2022
MIDWEST DAMAGE PREVENTION TRAINING CONFERENCE

CenterPoint Energy – Lone Worker Safety and Active Halo 4G LTE Pilot

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What is a Lone Worker?

- A lone worker is a person who works alone in a fixed facility without any supervision. A lone worker includes but is not limited to contractors, traveling worker, repairers, and workers in construction or utilities.

- Can be categorized as workers who can't be heard or seen by another individual during the course of work.

- Lone workers account for about 15% of the total workforce in the US, Canada and Europe.

Lone Worker and Violence

- *"Workplace violence is any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site. It ranges from threats and verbal abuse to physical assaults and even homicide."* <u>OSHA</u>

- According to the <u>National Safety Council</u> (NSC), violence ranks as the second highest cause of death in the workplace, accounting for 17.7 percent of fatalities. According to the <u>National Institute for Occupational Safety and Health</u>, about 1.7 million workers are injured on the job from assaults in the United States alone each year. Add in the impact of sexual harassment and the number of victims is staggering.

- Lone workers are, by definition, working alone away from other people that would be able to offer assistance if needed — which can make them even more <u>vulnerable to violence</u>.

- Acts of physical violence can begin with verbal abuse, such as when a social worker goes to a client's home or a government worker is in their office building during off hours. Sometimes, the verbal abuse escalates and can cross over into threats of violence — and then a percentage of them turn into acts of physical violence.

- By providing lone workers with safety monitoring technology and a means to discretely communicate in real-time with personnel empowered to deploy emergency responses, the employee has the tools they need to help them feel safe when working. It's also important to train these workers on when to reach out for help; meaning, *before* the situation turns into one of physical violence.

Device: Active Halo® 4G LTE

- Small, Discrete, Purpose-Built Device

- Large SOS Button

- Hands-Free 2-Way Voice

- Location Reporting via GPS (with GNSS & SBAS) and WiFi and BLE capable

- Voice Call-In Feature

- Extended Battery Life

- Waterproof, Durable (Used by US Military)

- Fall Detection

- Audible Panic Alarm

LARGE SOS BUTTON

AUDIBLE PERSONAL ALARM

Simple by Design

alertGPS

Secure Cloud-Based Alerting Platform

- User-Friendly, Fully Customizable Dashboard

- Displays Real-Time and Historical Location of Each Employee

- Grouping & Role Based Permissions Infrastructure

- Customizable Array of Alerts, including:

    SOS, Predator, Low Battery,

    Zone, Threat Zone, and more

- Customizable Notifications to Designated

    Recipients via email and/or SMS

- Scalable, Redundant Cloud-Based Architecture (AWS)
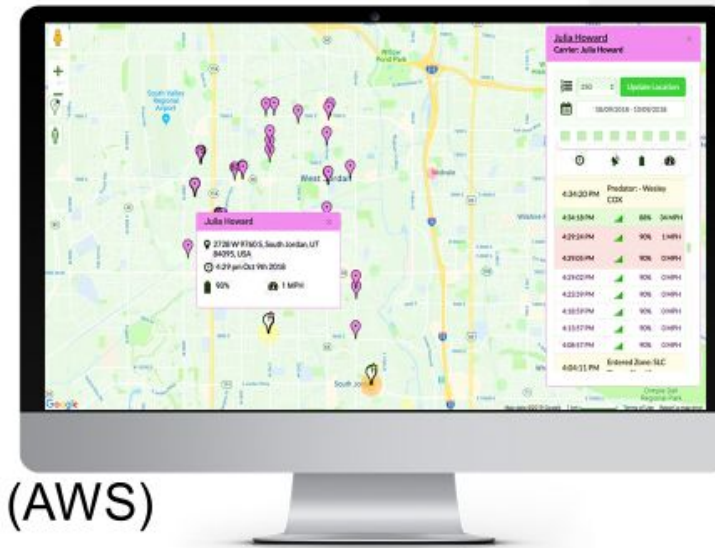
Intuitive and Scalable Architecture

alertGPS

Platform Specifications

- Scalable, Redundant Cloud-Based Architecture

- AlertGPS solution leverages Amazon Web Services (AWS) cloud infrastructure (housed in highly secure North American datacenters)

- All data is transmitted via proprietary protocol over a secure IP network

- Stand alone system: AlertGPS' platform <u>does not connect</u> with or otherwise interface with any other IT system.

