From: Raymond Lopez <Raymond.Lopez@cityofchicago.org>
Sent: Monday, January 13, 2025 5:50 PM
To: Brandon Johnson <bjmoc@cityofchicago.org>; Steve Berlin <Steve.Berlin@cityofchicago.org>; Joel Flores <Joel.Flores@cityofchicago.org>; Garien Gatewood <Garien.Gatewood@cityofchicago.org>; Larry Snelling <Larry.Snelling@chicagopolice.org>; Jose Tirado <Jose.Tirado@cityofchicago.org>
Cc: David Silberstein <dsilberstein@alarm.com>; Matthew Zartman <mzartman@alarm.com>; Marquis McClure <mmcclure@alarm.com>; Rob Crawford <rncrawford@turn2productionsllc.com>; Vincent Browder <vincent.browder@turn2productionsllc.com>
Subject: Safety Technology Pilot

Good afternoon – Kindly be informed that I have accepted on behalf of the City this pilot program for public safety for the Chicago Police Department's 9th District. There is no cost associated with this six month program. The technical apparatus of this pilot program are fully compatible with current citywide systems.

Ald. Raymond Lopez

15th Ward

Alarm.com Company overview

Unique cloud based (SaaS) operating system enabling service providers and their subscribers to intelligently manage and control their residential and commercial properties with highly advanced IoT technology solutions.

Founded in
2000

IPO
in June 2015;
Nasdaq: **ALRM**

11,000+
service provider
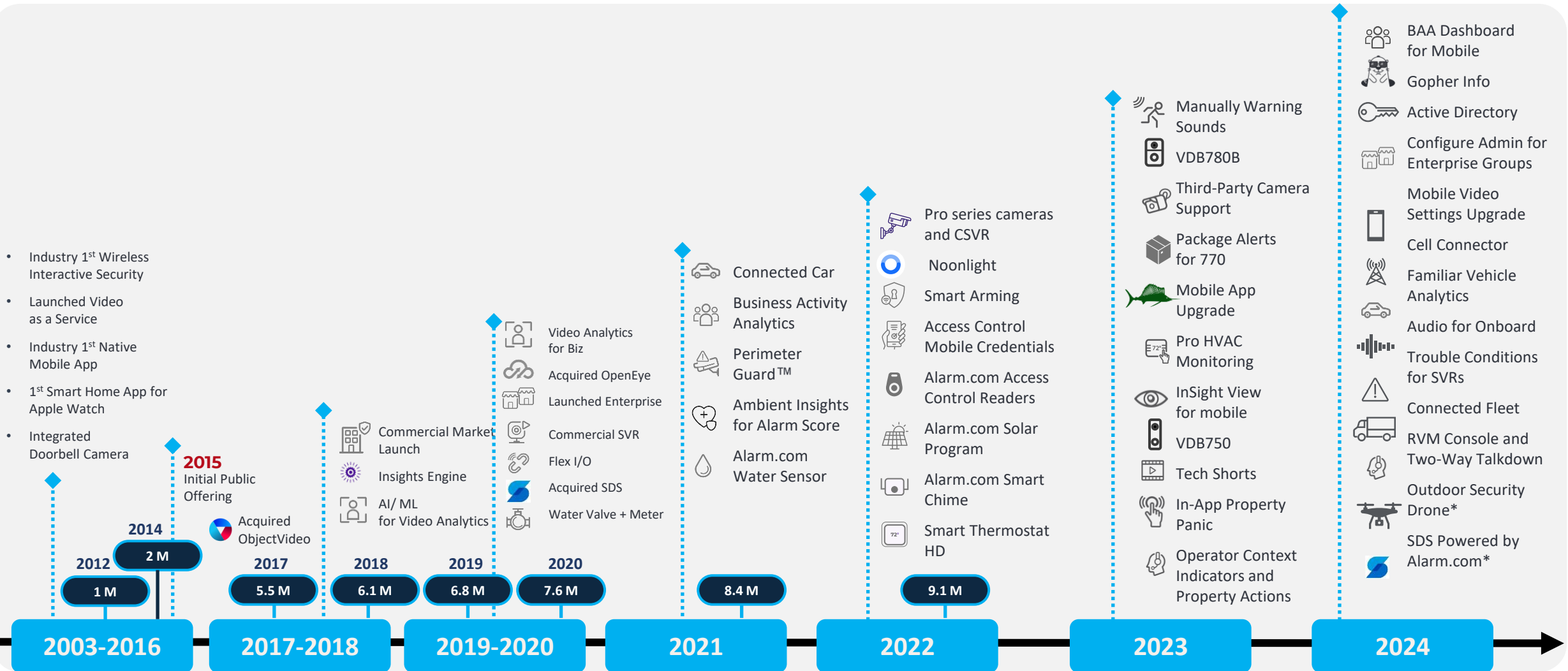partners

9.1 million+
subscribers[1]

