Quick introduction to IRMA and overview of new developments

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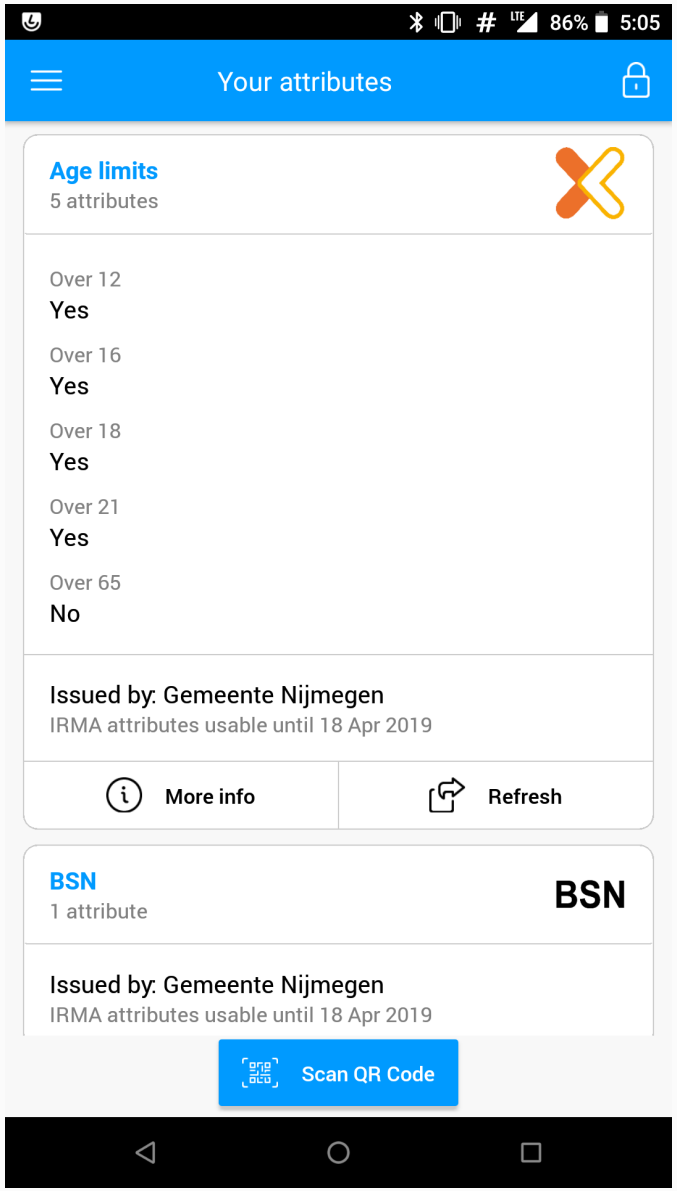
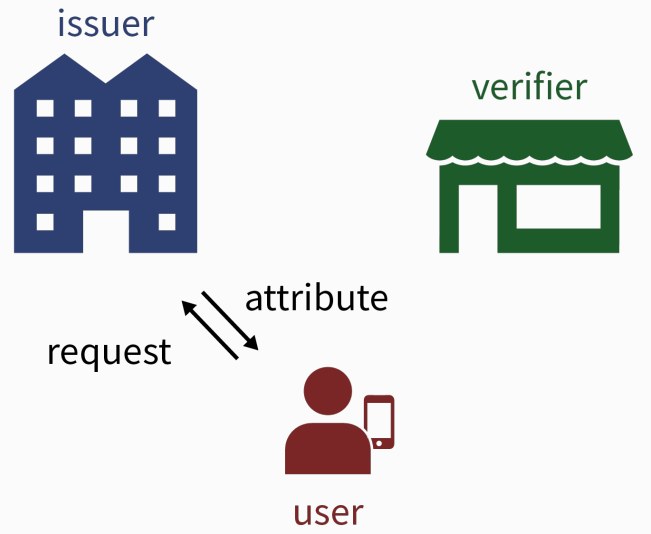
Privacy by Design Foundation

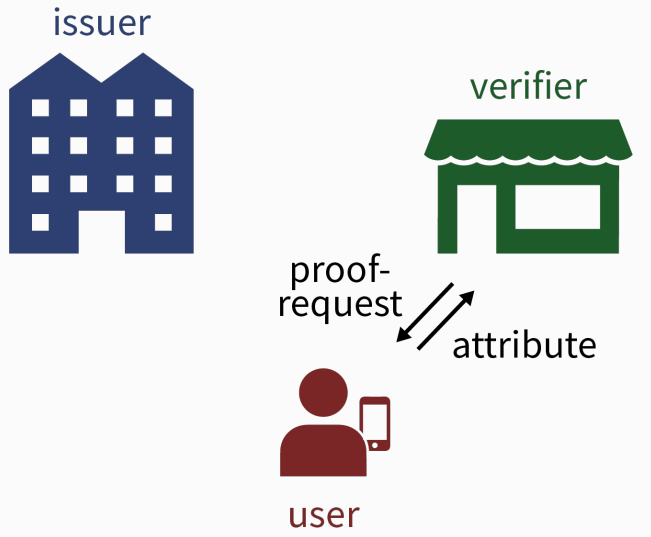
March 8, 2019

(Re-)introduction to IRMA



- Attributes instead of identity
- Collected by user
- Attributes are digitally signed by trusted issuer
- Identifying (name) or not (> 18)
- Multiple disclosures are unlinkable
- Decentral: attributes are stored only on phone
- IRMA PIN to unlock app & attributes
- Free and open source





