



April 20-21, 2018 – Indiana IoT Lab (Fishers, Indiana)

Top 10 Winning Teams

First Volunteer (*1st Place FirstNet App*) (*2nd Place Mobile App*)

When it comes to massive natural disaster, civilians are often the first responders. Authorities have been willing to take their help in past events like Harvey so why not make it easier for them to track and manage civilian volunteers? First Volunteer aids first responders in offering quick assistance to first responders through registered civilian volunteers.

Next Gen Emergency (*2nd Place FirstNet App*)

Web-app that allows 911 dispatchers to initiate a request to use a caller's smartphone inputs including camera and GPS for collecting time-critical information through visual observation and sensor data. This provides dispatchers and in turn, first-responders accurate broad-scope situational awareness intelligence to assist them in preparing for and executing effective emergency response strategies.

Deaf Hack (*3rd Place FirstNet App*) (*1st Place Best IoT*)

When emergencies occur, many people may take for granted being able to hear sirens or weather radios to warn them in the face of dangerous situations. However, there is a significant need for deaf and hard of hearing people to also receive these warnings. Our project is built to alert deaf and hard of hearing people in their homes through Hue Lights light patterns to warn them when dangerous situations have occurred or are likely to occur. Through Node-RED, on-the-clock weather updates are sent to the Hue lighting system to enable these features.

Incident Insight (*Best Use of Indiana MPH Data*)

We will combine crash data and EMS data to provide cross-functional insights. We will predict factors such as whether an EMS run will require the administration of NARCAN. The deliverable will be a web-based dashboard that EMS personnel can access.

Find Me *(Best use of M2X)*

Can't get out of a building in an emergency? Push the Find Me button to alert fire/police of your location, they'll come to you. Speeds up primary search time, and, once the first responder has arrived, auto-clears the room on an incident map through an NFC chip worn on the first responder's helmet.

ONSET *(Best use of IoT Starter Kit) (2nd Place Best IoT)*

Tracks equipment and consumables in EMT bags. Uses AT&T LTE to push data to M2X and custom mobile application so that EMTs can track the amount and status of their carried equipment/consumables. Also tracks location to provide a real-time administrator dashboard of EMT locations.

Alert View Central *(1st Place Mobile App)*

Central multimedia repository enabling first responders to receive alerts where they can see and hear from multiple sources in real-time on any device.

GoGoStop *(1st Place Data Solution)*

Use image analysis to prevent accidents at intersections by predicting when a car won't be able to stop at a red light and delaying cross-traffic signals.

Report and Stop *(2nd Place Data Solution)*

Report & Stop is a web application that solves under-reported sexual harassment problem. The app makes it easy for victims to file an online sexual harassment report, which collects valuable information and insight to law enforcement. Data collected could be used for keyword search, crime map creation and cross-referencing with other law enforcement database.

Xact Impact

One of the primary causes of injury and death in the line of duty for firefighters, police, and EMS is being struck by a vehicle. Currently, there is no personnel impact monitoring within M2X despite its storage of time-series accelerometry data. We developed a small, wearable IoT device that collects and interprets real-time gyro data to report movement, body orientation/rotation, and impact incidence. Employing this within M2X, leaders can directly monitor, and respond to, team member incapacitation from impact or inactivity. It can be used for other risks such as falling, assault, gunshot, shockwave, and cardiac arrest. It could also be outfitted with more sensors for additional hazards.