IoT - Preempt Mold & Fungus Damage Loss in Homes

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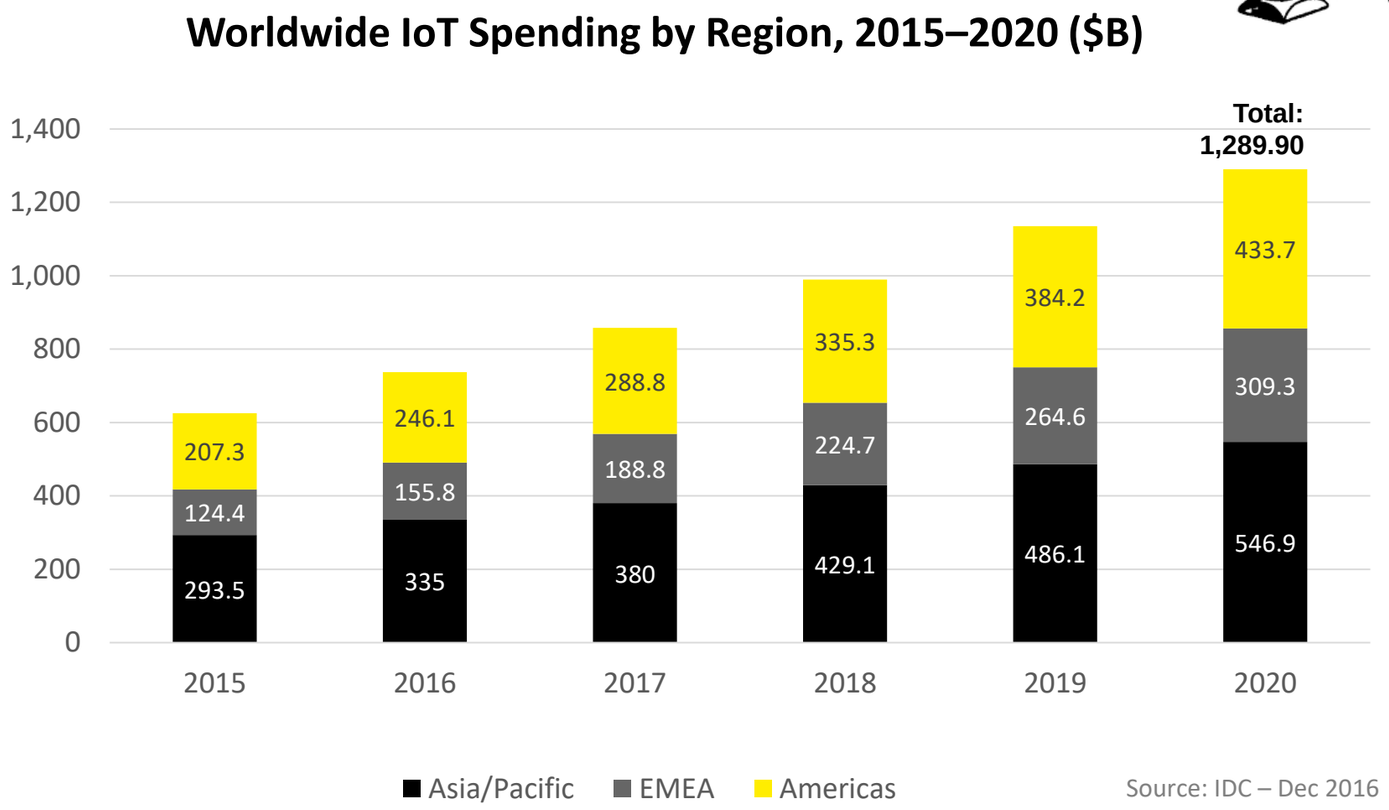
Agenda

- Overview – Importance of IoT to avoid Damages
- Mold & Fungus PoC
- Demonstration of working Solution using actual IoT Sensors/Devices
- Q & A