1,733
employees

Note: Subscriber, Partner, and Employee data is as of December 31, 2022

[1] Primarily consists of subscribers on our Alarm.com platform or non-hosted software platform to which we are delivering at least one of our solutions.

Long History of Innovation

Early innovations, leading smart security

2003-2016
- Industry 1st Wireless Interactive Security
- Launched Video as a Service
- Industry 1st Native Mobile App
- 1st Smart Home App for Apple Watch
- Integrated Doorbell Camera

2012 — 1 M
2014 — 2 M
2015 Initial Public Offering

2017-2018
- Acquired ObjectVideo
- Commercial Market Launch
- Insights Engine
- AI/ML for Video Analytics

2017 — 5.5 M
2018 — 6.1 M

2019-2020
- Video Analytics for Biz
- Acquired OpenEye
- Launched Enterprise
- Commercial SVR
- Flex I/O
- Acquired SDS
- Water Valve + Meter

2019 — 6.8 M
2020 — 7.6 M

2021
- Connected Car
- Business Activity Analytics
- Perimeter Guard™
- Ambient Insights for Alarm Score
- Alarm.com Water Sensor

2021 — 8.4 M

2022
- Pro series cameras and CSVR
- Noonlight
- Smart Arming
- Access Control Mobile Credentials
- Alarm.com Access Control Readers
- Alarm.com Solar Program
- Alarm.com Smart Chime
- Smart Thermostat HD

2022 — 9.1 M

2023
- Manually Warning Sounds
- VDB780B
- Third-Party Camera Support
- Package Alerts for 770
- Mobile App Upgrade
- Pro HVAC Monitoring
- InSight View for mobile
- VDB750
- Tech Shorts
- In-App Property Panic
- Operator Context Indicators and Property Actions

2024
- BAA Dashboard for Mobile
- Gopher Info
- Active Directory
- Configure Admin for Enterprise Groups
- Mobile Video Settings Upgrade
- Cell Connector
- Familiar Vehicle Analytics
- Audio for Onboard
- Trouble Conditions for SVRs
- Connected Fleet
- RVM Console and Two-Way Talkdown
- Outdoor Security Drone*
- SDS Powered by Alarm.com*

*Coming soon

# of Subscribers

3

Why Shooter Detection Systems?

Jin Kim,
Ret. FBI Active Shooter Subject Matter Expert

" Reducing response time and empowering your people to react is critical to saving lives in shooting incidents. The technology that **SDS has is the single most effective means of delivering the fast, accurate information everyone needs** – including law enforcement – to react in a way that will save lives."

*After Columbine, FBI Agent Jin Kim became the leading authority in all active shooter substantive matters across the agency. He is a 23-year veteran of the FBI's New York Division.

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Shooter Detection Systems

SDS History of Excellence

- ✓ Founded in 2014; acquired Boomerang Shooter Detection system used in military applications since 2005

- ✓ First to market with the most reliable gunshot sensor available

- ✓ Industry leading 99.99% accuracy. Dual mode detection to minimize false alerts (less than 1 false alert per 5 million service hours)

- ✓ 0.5 sec speed vs. competition (multiple seconds)

- ✓ Extensive Patent Portfolio

- ✓ Sensors "SDS Enterprise" deployed globally with 250+ million hours of operational time

- ✓ US Department of Homeland Security (DHS) S&T SAFETY ACT Certified

- ✓ Subsidiary of Alarm.com

Robust System Integrations

- Dozens of integrations with 3rd party technologies to activate additional layers of security response by enabling existing security assets.

