

# Protecting Sensitive Areas Against Wireless Threats

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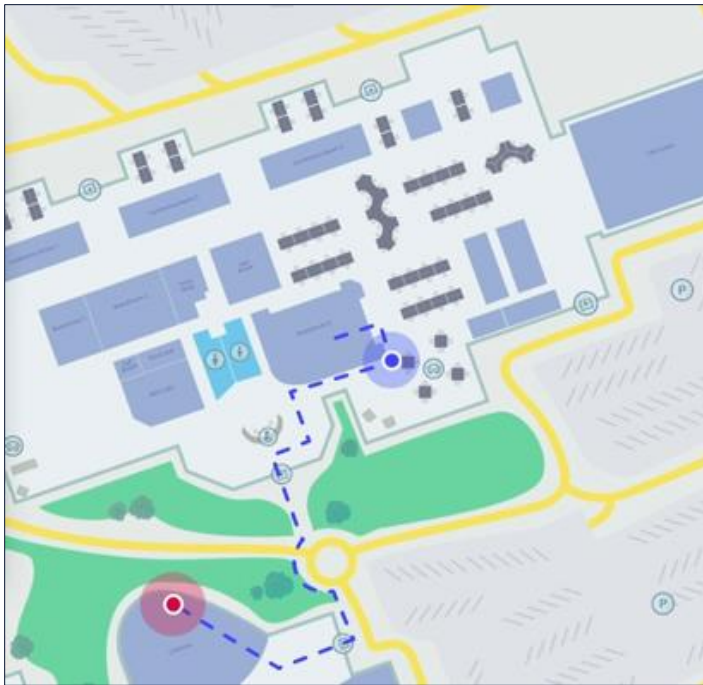
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# Three Fundamental Pillars of Indoor Intelligence

## MAPPING



## POSITIONING



## ANALYTICS

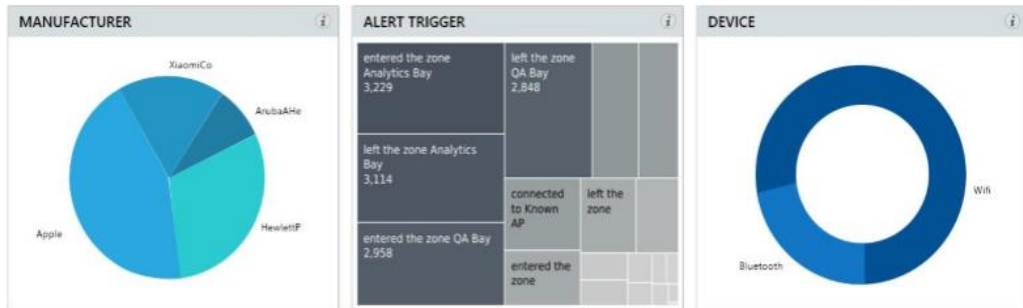


# Security Applications



## Device Detection

Detect and position the location of fixed and mobile wireless devices for cyber and physical security.



## Analytics and Trend Reporting

Track wireless activity over time in easy to understand reports for any or all areas over definable time periods. Spot anomalies and persistent threats.



## Long-Range & GPS - Outdoor

RTLS for tracking assets and people via GPS and private, secure 900MHz networks.



**April 3, 1974**

First cellular phone call



**April 4, 1974**

Government bans cell phones in government buildings



# One way to manage risk



# Mobile device connections have surpassed the number of people in the world



**4.75 Billion**

Mobile phone users in the world



**61.62%**

Of people today own mobile phones

***All can be potential threat vectors.***

**Threats can come from anywhere or anyone, maliciously or inadvertently**

# Embrace | Secure | Comply





# Reasons to Embrace Wireless Mobility

- 1. Increased Productivity:** Frost & Sullivan estimates that 52 minutes of productivity are lost per day due to not having a smartphone at work.
- 2. Improve Morale:** 6 of 10 federal agencies have declining employee engagement scores.  
*(Partnership for Public Service Survey, 2018)*
- 3. Enhance Recruiting Efforts:** 4 Of 10 millennials refuse to work for organizations that ban the reasonable use of personal devices in the workplace.  
*(2016 Economist Intelligence Unit Survey)*
- 4. Maintain Security:** 4 of 10 federal employees are willing to sacrifice government security measures in order to use a device at work, for convenience or to contribute to mission success efficiently.  
*(Market Cude Survey, 2015)*



Directive No. 510



Directive ACD 470.6



Mobile Device Directive

“Personal and unclassified government-issued mobile devices are prohibited in secure spaces but may be used in common areas.”

“All camera functions must be disabled and all microphone functions must be restricted to only the native application while in secure spaces.”

