Theo Douglas | April 26, 2018

The third annual Internet of Things Civic Hackathon convened hundreds of coders, developers, officials and public safety employees last week in Indiana to find new ways in which technology could be directed toward the public good — focusing this year on solutions for public safety and FirstNet, the dedicated nationwide network for first responders.

The venue for the April 20-21 event — the new Indiana IoT Lab in Fishers, near Indianapolis —s won praise from participants, but those interviewed by *Government Technology* said they were even more impressed by the caliber of ideas generated by roughly 300 technologists, and the close collaboration from scores of firefighters, police and law enforcement officers and public officials on-hand.

Teamwork between first responders and technology creators was baked into the event, which featured a Public Safety Equipment Rodeo during its early hours, aimed at

familiarizing developers with the innovation potential in everything from mobile response units and communications vehicles to drones and helicopters. And as developers headed off to the adjacent Launch Fishers co-working space to begin designing solutions, first responders were nearby.

Bill Soards, president of AT&T Indiana, said the event was a good opportunity to flex the innovation side of FirstNet and "pull first responders deeper into the innovation cycle."

"They're the ones with field experience. They know the challenges they face. And when you can put first responders [together] directly with very smart software developers, magic happens," Soards said.

AT&T is the [FirstNet](#) service provider.

A preliminary round of judging winnowed the field from 30 entrants to 10 semi-finalists who presented their solutions on-stage during the evening of April 21. First- and second-place prizes of $2,000 and $1,000, respectively, recognized achievement in IoT, mobile and data visualization.

Indiana's analytics solutions provider, the Management Performance Hub (MPH), [provided data streams](#) for participants to tap into, and while it's yet unclear whether finalists will go on to fully develop their projects, the state's Chief Data Officer Darshan Shah pronounced the event a critical win.

"Each of these teams delivered a new idea and a different solution that we may not have thought of. The more we can continue to be interconnected with the technology community, the better it's going to be for the tech community and the state collectively," Shah said.

The winning solutions were:

- **Alert View Central** won first place and $2,000 for best mobile app. Its creators designed a "central multimedia repository," organizers said, aimed at pushing real-time alerts from multiple sources to first responders on any device.
- **Deaf Hack** won first place and $2,000 for best IoT app, as well as sponsor recognition from FirstNet with third place for best app. Its project used Hue Lights light patterns to warn the hearing impaired in their homes when dangerous situations ranging from fires to tornadoes are occurring.
- **Find Me** received sponsor recognition from AT&T for the best use of M2X, its managed data storage service; and from Esri, the mapping technology company. Its namesake "Find Me" button is designed to alert first responders to the location of a person in trouble — potentially speeding up important primary search. A chip worn on a first responder's helmet helps locate that person and document rescuers' progress on a back-end incident map visible to officials.
- **First Volunteer** won second place and $1,000 for best nobile app. It also received sponsor recognition from FirstNet with first place for best app. Inspired in part by so-called "Cajun Navy" rescuers following Hurricane Harvey, it created a way for civilian volunteers to register online and be identified and called on by authorities during

an emergency. While it wasn't fully completed due to time constraints — an issue for many creators — the solution will also include an IBM Watson digital assistant component aimed at providing on site skill enhancement for civilian volunteers, such as CPR directions.

"We thought, let's pre-register them, get them verified as first responders so whenever there's a need they can check and reach out to these [volunteers] in a more organized fashion," said graduate student Anagha Varrier, one of four team members and a graduate student in computer science at Indiana University-Purdue University Indianapolis.

- **GoGoStop** won first place and $2,000 for best data visualization. Its team used image analysis to prevent accidents at intersections, starting with the idea of turning red lights green more quickly when there's no cross-traffic — but then flipping the script to focus on holding red lights longer when it's clear drivers on green won't be able to stop when their signals turn red.

"If the light turns red and we realize the car is going too fast and will not stop in time, we delay the green light and the cross-traffic," said team member Felix Wyss, who leads a group of AI researchers at contact center solutions provider Genesys.

- **Incident Insight** received sponsor recognition for best use of Indiana MPH data. Its solution merged MPH accident data and emergency medical services data to predict statewide whether first responders would need to use Narcan to revive an opioid overdose victim.

Brian Norris, vice president of data and analytics at OurHealth, which provides primary care services to self-insured employers, was part of a team from the company that took part in the inaugural 2017 Indiana Medicaid Data Challenge in October.

"We found different areas of the state that had a higher Narcan usage than others. That could tell you 'I need more of a Narcan supply.' Or 'I need [more] first responders trained,'" Norris said, noting that the solution will need a bit more robust data set to be completely successful.

- **Next Gen Emergency** received sponsor recognition from FirstNet with second place for best app. It would let 911 dispatchers access a caller's smartphone inputs including camera and GPS by sending a text message, during an emergency situation.

"Obviously that's incredibly valuable. You can imagine a child who may have to stay quiet because something's going on. And instead of talking, they can just punch a button," said Sally Fay, communications director for the state's Integrated Public Safety Commission, which organized the equipment rodeo and is its point-of-contact agency for FirstNet.

- **ONSET** won second place and $1,000 for best IoT app, and sponsor recognition for best use of Onyx technology and best use of an AT&T starter kit. It uses technology to track the equipment and so-called "consumables" in bags carried by emergency

medical technicians, using AT&T LTE connectivity to push data to M2X, and custom mobile apps to let EMTs track their own carryables. The solution also enables location monitoring on a real-time dashboard for administrators.

- **Report and Stop** won second place and $1,000 for best data visualization. It targeted often under-reported sexual harassment, offering victims a swift, easy way to file online sexual harassment reports and aggregate data enabling keyword searches, crime map creation and database cross-referencing between law enforcement agencies.
- **Xact Impact** was a finalist that didn't place but impressed judges with its wearable IoT device capable of documenting whether a first responder has been involved in a traffic accident en route to a call, or has fallen or suffered an assault, cardiac arrest or other medical emergency.

"If we could really translate that [fall] into G-force, that will really give people ideas of how much impact and what kind of impact the subject suffered," said team member Bin Sun, a self-trained engineer who works for Indianapolis medical device company Roche Diagnostics.

http://www.govtech.com/data/IoT-Civic-Hackathon-Convenes-Developers-First-Responders-Around-Public-Safety-FirstNet-Solutions.html