

# Towards Security in Distributed Home System

Jianxin Zhao

Supervised by Prof. Jon Crowcroft

University of Cambridge





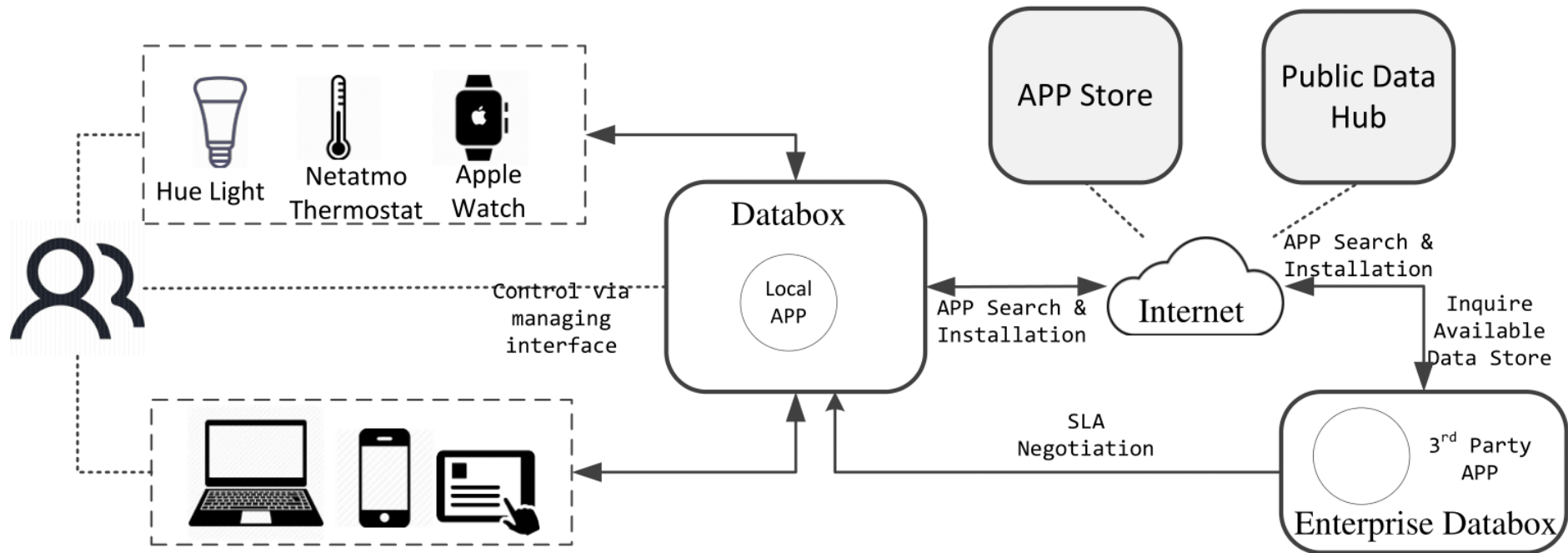
# Databox: Motivation

---

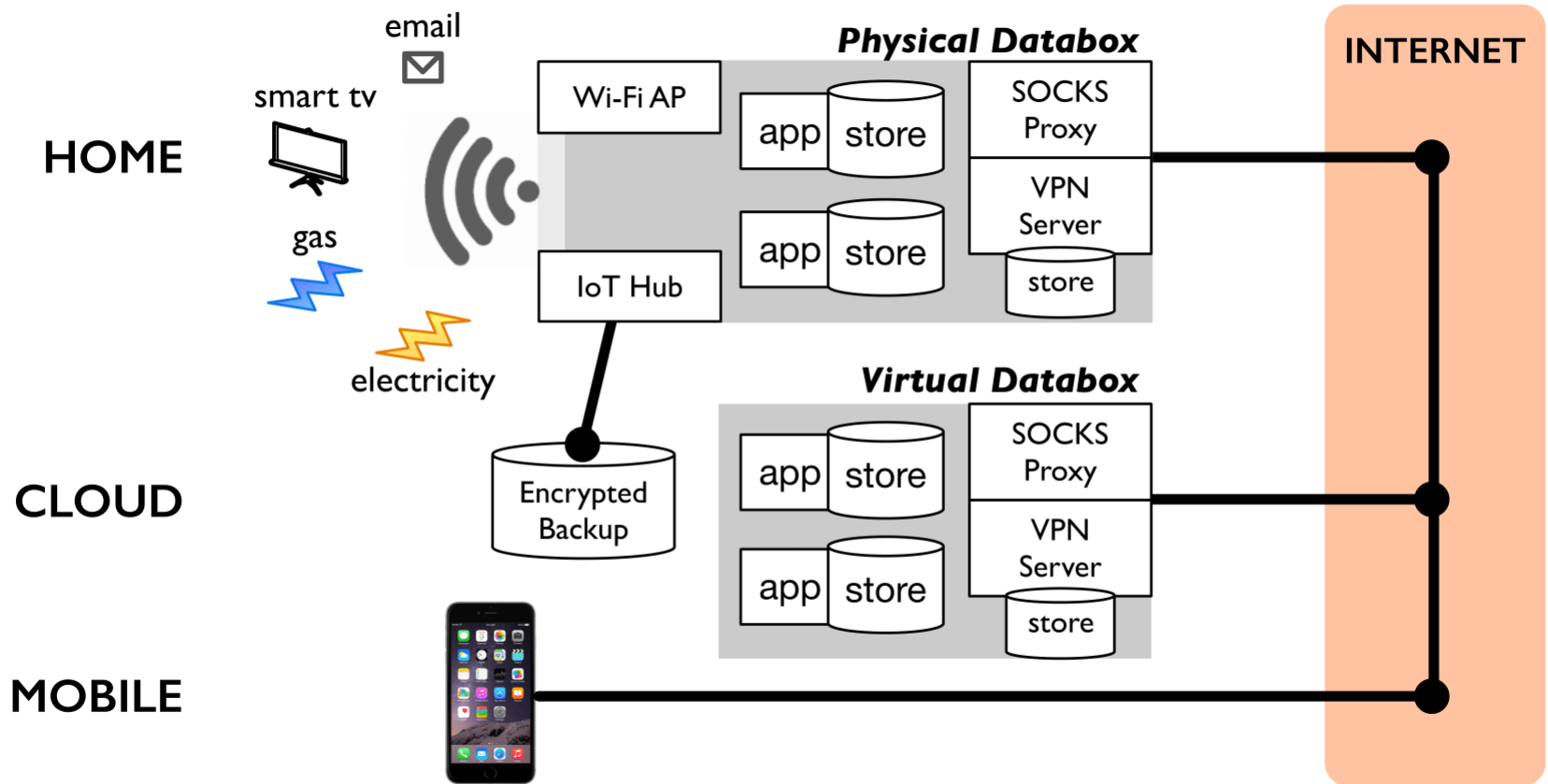
- Clear benefits to personal data collection, but...
- Scalability
- Privacy / legal issues
- Users' lack of legibility, agency, negotiability