- Video

- Access control

- Mass notification

- CAD Systems

- Public address systems

- Emergency lighting/wayfinding systems

Trusted by Leading Organizations

- Preferred Shot Detection Technology for the Largest Public and Private Sector Organizations

- Fortune 500

- K-12 Schools and Universities

- Ports of Transit and Airports

- Stadiums and other venues

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Shooter Detection Systems

SDS
Outdoor Technology

How is SDS Outdoor Different?

- Limited Privacy Concerns
  - No audio collected through the sensor

- Detections & Alerts Are Instantaneous.
  - Response happens faster which can lead to more apprehensions and more saved lives.

- False Detections Are Low
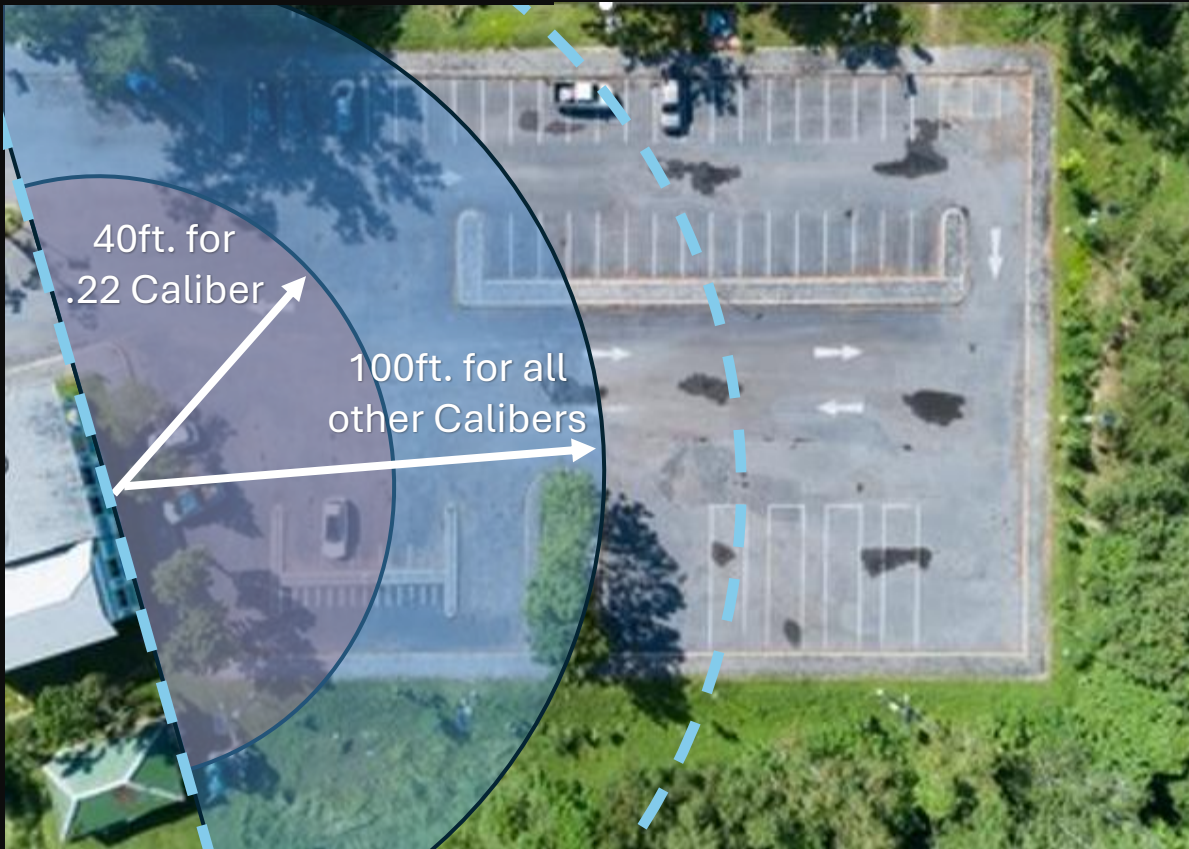 - Dual Mode requires that the sensor both "hears" and "sees" the shot to detect and alert

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ALARM.COM | Shooter Detection Systems