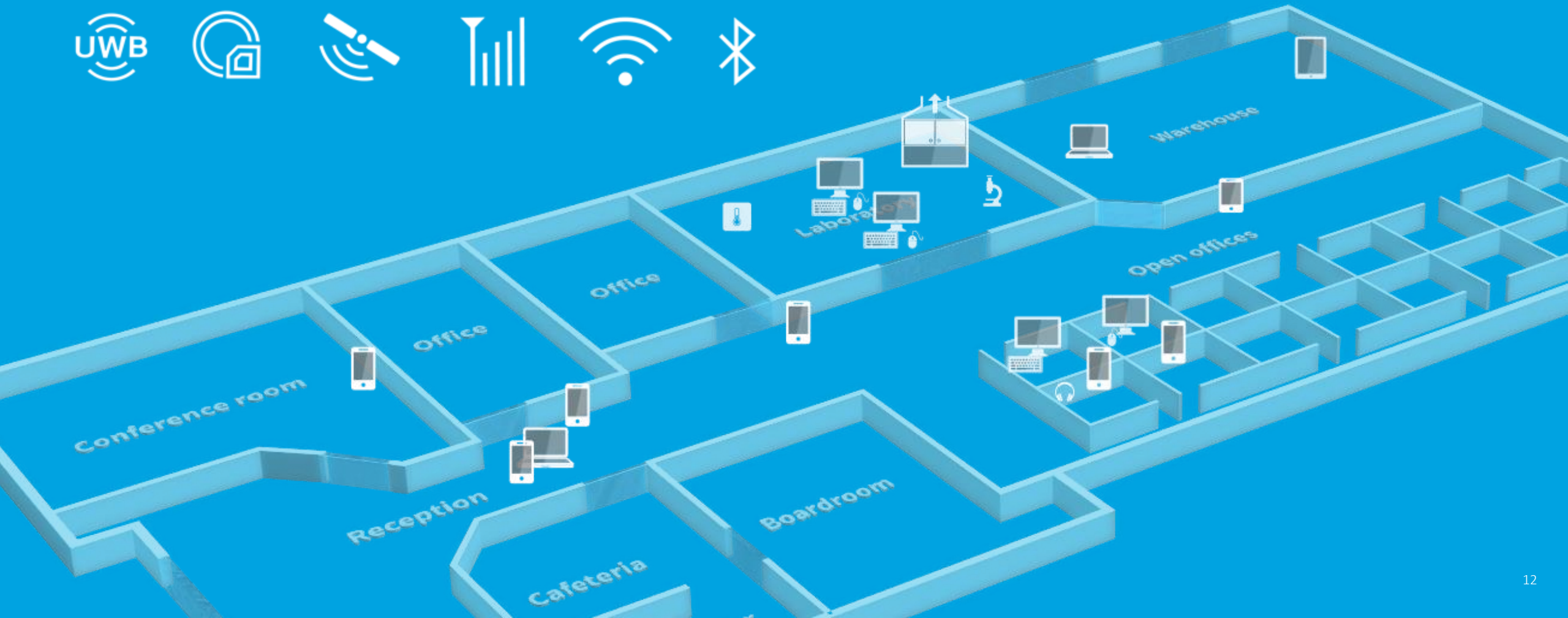
“Secure spaces operating for more than 30 days must be equipped to **continuously monitor** the facility for unauthorized mobile devices, and ensure the identification, enumeration, logging and locating of all authorized and unauthorized mobile devices.”

“This ACD prohibits the introduction into secure spaces of personally and contractor owned mobile devices not fully managed by a DOE/NNSA enterprise mobility management system.” (NNSA ACD 470.6)

# **Detect and Identify** electronic devices



# Visualize your wireless environment





# Inpixon Aware for Security



- Detect the Presence of RF Devices
- WiFi, Bluetooth, Cellular, Active RFID
- Locate devices on floorplans
- Record all RF activity for later review
- Differentiate known vs unknown
- Discover rogue devices and AP's
- Geofence secure areas
- Integrate with other platforms



# Inpixon Sensor 4000

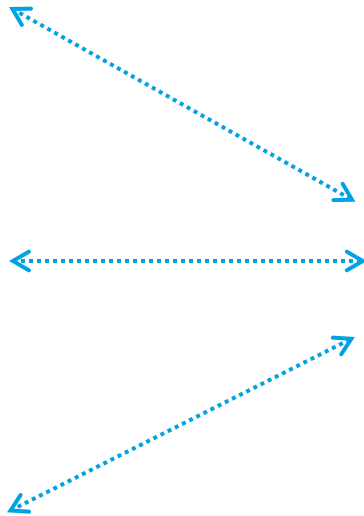
## Wi-Fi | Bluetooth | Cellular

- Cell Phones, Tablets, Laptops
- Cellular Broadband Cards
- Mobile Hands-Free Headsets
- Personal Health & Fitness Devices
- And More...



