Gunshot Detection and Active Shooter Countermeasure Technology

A cost-effective Solution to counter a real-world Reality

Save Time, Save Lives

Lakeland Communications, Inc.

847-245-4800 LakelandComm.com

Overview

Automatic Gunshot Lockdown System
The ONLY Wireless Indoor and Outdoor System on the Market

Lockdown

Provides immediate relief by lockdown capabilities within seconds of shots fired

Notifications

Provides immediate notification to security staff and law enforcement of an active shooter situation by text, email and live video stream

GPS Location

Provides GPS location of shooter and ballistic data of weapons being used

Geo-Fencing

Provides “geo-fencing” capabilities with access control to keep the threat away

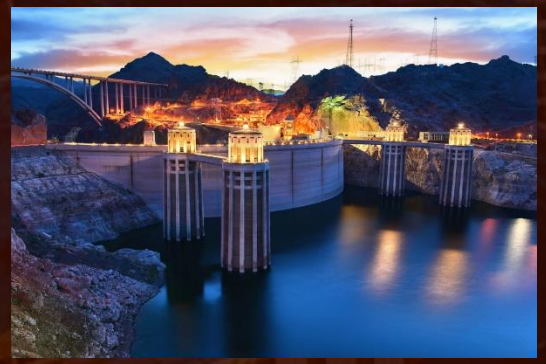
Industries We Serve

Education

Healthcare

Transportation

Energy & Mfg.



Critical Infrastructure

Public Safety

House of Worship

Government

Speed will save Life (Indoor)

1. AUTOMATICALLY notifies SOC, EOC, RTCC within seconds of shots fired. Provides ballistic data, location of shooter and live video stream.

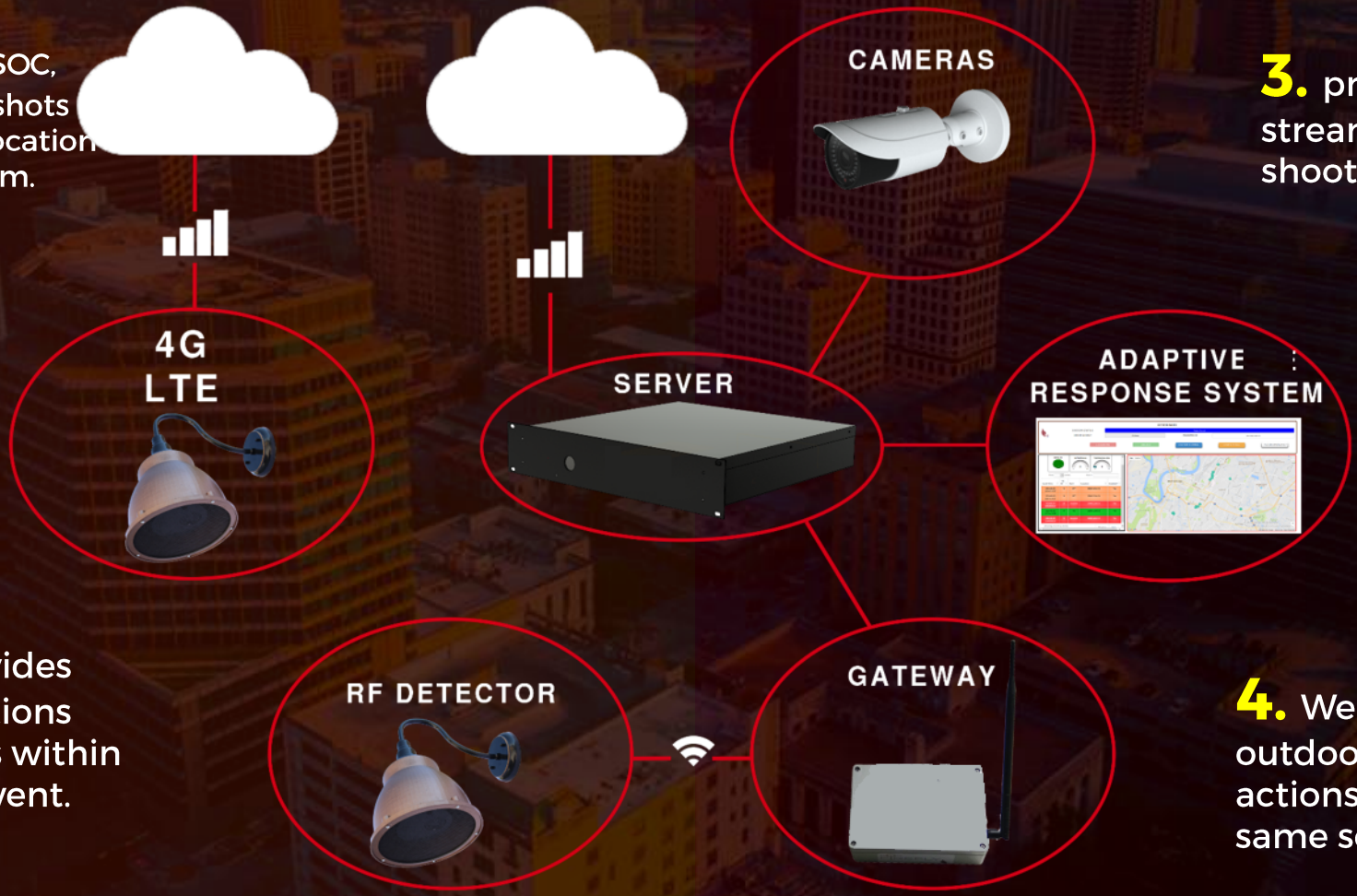
3. We provide real time video stream of nearest camera to shooter location.

2. AUTOMATICALLY sends programmed threat notifications in the form of text messages and email within seconds of shots fired event.

4. We can lockdown soft target areas or “geo-fence” shooter based on preprogrammed adaptive response actions.

Speed will save Life OutDoor System

1. AUTOMATICALLY notifies SOC, EOC, RTCC within seconds of shots fired. Provides ballistic data, location of shooter and live video stream.



2. AUTOMATICALLY provides preprogrammed notifications text messages and emails within seconds of a shots fired event.

3. provides real time video stream of nearest camera to shooter location.

4. We can combine indoor and outdoor detection and response actions seamlessly using the same server.

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Adaptive Response

Each Sensor (or group of sensors) or Panic button can be selected to activate a specific adaptive response action. These actions include:

Lockdown

Select specific doors / door groups for this response.

Notifications

Select the specific message to be used with this response. (Email and Text)

Message dissemination

Select the list of enrolled personnel that are going to receive the message.

Camera stream

Assign cameras to specific detectors.

Building location

Assign a specific building description / address for location message response.

Relay board

Assign which relays are going to be activated which can provide additional adaptive responses.

PA Message

Assign which message will be sent to the PA / Mass notification system.

