# Latest IRMA developments

Surfnet, Utrecht

Sietse Ringers 3 november 2017



#### Overview

- \* Redesigned IRMA app for iOS
- \* Newly available attributes
  - \* Mobile phone numbers
  - IBAN numbers (soon)
- \* IRMA attribute-based signatures plans



#### IRMA on iOS

- \* Platform-independent (mostly)
  - \* Android-version will eventually replace current Android app
- \* Redesigned, more friendly graphical interface
  - \* Future version will include Dutch translations
- \* Consists of two parts:
  - \* IRMA engine written in Go
  - \* Graphical interface in React Native
- \* Thanks to Maarten Everts and Tomas Harreveld!



# Mobile phone number attribute

- \* Via: <a href="https://privacybydesign.foundation/issuance/">https://privacybydesign.foundation/issuance/</a>
  - \* choose mobile phone number issuance
- \* Provide your (Dutch) mobile phone number
  - \* a text (SMS) message is sent to this number free of charge
  - \* it contains both a code and a link
  - either of them generates a QR-code for issuing the number
- \* Service is experimental, via foundation's own sms server
- \* Thanks to student-employee Ayke van Laethem!



### Planned: IBAN attribute

- \* Foundation has subscribed to iDeal for online payments
- \* Procedure for obtaining IBAN attribute:
  - transfer €1 to foundation's bank account via iDeal
  - foundation receives confirmation message ("F-bericht")with name of bank account holder and IBAN number
  - 3. The foundation then issues these data as attributes
- \* Combined iDeal + iDIN issuance
  - after the "free-of-charge" iDIN pilot period is over
  - \* the foundation basically passes on the bank's charges



### IRMA attribute-based signatures

- \* IRMA attributes cryptographically attached to a message
- \* Examples:
  - \* attach your "I am a teacher" attribute to student grades
  - \* Attach your IBAN attribute to "I transfer €10,- to S. Ringers"
- \* A subproject has started to make a signature ecosystem
  - work done jointly with Alliander



### IRMA attribute-based signatures

- \* Cross-platform desktop application for making "IRMA signature requests"
- \* Workflow:
  - \* You choose:
    - \* a text, to be signed flat text at first
    - \* a list of attributes to be included
  - \* the request is sent, as email attachment, to the signer
  - clicking on the attachment opens the IRMA app for signing
  - \* the requester gets a copy, and the signer retains one
- \* Long term strategy: authentication for free, signing via subscription



### Audience feedback/input

- \* Suggestions for additional IRMA attributes?
- \* New verification/deployment options?
  - current pilots in preparation in education and health care
- \* Volunteers for signature contribution/evaluation?
- Any other feedback . . .

\* Stay informed: <a href="https://twitter.com/IRMA">https://twitter.com/IRMA</a> privacy

