

# PrivacySafe: owning one's digital live



KWLUG September 2019 talk

# Awesome hardware

- View in Modelo
- Physical board and scale
- Stack list at [https://privacysafe.ai/?page\\_id=217](https://privacysafe.ai/?page_id=217)
- Crowdfunding at  
<https://www.indiegogo.com/projects/privacysafe-privacy-by-design>

# When you own space



Without Ownership of the space,  
we can only beg for privacy.

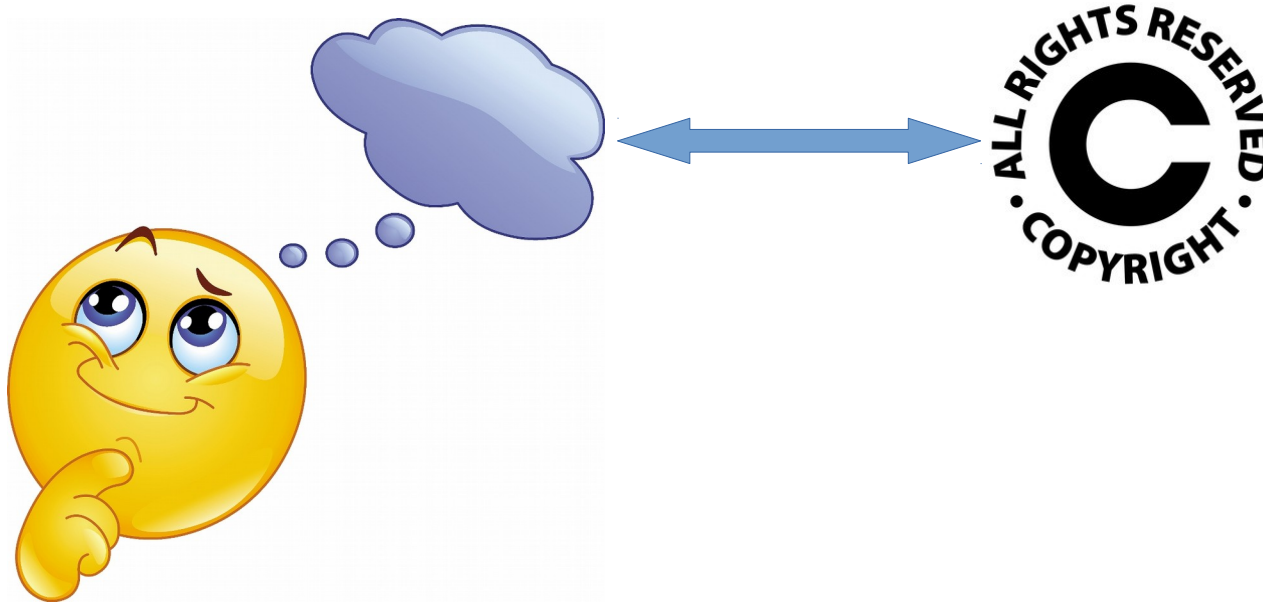


# Ownership in physical space



# Ownership in digital space

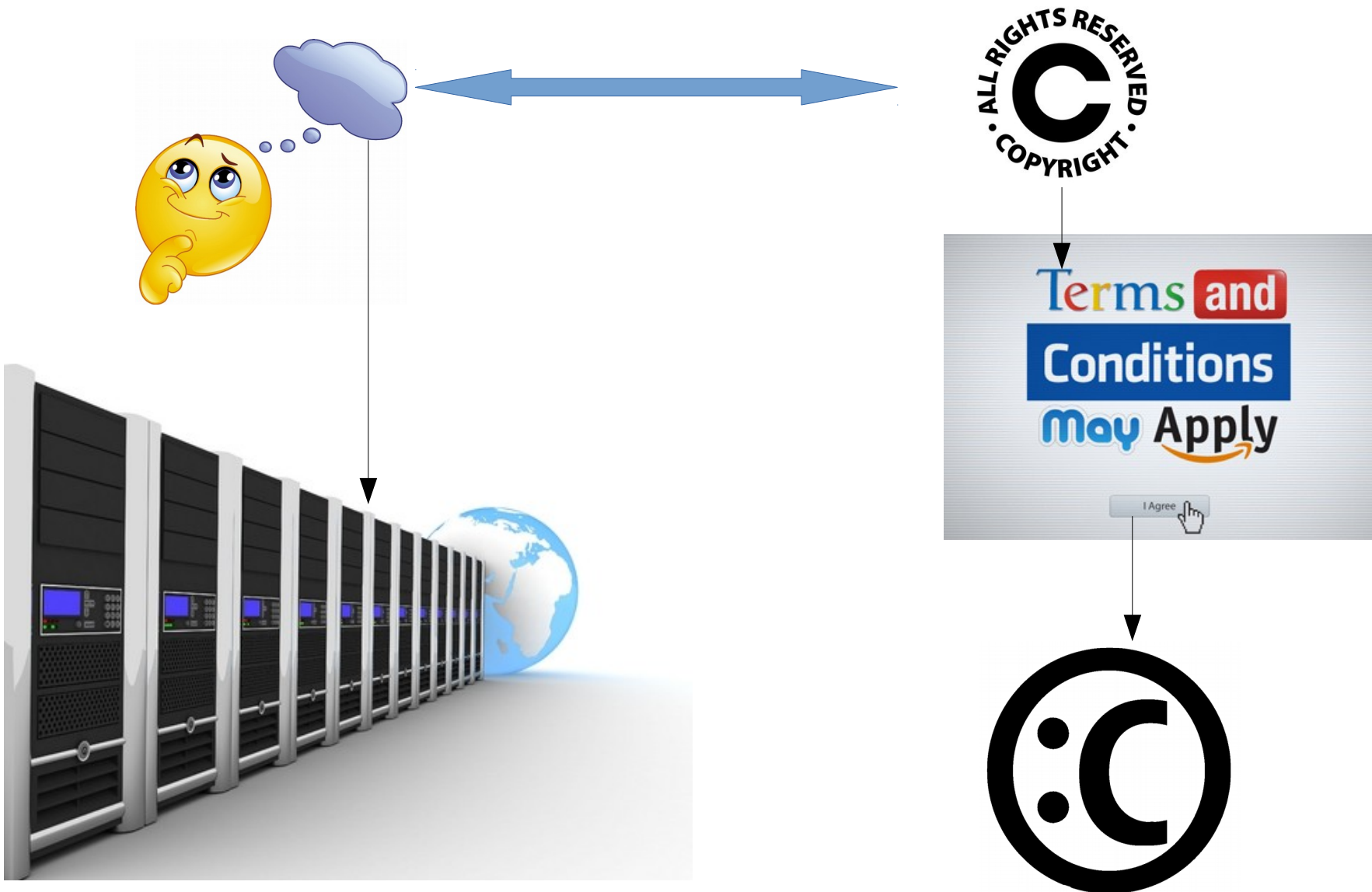
## step 1: data creation, first copy





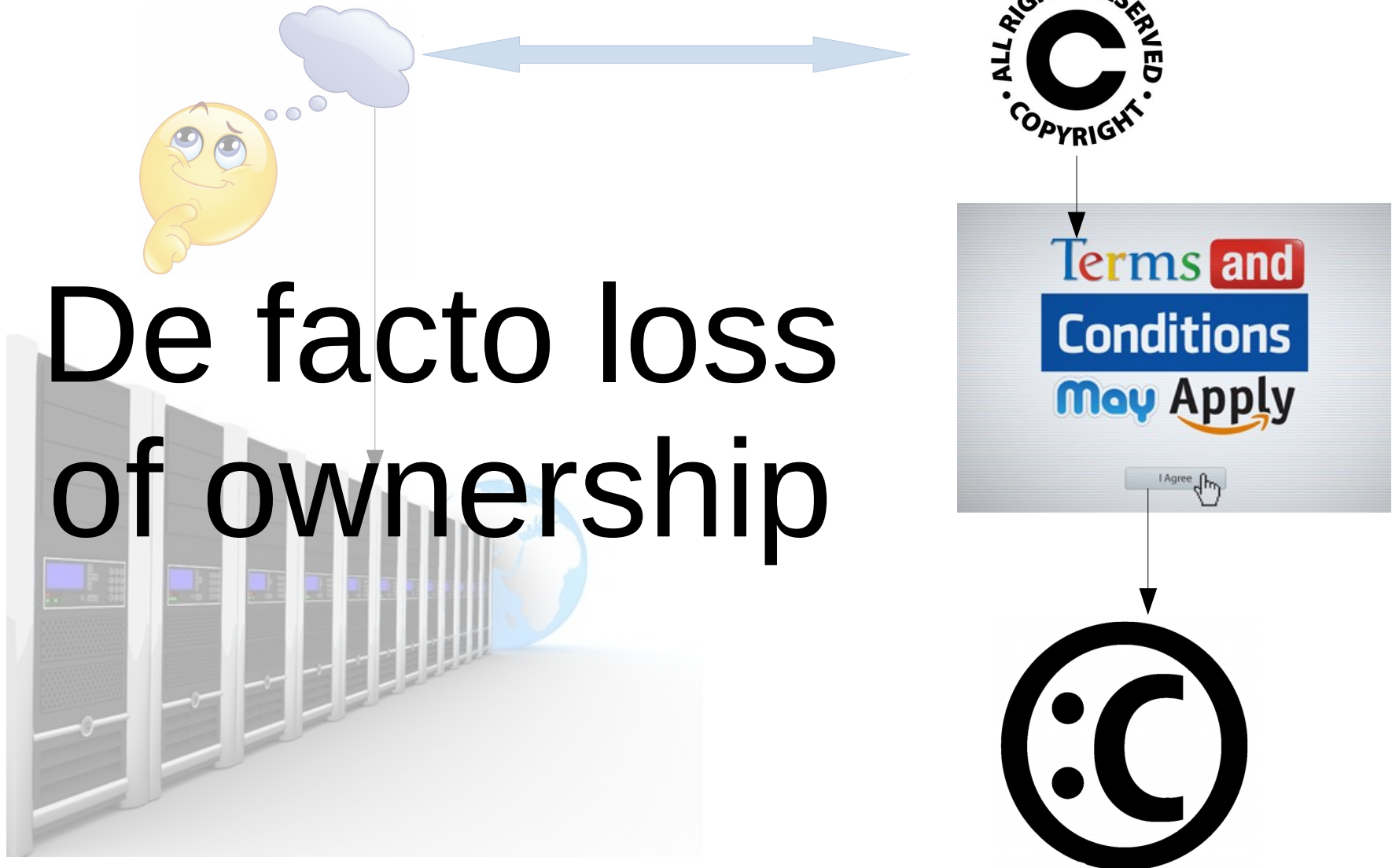