- The only data that needs to be provided is users' names, emails, and phone numbers via a customer set up spreadsheet or API.

alertGPS

Redundant and Scalable Architecture

Mass Notification Platform

When minutes matter, your immediate ability to communicate clear instructions to your workforce makes all the difference

AlertGPS' Mass Notification Platform is the fastest and most effective means to notify your entire workforce during an emergency (text & email)

AlertGPS provides the alerting technology to issue AMBER Alerts. Our technology enables law enforcement in many states across the country to immediately notify thousands of people in the event of an AMBER Alert. We've built this same capability into the AlertGPS online dashboard.

Stay Ahead of the Risk™

alertGPS

Professional 24/7 Monitoring Center

- Trained Agents Available 24/7 to Answer All Calls
- Able to Dispatch Emergency Services Nationwide
- Two Fully Redundant Facilities with Immediate Failover Capabilities
- Customizable Action Plans
- Post Event Email Updates
- Highest Industry Certifications
- Companion Calls
- Voice Call Back
- Fall Detection

alertGPS

AlertGPS Integrated Safety Platform
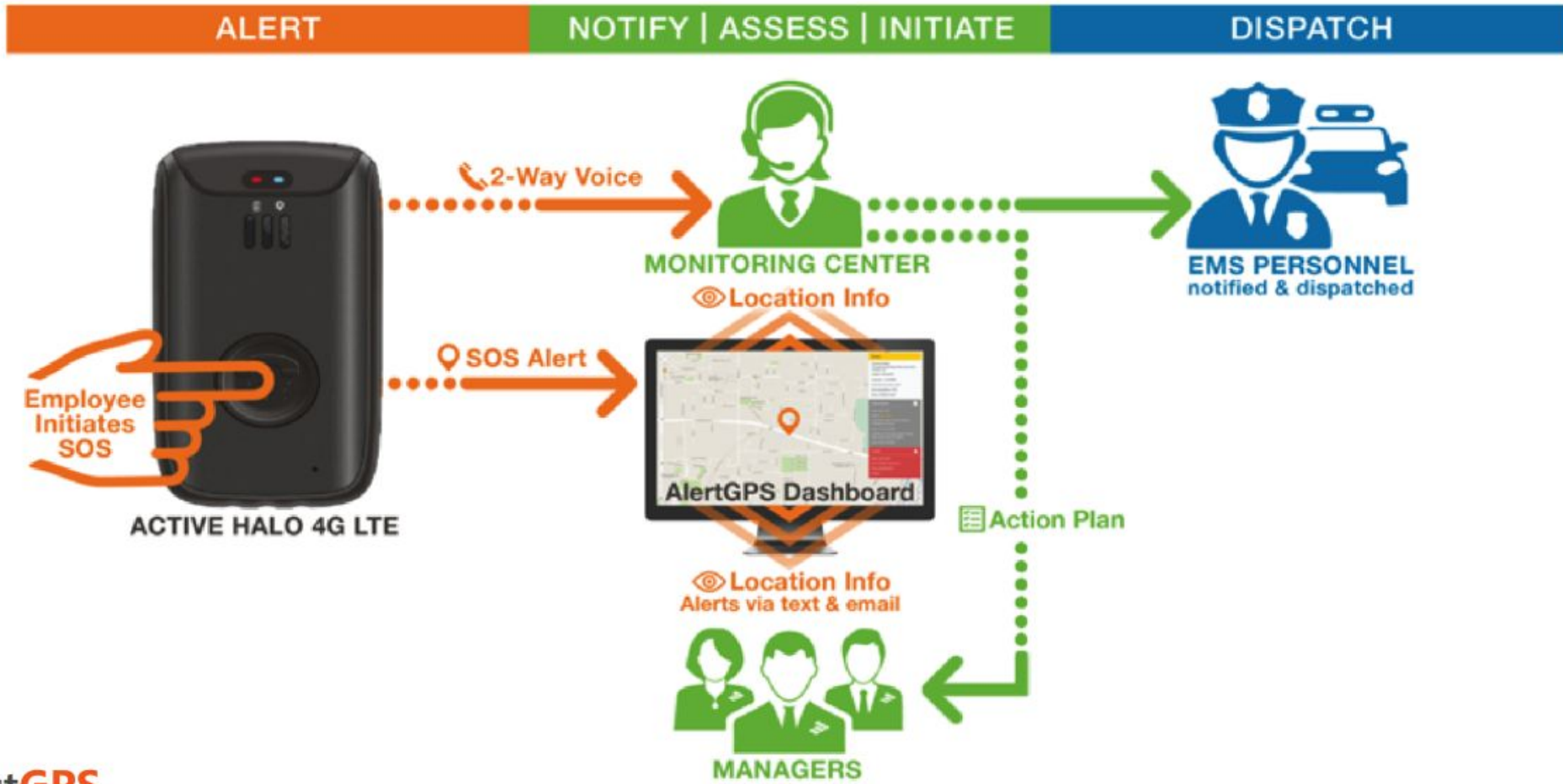
Pilot remarks

