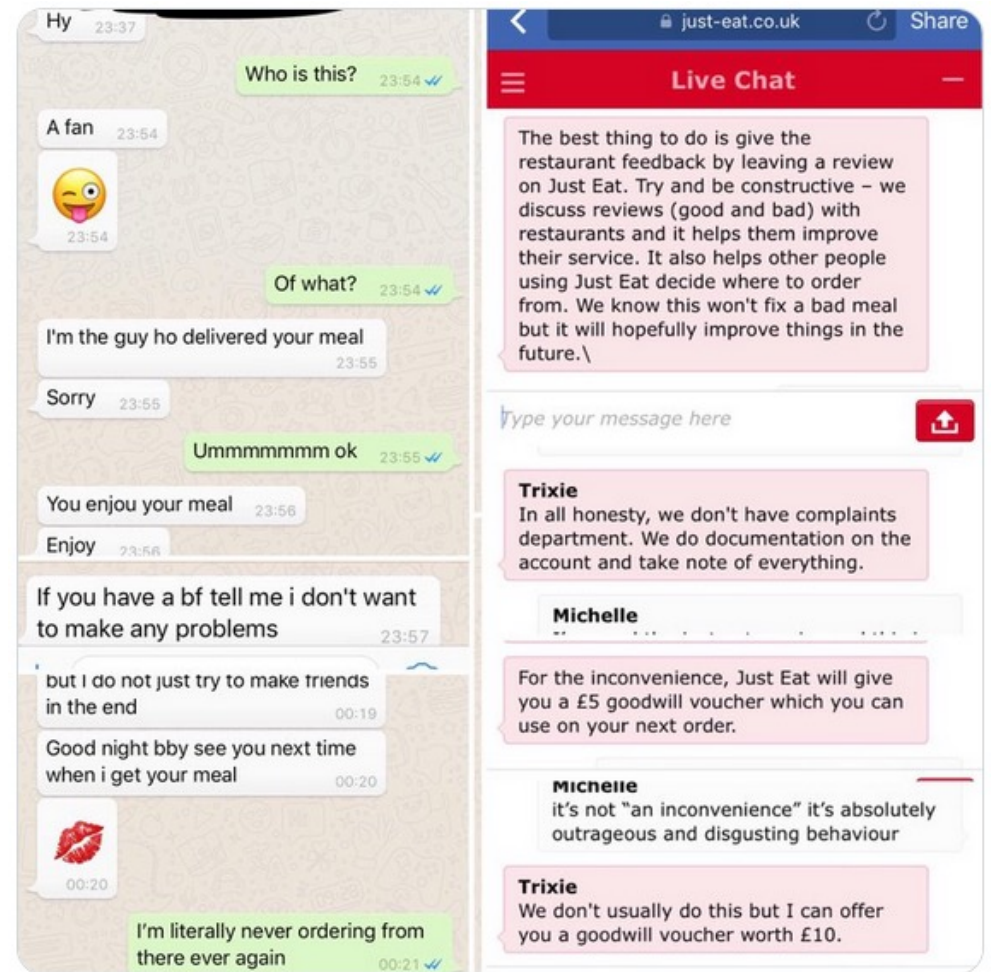**Michelle Midwinter**
@ShelbyTree

Just a snippet of Just Eat's response to my receiving unsolicited messages from the guy who had just delivered my food. Nice one Just Eat! Apart from him using my number in this way surely being in breach of privacy laws etc, they don't really seem to take it seriously do they??

twitter.com

---

Hy 23:37

Who is this? 23:54

A fan 23:54

😜
23:54

Of what? 23:54

I'm the guy ho delivered your meal
23:55

Sorry 23:55

Ummmmmmm ok 23:55

You enjou your meal 23:56

Enjoy 23:56

If you have a bf tell me i don't want to make any problems 23:57

but I do not just try to make friends in the end 00:19

Good night bby see you next time when i get your meal 00:20

💋
00:20

I'm literally never ordering from there ever again
00:21

twitter.com

---

🔒 just-eat.co.uk    ↻   Share

**Live Chat**    —

The best thing to do is give the restaurant feedback by leaving a review on Just Eat. Try and be constructive – we discuss reviews (good and bad) with restaurants and it helps them improve their service. It also helps other people using Just Eat decide where to order from. We know this won't fix a bad meal but it will hopefully improve things in the future.\

Type your message here

**Trixie**
In all honesty, we don't have complaints department. We do documentation on the account and take note of everything.

**Michelle**

For the inconvenience, Just Eat will give you a £5 goodwill voucher which you can use on your next order.