# Ownership in digital space

## step 2 today: service provider's copy



# Ownership in digital space

## step 2 today: service provider's copy





Simple solution:  
Give no copy to clouds !

# Simple rules for client to server communication

- Never send any plain text content to server
- Never produce more metadata than is needed
- Nothing for server to copy, to abuse, or to loose

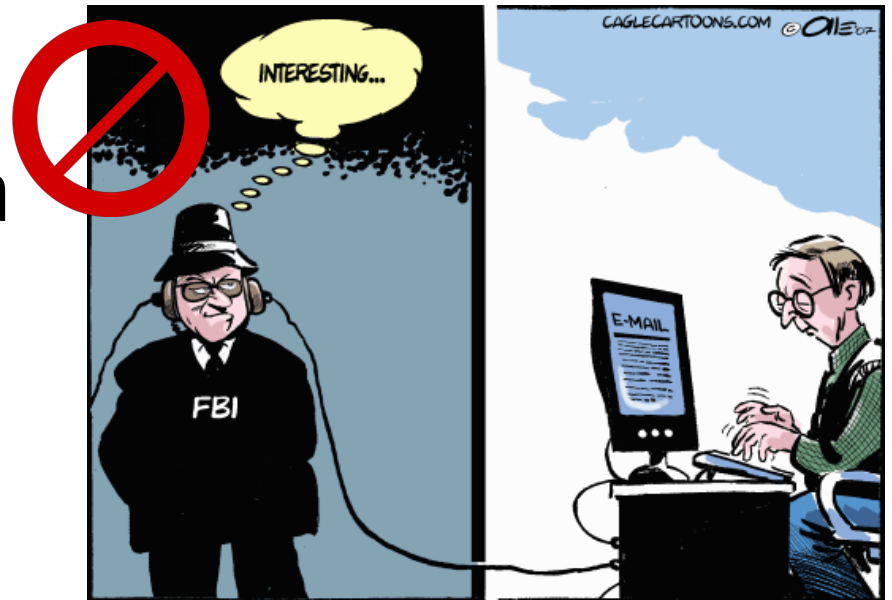
# Simple rules for client to server communication

- Never send any plain text content to server.

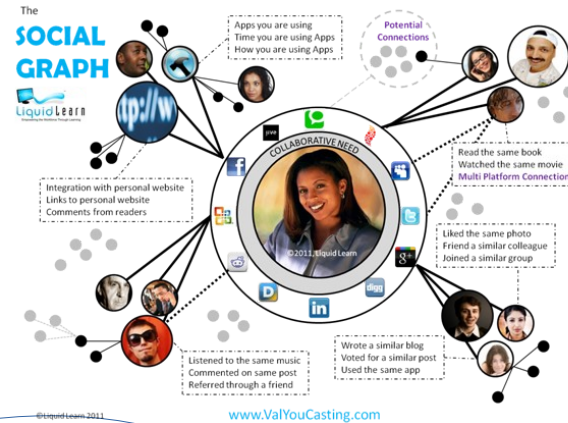


End-to-End encryption

protection from  
wiretapping



# Simple rules for client to server communication



- Never produce more metadata than needed.