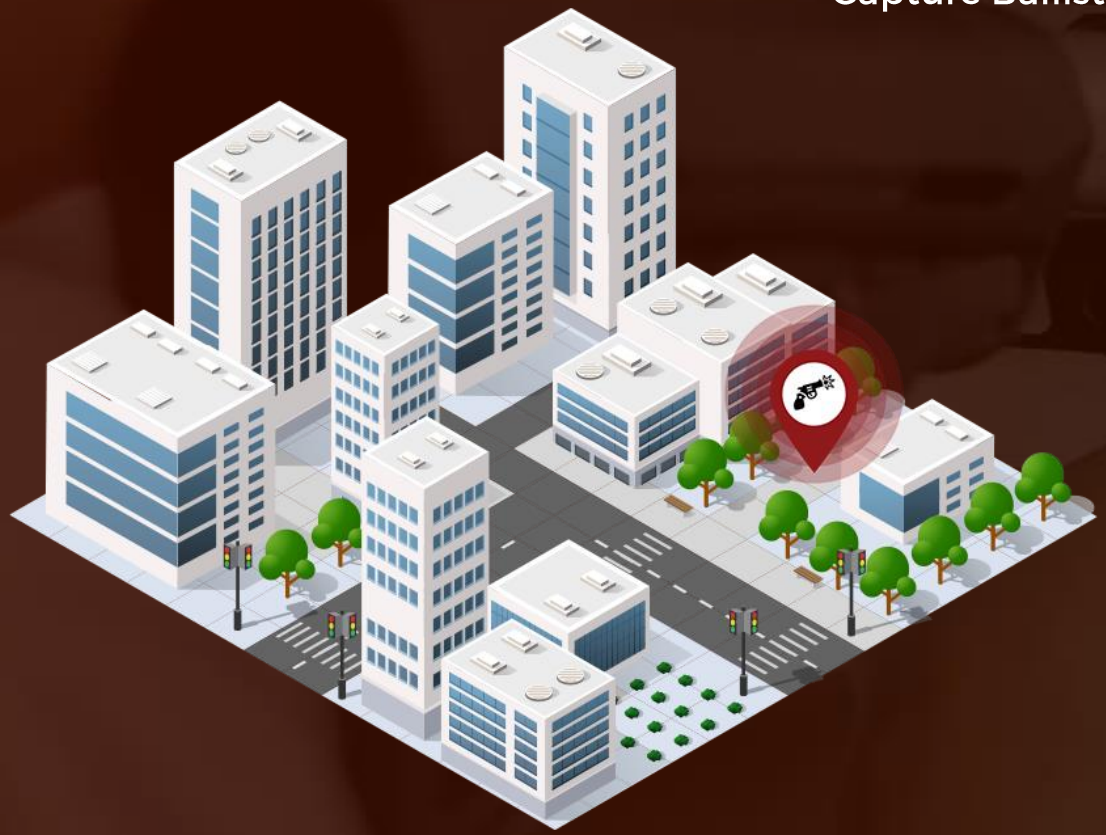
911 call and phone notification

Assign messages sent to 911 and additional phone numbers to be called.

How it Works

1. Shots Fired

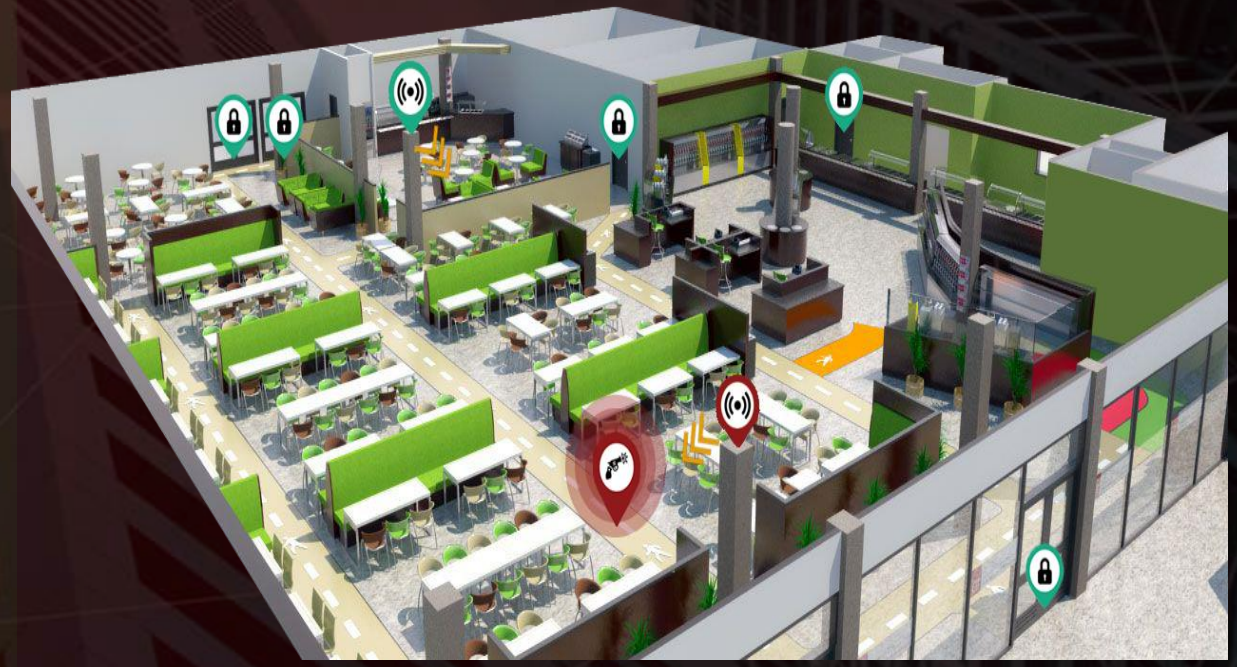
Capture Ballistic Energy level threshold



How it Works

2. Validate & Report

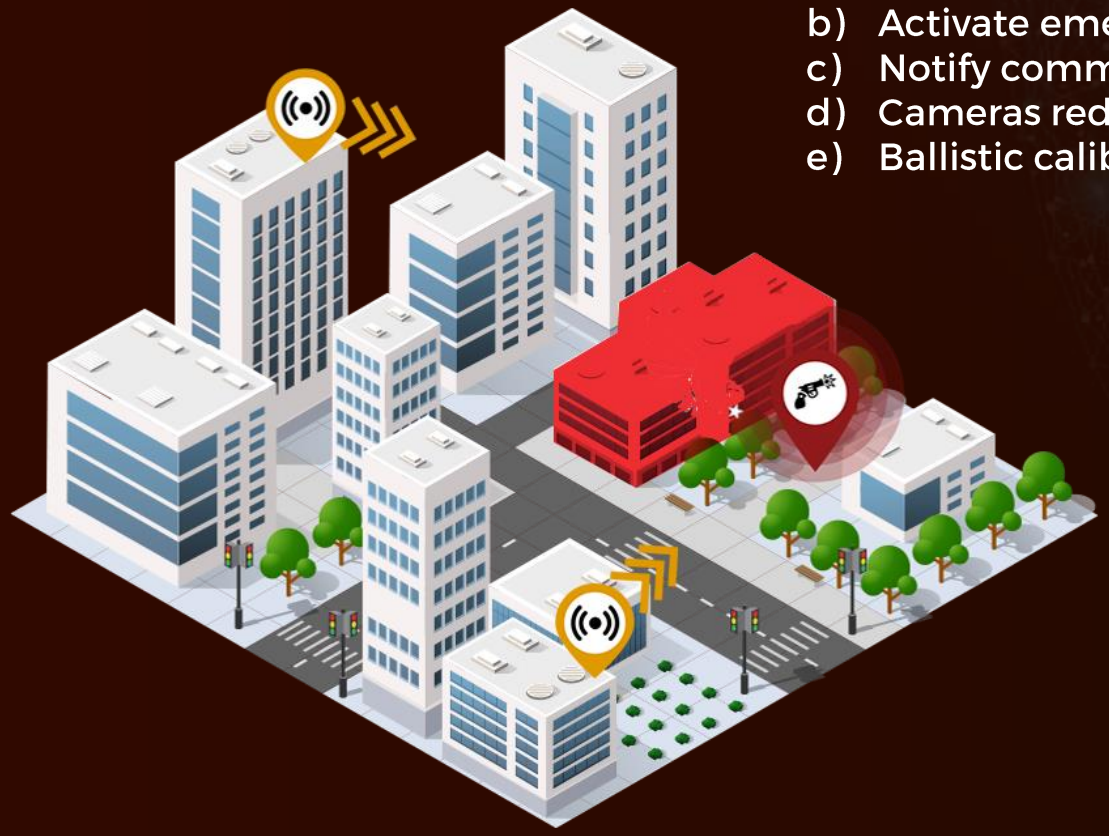
Sensors detect, validate & report time and direction of threat with waveform sample

