Raspberry Pi in the Sky

Gail Good, Wisconsin DNR, Air Program Director
Katie Praedel, Wisconsin DNR, Air Monitoring Section Chief

Wisconsin DNR Air Monitoring Innovation

DNR Strategic Alignment

Network Efficiency

- Wisconsin's PM2.5 ambient air monitoring network is fully streamlined, reduced from 40 pieces of equipment to 20 collecting more data.

Leverage Technology to enhance work products and improve staff engagement

Wisconsin DNR Air Monitoring Innovation

Efficiency through Technology

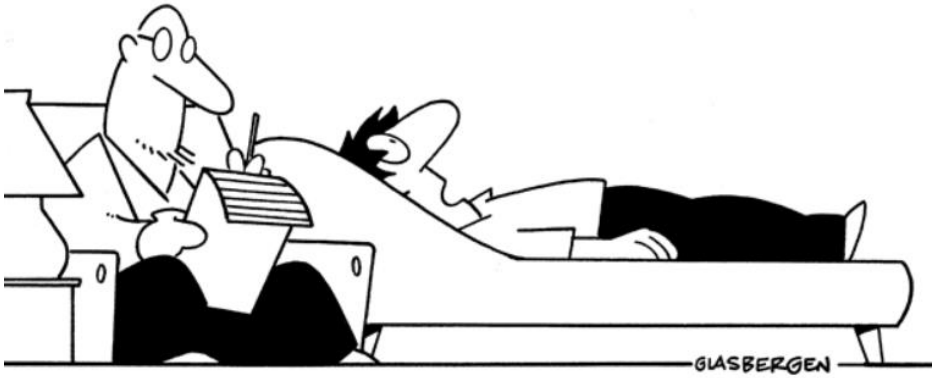
- Engineering Team
  - Strengths in our group – bringing ideas to coordinators and implementing change
  - Goals for data redundancy and consistency

- Statewide support and roll outs for new technology
  - Raspberry Pi's
  - Tablets – mobile apps

Wisconsin DNR Air Monitoring Innovation

Technology

- Monitoring data telemetry moving from Windows 7 Dell computers to Raspberry Pi microprocessors

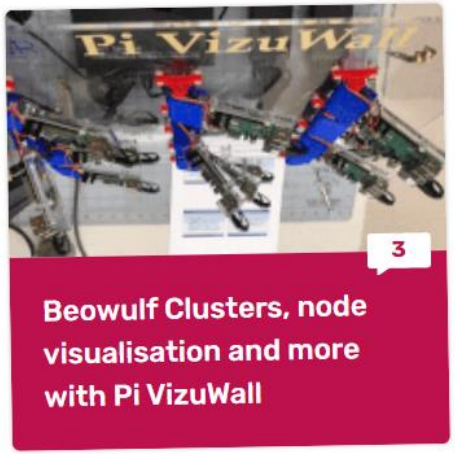


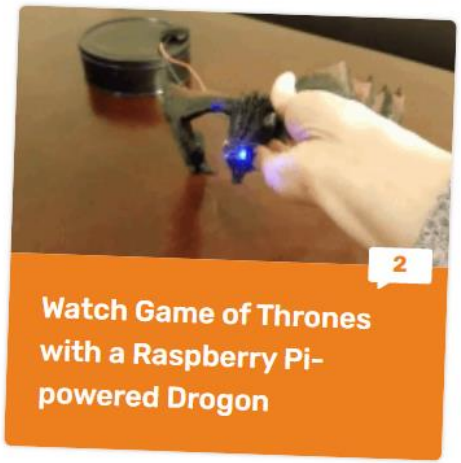
"No, I get along fine with my parents.
It's my motherboard that's driving me crazy!"

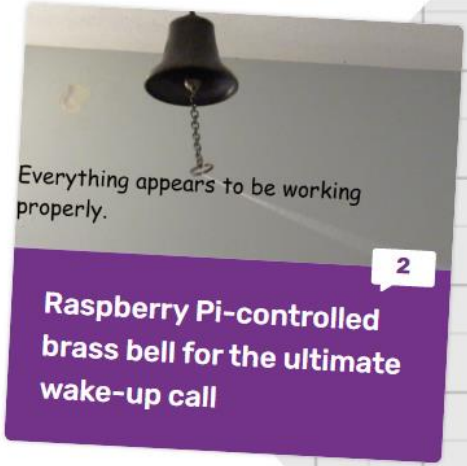
Wisconsin DNR Air Monitoring Innovation

Raspberry Pi

- Used in everyday applications
- Readily available (Target, Amazon)
- Uses a Linux (open source) operating system