Home Owners Challenges

Due to Climate Changes Home/Buildings are affected with Mold & Fungus

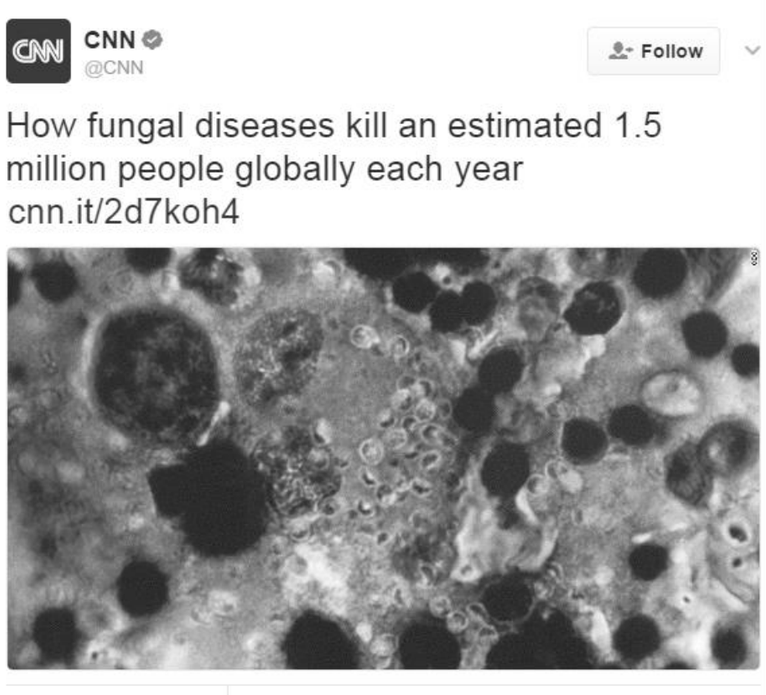
Limited predictive / preventive mechanisms is in place for any of the losses.

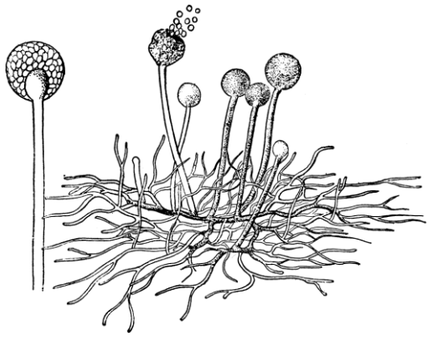
- Earthquake Loss - Use **Vibration sensors** to monitor the building foundation
- Mine Subsidence and Sinkhole loss - Use Vibration, **Displacement sensors**
- Forest fire detection - **Smoke/Fire detector**. Monitoring of combustion gases and preemptive fire conditions to define alerts.
- Water/Sewer Drain Loss - **Monitoring of flow, leaks , pressure, levels , load , strain**
- Windstorm; Hurricane; & Hail losses - Monitor using **Vibration sensors, GPS, weather forecast**.
- Mold or Fungus loss - Monitor **Humidity/Moisture sensors.**

Mold & Fungus: Business Case

Fungi kills an estimated 1.5 million people globally each year

- **2X Breast Cancer deaths**
- **Greater than Malaria deaths**
- **Same no. of deaths as Tuberculosis, HIV**