•"It was at my pleasure to be one of the ones to try out the AlertGPS tester. During the days that I had it and each time I tested it was nice for a live voice to come back to me to check and make sure I was ok or if I needed assistance. I drive all over the city as well upon CNP's transmission corridor's which normally there's no one out there but me and my truck. It gave a sense of security knowing help was only a push of a button away, as well as my Manager being able to locate me throughout the day in case he needed to send me to a location that was in the area or if something had happened he would have known again at a push of a button of my last location (from his computer at the office)."

•"I wore it around my neck, so during my day when I walked away from the truck on a corridor or dealing with folks in the public, I knew that my location was still being tracked in case of emergency and the ability for a quick response was there."

•"Since I work on the electric side and corporate security is and will be one of the first to notify, it would be nice to have an option for the device to contact corporate as well at the same time."

•"I miss not having it, some would say that's crazy, but the world is crazy and I feel that you can't have enough safety protection."

Keeping Lone Workers Safe

PEOPLESAFE

LONE WORKER SAFETY

DO'S	DONT'S
Let people know your whereabouts	Don't be complacent and assume you're safe
Complete a risk assessment	Don't attempt anything that cannot be done safely alone
Follow relavent safety guidelines	Don't take unessesary risks
Carry a personal safety alarm	Don't be afraid to trust your instincts

- Planning, Communication and Stop-Work Authority are key
- Specific practices and procedures must be in place to minimize the risk of injury
- If possible, avoid scenarios where workers would have to work alone

NiSource Overview

- NiSource and Columbia Energy Group merged in 2000 to become **one of the largest fully regulated utility companies** in the US.
- NiSource service territories span **across 6 states** under our Columbia Gas and NIPSCO brands.

- We **employ over 7,500 of our neighbors** in the communities we serve
- Our team works hard to ensure nearly **4 million natural gas and electric customers** have the essential energy they need
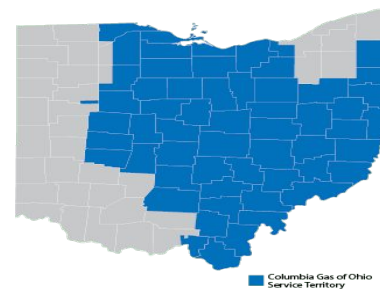
Northern Indiana Public Service Co. (NIPSCO)

Serves approximately 1.3 million natural gas and electric customers across Indiana
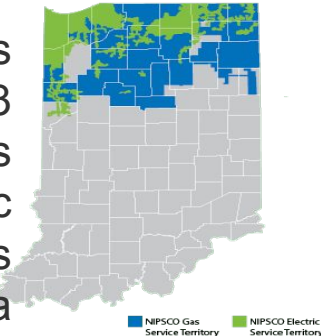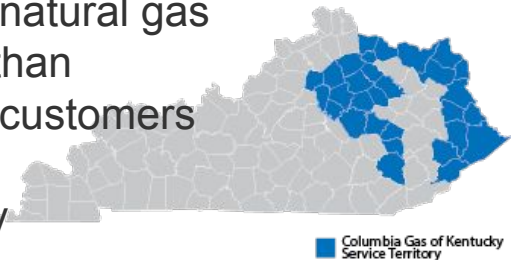

Columbia Gas of Ohio

Delivers natural gas to approximately 1.4 million customers Ohio.