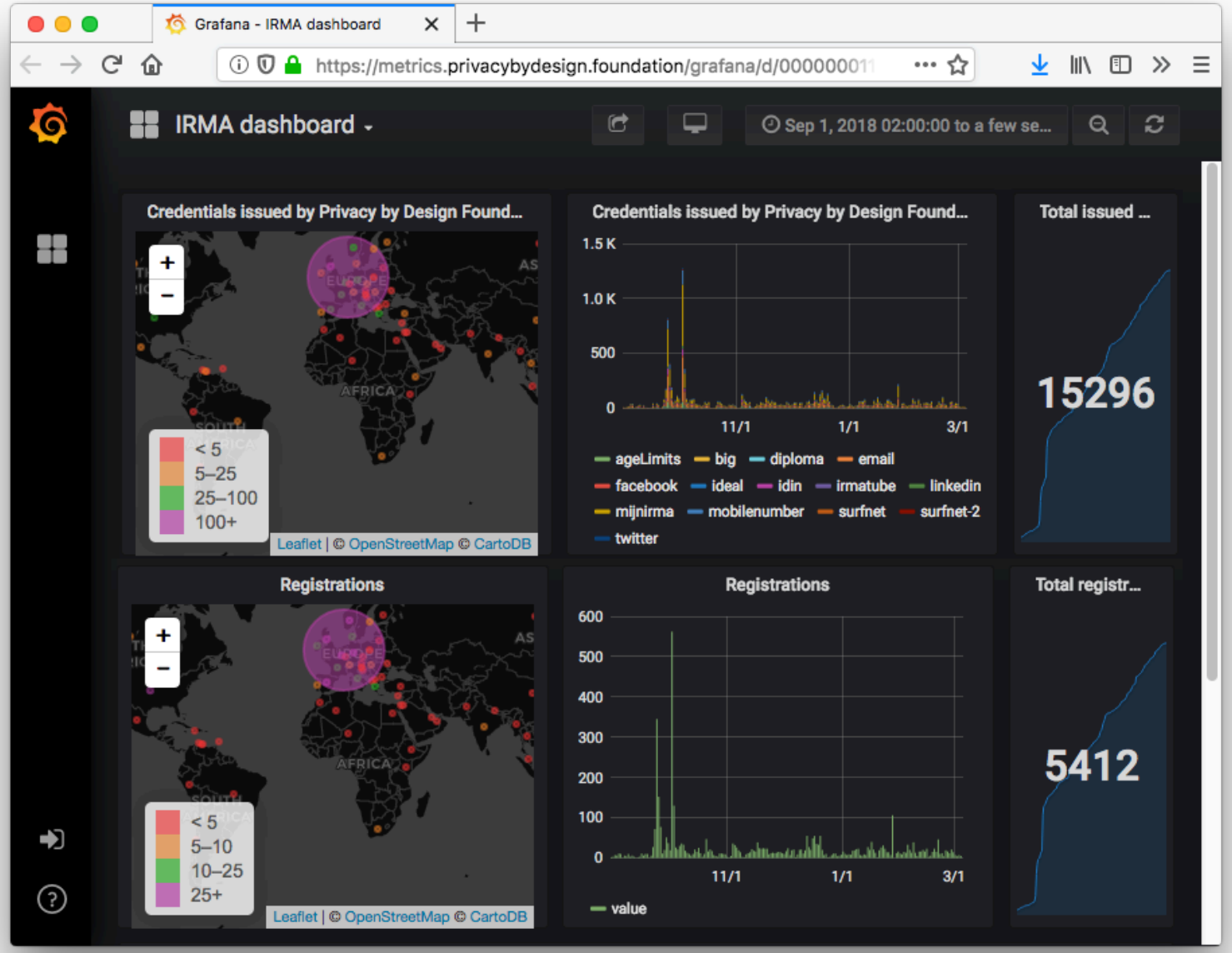
Awards

- Dutch Privacy award 2018
- Stichting Privacy First

- Brouwer award 2018
- Koninklijke Hollandse Maatschappij der Wetenschappen

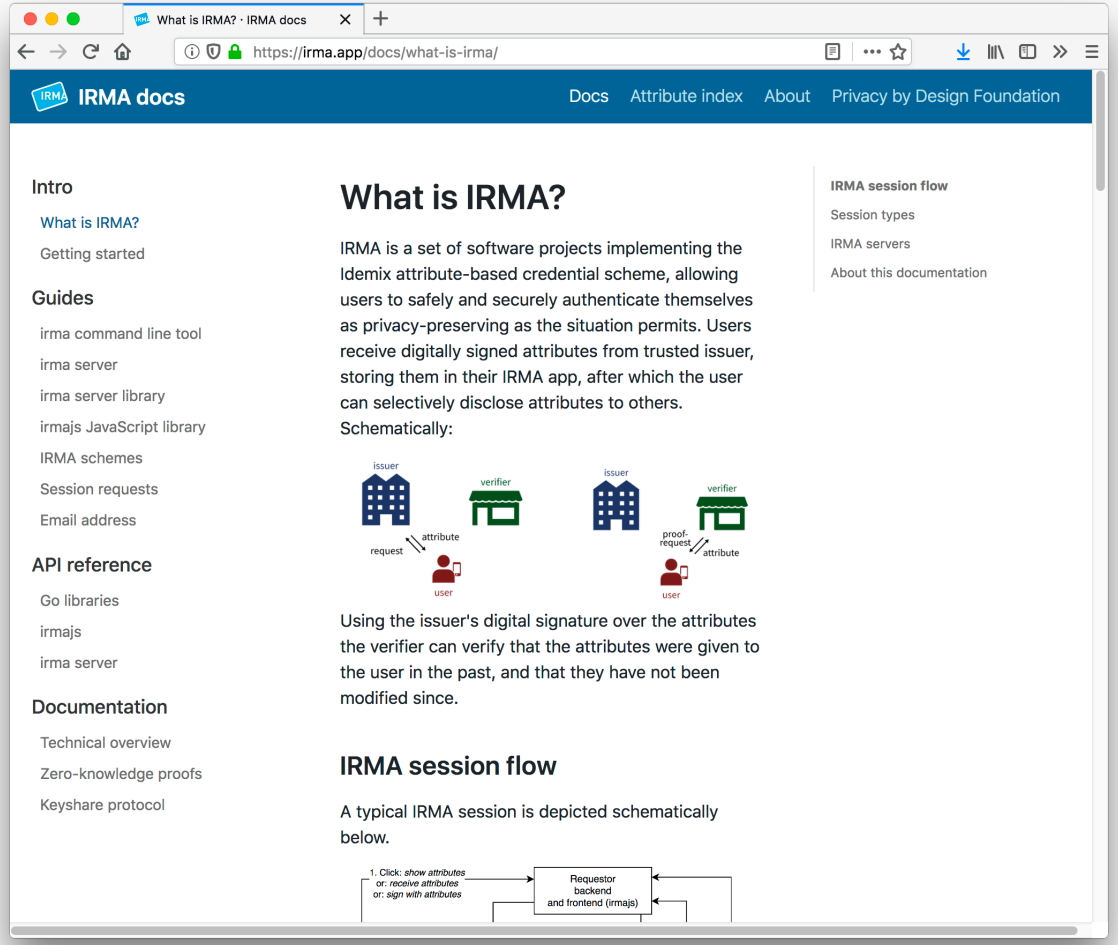
- Internet Innovation Award 2019
- Internet Society Nederland

IRMA usage


Grafana - IRMA dashboard
https://metrics.privacybydesign.foundation/grafana/d/000000011
IRMA dashboard
Sep 1, 2018 02:00:00 to a few se...
Credentials issued by Privacy by Design Found...
< 5
5–25
25–100
100+
Leaflet | © OpenStreetMap © CartoDB
Credentials issued by Privacy by Design Found...
1.5 K
1.0 K
500
0
11/1
1/1
3/1
ageLimits
big
diploma
email
facebook
ideal
idin
irmatube
linkedin
mijnirma
mobilenumber
surfnet
surfnet-2
twitter
Total issued ...
15296
Registrations
< 5
5–10
10–25
25+
Leaflet | © OpenStreetMap © CartoDB
Registrations
600
500
400
300
200
100
0
11/1
1/1
3/1
value
Total registr...
5412

IRMA for developers

- Releasing new IRMA server, related software, and documentation
- Focus on developer friendliness
  - Easy to understand and use
  - Conventional and modern API familiar to developers
  - Dropping legacy
  - Accompanying technical documentation: https://irma.app/docs



New IRMA software

- `irma:` a single command line tool IRMA scheme mgmt, key generation, session testing, and more
- `irma server:` IRMA server subcommand
  - Easy to install (single binary) and experiment with
  - Easy to configure; default configuration immediately usable
  - More versatile; developer-friendly API
  - Better and more logging
  - More efficient/scalable
  - Also available as Go library; other languages will follow
- New JavaScript library `irmajs`
  - Modern JavaScript with smaller/simpler API
- IRMA developer documentation: https://irma.app/docs

Projects and collaborations

- Healthcare sector:
  - Ivido
  - Nuts
  - VGZ
- Municipalities:
  - Whitelabel BRP attribute issuance
  - Nijmegen: fill form with attributes & call-me-back IRMA signatures
  - Haarlem, Almere, Leiden: dashboard in city hall issuing passport attributes (eIDAS high)
  - Haarlem: log in with IRMA
- SIDN

More information

- Website: https://privacybydesign.foundation
- Source code: https://github.com/privacybydesign
- Technical docomentation: https://irma.app/docs
- IRMA Slack (ask for invite)
- Twitter: https://twitter.com/irma_privacy