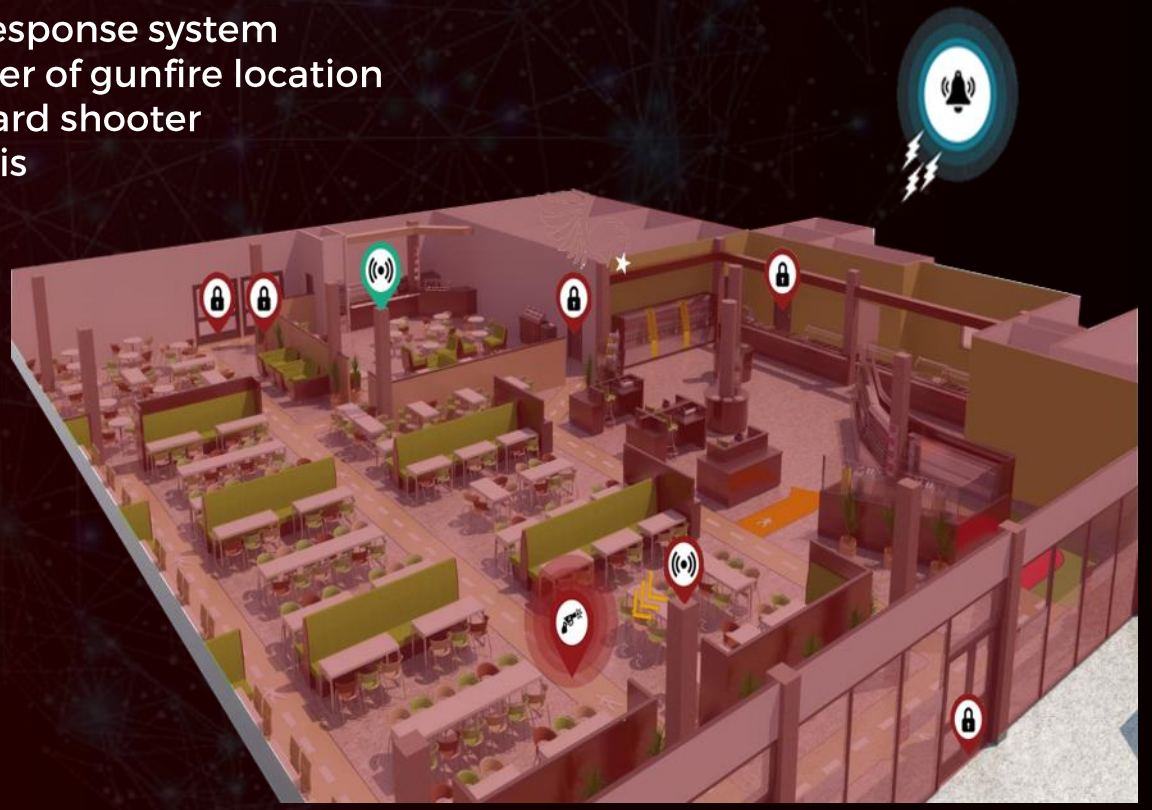


How it Works

3. System Takes Control

a) Lock doors
b) Activate emergency response system
c) Notify command center of gunfire location
d) Cameras redirect toward shooter
e) Ballistic caliber analysis