SDS **Outdoor Gunshot Sensor**
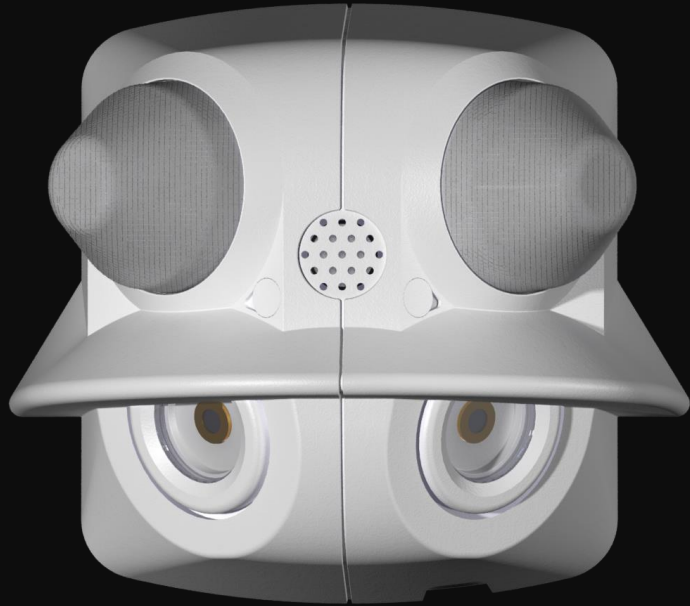
- Coverage arc of 100ft covering 180 degrees for most calibers, 15,700 square feet of coverage (minimum).

- Shooter location reporting

- Caliber detection: Handgun or Long gun (includes shotguns)

- Detects shockwave of a projectile traveling at supersonic speeds

- Built-in self test of acoustic and infrared sensors

- No calibration required

- POE based power and communications

- Low power, under 10W

- Wall & Pole mount options

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Shooter Detection Systems

Field of View - Outdoor

180° Coverage: Single Sensor Building Mount

40ft. for .22 Caliber

100ft. for all other Calibers

360° Coverage: Two Sensor Pole Mount

100ft. for all other Calibers

40ft. for .22 Caliber

The SDS outdoor sensor detects gunfire in a field of view, no line of sight required.

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Shooter Detection Systems

Pilot Opportunity

Key Objectives

- Our objective is to partner with the City of Chicago to deliver an innovative and accurate gunshot detection solution to reduce response times, provide additional situational awareness information to assist first responders and therefore increase apprehensions and reduce incidents over time

- Deploy and test outdoor gunshot detection in "hot spot" areas vulnerable to gun violence within the 15th Ward

- Demonstrate indoor gunshot detection capabilities; test drone concepts

- Add video surveillance coverage to match the shot detection coverage (ideally incorporated into the City's front-end RTCC software platform)

- Collaborate with this city's key stakeholders to define a desirable outcome, and success criteria

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Appendix
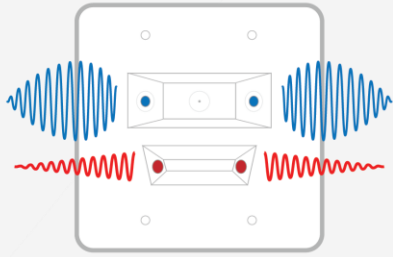
SHOT FIRED
Acoustic and infrared muzzle flash detected