# Typical Installation

## Inpixon 4000SE Sensors



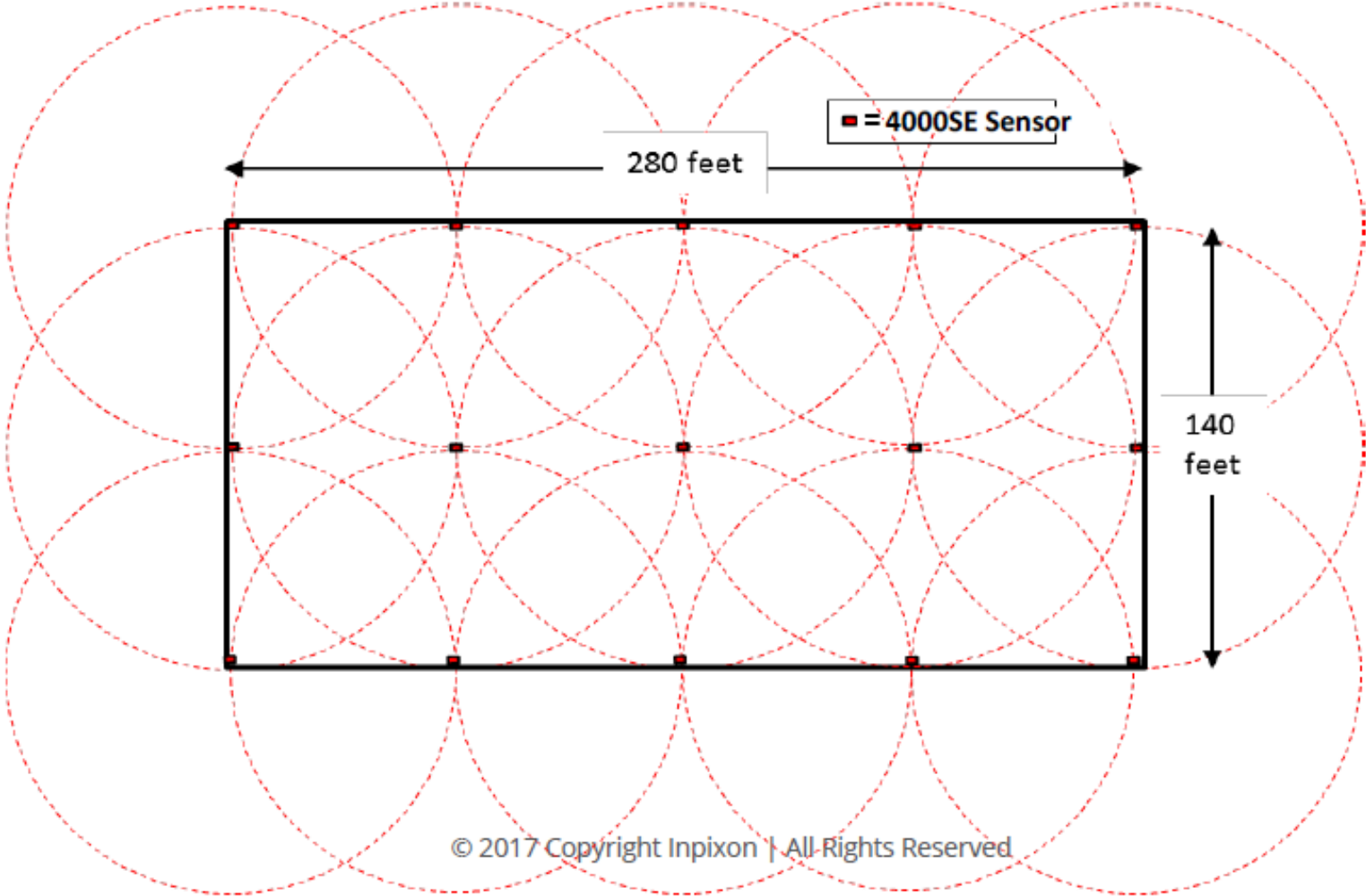
## PoE Network Switch



## Server Running Inpixon ZoneDefense™ Software

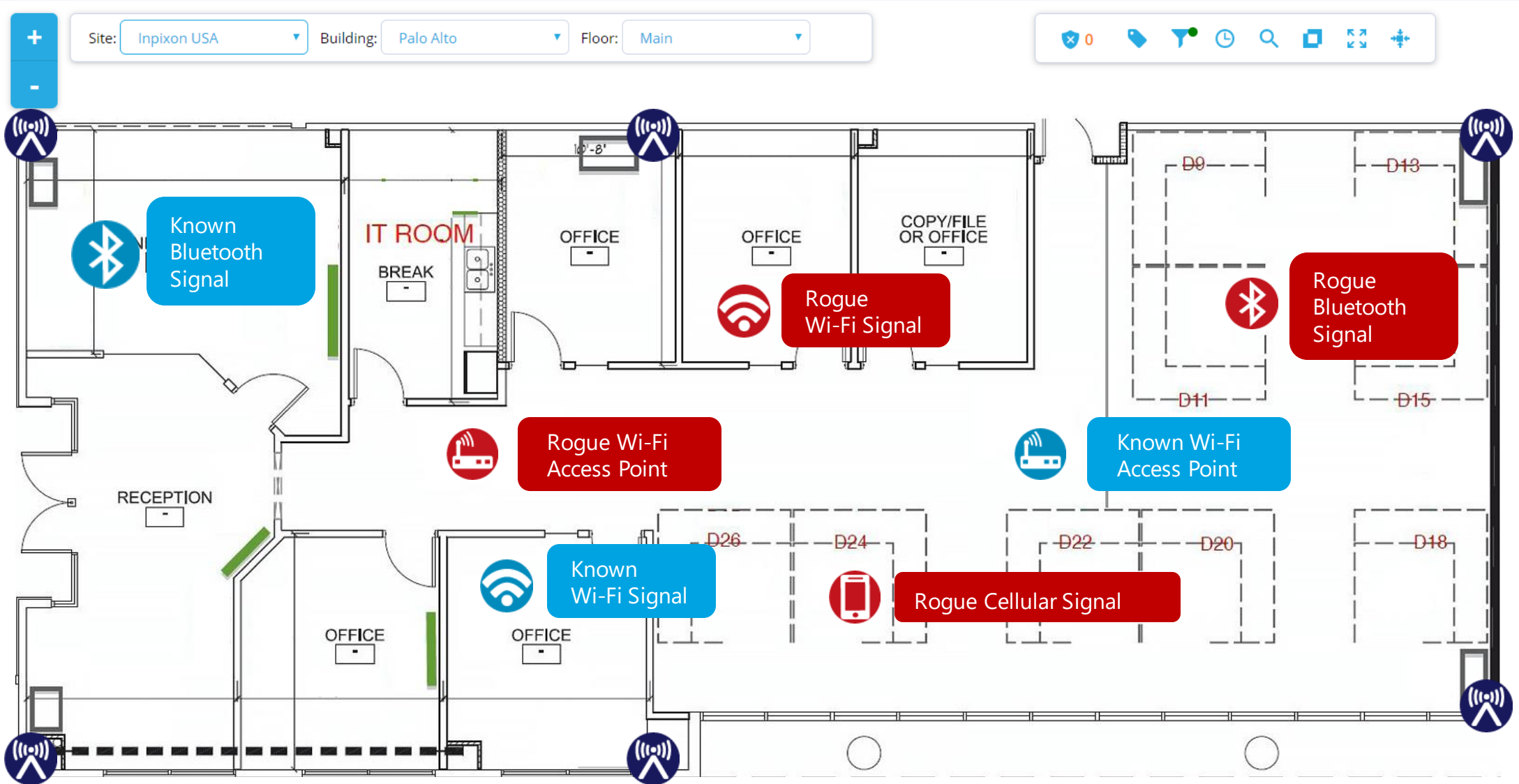


# Continuous Area Coverage

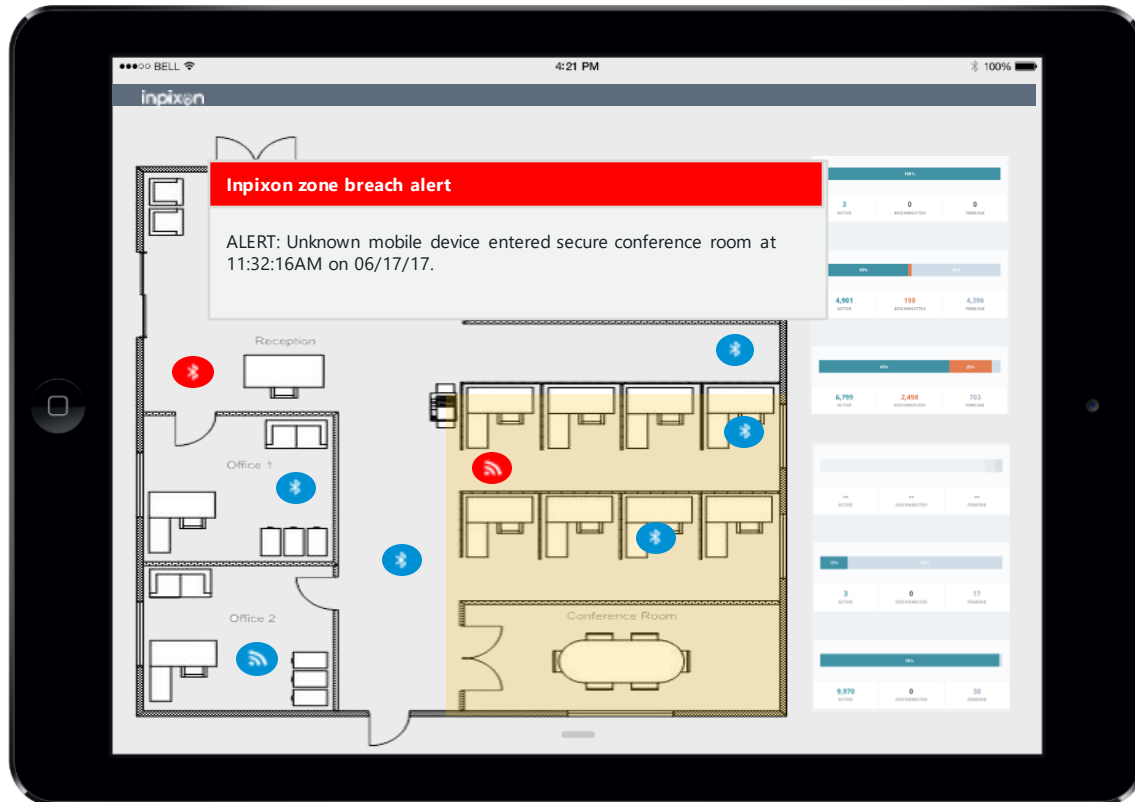


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- Security Status
  - 0 High Security Alerts
  - 0 Medium Security Alerts
  - 0 Low Security Alerts
- Red Device Status
  - 0 Red Device Alerts