Onion routing,  
metadata hiding

protection from  
surveillance



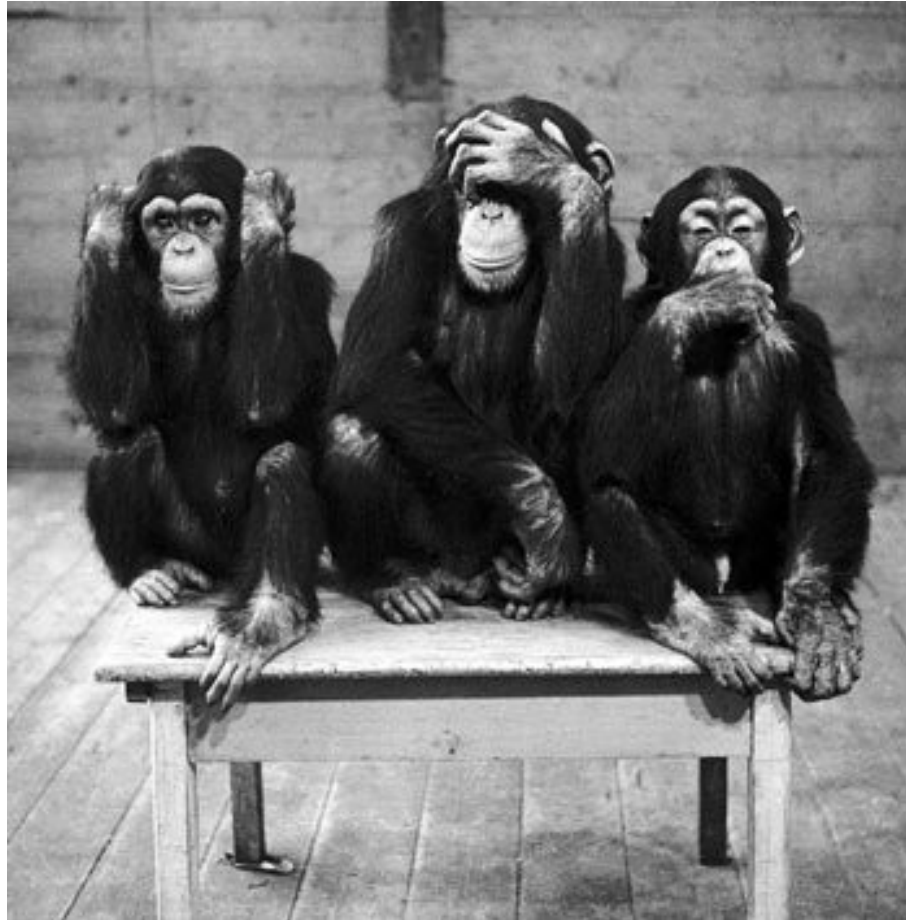
# Simple rules for client to server communication