ALERT SENT
< 1/2 second

SHOT LOCATION MAPPED
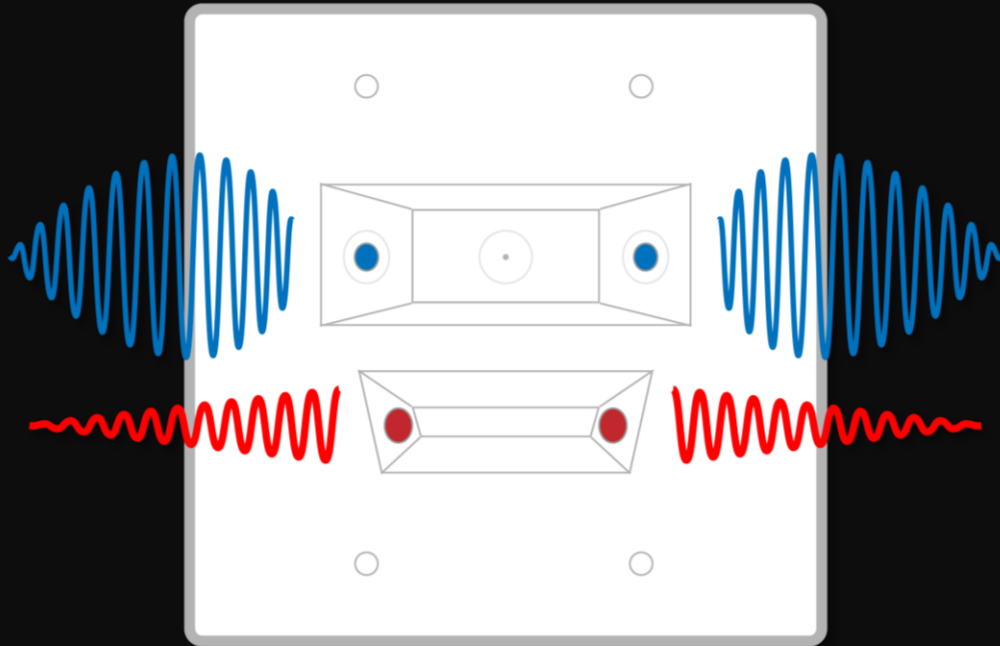- SMS Sent
- 911 Dispatched

SEAMLESS INTEGRATION
with other security systems

SDS Enterprise Solution

Situational awareness software with an end-to-end emergency response service that reaches 911 in seconds. Integrates with existing security assets like video, mass notification, and access control.
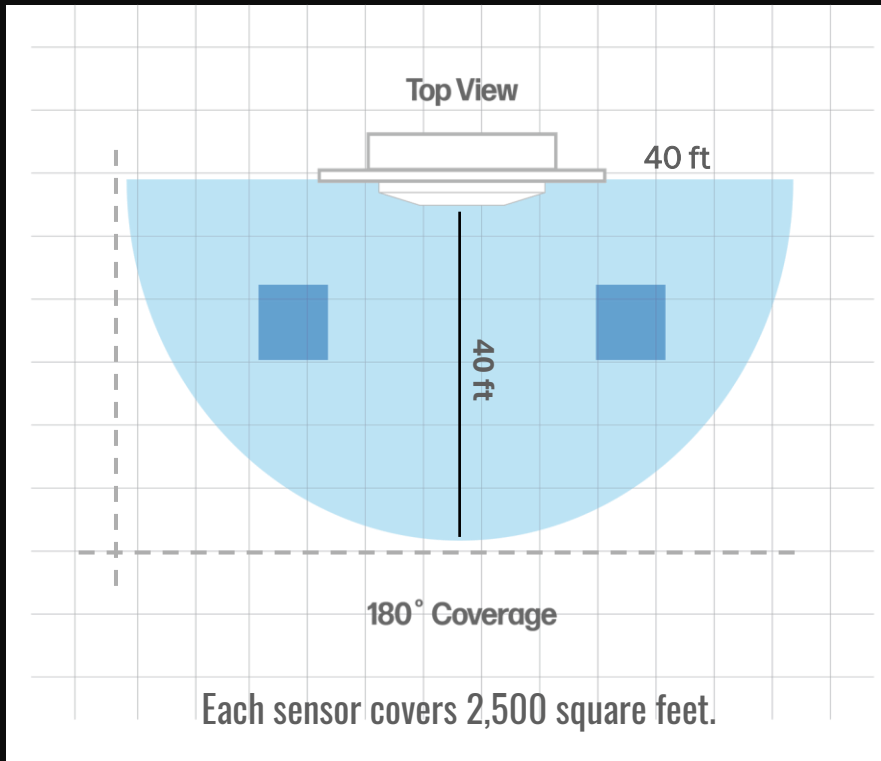
CONFIDENTIAL DRAFT
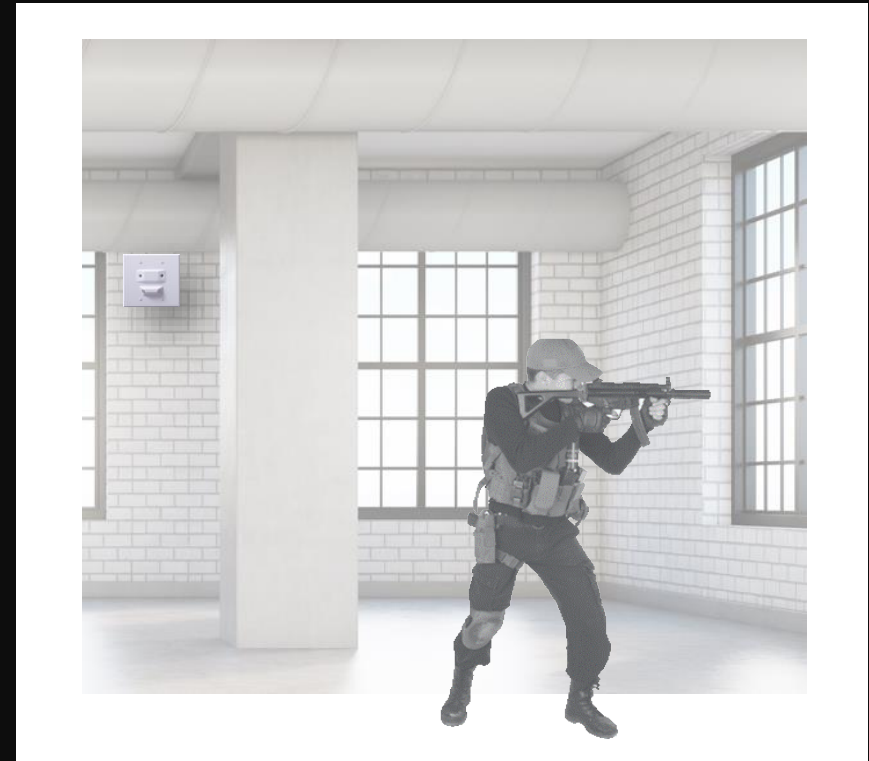
SDS Indoor Gunshot Sensor