**Michelle**
it's not "an inconvenience" it's absolutely outrageous and disgusting behaviour

**Trixie**
We don't usually do this but I can offer you a goodwill voucher worth £10.

HM▪

# Prevention of abuse of telephone numbers

Privacy Engineering WiSe2023

# Agenda

- **1. Background**
  - 1.1 Who is using the app
    - 1.2 Status quo

- 2. Concept

  - 2.1 VOIP
  - 2.2 Phone-Proxy
  - 2.3 Pros and Cons
  - 2.4 Consolidation

- 3. Q & A

HM

# 1. Background

## 1.1 Who s using the app?



Teenager

Elderly people

People who just want to feel a little safer

People who have already been victims

# 1. Background

## 1.2 Status quo

- Yet the security guards are using mostly private phones.

- In order to be sure that a situation is riskfree after an alarm has been stopped, the security guards should attempt to call the client to make sure of it.

- Yet the real phone number of the client will be stored in the call history and it is therefore outside the appcontext.

- Yet also the client receives the private phone number of the security guard.

HM

# 2. Concept

- 1. Pseudonymization (Anonymization) of users
    - Using a UUID / virtual numbers.

- 2. Call forwarding
    - Server coordinates the connection between users.

- 3. Encryption
    - Use of strong encryption.

- 4. Logging and data privacy
    - No call data or personal information is stored or passed on to third parties.
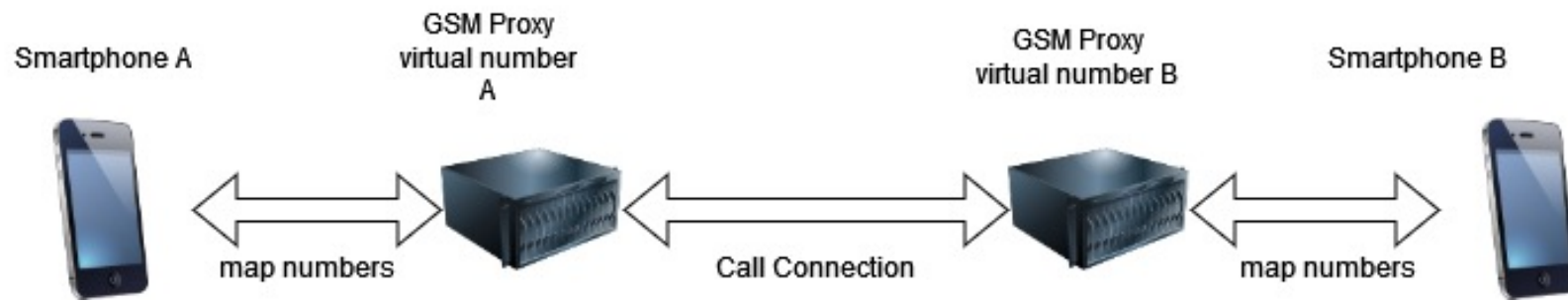
HM

# 2. Concept

## 2.1 VOIP (Voice over IP)



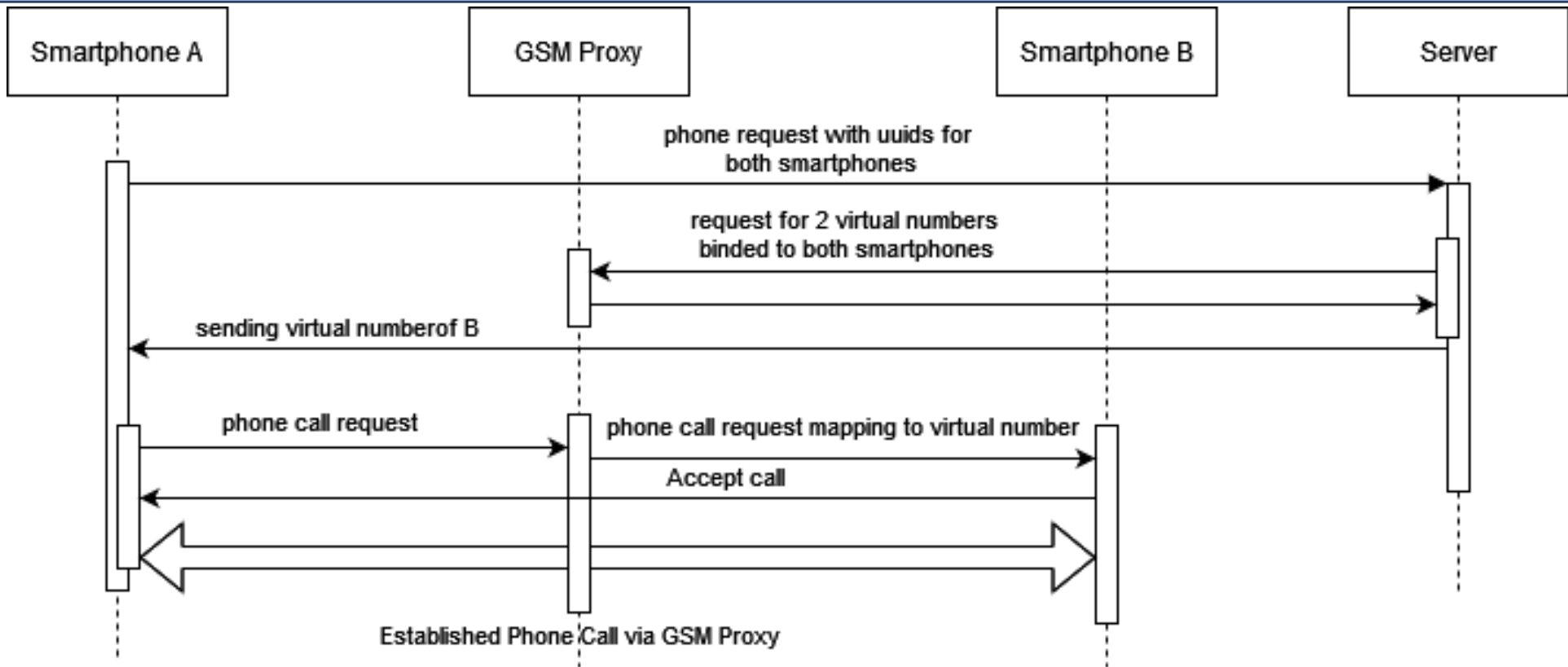Smartphone A        Server        SmartphoneB

