Trust and Identity

*Infrastructure Services Above the Network*

Ann Harding, SWITCH/GÉANT

UbuntuNetConnect 2014
e-Research in the 21st Century

Source: Professor David De Roure, Professor of e-Research at University of Oxford
At @CERN, "a single paper can easily have 3,000 authors" - @RHDijkgraaf

ec.europa.eu/commission_201 ... 
#opendigitalscience #EUDigitalMinds #research

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4:51 PM - 30 Oct 2014

Distributed Data
Distributed Users

CC BY-NC-ND 4.0, http://genomicsandhealth.org/news-events/events/october-18th-meeting-presentations
Are we ready?

Benedict Evans
@BenedictEvans

The user ID/password/login model that worked well for CS professors in the 1970s is not scaling well to billions of people online.
The Flow of Trust

Home Organisation

Federation

User

Service

Service Provider
eduroam
Open your laptop and be online
help@eduroam.org
join@eduroam.org
eduroam
Operating safe wireless access, scalably

Welcome to eduroam CAT
eduroam Configuration Assistant Tool
View this page in Catalan Deutsch English (GB) Español Euskara Français Galego Hrvatski Italiano Nosk Polski Português Slovenčina Slovenščina Srpski Suomi

Selected institution: SWITCH | select another

If you encounter problems, then you can obtain direct assistance from your home organisation at:
email: info@switch.ch
tel: +41 44 266 1530

Choose an installer to download

- MS Windows 8, 8.1
- MS Windows 7
- MS Windows Vista
- MS Windows XP SP3
- Apple Mac OS X Mavericks
- Apple Mac OS X Mountain Lion
- Apple Mac OS X Lion
- Apple iOS mobile devices
- Linux

eduroam CAT – Release CAT-1.0.4 © 2011-13 DANTE
Ltd. on behalf of the GR3 and GR3plus consortia

European Commission Communications
Networks, Content and Technology

Alex O’Connor
@uberalex

Just another word to say that @eduroam is awesome. Grateful for the normally-thankless work of probably 100s of admins in many places.

11:08 AM - 12 Mar 2014
eduroam
Open your laptop and be online …anywhere?

https://wiki.terena.org/display/H2eduroam/Appendix+D+eduroam+along+with+commercial+hotspot+system
eduroam
Open your laptop and be online …anywhere!

https://wiki.terena.org/display/H2eduroam/How+to+deploy+and+promote+eduroam+for+events
Building out eduroam – the basics

International
- International strategy & business case
- Offer Top Level Roaming Service (not essential)
- 1-2 VMs, open source radius
- Supporting services – e.g. cat.eduroam.org

National
- National strategy & business case
- National roaming infrastructure
  - 1-2 VMs, free software
  - Support and training
- Cookbooks available https://wiki.terena.org/display/H2eduroam/How+to+deploy+eduroam+at+national+level

Campus
- WIFI deployments
- Service Provider deployment
- User management
- Identity Provider deployment
- Cookbooks available https://wiki.terena.org/display/H2eduroam/How+to+deploy+eduroam+on-site+or+on+campus
eduGAIN – a global interfederation service

MDS fetches, aggregates and republishes metadata
eduGAIN provides policy framework to build trust
How do federations build trust?

**PROCESS**
- Register Member
- Register ‘Entities’
- Publish ‘Entities’

**TRUST**
- Sign Policy
- Verify Data
- Sign Metadata

**THAT’S IT.**
Federated Identity Benefits
*The world of eduGAIN*

- **User Friendly**
- **Reduces Work**
- **Simplifies Adding Services**
- **Provides Current Data**
- **Insulation from service compromises**
- **Minimize attack surface area**
Federations
The Power of Collective Trust

Infrastructure to support collective service delivery
  - E-Learning platforms
  - Journals
  - Cloud providers

Infrastructure to maintain the privacy and integrity of users and citizens
  - Users are not the product

Infrastructure to reach out globally
  - Bring users to global services
  - Bring services to global users

Federation development contact@refeds.org
eduGAIN & GÉANT edugain-ot@geant.net
Building out eduGAIN/Identity Federation – the basics

National/International
- Develop & operate a federation policy
- Operate infrastructure
  - 1-2 VMs, free software
  - GÉANT FaaS model
- Support and training
  - Campus & Service providers
- Join eduGAIN

Strategy, People and Skills

Campus
- User management
  - Identity Provider deployment
  - Free software, shibboleth, simpleSAMLphp
- Support/require enabling services
  - Library Services
  - Campus services
  - Health
  - Journal providers
I am because we are.

...Ubuntu is not just a philosophy – it is a way of life that defines the relationship of the individual to the community and vice versa …

- F F Tusubira