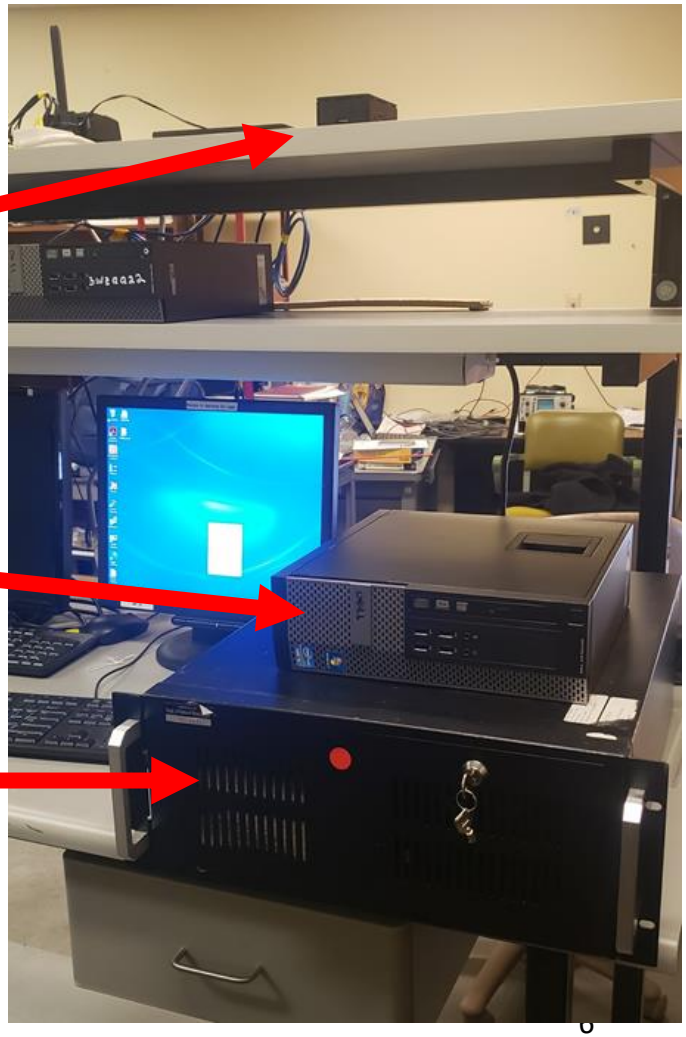
Wisconsin DNR Air Monitoring Innovation

- Technology expands, actual devices shrink.
- Size
- Cost

2020
$34.99

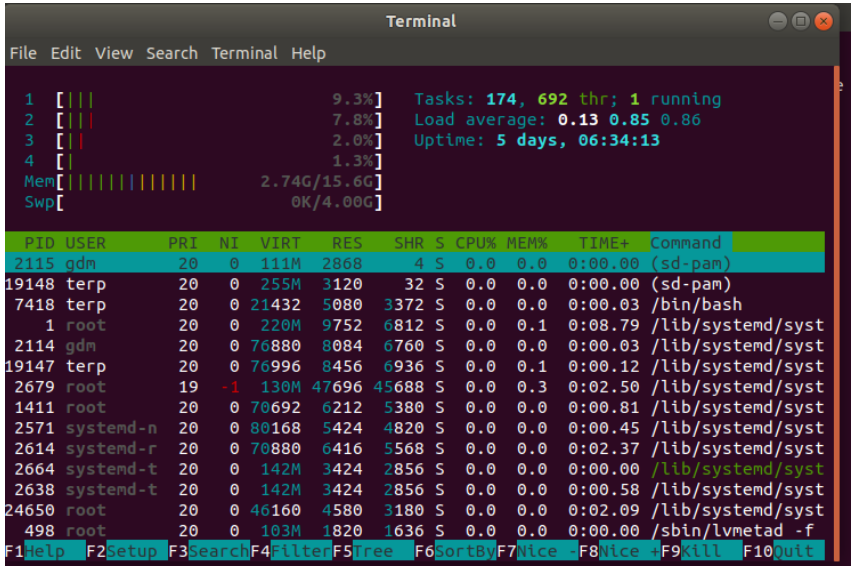
2015
$2000

2010
$4000



Wisconsin DNR Air Monitoring Innovation

- Cloning for new computer roll-out
- Transportable
- Security improvements



Questions?

Katie Praedel
Katie.Praedel@Wisconsin.gov
(608)259-6108