Greater than 99% accuracy rate.
Fewer than 1 false alert per 5M hours of use

- A great fit for Administrative Buildings, Schools, Courts, Police Stations, etc.

- Purpose built for reliability and accuracy

- Two microphones/acoustic sensors to hear the "bang"

- Two infrared sensors to see the muzzle flash – direct line of sight not required

- Detects low caliber handgun (.22 caliber) to semi-automatic and automatic assault rifles

- Detects subsonic and supersonic rounds

- Discreet 4"x4" footprint wall or ceiling mounted at a height of 9' to 12'

- PoE or Wireless (LoRa) sensor options

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Shooter Detection Systems

Field of View - Indoor

Top View

40 ft

40 ft

180° Coverage

Each sensor covers 2,500 square feet.

The SDS sensor detects gunfire in a field of view, no line of sight required.

The shooter can be pointing away from the sensor, with the weapon out of view, and the infrared flash is captured within the sensor detection range.

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Shooter Detection Systems

Why SDS over others in the space?

- **Accuracy**
  - SDS is accurate because of dual mode (acoustic + IR).
  - Others often have false alerts due to loud noises (acoustic only)

- **Deployment Options**
  - SDS has both indoor and outdoor solutions
  - Other typically only offer one or the other, but not both

- **Simple**
  - SDS is easy to deploy. No calibration. No triangulation

- **Proven**
  - SDS is the only gunshot detection system that has the DHS SAFETY Act – Certified Rating
  - Third Party testing proves 99.99% accuracy and near zero false alerts

- **Communication Choice**
  - SDS has both POE and Wireless options (indoor)
  - Others typically only have one option

- **Connected**
  - SDS has pre-built integration with most major access control, video, and mass notification solutions
  - ResponderLink is built-in and included every time

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Shooter Detection Systems

Proven **Leader** in Gunshot Detection

- First to market with the most reliable gunshot sensor available (indoor solution)

- Industry leading 99.99% accuracy. Dual mode detection to minimize false alerts

  (less than 1 false alert per 5 million service hours)

- 0.5 sec speed for gunshot detection

- Extensive Patent Portfolio

- Robust IT Security & Compliance

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ALARM.COM | Shooter Detection Systems

