COVID EXPOSURE NOTIFICATION OUT IN THE OPEN

An Open Implementation of the Google/Apple Exposure Notification Protocol

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1. Alice and Bob meet
   Their phones exchange frequently changing anonymous identifier beacons

2. Bob is positively diagnosed
   With Bob's consent, his phone uploads the last 14 days of keys for his broadcast beacons to the cloud

3. Alice receives a warning
   Alice's phone periodically downloads beacon keys of everyone who tested positive in her region; a match is found with Bob's anonymous beacons

Apps can only get more information via user consent

Anonymous identifier keys are downloaded periodically

A match is found
CONTRAC

Contrac app

Scanning and sending

TeleTAN entry
WORKING WITH GOOGLE AND APPLE

A great job with the design, specs, API but no collaboration

1. No direct interaction
2. Specs provided early
3. The promised test data never materialised
4. Relevant code not released until too late
5. Nevertheless, the specs were good enough to implement
Overall experience of working with SAP was mixed

1. GitHub issues were worked through, but slowly
2. Code was left broken, even with PRs available
3. Reference implementation often differed significantly from reality
4. The commitment to openness was genuine
5. The team were trying but overwhelmed
REFLECTIONS

1. A huge challenge for governments and organisations
2. Need for speed, effectiveness and openness
3. Google, Apple and the CWA team got this in theory
4. Scope for improvement in practice
5. Information flowed outwards, little flowed inwards
6. More generally, lack of appreciation of open source development model effort
FURTHER INFO

Sailfish OS  https://sailfishos.org

Contrac  https://github.com/llewelld/harbour-contrac

GAEN spec  https://www.google.com/covid19/exposurenotifications

Covid Warn App  https://github.com/corona-warn-app

Linux on Mobile  Building K, upstairs