Architectures
User Freedoms
Live Space

KWLUG
January 2021 talk
Live Spaces

A message from George (T)Orwell: https://www.youtube.com/watch?v=o66FUc61MvU
Architecture that breeds Digital Feudalism
Digital Feudalism

Computation on server gives someone else total, abusive feudal control over users’ digital lives.
Digital Feudalism

Computation on server gives someone else total, abusive feudal control over users’ digital lives.

- Someone else owns your data
- Someone else controls your Business
- Someone else controls your Life
- You never have intimacy
Digital Feudalism
Architecture for Data Ownership
Data Ownership

Computation on client sides returns data ownership to users

Digital Feudalism

Data Ownership

Data

Data

Data

Cipher

Cipher

Cipher
Data Ownership

Computation on client sides returns data ownership to users

Server still looks too centralized, too monopolistic
Data Ownership

- You own your data
- You have data privacy

Server still looks too centralized, too monopolistic

Computation on client sides returns data ownership to users
Data Ownership

Computation on client sides returns data ownership to users

- You own your data
- You have data privacy
- Monopolistic provider may create problems or may get into problem

Server still looks too centralized, too monopolistic
Data Ownership

Digital Feudalism

Data

Cipher

Data

Cipher

WTF AUSTRALIA
Architecture for Digital Freedom
Web style federation:
  a) ensures choice of utility providers
  b) reduces surveillance
Federation revisited: classical federation
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All networks are equal. But some networks are more equal than others.
Federation revisited: false choice?

Reflections: The ecosystem is moving
moxie0 on 10 May 2016

At Open Whisper Systems, we’ve been developing open source “consumer-facing” software for the

Stuck in time

In some circles, this has not been a popular opinion. When someone recently asked me about federating an unrelated communication platform into the Signal network, I told them that I thought we’d be unlikely to ever federate with clients and servers we don’t control. Their retort was “that’s dumb, how far would the internet have gotten without interoperable protocols defined by 3rd parties?”

On Privacy versus Freedom

2020-01-02 — Thoughts — Matthew Hodgson

A few years ago, back when Matrix was originally implementing end-to-end encryption, we asked Moxie (the project lead for Signal) whether he’d ever consider connecting Signal (then TextSecure) to Matrix. After all, one of Matrix’s goals is to be an interoperability layer between other communication silos, and one of the reasons for us using Signal’s Double Ratchet Algorithm for Matrix’s encryption was to increase our chances of one day connecting with other apps using the same algorithm (Signal, WhatsApp, Google Allo, Skype, etc). Moxie politely declined, and then a few months later wrote “The ecosystem is moving” to elaborate his thoughts on why he feels he “no longer believes that it is possible to build a competitive federated messenger at all.”
Federation revisited: web-style federation
Web style federation:
a) ensures choice of utility providers
b) reduces surveillance
Digital Freedom

- You own your data, only you know who you talk to and what apps you run
- Service provider can’t take away your freedoms

Web style federation:
- a) ensures choice of utility providers
- b) reduces surveillance
3NWeb is a set of utility services forming base for apps.
3NWeb is a set of utility services forming base for apps

App needs:

- Disk -> persist data -> 3NStorage
- Pipe -> messaging -> ASMail
- User creds -> access -> MailerId
3NComputer is a cloud of user devices.
3NComputer: user’s own Live Space
Production Demo
“Running ‘terraform destroy -auto-approve’ against production”

Jean Duplessis-Bertaux, Date Unknown
Code

• Spec server implementation with test suites (GPLv3):
  
  https://github.com/3nsoft/spec-server

• Desktop Client platform (GPLv3):
  
  https://github.com/3nsoft/core-platform-electron

• All 3NWeb protocols are open for everyone.

• Help us to prepare RFCs for them.
Tor is Peace
Prism is Slavery
Internet is Strength