True ownership  
of one's digital space



- Nothing for server to copy, to abuse, or to loose

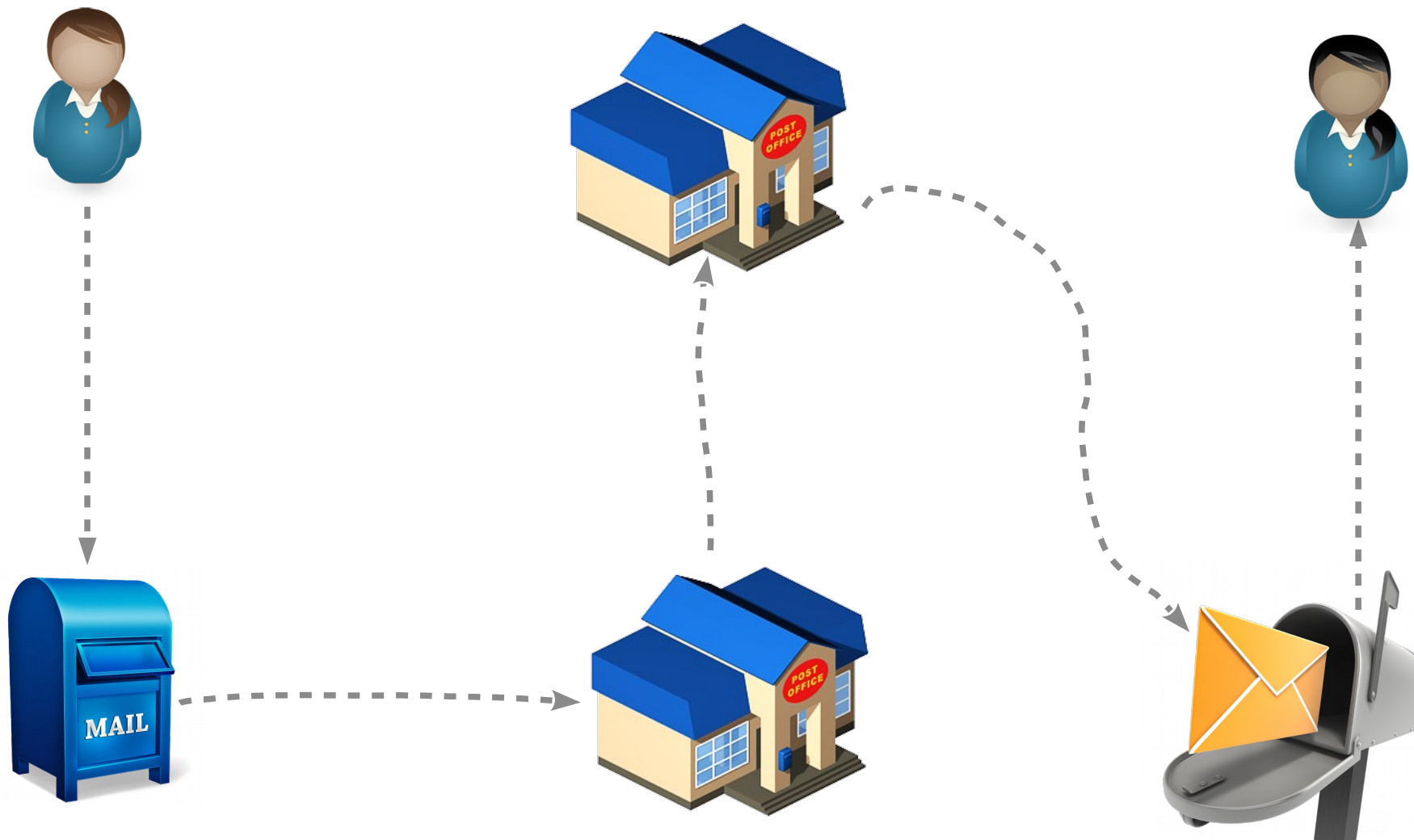
3N already proved itself offline



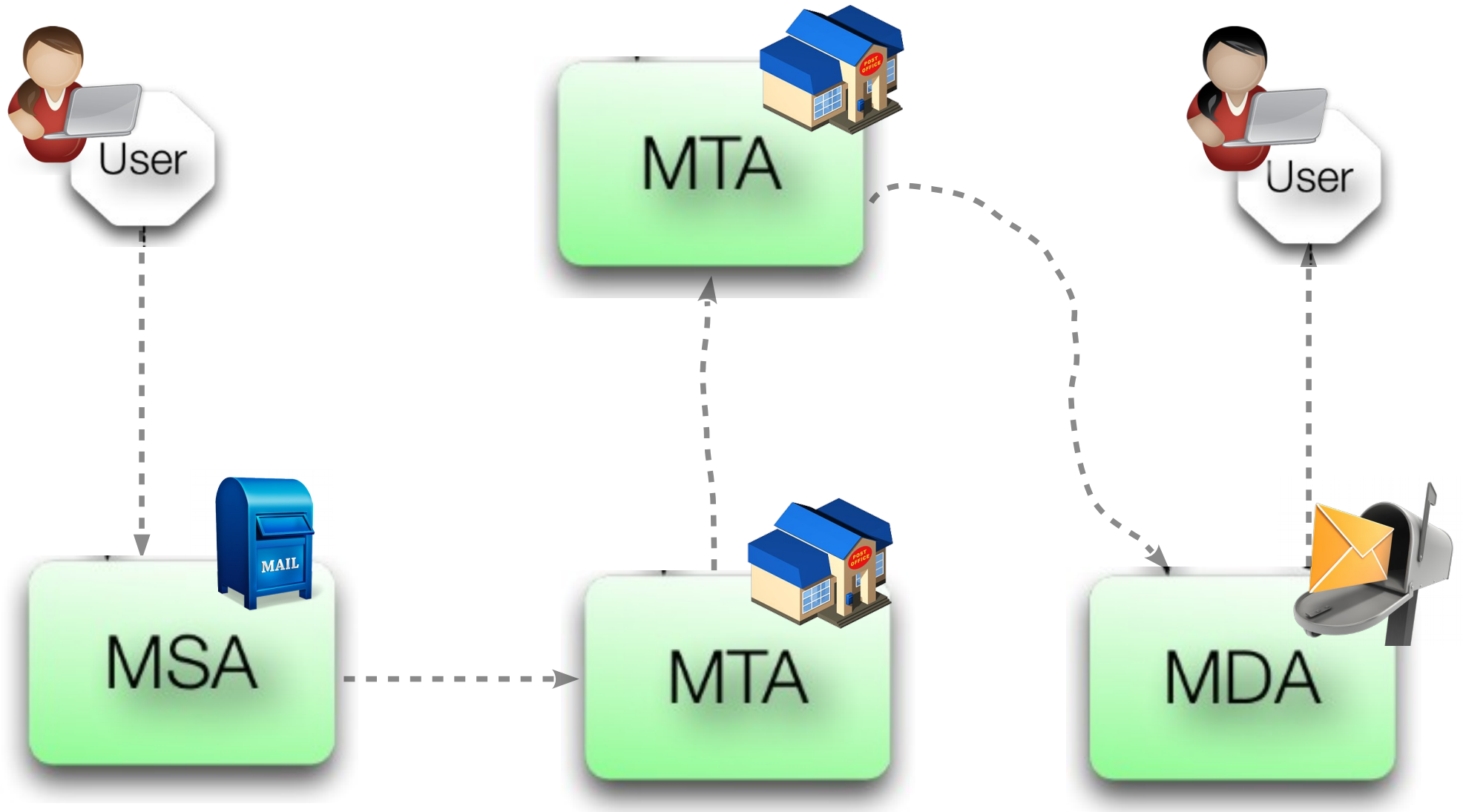