SDS Architecture & Integrations

SDS High Level Architecture
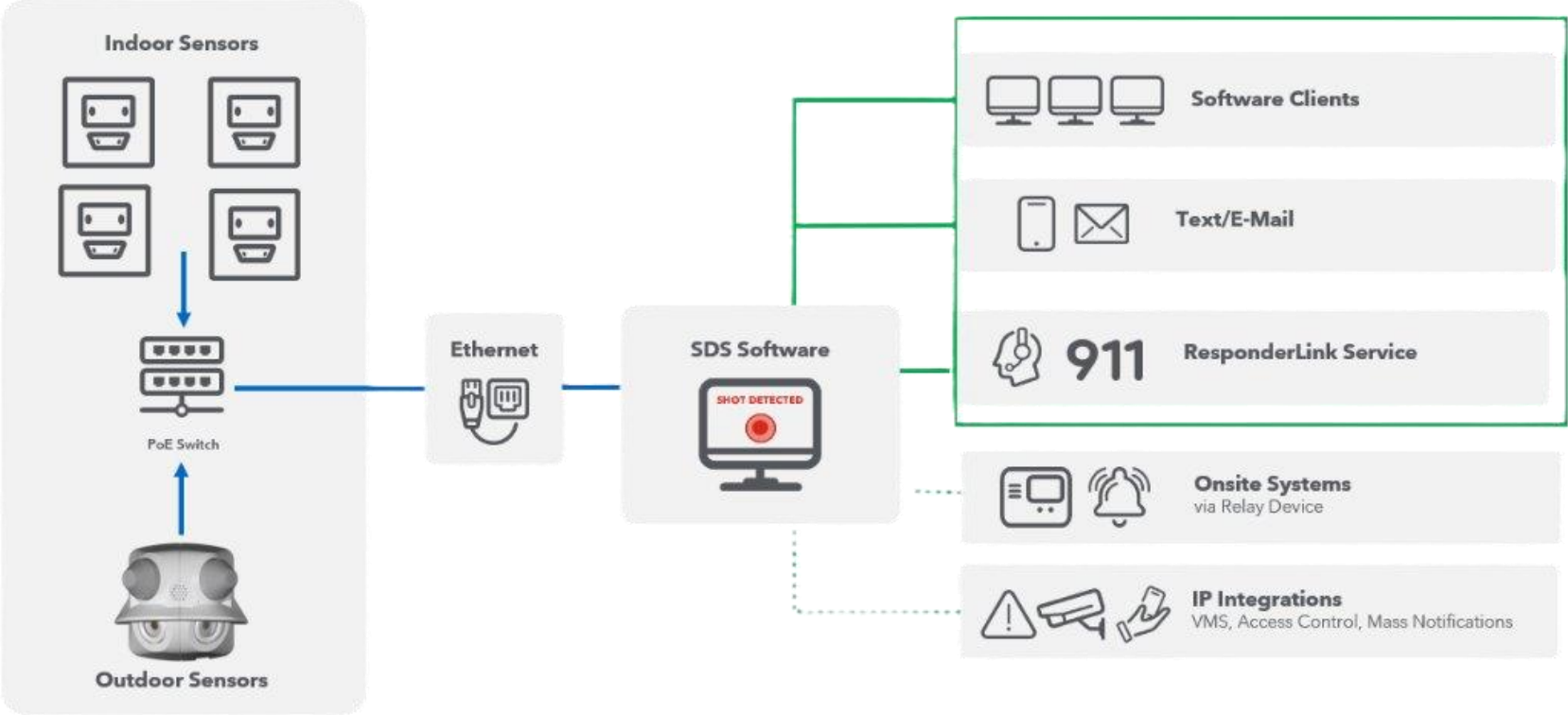
- All-in-one solution with ResponderLink 911 alerting feature

- Software integrations with top security platforms for large enterprise customers

- Fully automate procedures – lockdown or open doors, view live video, send mass notifications

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Reference Material

- [Video Overview](#)

- [YouTube Landing Page](#)

- [Datasheet – Indoor Sensors](#)

- [Datasheet – Outdoor Sensor](#)

- [Datasheet – SDS Solution](#)

- [Case Studies](#)

- [SecureGrants Program](#)

- [SDS Integration Matrix](#)

- [Patents](#)

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Shooter Detection Systems

Airborne Threat Assessment

Rapid response
From standby to take off in < 5 seconds

Cover more ground
Travel 10 acres in under 90 seconds

Unique Synergy
Integrate long-range sensors

Force multiplier
Per hour cost ½ of a traditional guard

Outdoor