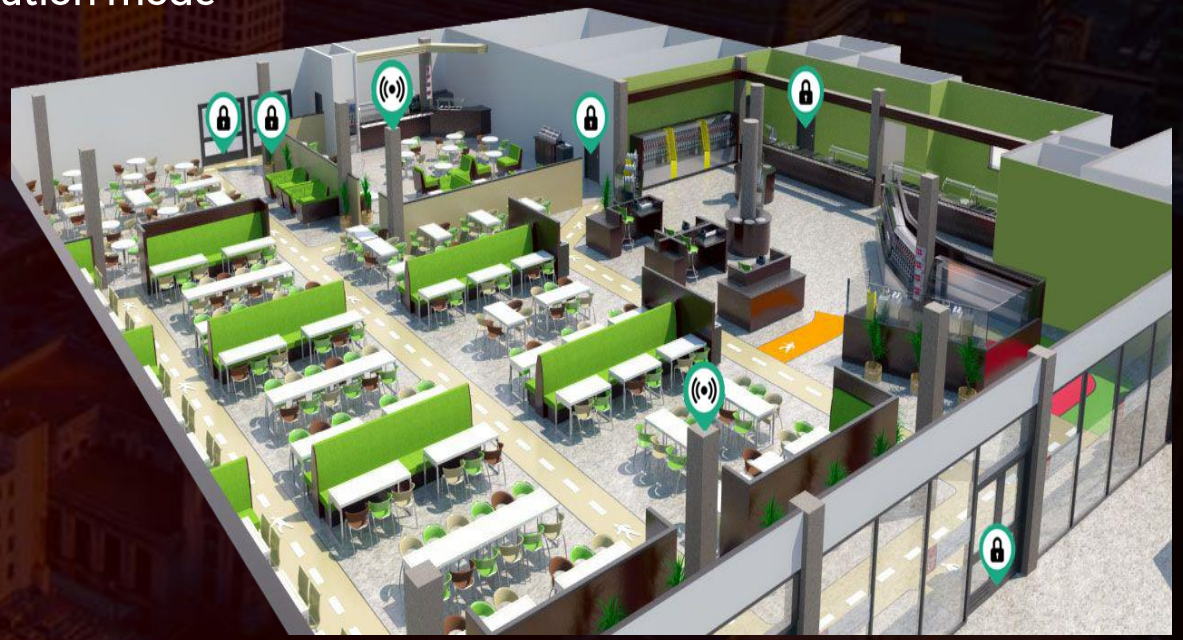




How it Works

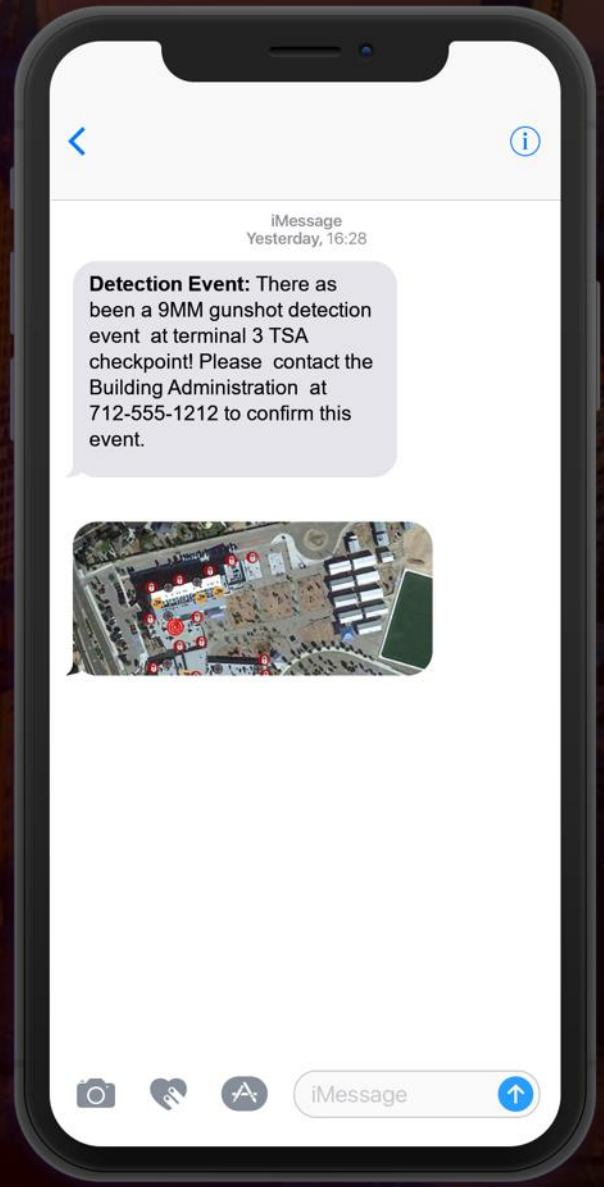
4. Back to Normal

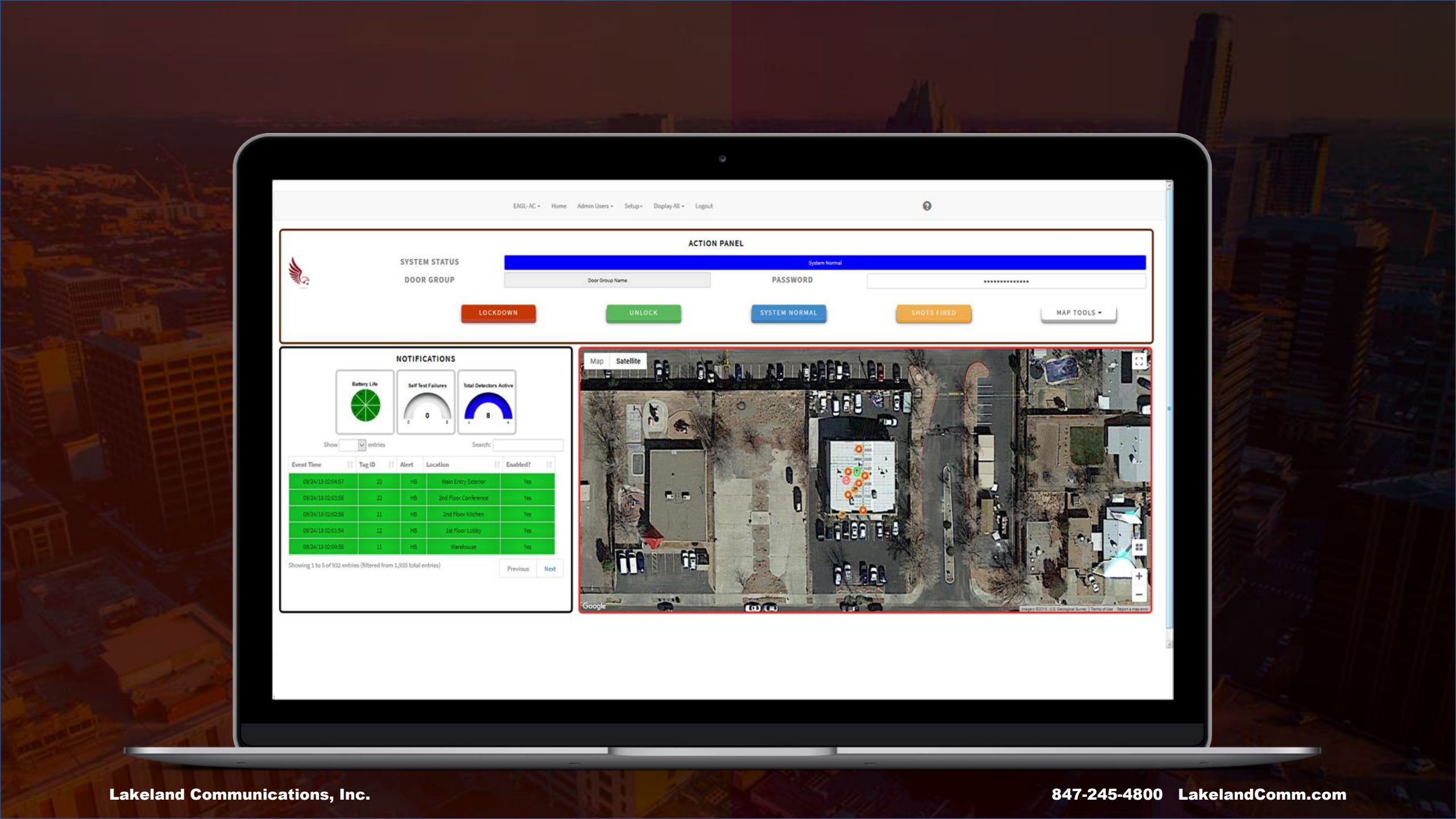
Resume normal operation mode



Sample Message

"There as been a 9MM gunshot detection event at terminal 3 TSA checkpoint! Please contact the Building Administration at 712-555-1212 to confirm this event."




EAGL-AC
Home
Admin Users
Setup
Display All
Logout
ACTION PANEL
SYSTEM STATUS
System Normal
DOOR GROUP
Door Group Name
PASSWORD
LOCKDOWN
UNLOCK
SYSTEM NORMAL
SHOTS FIRED
MAP TOOLS
NOTIFICATIONS
Battery Life
Self Test Failures
0
Total Detectors Active
8
Show entries
Search:
Event Time
Tag ID
Alert
Location
Enabled?
