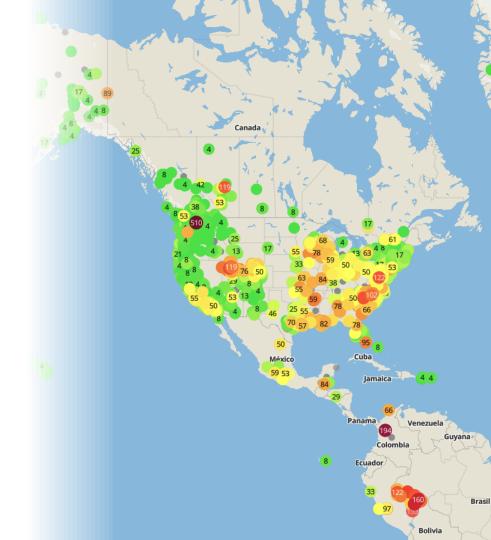
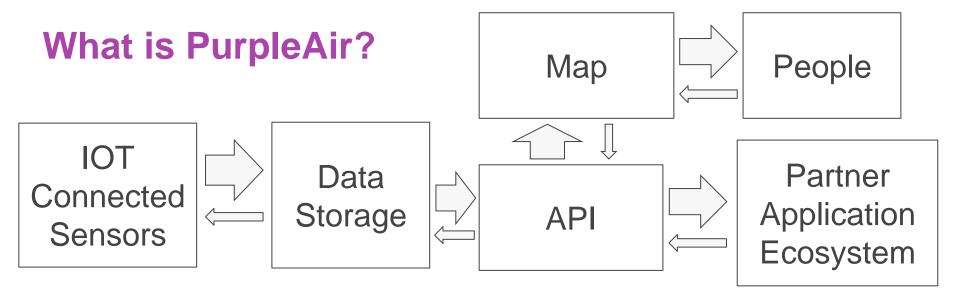


Air quality monitoring built on a new generation of low cost "Internet of Things" sensors





PurpleAir provides a complete end to end service including the air quality monitoring hardware, the data storage facilities, API's to consume data and the PurpleAir map to view real time sensor data.



# What do PurpleAir sensor measure?





- Report PM1.0, PM2.5, PM10
  - laser counter particle counts in six size bins: 0.3, 0.5, 1, 2.5, 5 and 10 microns.
- Environmental parameters like temperature, humidity and pressure
  - Temperature and humidity are offset due to heat generated by the sensor. The original idea was to have information on the conditions under which the laser counters themselves were operating.
- We do no pre-processing of data on the sensor.



# What is the PurpleAir map?

- Users register their sensors on the PurpleAir map
- Sensors are connected to WiFi and report data every 2 minutes
- The PurpleAir map is free to use to get real time air quality data



## The Goal of PurpleAir



- Manufacture high quality low cost air quality sensors
- Provide live air quality map for real time decision making
- Create localized AND global air quality datasets
- Supplement regulatory air quality networks
- Get people interested in air quality!



#### What does the public want?

- 1. Real time
  - I want to know air quality right now
- 2. Right here
  - I want to know what it is outside my house
- 3. Accurate
  - It MUST be trusted.
- 4. Easy to access, on any device at any time

The biggest thing we learnt is just how much people care about clean air





## How are PurpleAir sensors used?















- Private concerned or interested citizens
- Schools and Universities
- Non-profit groups
- Government organizations
- Weather and air quality networks



#### PurpleAir's plans for the future

- New outdoor sensor design
- VOC sensor add-on
- Ozone sensor
- PurpleAir map updates
- Next generation infrastructure
- Scaling





# **Thank You!**

