs**

STATE OF **California**

COUNTY OF **Alameda**

The foregoing instrument was acknowledged before me this **13th day of April, 2016**,

by **Scott Beisner**, a **individual/agent**, who is personally known

(Individual, Officer, Partner or Agent)

(Sole Proprietor, Corporation or Partnership)

to me or who has produced a **California Driver License** as identification and who did/did not take an oath.

Shilpa Shah

(Signature of person taking acknowledgement)

Shilpa Shah

(Name of Acknowledger typed, printed or stamped)

Sr. Accountant

(Title or Rank)

(Serial Number, if any)

Revised 1/2/14

Supplier: ShotSpotter, Inc. (d/b/a SST, Inc)

Miami-Dade County

Contractor Due Diligence Affidavit

Per Miami-Dade County Board of County Commissioners (Board) Resolution No. R-63-14, County Vendors and Contractors shall disclose the following as a condition of award for any contract that exceeds one million dollars (\$1,000,000) or that otherwise must be presented to the Board for approval:

- (1) Provide a list of all lawsuits in the five (5) years prior to bid or proposal submittal that have been filed against the firm, its directors, partners, principals and/or board members based on a breach of contract by the firm; include the case name, number and disposition;
- (2) Provide a list of any instances in the five (5) years prior to bid or proposal submittal where the firm has defaulted; include a brief description of the circumstances;
- (3) Provide a list of any instances in the five (5) years prior to bid or proposal submittal where the firm has been debarred or received a formal notice of non-compliance or non-performance, such as a notice to cure or a suspension from participating or bidding for contracts, whether related to Miami-Dade County or not.

All of the above information shall be attached to the executed affidavit and submitted to the Procurement Contracting Officer (PCO)/ AE Selection Coordinator overseeing this solicitation. The Vendor/Contractor attests to providing all of the above information, if applicable, to the PCO.

Contract No. :	RFP-00327	Federal Employer Identification Number (FEIN):	470949915
Contract Title:	Acoustic Gunshot Detection Solution		

Sonya Strickler Printed Name of Affiant	VP Finance & Controller Printed Title of Affiant	Sonya Strickler Signature of Affiant
ShotSpotter, Inc. (d/b/a SST, Inc.) Name of Firm		4/7/2016 Date
7979 Gateway Blvd., Ste 210, Newark Address of Firm	CA State	94560 Zip Code

Notary Public Information

Notary Public – State of _____ County of _____

Subscribed and sworn to (or affirmed) before me this _____ day of, _____ 20__

by _____ He or she is personally known to me _____ or has produced identification

Type of identification produced _____

Signature of Notary Public	Serial Number
----------------------------	---------------

Print or Stamp of Notary Public	Expiration Date	Notary Public Seal
---------------------------------	-----------------	--------------------