09/24/18 02:04:57 23 HB Main Entry Exterior Yes
09/24/18 02:03:56 22 HB 2nd Floor Conference Yes
09/24/18 02:02:56 21 HB 2nd Floor Kitchen Yes
09/24/18 02:01:54 12 HB 1st Floor Lobby Yes
09/24/18 02:00:59 11 HB Warehouse Yes
Showing 1 to 5 of 932 entries (filtered from 1,935 total entries)
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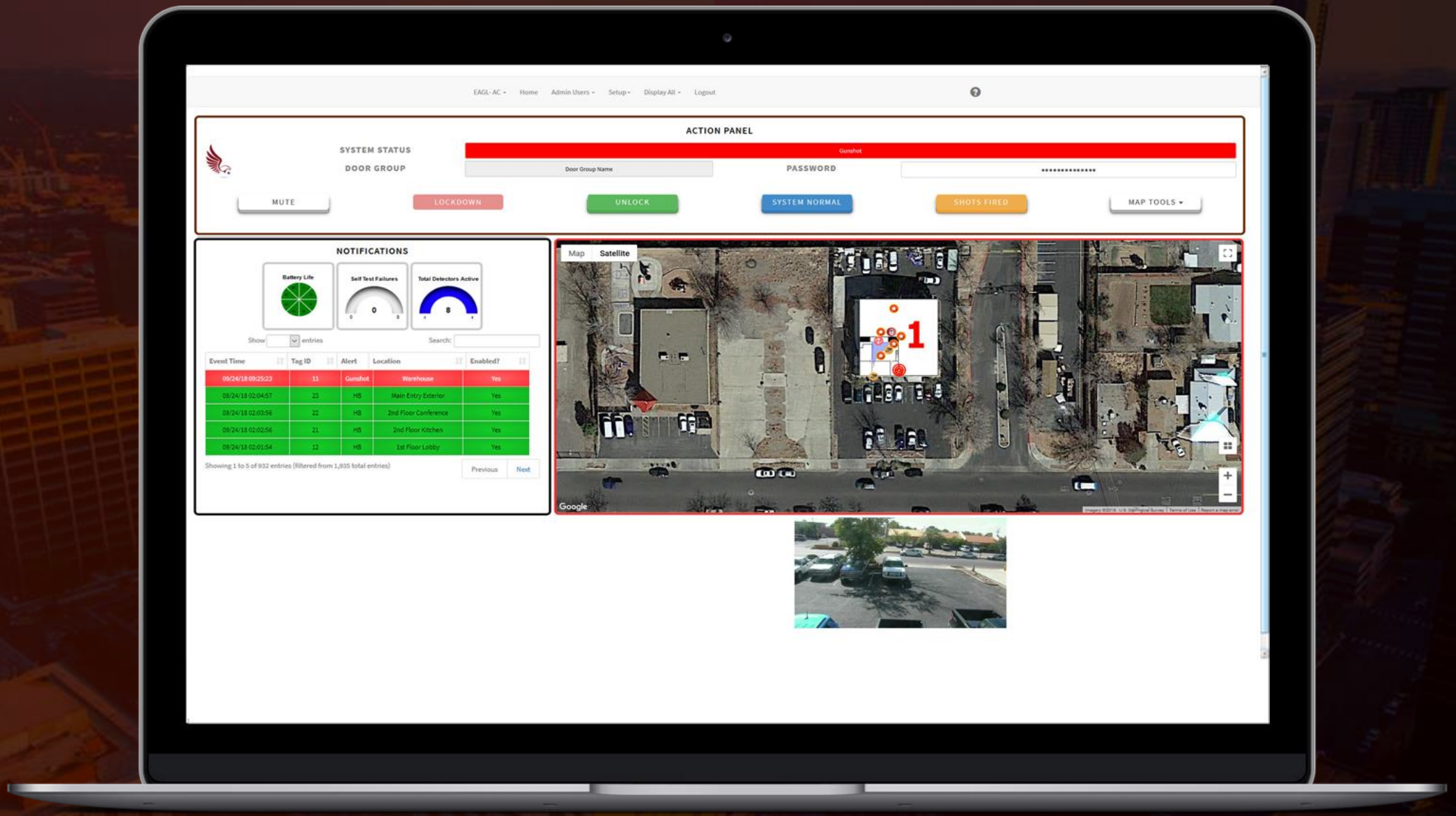
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Show entries
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Alert
Location
Enabled?
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09/24/18 02:01:54 12 HB 1st Floor Lobby Yes
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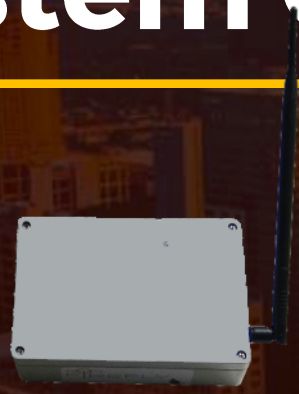
Key Features