Mail / Messaging

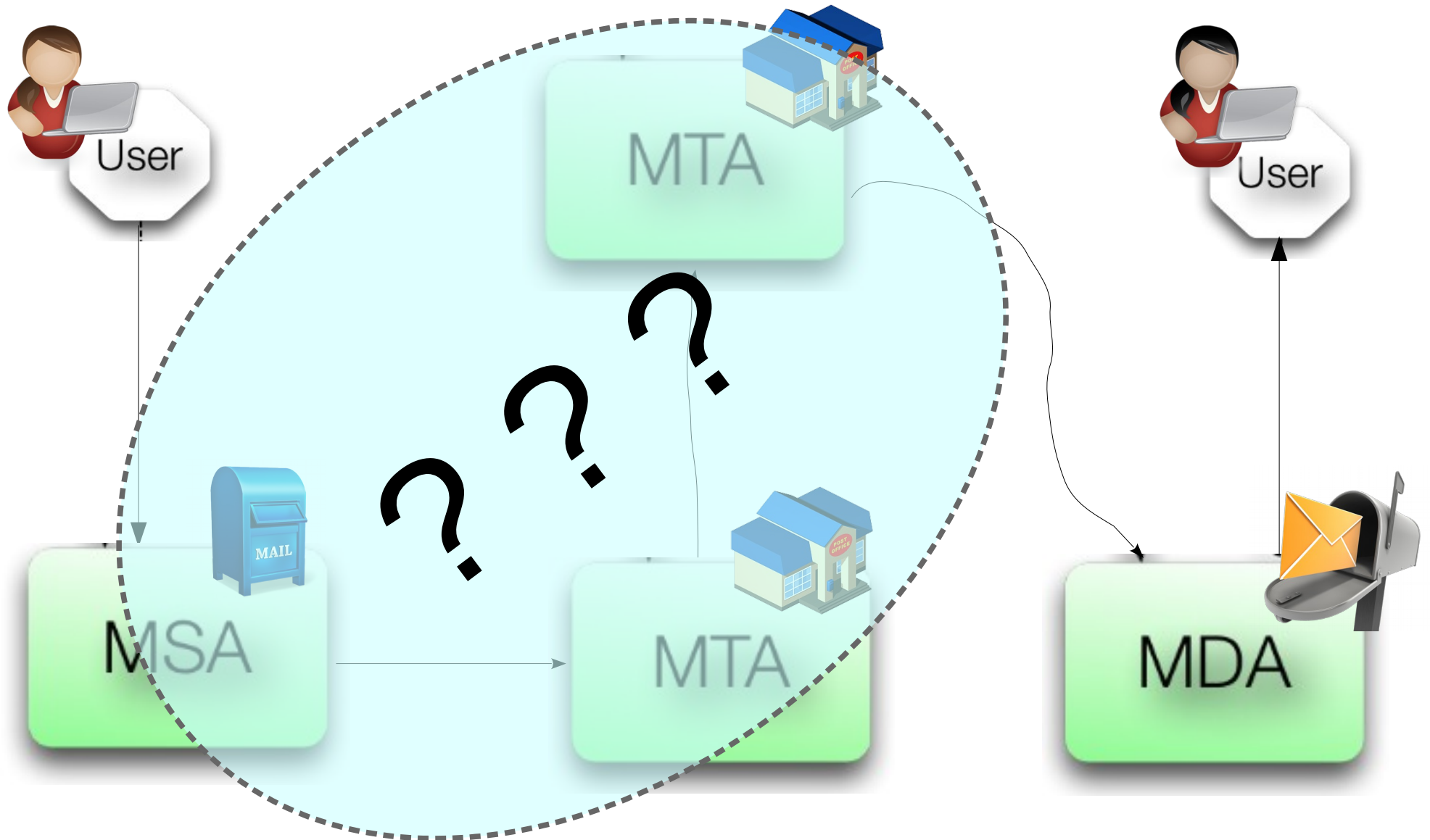
# Postal mail process



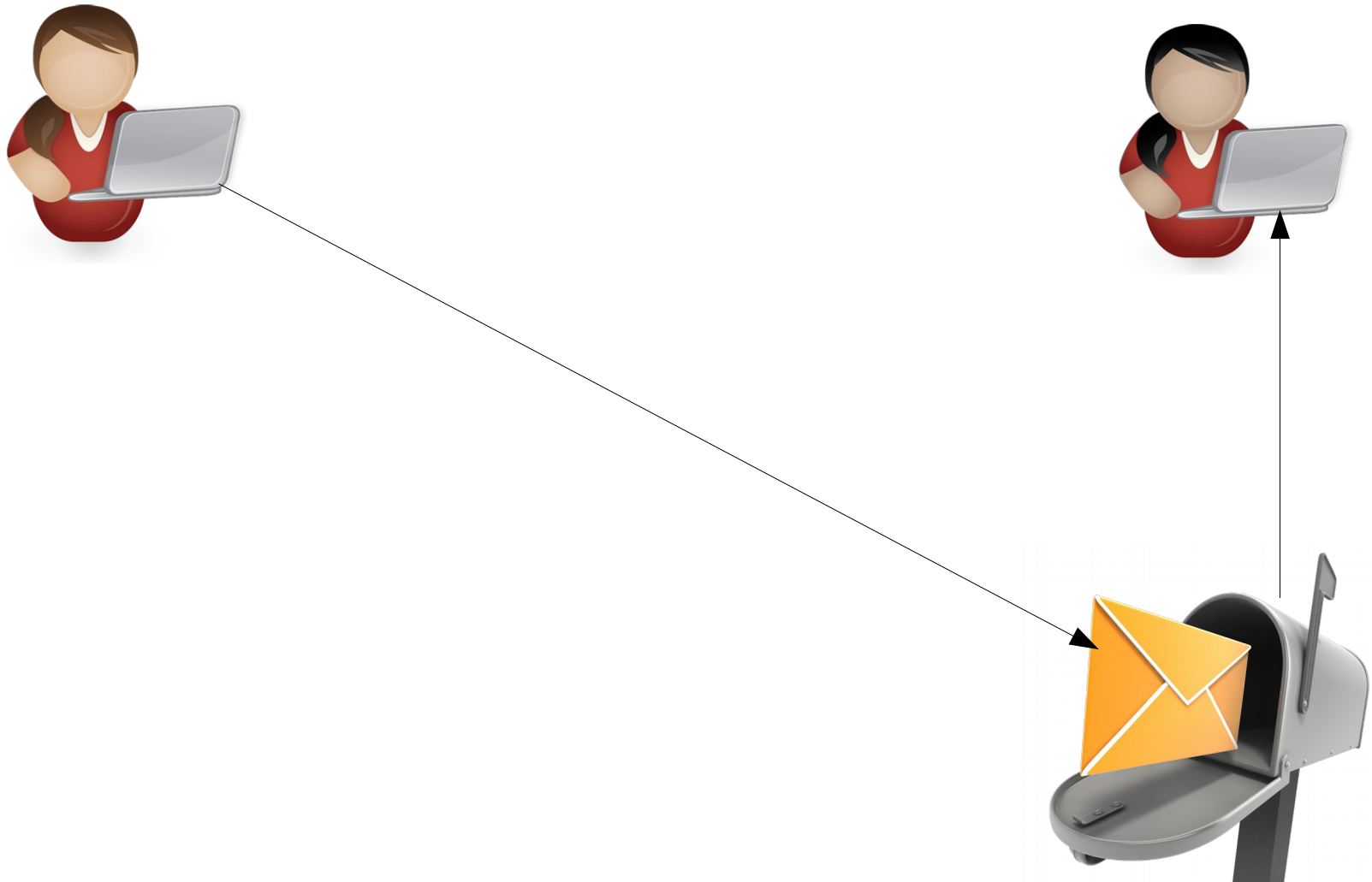
# Electronic mail process



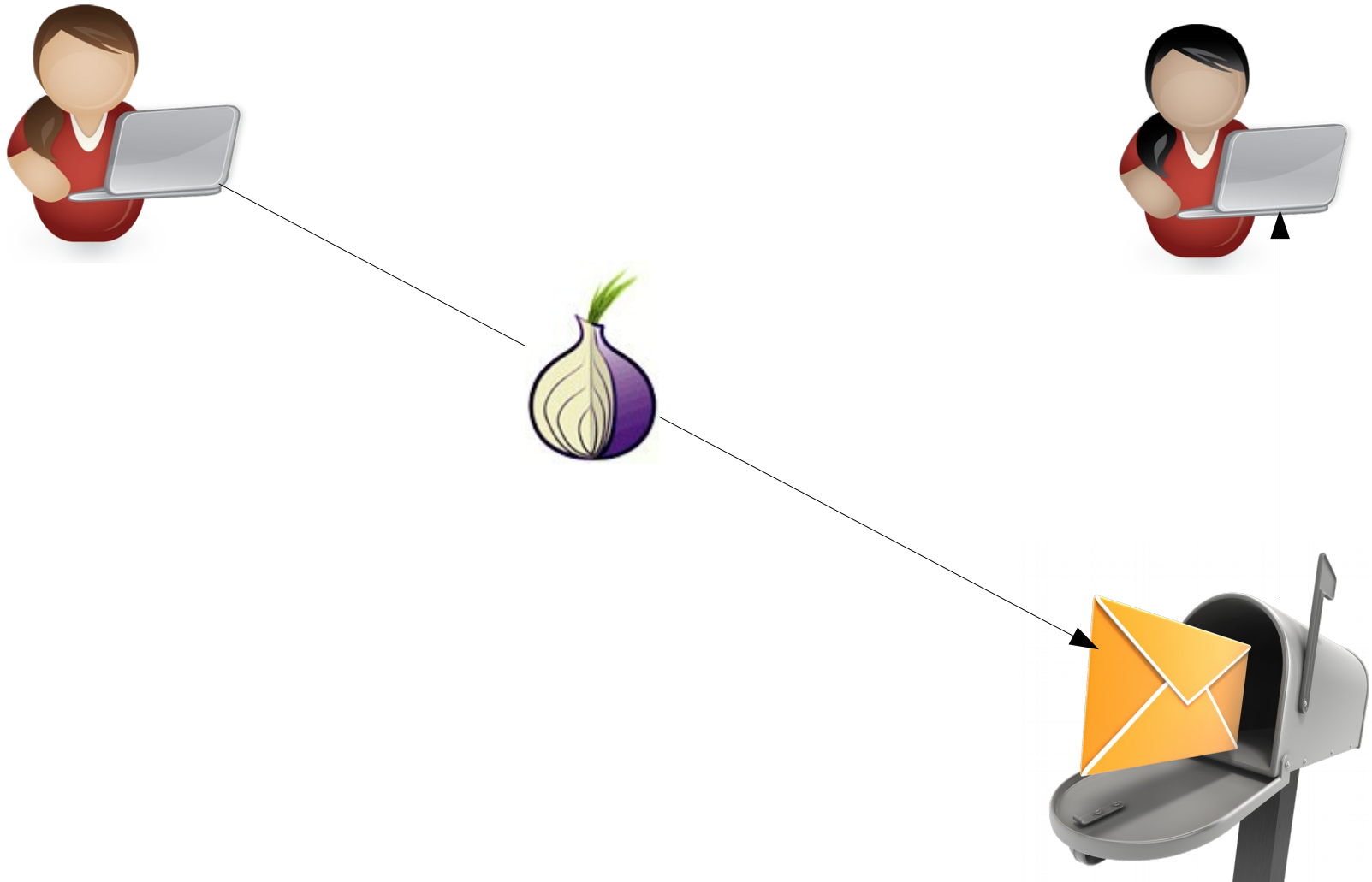
# Do we need this complexity?