Columbia Gas of Kentucky
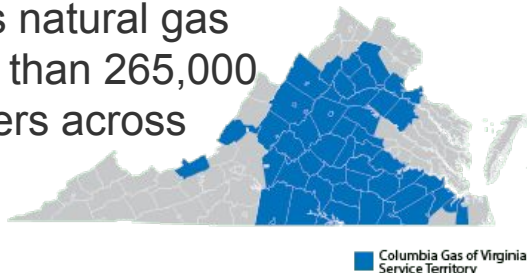
Delivers natural gas to more than 135,000 customers across Kentucky

Columbia Gas of Virginia

Delivers natural gas to more than 265,000 customers across Virginia
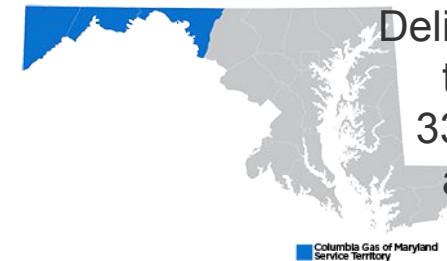

Columbia Gas of Pennsylvania

Delivers natural gas to approximately 440,000 customers across Pennsylvania.\

Columbia Gas of Maryland

Delivers natural gas to approximately 33,000 customers across Maryland

NiSource's Safety Promise

A Culture that Enables Our Promise

RELENTLESS CHAMPIONS OF SAFETY, SERVICE AND COMFORT

- Shared accountability and respect
- Transparent and trusting workplace
- Everyone has an equal voice when it comes to safety
- Non-punitive risk reporting with feedback
- Continuous learning and improvement
- Embrace change

Safety Technology Imperatives

Reduce employee safety risks through selection and adoption of new technologies

Enhance ability to monitor, prevent and quickly react to customer safety risks & concerns

Safety Technology Imperatives

- Employee Safety
- Customer Safety
- Community Safety
- Research & Innovate

Find better, smarter solutions to improve and protect our communities

Search for emerging technologies that meet tomorrow's challenges

❝ *Safety is not just a commitment we talk about — it is our top priority, the foundation of our business and what guides all of our actions.*

- NiSource 2018 Annual Report
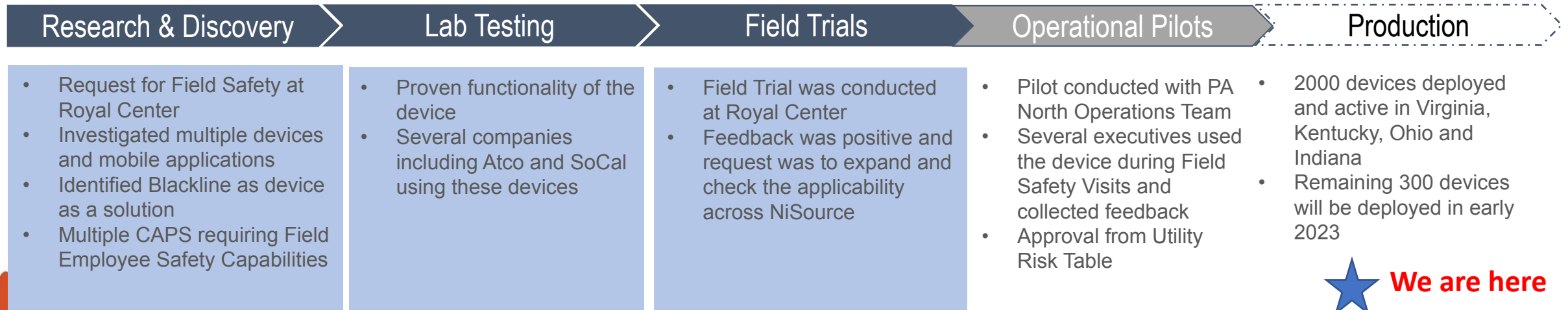
Safety Wearables Journey

CAP Highlights

Since 2019 employees have submitted **5957** CAPS
- **Valve remediation**- a new process was adopted by all NiSource states to cover all aspects of valve repair, scheduling and alternate valve assignment.
- **AOC's on Meter Settings**- concerns with contractors creating unnecessary abnormal operating conditions led to a brochure being created for contractors on proper installation requirements.