- Full facility lockdown capability fully automated if gunfire is detected (Preprogramed adaptive response actions) Exit/Egress is always possible.
- Integrates with most public address systems and wide area warning systems to alert building occupants of potential threats.
- Easy to install with capability to integrate the entire building security under one umbrella that includes: fire, burglar, CCTV, access control, chemical and biological sensors.
- LIVE video streaming is accessible via interface at all times.
- Real time data dissemination.
- Provides critical information to law enforcement and building officials enabling immediate and appropriate actions for optimal outcomes.
- Provide real time ballistic analysis.
- Provides facility card access control to deny access to those who do not belong.
- Mostly wireless, scalable and easy to install.
- Able to control multiple buildings utilizing the adaptive response model.

System Components

Server

External 120VAC, 60Hz, Single Phase Input (NEMA 5-15P)
24H UPS option.
Host Firmware, Web Server
IP Controlled Relay Board
Dials Programmed Number(s) & Transmits Recorded Messages
HTTP protocol over TCP/IP & POTS
Linux.
Can integrate with :
Access Control, Video Surveillance, Mass Notification systems.
Support REST API



Gateway

12 to 15 Watts, Power Over Ethernet - POE
Wireless RF to Sensor / Cat5-6e to System Control Unit, standard RJ45 connectors.
433 MHz – 10 Channel
500 feet indoor –10,560 FT Outdoor
HTTP protocol over TCP/IP using REST
UL94 – HB, designed to meet IP 66 & NEMA 4, 4X, 6, 6P, 12 & 13 7.87”L x 4.72”W x 3.56”H with detached antenna.

Indoor Energy Sensor

Gunshot Detection Technology developed by the Department of Energy.
Algorithm analyzes Energy and Waveform to eliminate false alarms.
Wireless Range: Over 500 ft Indoor Ballistic
Detection Range
100ft radius 31,400SF
433 MHz wireless frequency
7 year battery life
Requires only one node per coverage area.

Outdoor Sensor

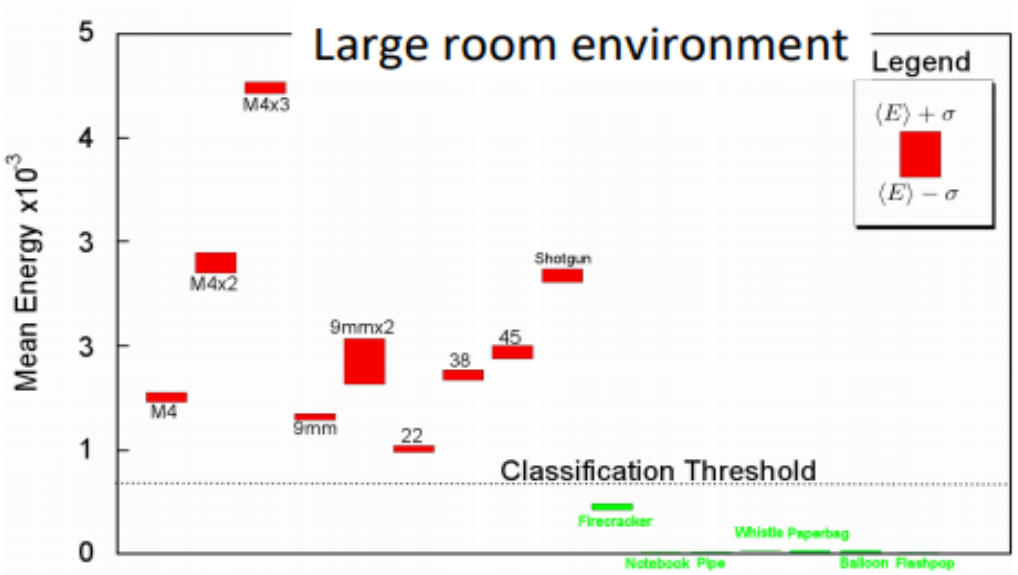
Operates on the Industrial IoT LTE platform.
No infrastructure required can mount almost anywhere.
Uses advanced algorithm to eliminate false alarms
Can operate on our 433MHz wireless band with up to 2 miles RF range.(line of sight)
150 feet radius detection range
7 year battery life
Weatherproof IP66

