Company Overview and Capabilities for the AAPA Membership

Agenda

- AAPA Introductions
- Two Six Technologies Introduction Overview
- SIGMA and the NYNJPA
  - SIGMA Purpose and Concept
  - Customer Value and Product Capabilities
  - Reports & Documentation
- Wrap-Up, Q&A

Mission and Culture

twoSIX
TECHNOLOGIES

Impact Focused Innovation At Speed

- High-growth government technology platform with an outstanding workforce united by a clear mission and strong culture

Our Mission

- Deliver technological superiority for our nation, allies, and partners through rapid, impact focused innovation.

- Accept, empower, and challenge passionate people to succeed as a team.

Our People

- Unique workforce of 600+ professionals with deep expertise in the highest priority fields

- Our team includes computer scientists, cryptography and cyber experts, engineers, mathematicians, nuclear physicists, IO operators, software developers, and veterans of U.S. military and intelligence community

- Culture and shared values that remain true to legacy businesses and create a strong common foundation

- Core values driven by "Impact Focused" and "Succeed as a Team"

Critical Missions of National Security

R&D projects to launch leap-ahead technologies

Expertise and operationally deployed systems directly supporting the warfighter

Full-spectrum operations in the information environment

Productized solutions for government and commercial customers

Intelligence Community

Operationally Deployed Products

PULSE
- Technology platform enabling data collection and two-way engagement with hard-to-reach communities
- Enables full-spectrum operations in the information environment, through the application of advanced technology and effective tradecraft

IKE
- Planning and execution platform utilizing machine learning to improve human understanding and command of the all-domain battlefield
- Deployed in operational use to support Cyber Mission Forces in the U.S. and around the world

TrustedKeep SECURITY PLATFORM
- Security platform for protecting sensitive data at scale with object-level encryption
- Utilized by IC customers to enable zero trust architecture in support of critical national security missions

SIGMA
- Real-time networked detection, identification, and response platform for Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) threats
- Deployed in operational use to protect citizens and critical infrastructure in U.S. metropolitan areas

M3
- Utilizes proprietary data, AI-powered technology, and world-class expertise to decode foreign governments' efforts to manipulate media, including censorship, disinformation, and propaganda campaigns
- Subscribers include IC, INDOPACOM and Fortune 100 companies

twoSIX TECHNOLOGIES

SIGMA *TM*

OPERATIONAL CAPABILITIES

TWOSIXTECH.COM

Purpose and Concept

twoSIX TECHNOLOGIES

- Automated Alert and Rad/Nuc Sensor Data Access Anywhere

- Reduced Operational Burden

- Increased Response Effectiveness by Blending Data Pictures for Primary Screening & Response Assets for 'Total Picture'

- Streamlines and Enhances Operational and Programmatic Management

| Support tens - thousands of sensors streaming simultaneous data. | Provide near real-time view of sensor data and alerts. | Support continuous, real-time operations with minimal system downtime. | Easy to use as possible with minimal support required | Maintain all historical sensor data | Embrace automated algorithms. | Adhere to cybersecurity requirements |

SIGMA Operational Advantages

twosix TECHNOLOGIES

SIGMA is a networked sensor integration architecture for real-time detection, identification, and response

#1 Use Case: Detect, identify, and Respond to CBRN (Chemical, Biological, Radiological, and Nuclear) threats

SMART CONOPs
Ingest real time, multi-domain sensor data at scale fusing it with contextual information to generate intuitive alerts, providing a force multiplication effect for responding organizations

FASTER DECISIONS & RESPONSE TIMES
Make better, faster decisions with advanced analytics that improve situational awareness leveraging predictive algorithms

MORE EFFECTIVE OPERATIONS
Increase operational effectiveness of your sensor program by integrating legacy and future sensor acquisitions across the CBRN mission into one common operating picture

Key Differentiators

Sensor-agnostic data collection capabilities allow SIGMA to collect information from any sensor and transform it into actionable information

Advanced analytics capabilities, enriched data and sensor health information provide situational awareness giving both operators and command and control the context to know how to prioritize alerts

Web accessible command and control enables real-time monitoring and collaboration between watch floor and the field