Established VOIP Connection
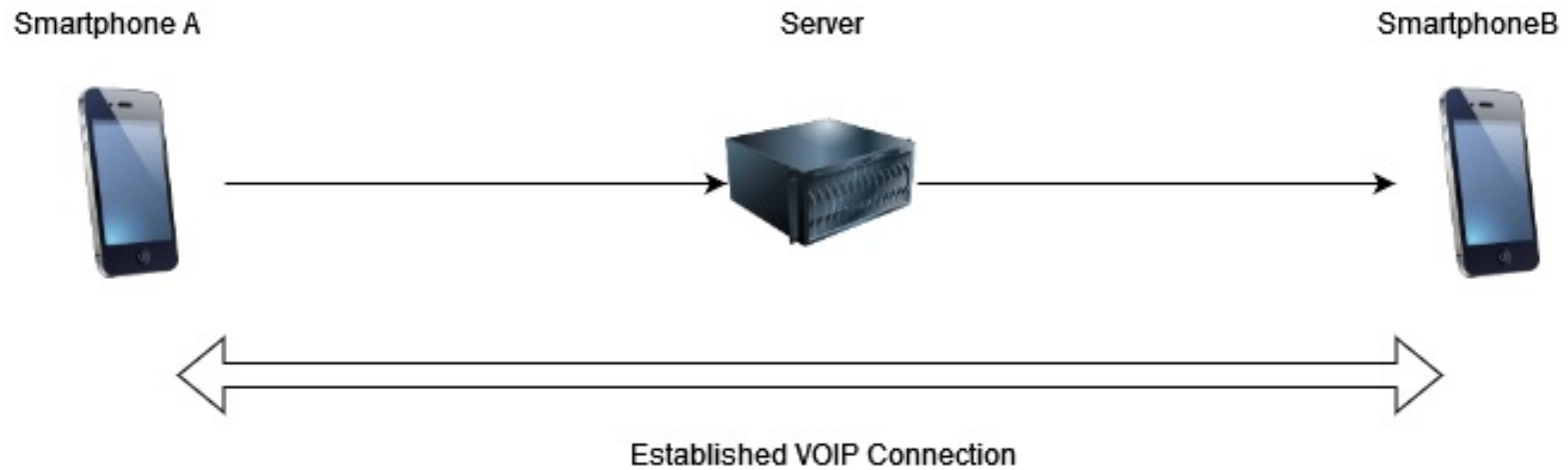
# 2. Concept