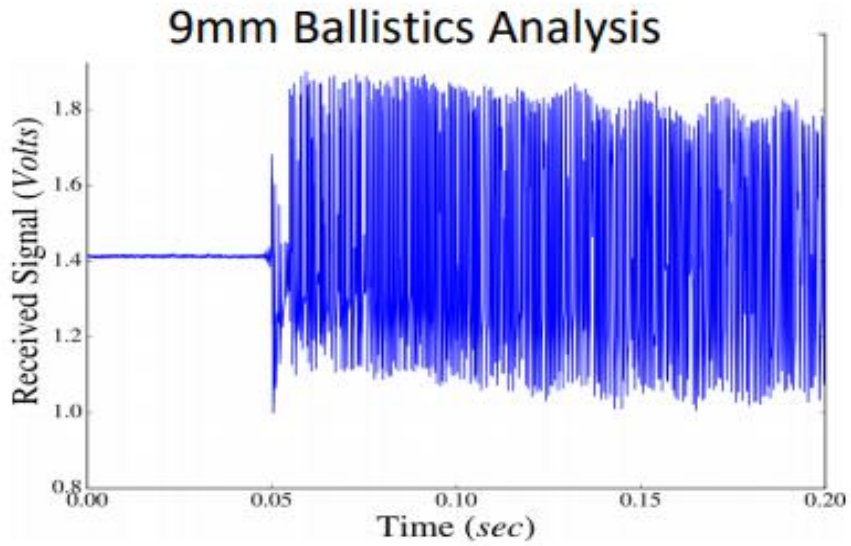
Energy Sensor

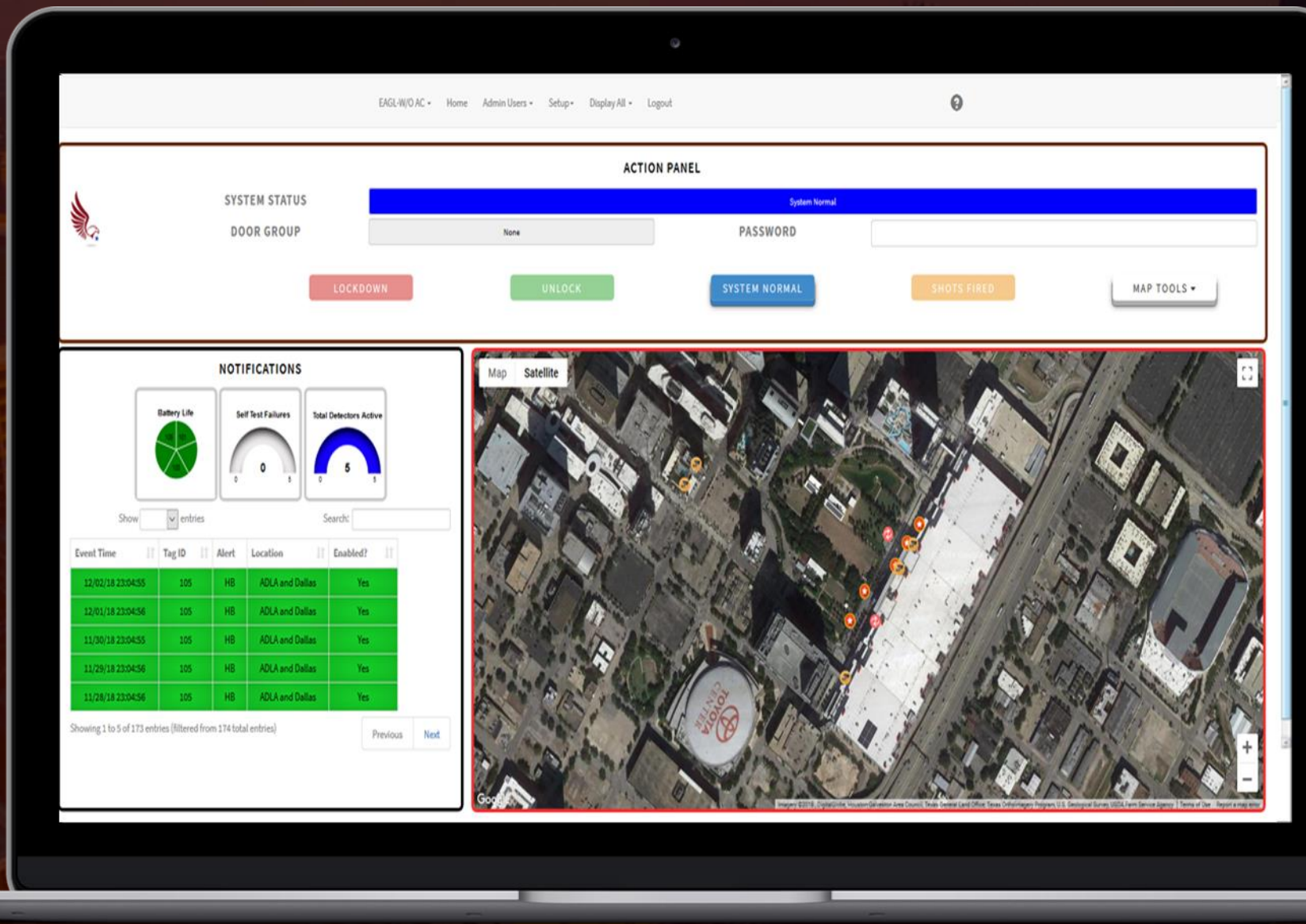
Energy Sensor is the latest detection technology.”

Our energy sensor was developed by the Department of Energy in response to the Sandy Hook tragedy. This patented gunshot detection technology is like no other shot detection technology in the industry.

It calculates energy level and waveform analysis to determine and validate firearm discharge events and ballistic data.



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NOTIFICATIONS
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Self Test Failures
Total Detectors Active
0
5
Show entries
Search:
Event Time
Tag ID
Alert
Location
Enabled?
12/02/18 23:04:55 105 HB ADLA and Dallas Yes
12/01/18 23:04:56 105 HB ADLA and Dallas Yes
11/30/18 23:04:55 105 HB ADLA and Dallas Yes
11/29/18 23:04:56 105 HB ADLA and Dallas Yes
11/28/18 23:04:56 105 HB ADLA and Dallas Yes
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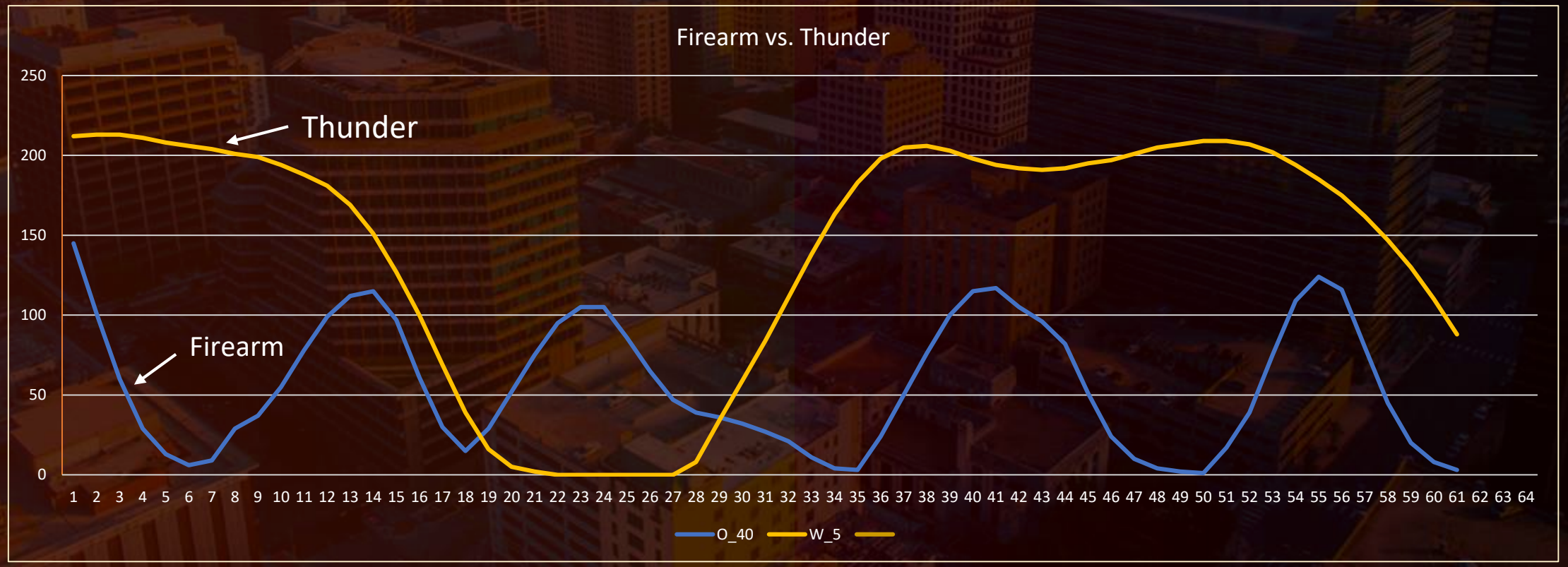
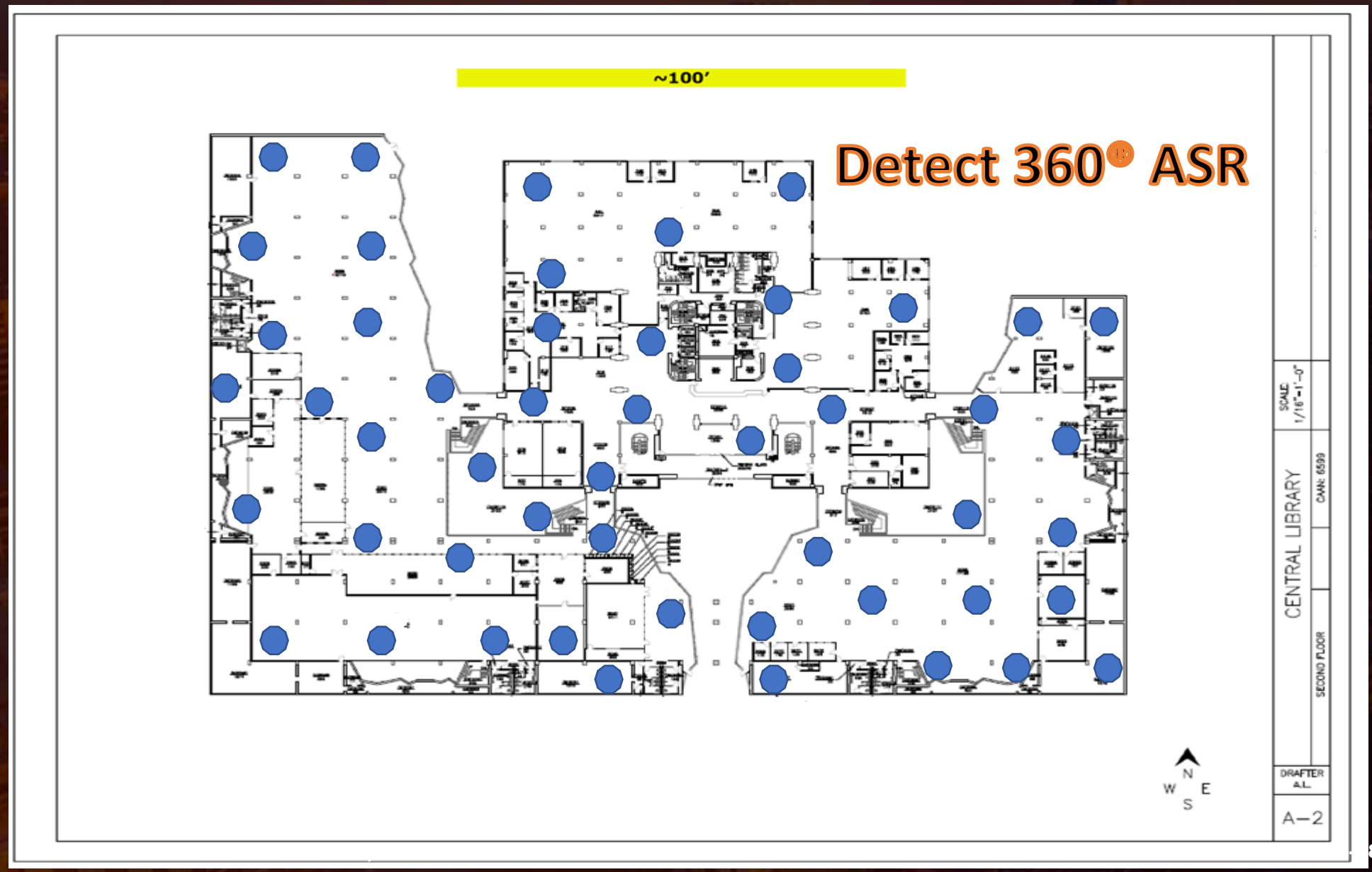
Waveform Algorithm (example)