  - 0 Red Devices
- Blue Device Status
  - 0 Blue Device Alerts
  - 0 Blue Devices
- Watch Device Status
  - 0 Watch Device Alerts
  - 0 Watch Devices
- Sensor Device Status
  - 0 Sensor Alerts
  - 0 Sensors
- Zones



# Aware Alerts



## DETECTION

Passive identification of all devices on the premises



## PREVENTION

Alert notification based on rules when unknown devices are detected in restricted area

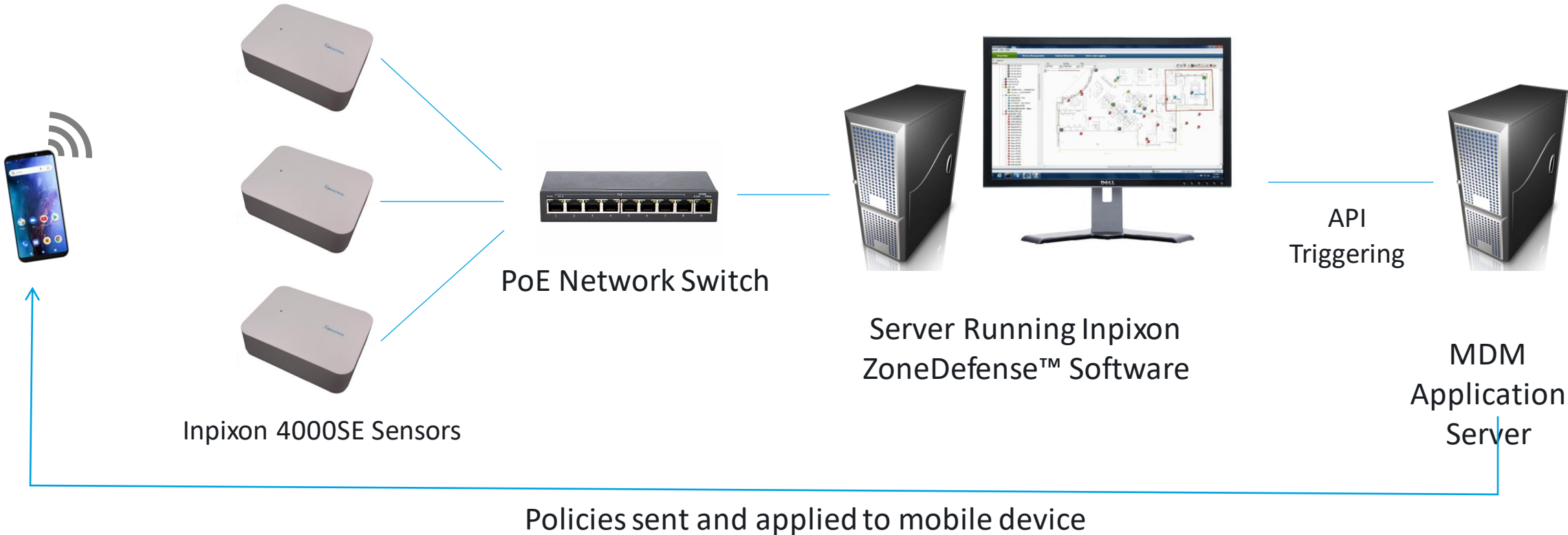


## CONTINUOUS PROTECTION

Proactive policy administration for secured zones through MDM, Asset Tracking and Multifactor Authentication



# Device Mitigation — MDM Integration



# Portable Sensor Kit

QUICK DEPLOYMENT PORTABLE

Includes:

- Five (5) 4000SE Sensors in Housings
- Five (5) Tripods for Sensors
- Six (6) Batteries
- One (1) NUC Computer
- Three (3) Shipping Cases
- Cables and mounting brackets
- Five (5) Zone Defense Software Licenses
- Wired or wireless sensor communications.