Innovation Zone   *Implementation Zone*

Research & Discovery	Lab Testing	Field Trials	Operational Pilots	Production
• Request for Field Safety at Royal Center • Investigated multiple devices and mobile applications • Identified Blackline as device as a solution • Multiple CAPS requiring Field Employee Safety Capabilities	• Proven functionality of the device • Several companies including Atco and SoCal using these devices	• Field Trial was conducted at Royal Center • Feedback was positive and request was to expand and check the applicability across NiSource	• Pilot conducted with PA North Operations Team • Several executives used the device during Field Safety Visits and collected feedback • Approval from Utility Risk Table	• 2000 devices deployed and active in Virginia, Kentucky, Ohio and Indiana • Remaining 300 devices will be deployed in early 2023

We are here

Blackline Wearable G7 Safety Devices

G7 with gas detection →

Standard G7 devices

G7 Bridge

Wearable Device with Belt Clip

Features:

✔ Intrinsically safe

✔ Fall and no motion detection

✔ Two-way voice and text messaging

✔ Push-to-talk enables communication with other G7C devices)

✔ Silent and audible SOS alerts

✔ Check-ins

✔ Gas detection (H2S, Oxygen, Carbon Monoxide, LEL)

✔ Communication over cellular network

✔ Analytics and monitoring available in the Blackline portal

✔ Employee location

Other technical specs:
- Unit w/o gas cartridge:
  - Size: 2.5" x 4.9" x 1.1"; Weight: 5.7 oz
- Unit w/Gas cartridge:
  - Size: 2.5" x 5.9" x 1.5"; Weight: 6.8 oz
- Rechargeable battery life (normal usage): 18 hrs
- Time to fully charge: 4 hrs
- Battery lasts 4–5 years before device needs to be replaced

Blackline G7 Deployment Approach

Pre-deployment:

Piloted the device with two different groups – results informed current configuration

Developed a comprehensive Change Management & Communications Strategy

Established long-term ownership of the Blackline relationship/device; leader of the project = leader going forward

Engaged local leaders and safety teams to shape deployment plans for their state

Created a new Safety Standard to ensure clear expectations for wearing the device on the job

Deployed to a small area first (~60) then paused for 30 days to incorporate learnings

Leveraged our Steering Committee comprised of leaders across states for guidance & buy in

Identified Super Users in each state to provide local support for device users

Conducted multiple post deployment sessions to gather and incorporate feedback after each phase
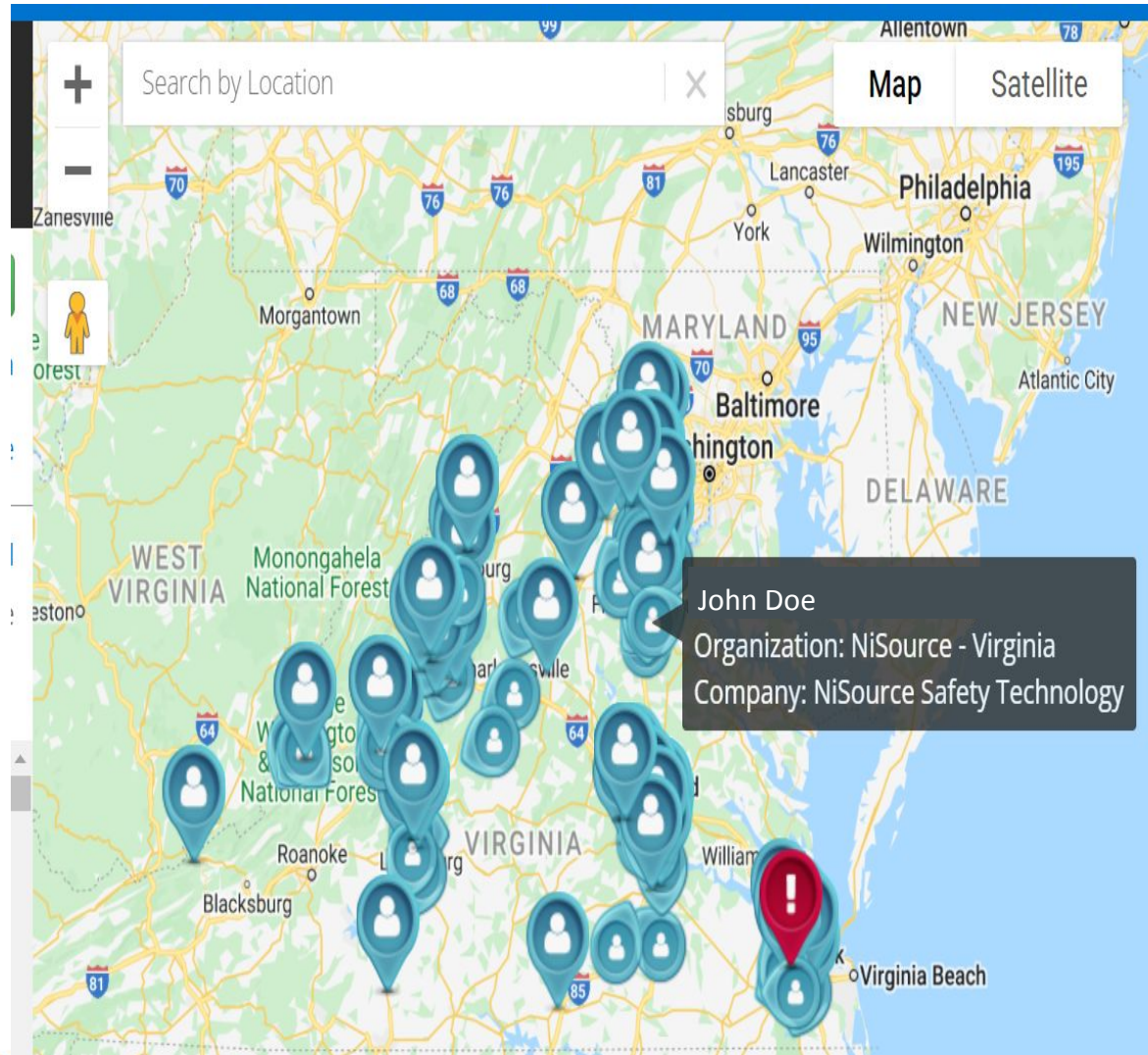
Blackline G7 Training Strategy

