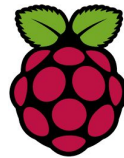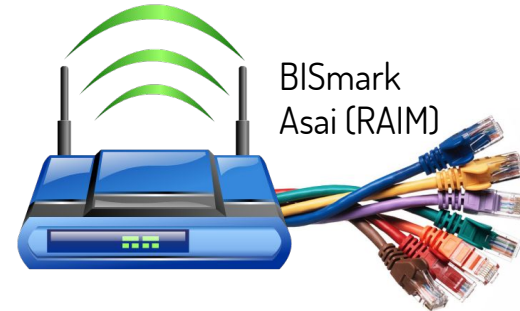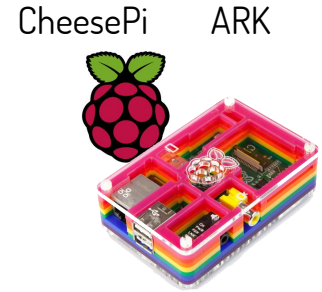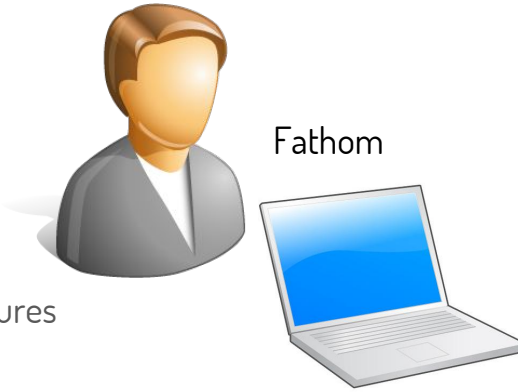# CheesePi: Swedish home network monitoring

Liam McNamara & Ian Marsh (SICS)
Sverker Forslin (PTS)

CheesePi

- Scandinavia is highly connected
  - But relatively unmonitored*
- CheesePi = SICS + Swedish regulator
- CheesePi nodes are:
  - Always on, always monitors & opportunistically measures
    & is quiet & cheap & plentiful ...
- Our prototype comprises:
  - Commodity hardware
  - Community software
- Hardware–based network monitoring:
  - A **R**eal **A**pplication of **I**nternet **M**easurement
  - Network (congestion) may introduce poor QoE
  - Poor QoE may indicate network congestion

Fathom

BISmark
Asai (RAIM)

*Body of European Regulators of Electronic Communications; Guidelines for quality of service in the scope of net neutrality, 2012

CheesePi direction

- Two main goals:
    a. **Quantifying** application layer problems in homes
    b. **Characterising** Swedish Internet, via:
        - Selective viewpoints
        - By ISP, geography or event
        - In an *unbiased* manner
- Some specific research questions:
    a. Shared infrastructure detection
    b. Collaborative coordination of Pis for larger network inference
- Community building:
    a. CheesePi = SICS + Swedish regulator + RAIMers + ...
- Additional information: http:
//cheesepi.sics.se