Note: Sensors may be used without stands, case closed during operation.



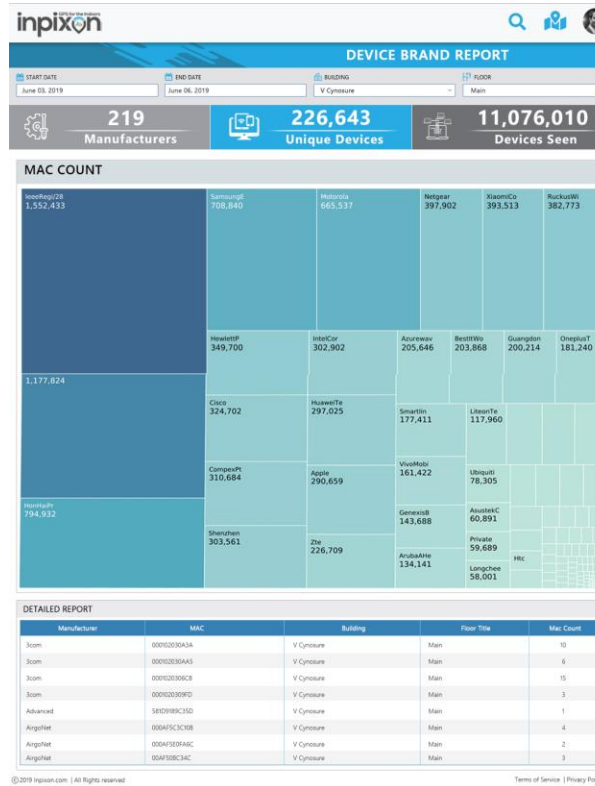
# Forensic Analytics

1



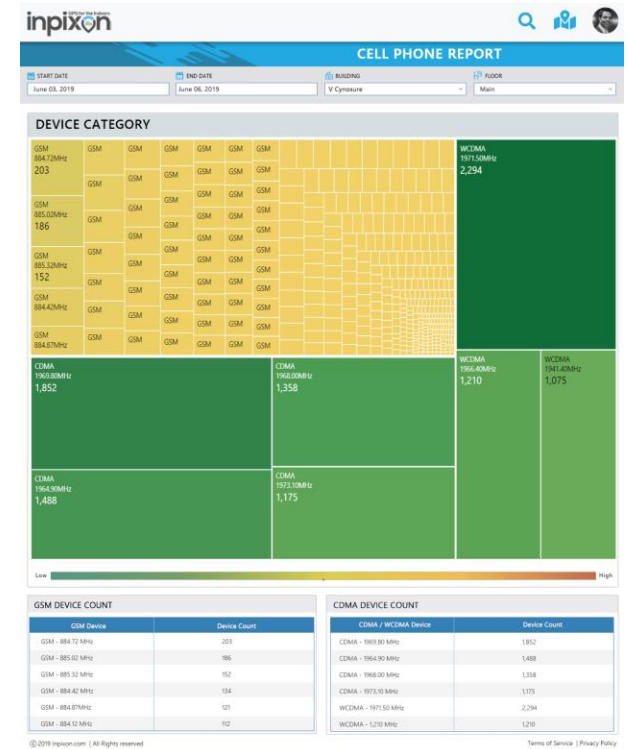
## ALERT REPORT

2



## DEVICE BRAND REPORT

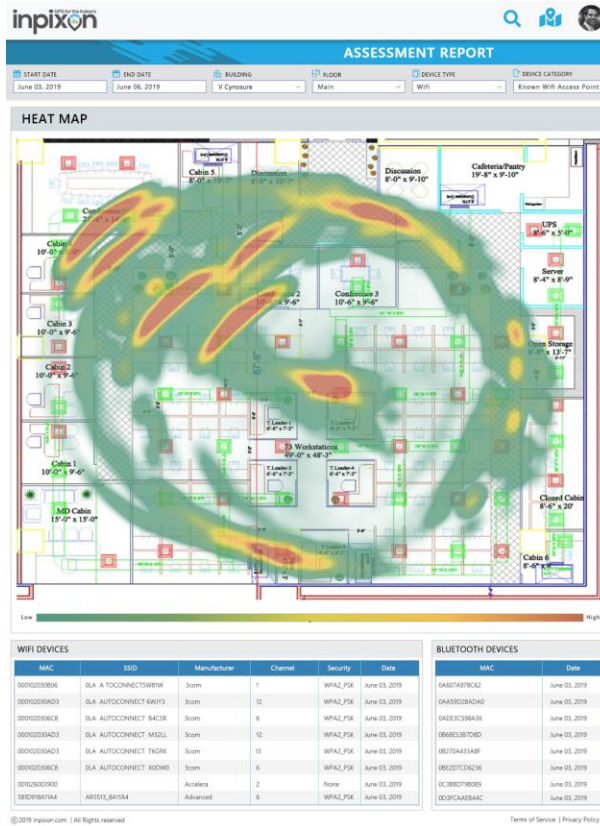
3



## CELL PHONE REPORT

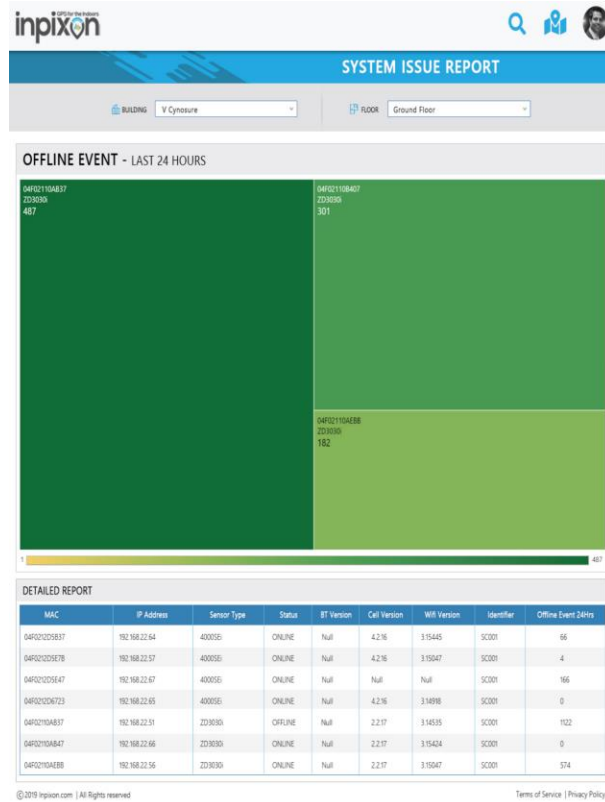
# Analytics

4



## ASSESSMENT REPORT

5



## SYSTEM ISSUE REPORT

6



## SECURE YOUR DOME

MONITOR

ADMINISTER

REPORT

Security Status

- 0 High Security Alerts
- 0 Medium Security Alerts
- 0 Low Security Alerts

Red Device Status

- 0 Red Device Alerts >
- 0 Red Devices >

Blue Device Status

- 0 Blue Device Alerts >
- 3 Blue Devices >

Watch Device Status

- 0 Watch Device Alerts >
- 0 Watch Devices >

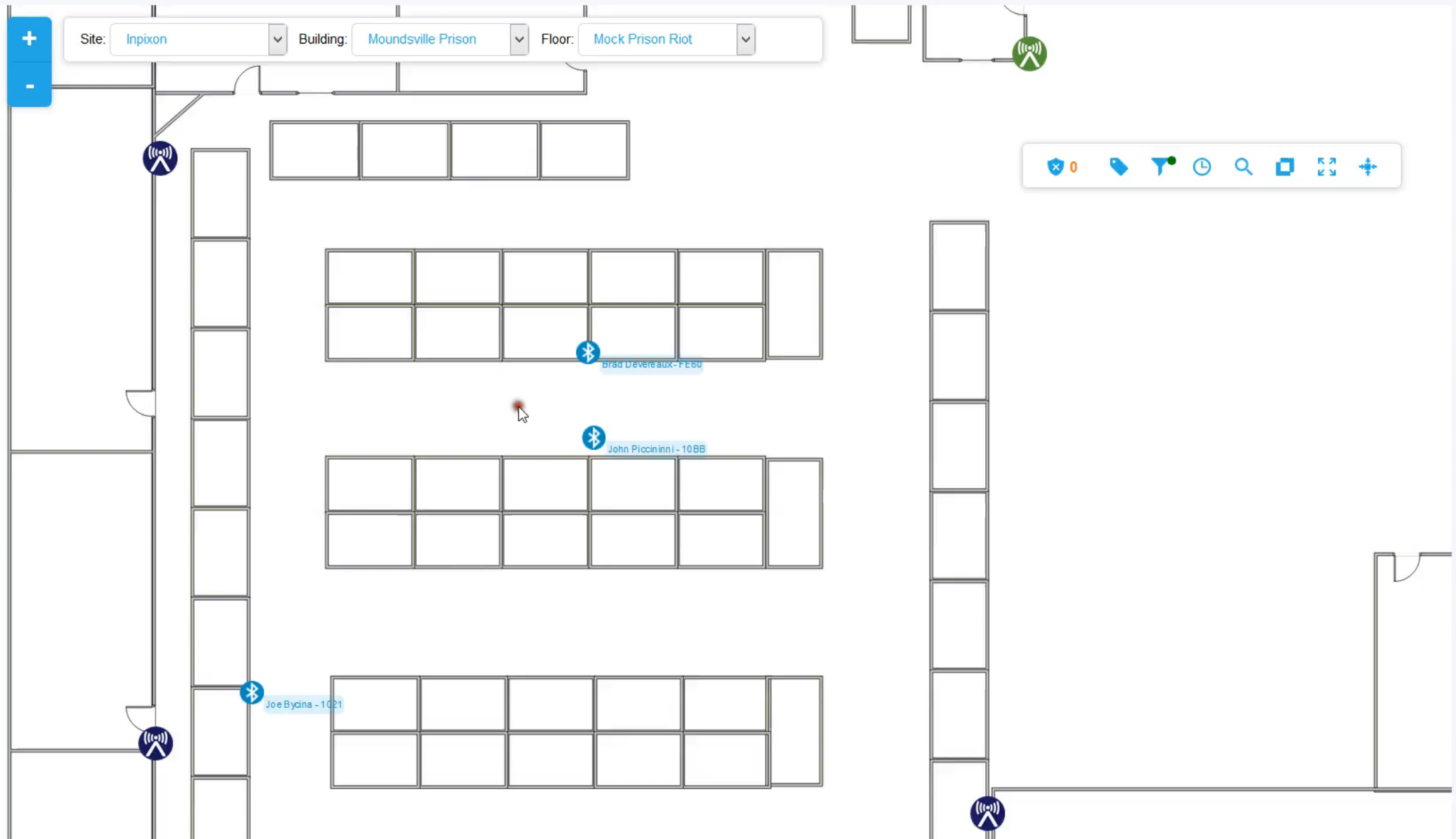
Sensor Device Status

- 0 Sensor Alerts >
- 4 Sensors >

Zones

AirPass Device Status

- 0 Unassigned >
- 0 Administrator >
- 0 Manager >





# Long Range Outdoor Positioning Solutions



# GPS900 Solves Tough Problems

## 1. Ground Situational Awareness

Precision Impact missions are dangerous and require highly accurate positions to track personnel

### Real-Time Surveillance

- Up to 1-second update rate
- Long range, up to 40-miles line of sight
- Off-grid and secure - Fully encrypted over-the-air messages