Customers
U.S. Department of Homeland Security
Port Authority of New York and New Jersey Police Department
Securing the Cities (STC) Maricopa, Chicago, Boston and the National Capitol Region
DARPA

Alerts BETAV2 6

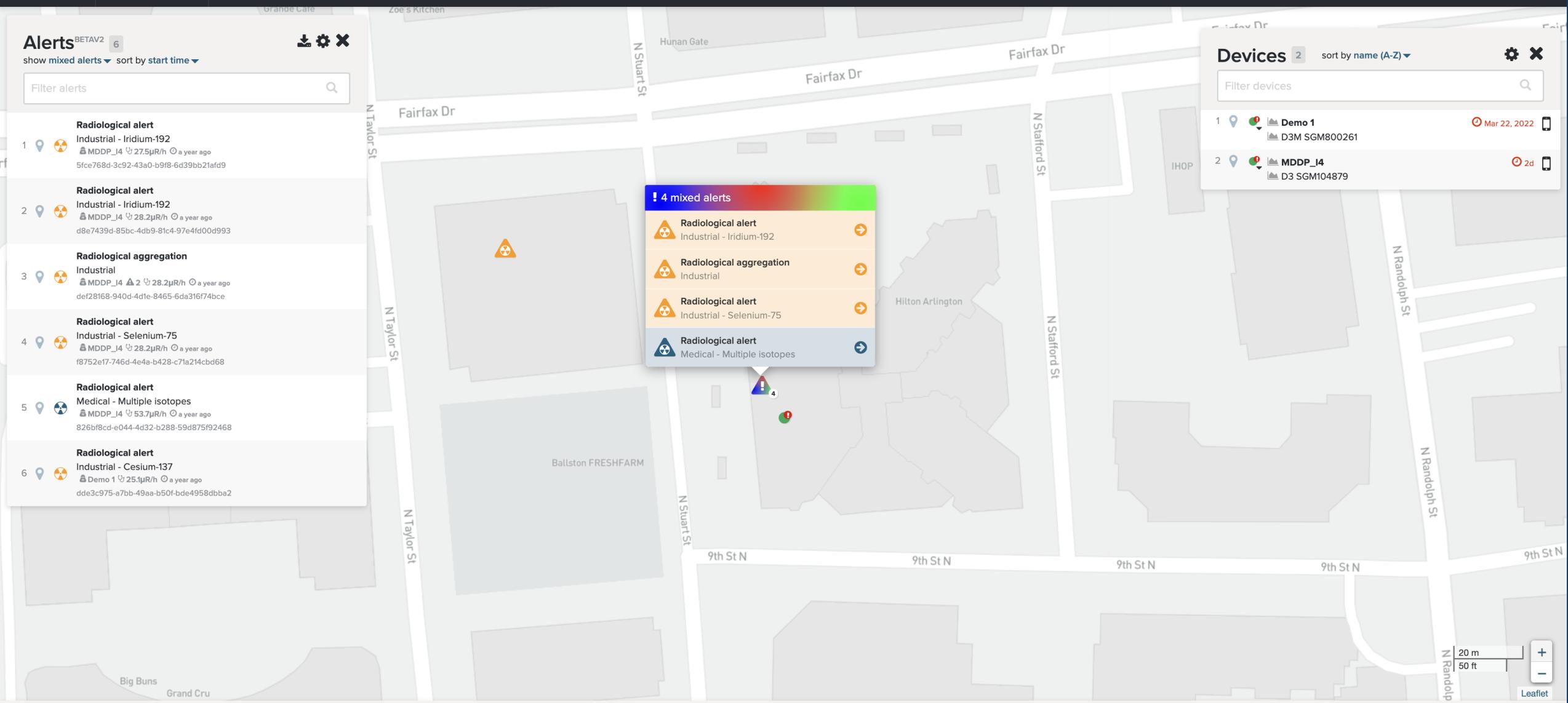⬇ ⚙ ✕

show mixed alerts ▾   sort by start time ▾

🔍 Filter alerts

1 ☢ **Radiological alert**
Industrial - Iridium-192
📱 MDDP_I4 ⏱ 27.5μR/h ⏰ a year ago
5fce768d-3c92-43a0-b9f8-6d39bb21afd9

