Fachbereich Mathematik und Informatik
Institut für Informatik

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Trust Assessment of Smart Health Devices

Midterm presentation

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Plan

Introduction

Related work / References

Structure / Skeleton

List of references

Schedule

Open questions

Introduction

- IoT can directly impact people's health
  - Performance improvement, remote monitoring, self-management of chronic conditions...
- How to secure these devices?
- How to assess trust to Smart Health Devices?

Related work / References

- Challenge-response trust assessment model for personal space IoT
- Security and privacy mechanism for health internet of things

Even if trust has something to do with security and privacy, these are not the main concerns of my paper.

- Technologies and Architectures of the Internet-of-Things (IoT) for Health and Well-being

Same here.

- An Exploration of Organizational Issues of an Industrial Health and Safety Monitoring System

I dont go over organizational issues.

Structure / Skeleton

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1. Introduction / Motivation
2. Related Works (?)
3. Use cases of smart health devices (Breadth)
    a. Health Monitoring
        i. Wearable Health System
        ii. Smart Home (sensors to measure weight, light, temperature, the presence of gas or smoke, fall risk and moisture throughout the home)
    b. Smart Cards (previous care encounters, tests, and reports)
4. Trust in IoT (more than security)
    a. Trust Management
    b. Meaningful trust properties for smart health

Structure / Skeleton

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5. Risk and trust assessment of one of the presented devices (Depth)
    a. Trust evaluation
    b. Ensuring confidentiality of stored data
    c. Authentication, confidentiality and access control
    d. Securing data and communication
    e. Privacy Concerns
6. Summing up and open issues
7. Bibliography

List of references

- (Paper) A survey on trust management for Internet of Things
  - investigate the properties of trust
- (Survey) Security, privacy and trust in Internet of Things: The road ahead
  - Trust Management in IoT: Security and privacy important
  - Differents aspects like: data confidentiality and authentication, access control within the IoT network, privacy and trust among users and things, and the enforcement of security and privacy policies.
- (Article) Smart cards—the key to trustworthy health information systems
  - What are smart cards and why they are so important in managing health information
  - Previous care encounters, tests, and reports

Schedule (4 weeks until alpha)

1st week
Chapter 1-3

2nd week
Chapter 3-4

3rd week
Chapter 5-6

4th week
Finishing up

Open questions

- Related works chapter?
- May come to way more than 12 pages.
  - Remove some chapters?