## 2.1 VOIP - Sequence
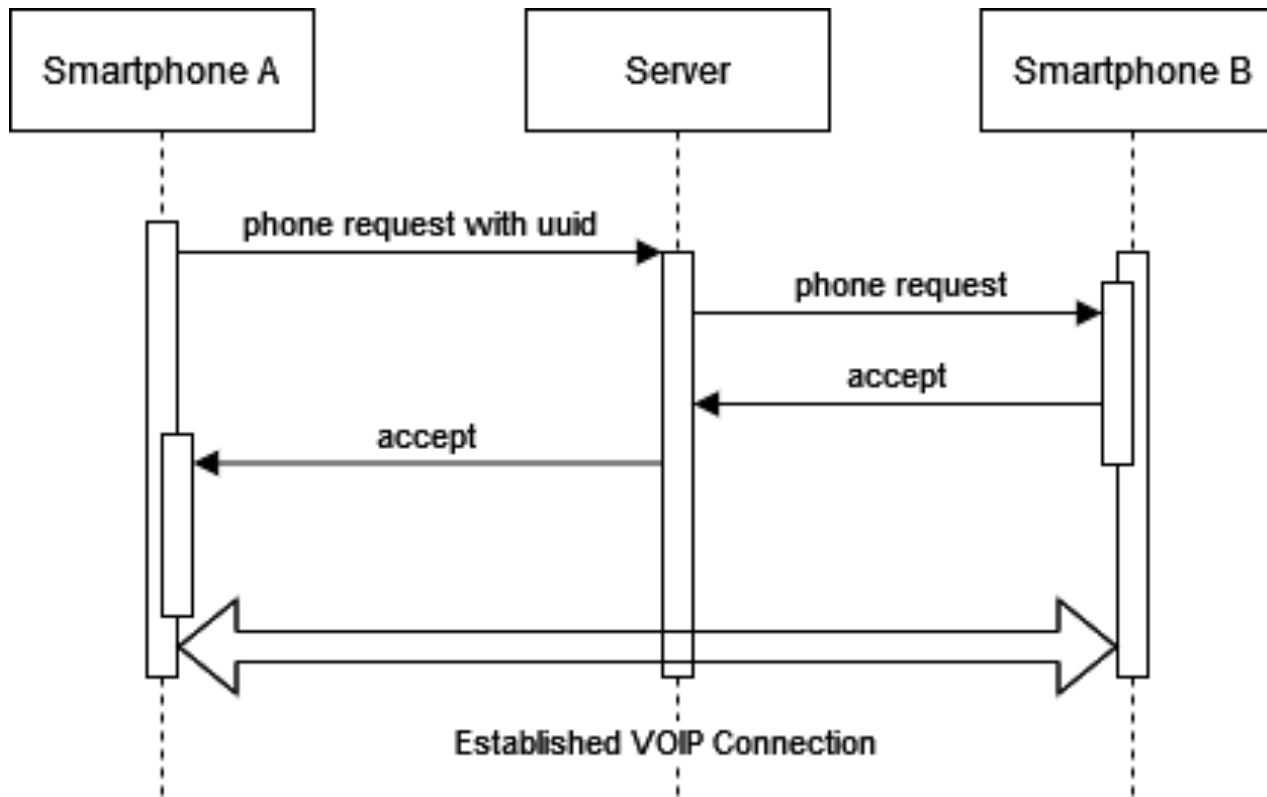
# 2. Concept

## 2.2 Phone-Proxy

# 2. Concept

## 2.2 Phone-Proxy Sequence

# 2. Concept

## 2.3 Pros and Cons

### VOIP

Pros:
- No external company required
- Sovereignty over all data
- Few additional operating costs

Cons:
- Good internet connection is required
- Functional responsibility

### Phone-Proxy

Pros:
- even poor connections are sufficient
- Less functional responsibility

Cons:
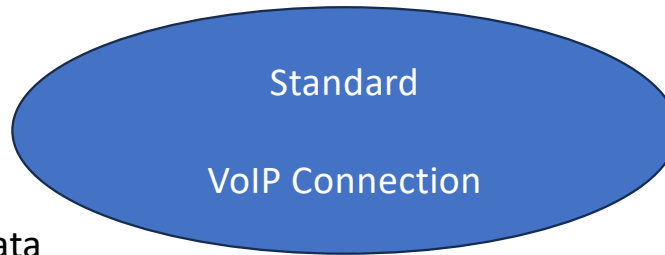- External company is required
- Additional operating costs
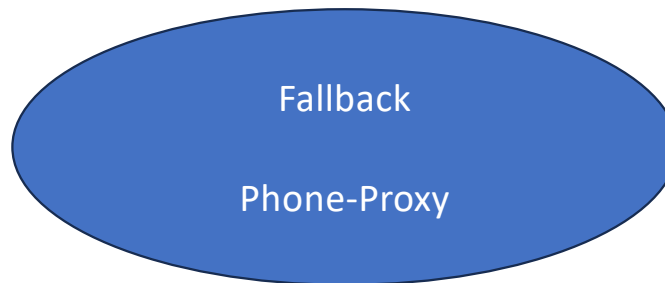
HM

# 2. Concept

## 2.4 Consolidation

Generally few operating costs

Generally sovereignty over all data

Increased availability

**Standard**

**VoIP Connection**

Weak connection

**Fallback**

**Phone-Proxy**

HM

# 3. Q & A