2 ☢ **Radiological alert**
Industrial - Iridium-192
📱 MDDP_I4 ⏱ 28.2μR/h ⏰ a year ago
d8e7439d-85bc-4db9-81c4-97e4fd00d993

3 ☢ **Radiological aggregation**
Industrial
📱 MDDP_I4 ⚠ 2 ⏱ 28.2μR/h ⏰ a year ago
def28168-940d-4d1e-8465-6da316f74bce

4 ☢ **Radiological alert**
Industrial - Selenium-75
📱 MDDP_I4 ⏱ 28.2μR/h ⏰ a year ago
f8752e17-746d-4e4a-b428-c71a214cbd68

5 ☢ **Radiological alert**
Medical - Multiple isotopes
📱 MDDP_I4 ⏱ 53.7μR/h ⏰ a year ago
826bf8cd-e044-4d32-b288-59d875f92468

6 ☢ **Radiological alert**
Industrial - Cesium-137
📱 Demo 1 ⏱ 25.1μR/h ⏰ a year ago
dde3c975-a7bb-49aa-b50f-bde4958dbba2

Devices 2

sort by name (A-Z) ▾   ⚙ ✕

🔍 Filter devices

1 📍 🟢 📱 **Demo 1**   ⏰ Mar 22, 2022 📱
      💻 D3M SGM800261

2 📍 🟠 📱 **MDDP_I4**   ⏰ 2d 📱
      💻 D3 SGM104879

⚠ 4 mixed alerts

⚠ **Radiological alert**   →
Industrial - Iridium-192

⚠ **Radiological aggregation**   →
Industrial

⚠ **Radiological alert**   →
Industrial - Selenium-75

⚠ **Radiological alert**   →
Medical - Multiple isotopes

🔔 ALERTS   📱 DEVICES

9

Viewing **DEMO**

caleb.randles@twosixtech.com

Alerts BETAV2 6

show **mixed alerts** ▾ sort by **start time** ▾

Filter alerts

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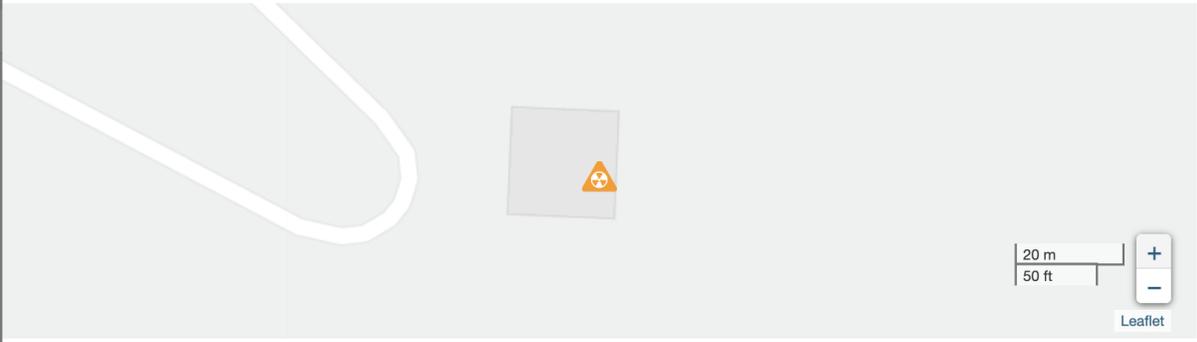dde3c975-a7bb-49aa-b50f-bde4958dbba2

🔔 **ALERTS** 📱 **DEVICES**

☢ Radiological Alert
dde3c975-a7bb-49aa-b50f-bde4958dbba2

✓ Mark as reviewed   ⬇ Export   👁 Hide   ✕

DEVICE · R38M508YJRN Demo 1	**START · MAR 15, 2022** 1:06:46pm	**END · MAR 15, 2022** 1:07:50pm	**STATUS** Ready for review
SENSOR · SGM800261 Kromek D3M	**LOCATION** 35.675673, -79.037757	**DETECTIONS** 1	**DOSE RATE** 25.1μR/h

20 m
50 ft
Leaflet

▾ Isotopes

Cesium-137

Cesium-137 is a common isotope used widely used in gauging and construction. Cesium-137 can also be used for irradiation as well as some limited applications in medical treatments.