- Scope – device use, standard for wearing, ongoing support + portal training for supervisors
- Scaled back device and portal training to focus on most-used features so it wasn't overwhelming
- Virtual Training for supervisors (2.5 hours)
- In-person training for Front Line Employees (2 hours)
- Vendor delivered training due to internal resource constraints
- Super User and Supervisor support in each class
- Leaders kicked off sessions to reinforce the importance of adding the G7 as a new layer of protection
- Refined training materials between phases to incorporate feedback

Deployment Analytics and Feedback

John Doe

Organization: NiSource - Virginia
Company: NiSource Safety Technology
M: KL5-222-2222
Device mode: Normal operation

Gas Readings

H₂S 0.00 ppm
2022-03-18 14:16:26 EDT

CO 0.00 ppm
2022-03-18 14:16:26 EDT

O₂ 20.90 %vol
2022-03-18 14:16:26 EDT

LEL 3.00 %LEL
2022-03-18 14:16:26 EDT

Next bump test due:
2022-04-01 09:15:42

Next calibration due:
2022-05-03 11:00:28 EDT

Highlights & Feedback to Date:

Push-to-talk is the most popular feature

- Supervisor and Super User support and involvement in classes has been extremely effective – we'll continue this model

- Employees mostly embracing the device – those who were complaining in Phase 1 are no longer doing so

- Employees reported getting used to the device quickly - a couple of days after getting it, it's part of their routine

- CO adjustment we made at the end of last year was helpful – nuisance alarms are significantly less/eliminated

- An employee wearing his device at lunch received CO alert in a restaurant; worked with the restaurant personnel to eliminate the unsafe condition before anyone was harmed*

- Employees are showing engagement by suggesting enhancements to the service (e.g., new PTT feature)

- Still viewed as a "tracker" but more feelings on the positive than negative side overall

Overview of Other Safety Technologies

Work Zone Speed Indicator

Safety Capabilities

- Informs approaching drivers of their current speed and encourages them to slow down if they are traveling above the speed limit
- Provide real-time information on appropriate speeds for current conditions that drivers trust and use
- Provides improved mobility and safety through work zones
- Warn drivers of coming road conditions

Laser Methane Detectors

Safety Capabilities

- Gas filled structure
- Take readings from safe distance
- Max detection ranges from 100ft up to 330ft.
- Can detect gas through most windows
- First Response Tool
- Intrinsically Safe

AMI Smart Meters

Safety Capabilities

Customer Safety:
- Auto-shutoff based on configurable flow, pressure and temperature
- Remote shutoff capability

Employee Safety:
- Eliminates manual and AMR meter reads

Community Safety:
- Fewer truck rolls
- Faster response to emergencies

CEU & SCHOLARSHIP ATTENDEES:

Attendees who would like to receive CEU credit or who are scholarship recipients, please scan the QR code OR visit the link below and fill out the online form.

https://www.midwest811conference.com/lone-worker