# AweSome Mail process

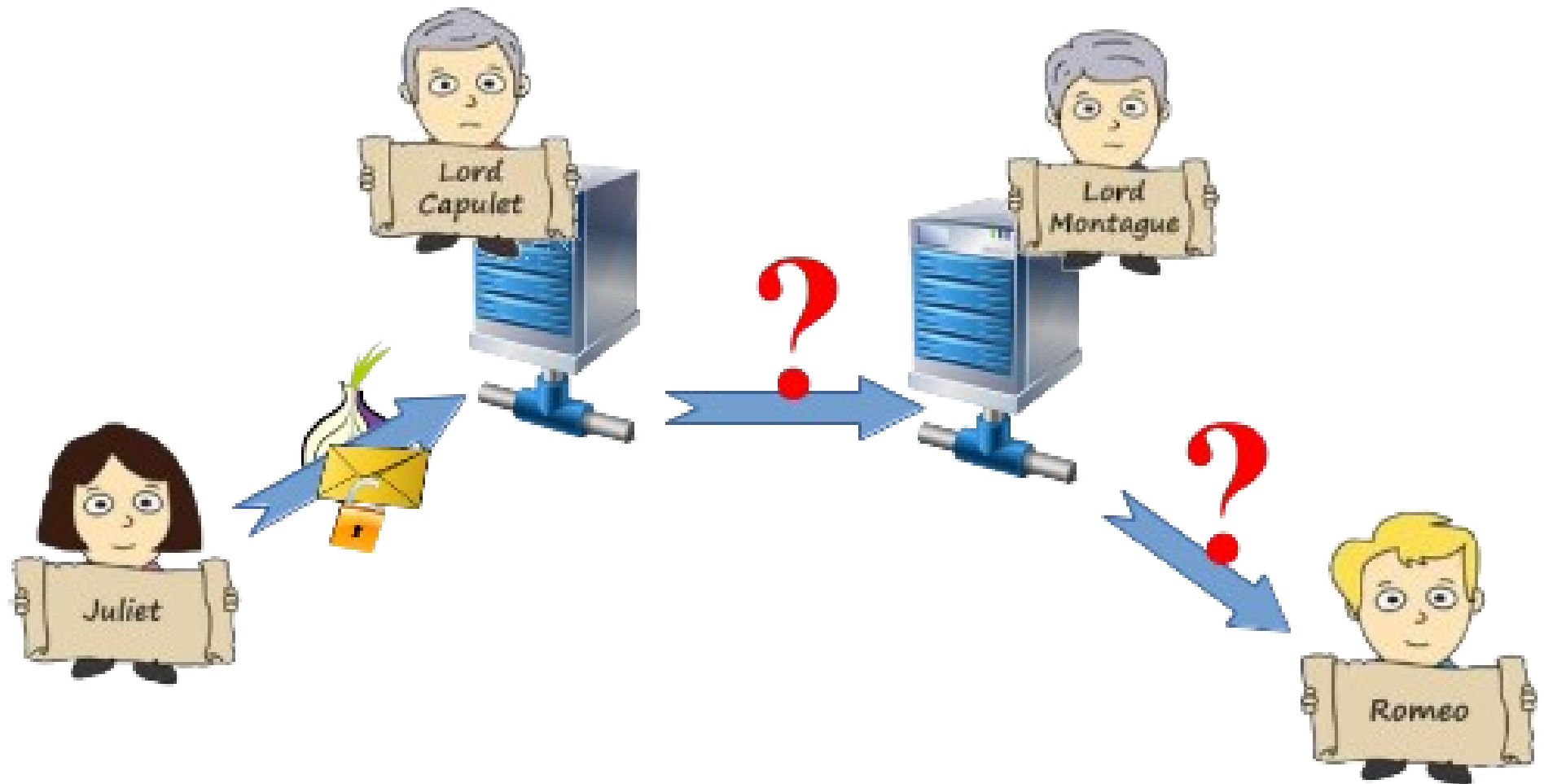


# Authenticated Secure Mail process

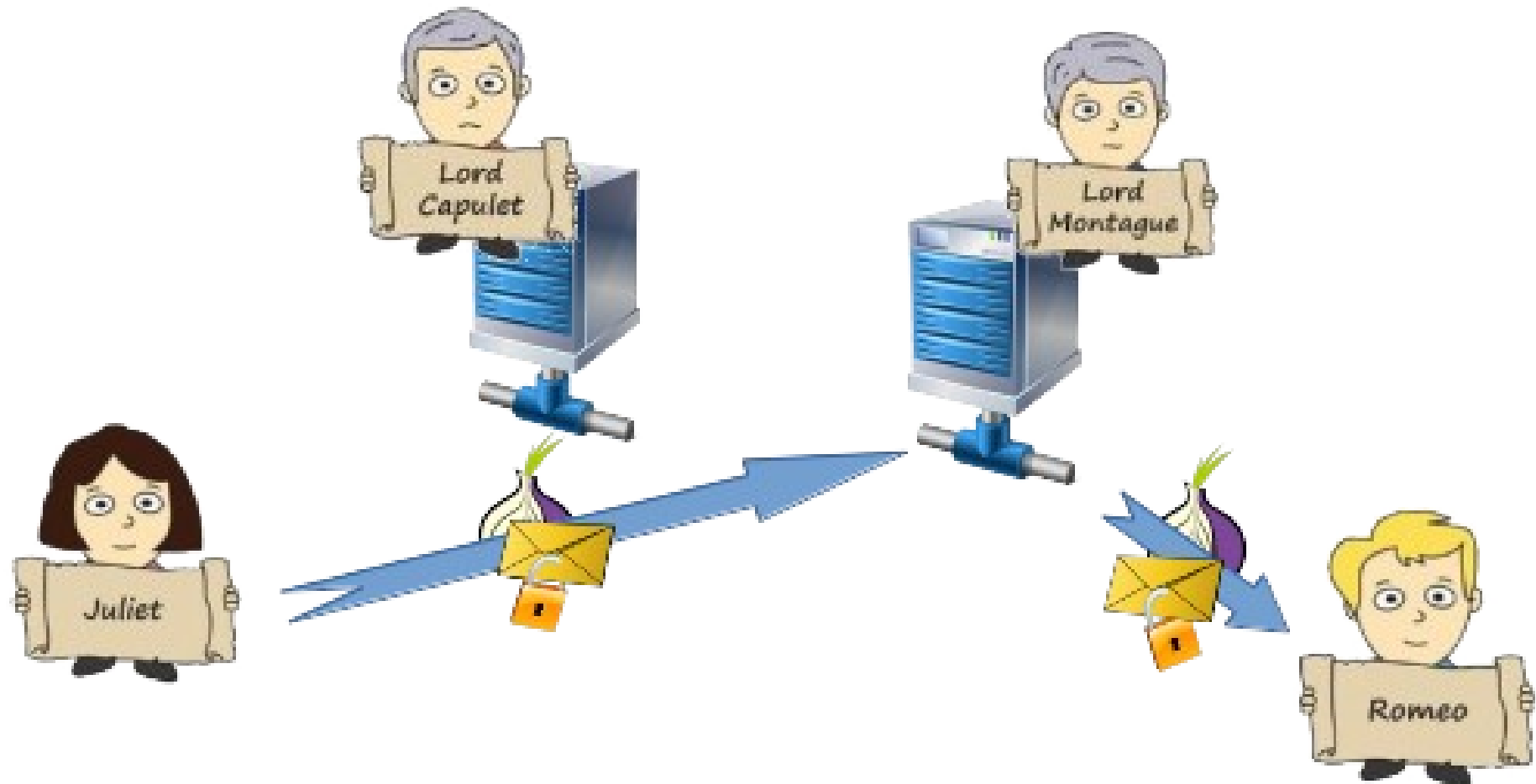




# Classical federation



# Web-style federation

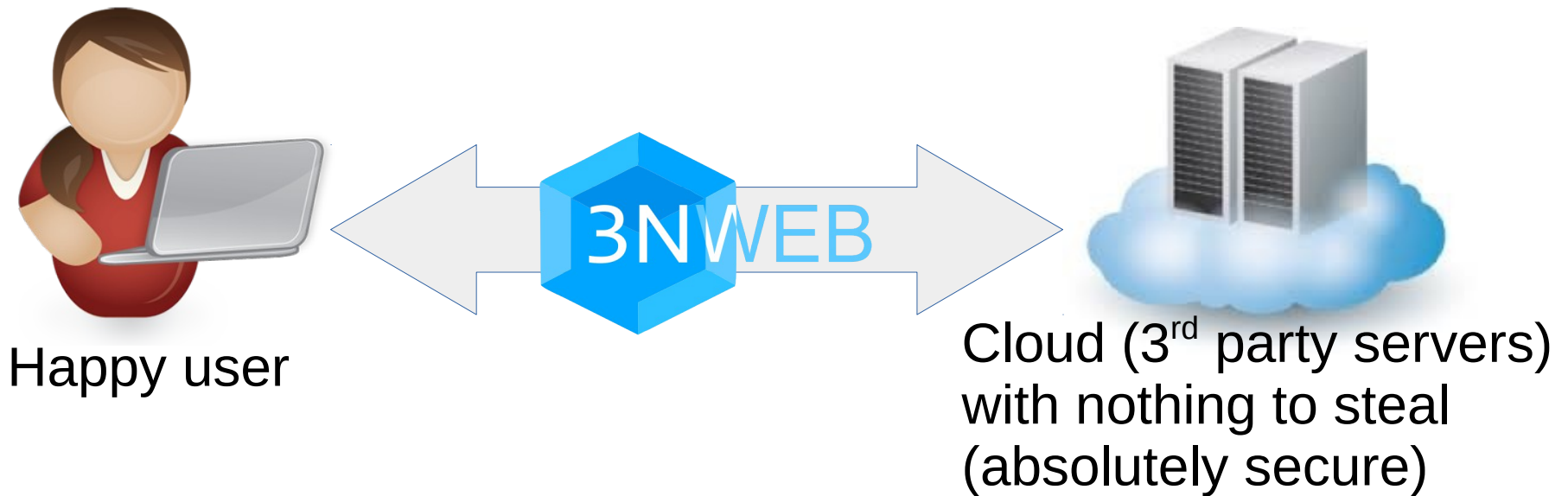