Gunshot Detection Competitor Comparisons



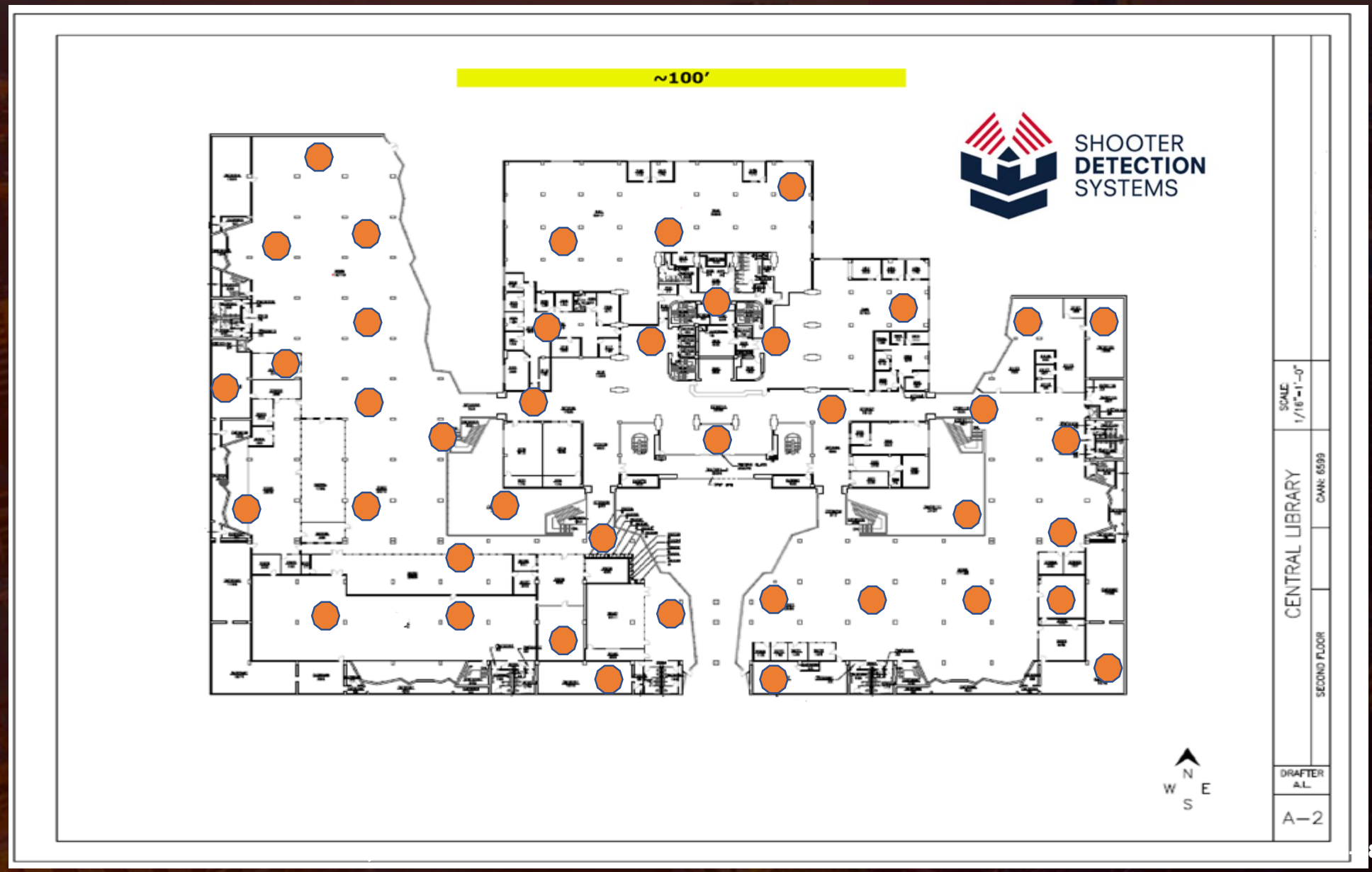
GSL Comparisons

- Product #A (371) Sensors

Cost $770,000

- Product #B
- Product #C
- Our Solution

Gunshot Detection Competitor Comparisons



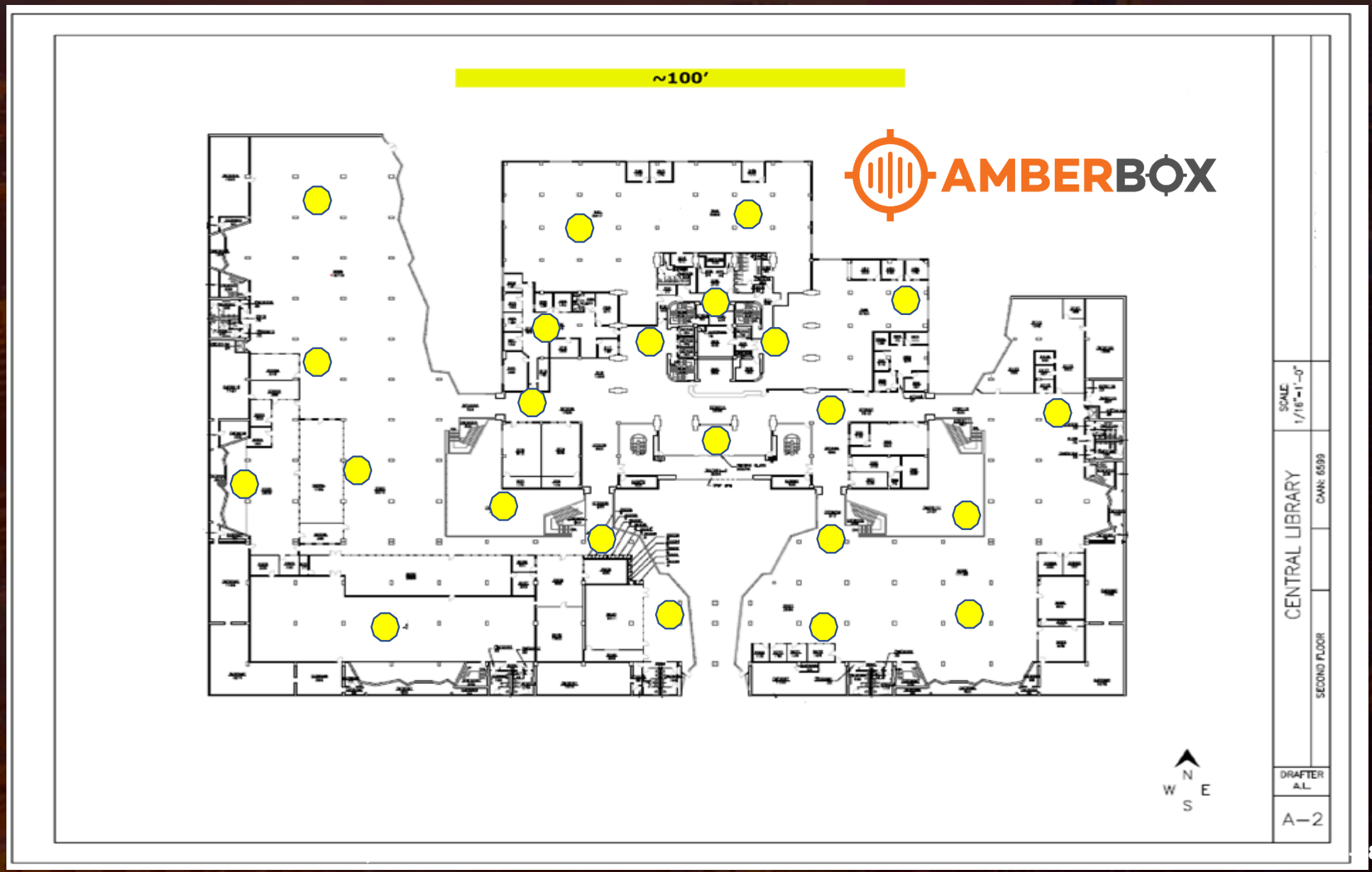
GSL Comparisons

- Product #A
  (371) Sensors
- Product #B
  (242) Sensors

Cost $550,000

- Product #C
- Our Solution

Gunshot Detection Competitor Comparisons



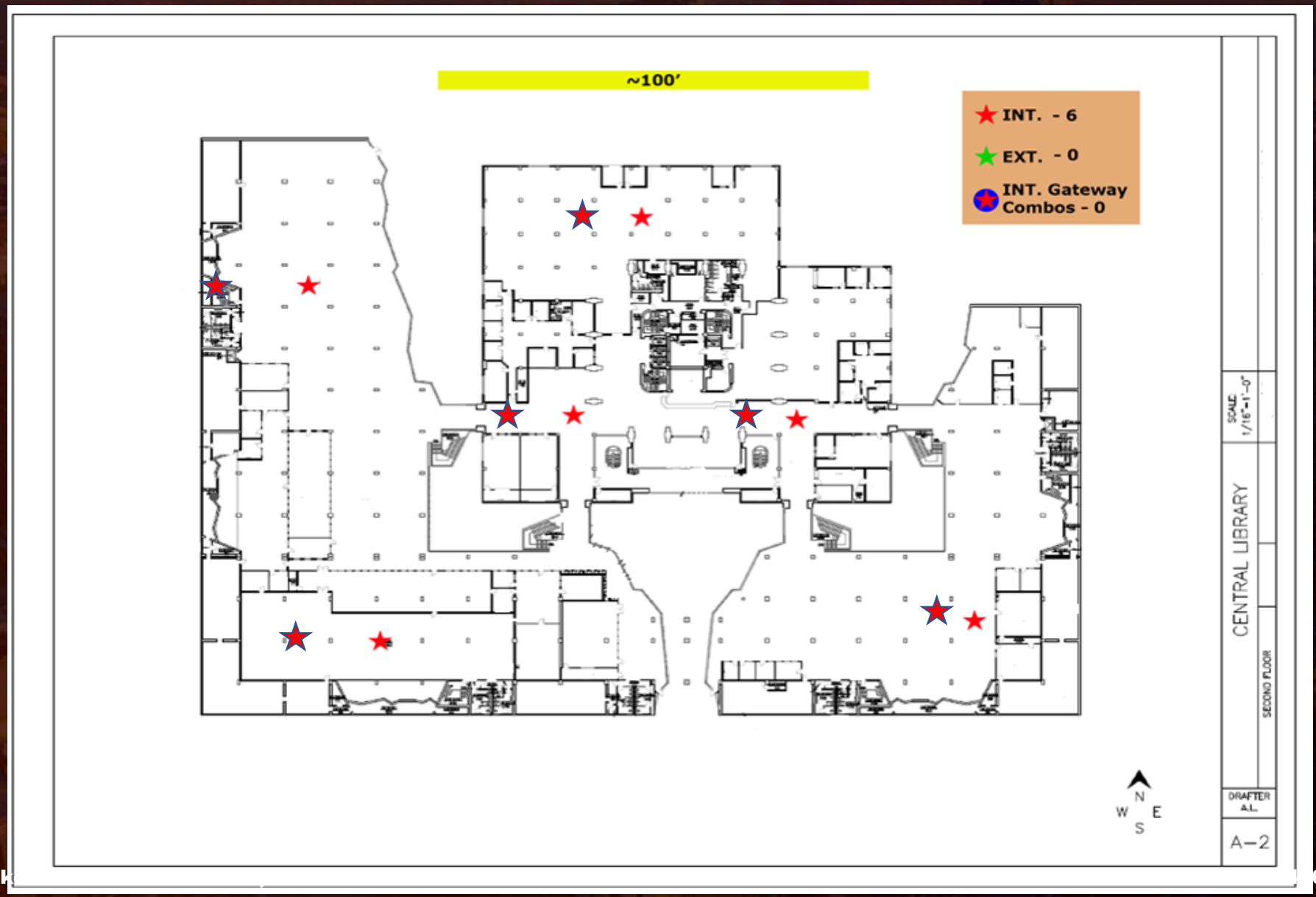
GSL Comparisons

- Product #A
  (371) Sensors
- Product #B
  (242) Sensors
- Product #C
  (98) Sensors

Cost $388,000

- Our Solution

Gunshot Detection Competitor Comparisons



GSL Comparisons

- Product #A (371) Sensors
- Product #B (242) Sensors
- Product #C (98) Sensors
- **Our Solution** ★
  (54) Sensors
  Cost $154,750

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