# Databox



# My Work



# My Work

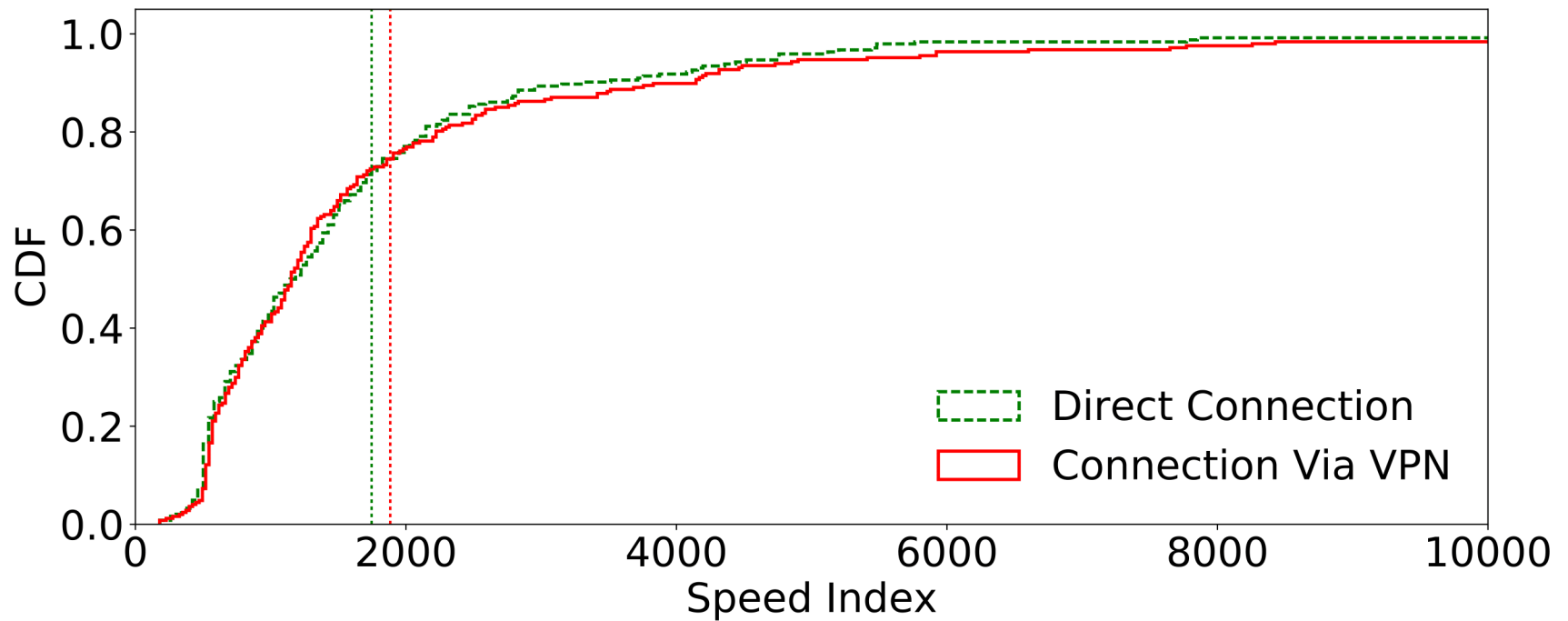
---

- Personal VPN for:
  - Remote user device access to Databox
  - Data sources
  - Secure data transmission
- Measurement
  - Impact of using VPN on user experience
  - An initial measurement of placing of services

# Measurement

---

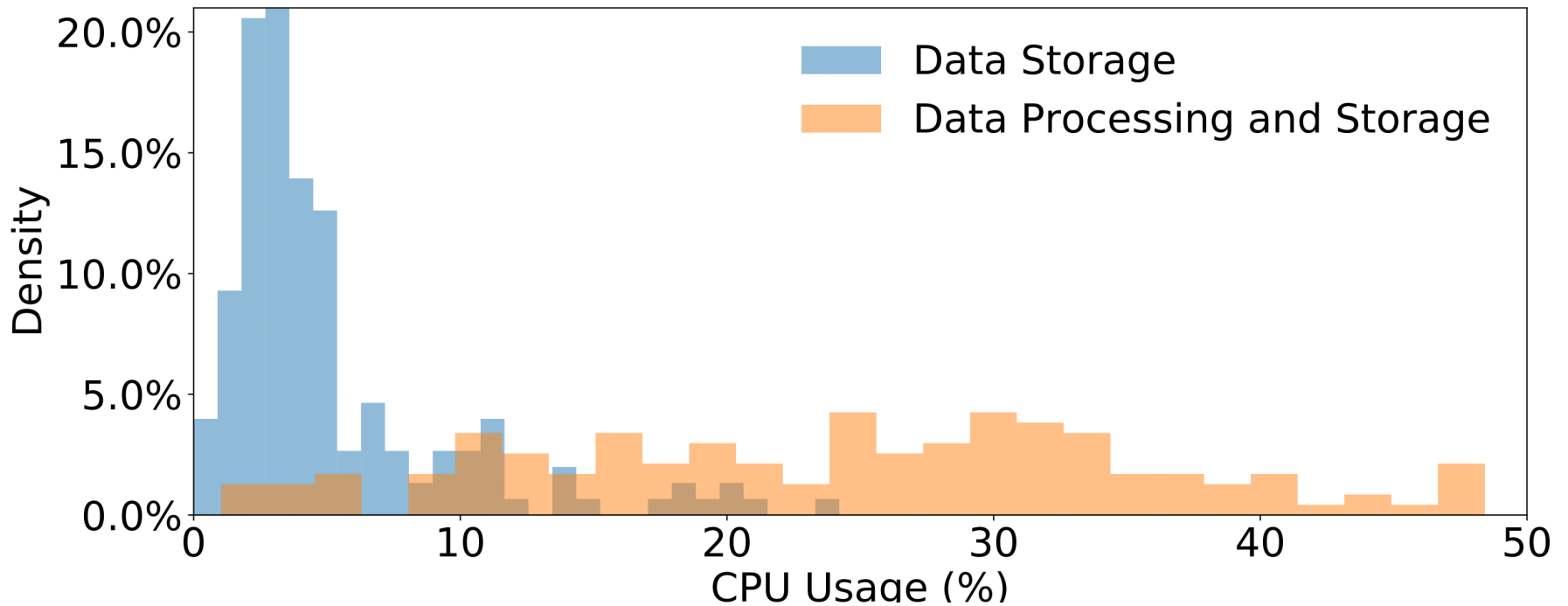
- Effect on user browsing experience



# Measurement

---

- Choices of placement of services





# Next Steps

---

- From current engineering work...
- Usability evaluation from HCI perspective
  - From lab controlled environment to in-situ deployment
- Service on resource-constrained hardware
  - Don't expect running Databox on a powerful machine

# Questions?

---

Email: [jz402@cl.cam.ac.uk](mailto:jz402@cl.cam.ac.uk)

Databox Project:

<http://forum.databoxproject.uk>