# 3NWeb: set of self-supporting 3N-respecting protocols

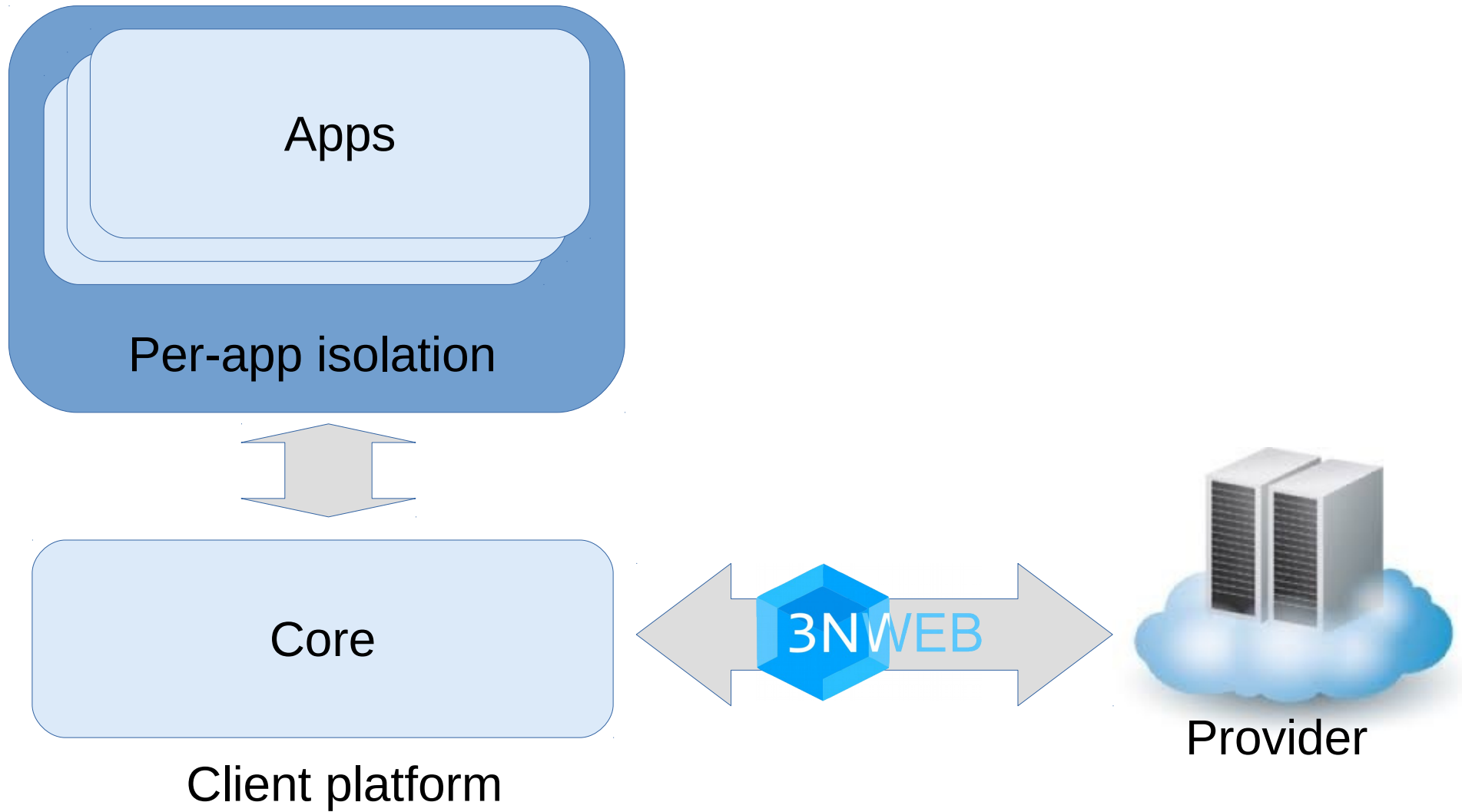
- MailerId for non-tracking online identity service
- ASMail for mail & messaging
- 3NStorage for storing, syncing & sharing files

# 3NWeb

3NWeb is a set of 3N-respecting protocols.