▾ Categorization

☢ Industrial

Associated with industrial applications

Created by User

▾ Notes 0

Show **all notes** ▾

Type to add new note

+ ADD NOTE

or

Drag and drop a file here, or

📎 UPLOAD ATTACHMENT

No notes

Devices 2

sort by **name (A-Z)** ▾

Filter devices

1 📍 Demo 1
D3M SGM800261
🕐 Mar 22, 2022 📱

2 📍 MDDP_I4
D3 SGM104879
🕐 2d 📱

20 m
50 ft
Leaflet

DTECT

Sensor Charts

MAKE AND MODEL

Kromek D3M

SERIAL NUMBER

SGM800261

DATE RANGE

March 9, 2022 3:41 PM - March 17, 2022 4:11 PM
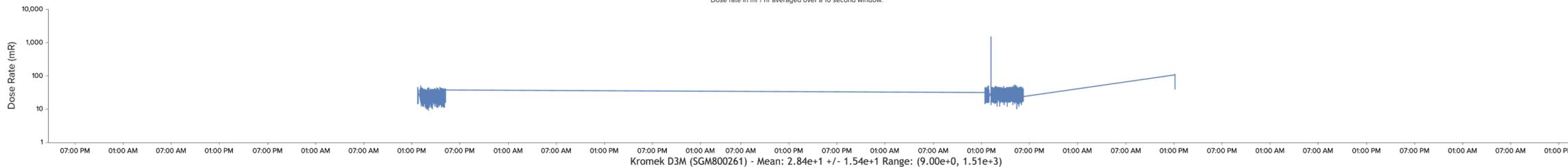
▶ **Sensor Health States**

▼ **Sensor Component Readings**

　　▶ **GAMMA - HISTOGRAM: Spectrum of counts to channels at 1024 resolution.**

　　▶ **GAMMA - SCALAR: Instantaneous gamma count.**

　　▶ **NEUTRON - SCALAR: Instantaneous neutron count.**

　　▼ **GAMMA - SCALAR: Dose rate in mR / hr averaged over a 10 second window.**
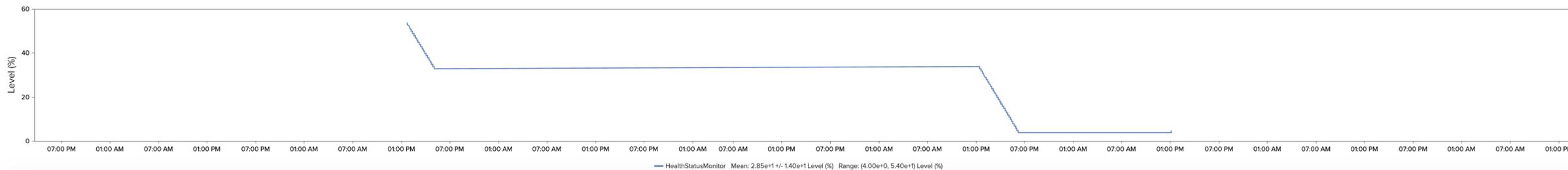

Dose rate

Dose rate in mr / hr averaged over a 10 second window.

Kromek D3M (SGM800261) - Mean: 2.84e+1 +/- 1.54e+1 Range: (9.00e+0, 1.51e+3)

▼ **Health Metrics**

　　▶ **SENSOR_BATTERY_CHARGE_RATE**

　　▼ **SENSOR_BATTERY_LEVEL**

SENSOR_BATTERY_LEVEL

HealthStatusMonitor   Mean: 2.85e+1 +/- 1.40e+1 Level (%)   Range: (4.00e+0, 5.40e+1) Level (%)