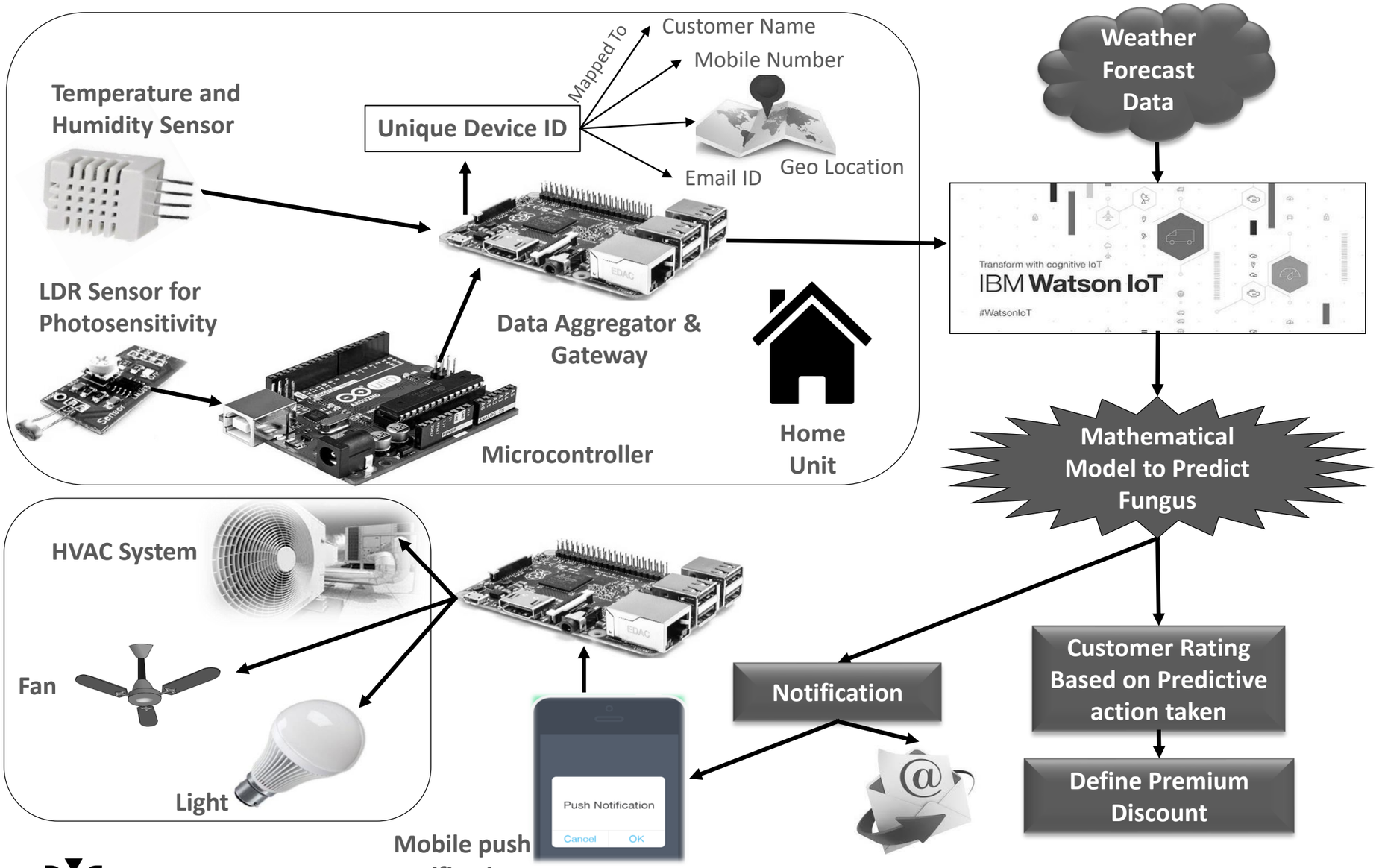




Mold and Fungus Issues

- Mold is a common type of fungus that thrives in moist, warm conditions.
- The spores they release causes illness to humans.
- Buildings get damaged due to fungus
- The growth of mold claims has been exponential in the past years
- Sizable mold claims are pending in the United States, particularly in Florida, California, Texas, and Arizona.

Mold & Fungus Prediction: High Level Solution



- **Pre-empt losses (thereby reducing claims) using Internet of Things (IoT) / Sensing technology through predictive and preventive modelling.**
- **Using IoT/sensing technology, data (moisture, humidity, temperature, Light Sensitive, etc.) will be collected, transmitted, stored, processed and visualized.**
- **“Anomaly detection” machine learning algorithm will be used to decide whether indoor situations are favorable for mold/fungi.**
- **Meaningful information gets shared with users on their mobile APP/ email inbox. The information will be used to pre-notify the users to take preventive measures to avoid any potential future loss.**

Mold & Fungus Prediction: Key Benefits

Benefits for Individuals/Govt/Insurance Companies and Healthy Life

Benefits for the insured

- Improved Health
- Safer buildings
- Discounts for following safety measures

Benefits for Insurer

- Overall cost Reduction thru lowering of claims
- Improved risk Assessment and underwriting
- Improved customer retention

Over to

Q & A

Thank you

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