- Accurate Time-Space-Position Information (TSPI) provider

## 2. Unwieldy Existing GPS Solutions

Existing GPS transmitters are either the size of briefcases or do not support both personnel and vehicle tracking.

### Nimble

- Deliver location-based messaging to users real-time
- Combined Transmitter Unit (CTU)
- Portable, light-weight handheld and personnel tracker
- Mount to vehicles with high-gain RF and GPS antennas for improved range

## 3. Target Tracking is Expensive

Not cost-effective to incorporate GPS into existing targeting missions.

### Cost-effective TSPI

- Cost-effective provider of accurate Time-Space-Position Information (TSPI)
- Save up to 90% compared to existing solution, enabling the targeting use case



# GPS 900 Ground Personnel and Asset Tracking System

Identify and plot position of personnel and assets across large bases and test ranges

- Warrior Safety
- Asset Management
- Small Lightweight Transmitters
- GPS Positioning
- Proprietary (non-SIM) encrypted communications
- Integrate with base C2 systems

## GPS Components

- Transmitter (CTU)
- Repeater (Solar Power Available)
- Receiver
- Converter (Software)

## Key Features

**Long Range:** Up to 40-mile range (Line of Sight)

**900MHz ISM band:** 1-Watt Transmit Power

**Secure:** 256-bit AES over-the-air encryption

**Extendable Range:** Receivers and Repeaters extend system range

**Solar Powered Repeaters:** Solar Panel and Solar Batteries allow Repeaters to operate for months in remote terrain without standard AC

**Real-Time Surveillance:** On-premise Converter software provides position data to Internal Mapping Display and serves as Live Operations Display







You can never have  
enough security...  
...only more.



# Redefining Wireless Security

Inpixon's patented technologies help you to detect, position and react to potential wireless device threats to tip the risk/reward scale into your favor



## Mapping

Create dynamic, tailored map-enabled solutions that address myriad use cases



## Positioning

Locate and track wireless devices using on-device or external sensors, ensuring security and privacy



## Security

See the unseen with wireless device detection to pinpoint unauthorized devices, enforce no-phones zones and more



## Analytics

Forensic and investigative reporting tools for insight into breaches, device types, recurring anomalies, busiest areas and more over time.



## Realize workflow efficiencies

**Thank You**

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