DTECT Reporting Features

Overview of Usage Statistics

Instance: demo102816	Total Hours Reported
Demo 1	16.7
Demo_1	4.5
Total	21.2

Overview of Individual Alert Investigations

This section provides an overview of demo102816 instances and a breakdown of alert priority. The table shows a breakdown of alerts for each command which are grouped by some priority levels. The priority levels included in the table are SNM, INDUSTRIAL, MEDICAL and OTHER. If an alert is not associated with any of these priorities, it is counted in the OTHER column
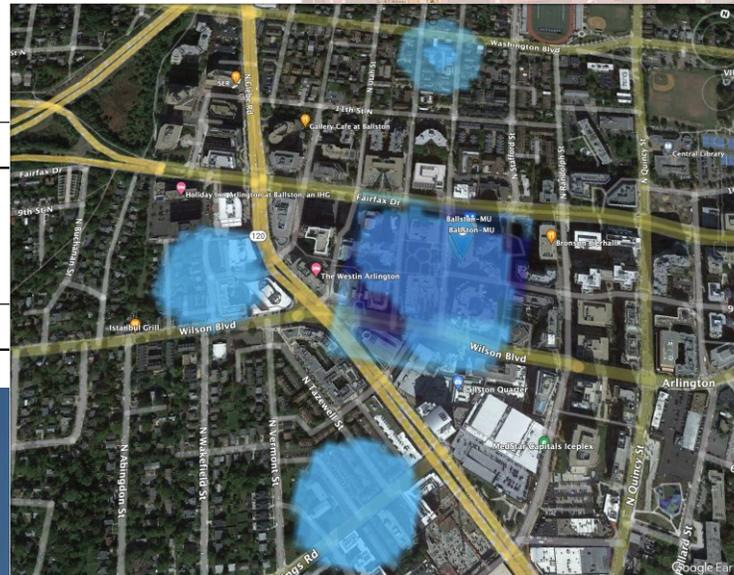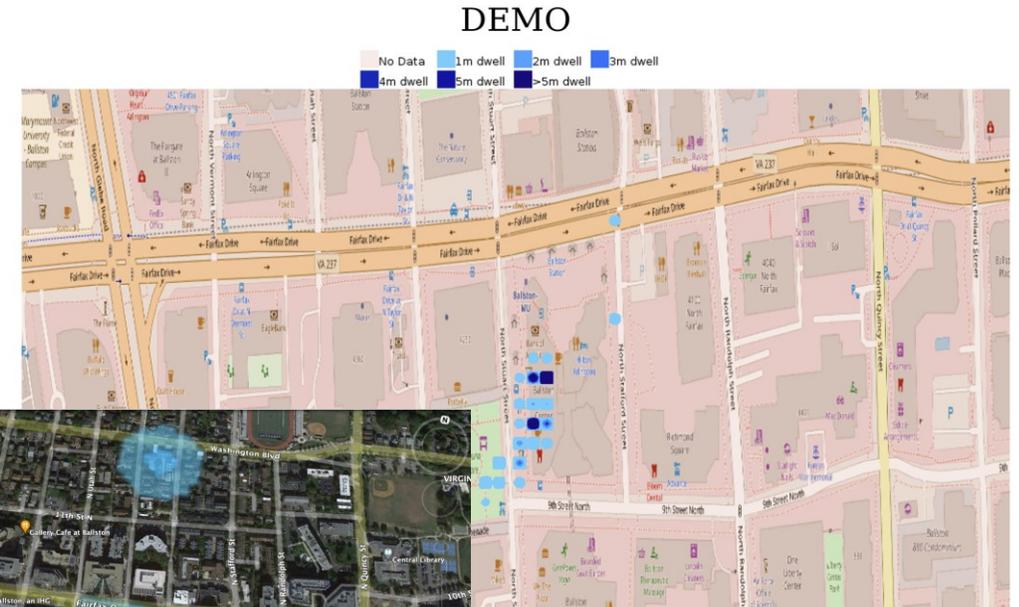
Instance	SNM	INDUSTRIAL	MEDICAL	OTHER
demo102816	0	1	0	0

Time	Categories	Detections	Devices
3/15/22, 5:06 PM	INDUSTRIAL	1	Demo 1

Coverage Map

This map shows the primary area of coverage by the SIGMA detectors during this reporting period. Quality of coverage is represented as a function of number of sensor reports received per minute per 11m x 11m geospatial bounding box.

DEMO

No Data   1m dwell   2m dwell   3m dwell   4m dwell   5m dwell   >5m dwell

Wrap-Up, Q&A and AAPA Housekeeping

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