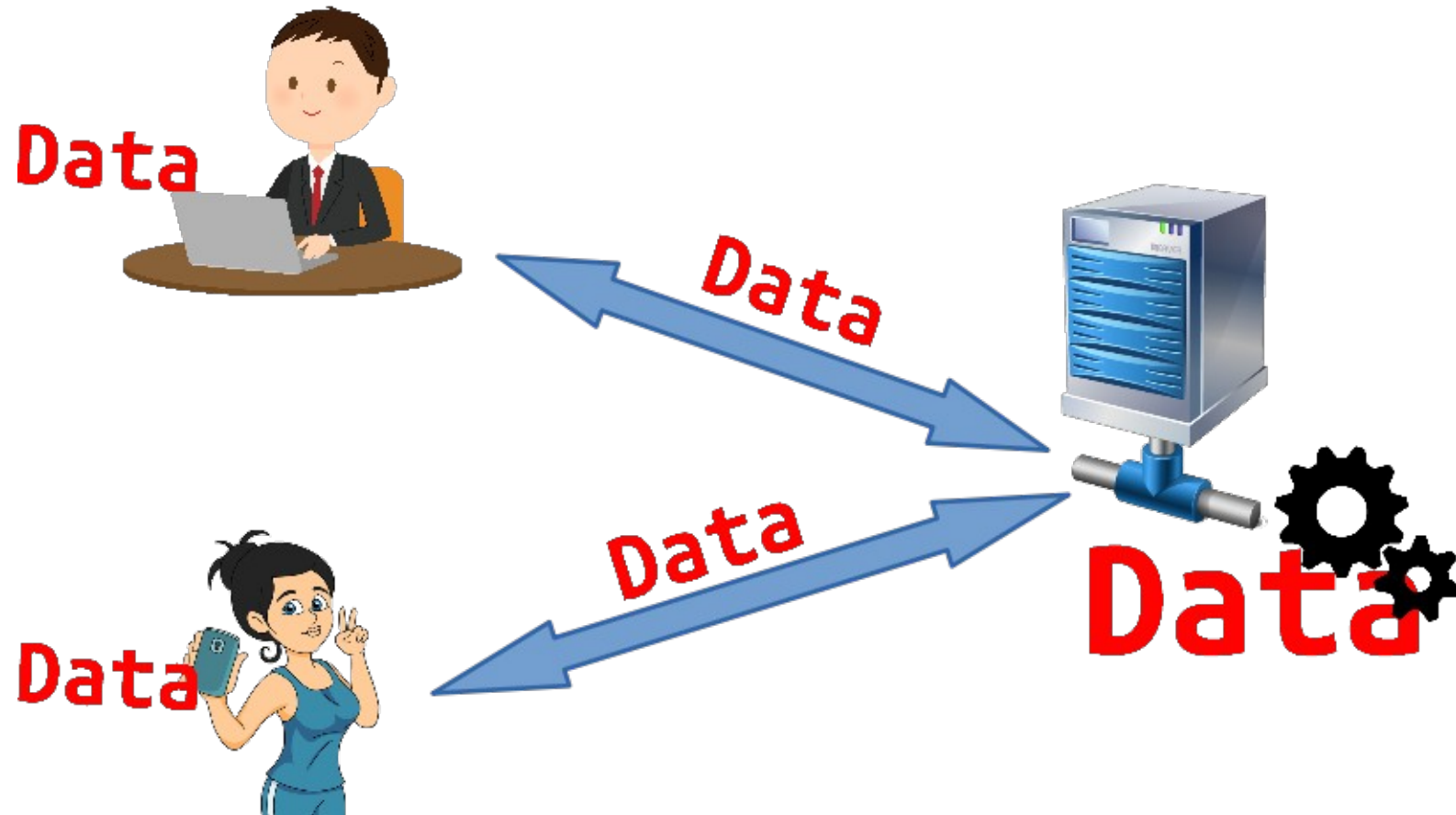
# Overall view



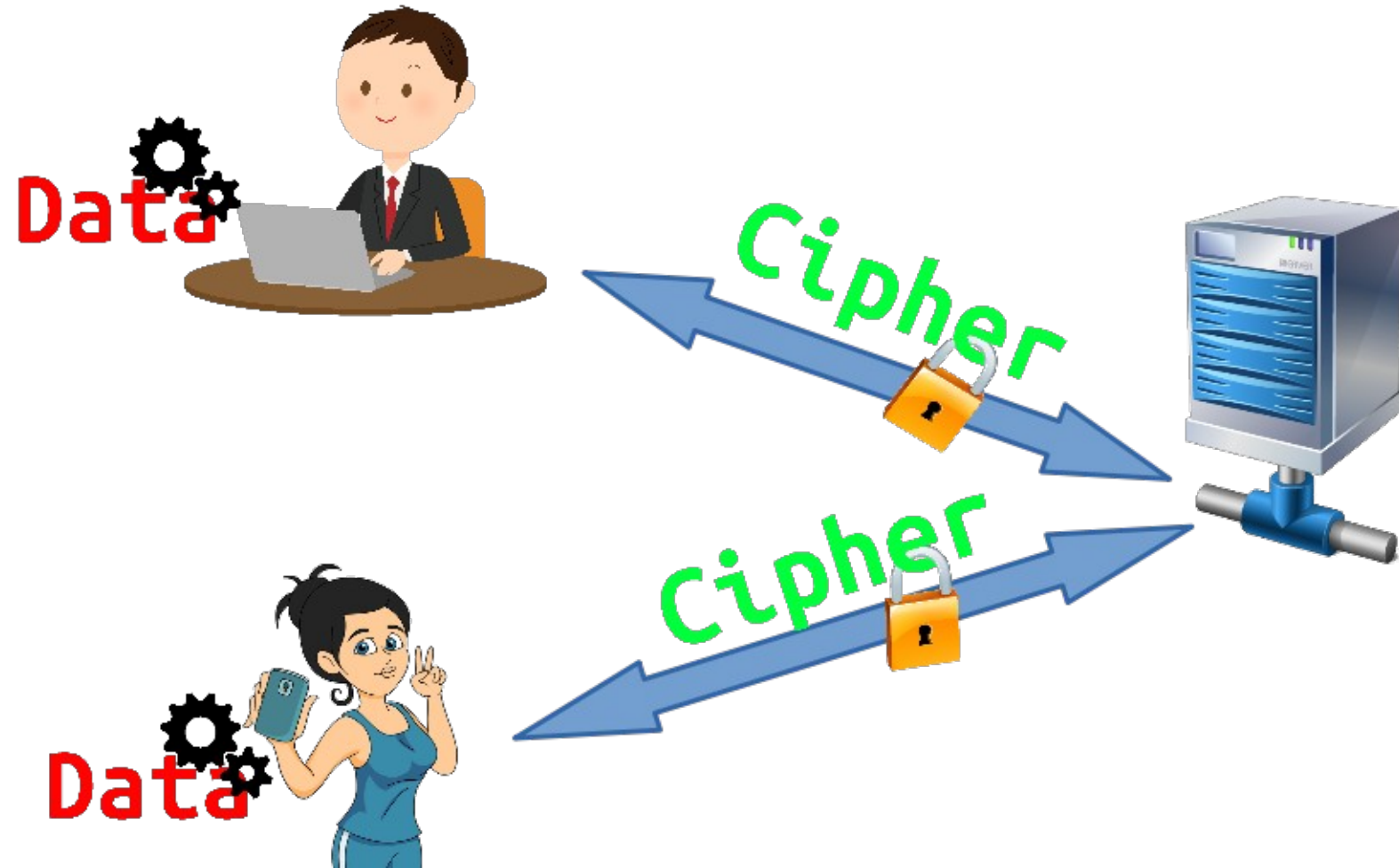
Demo 3NWeb desktop client



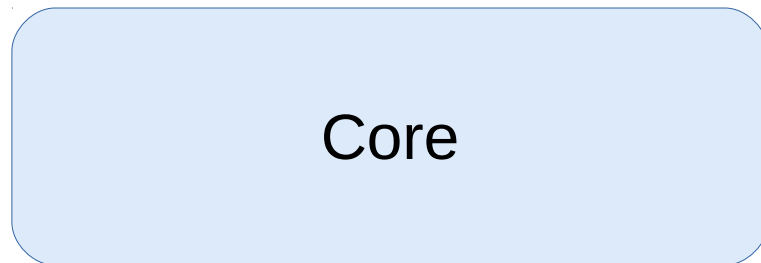
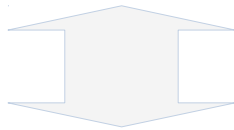
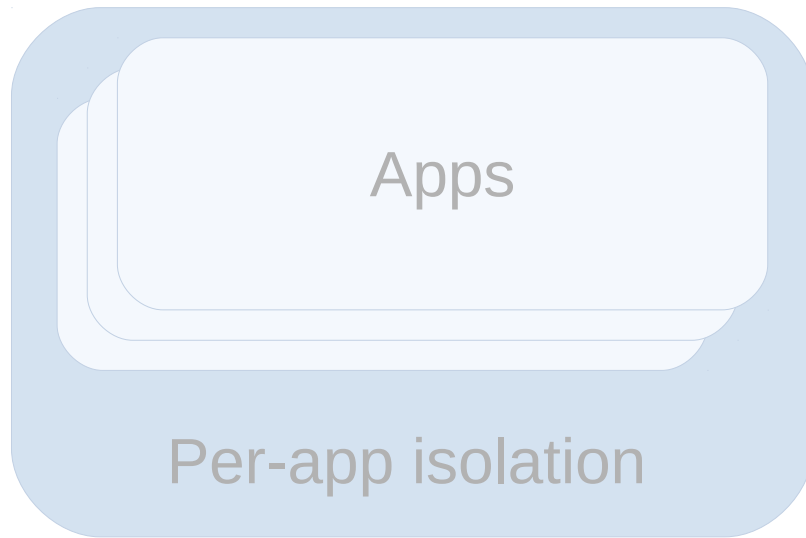
# Computational model server in charge



# Computational model client in charge



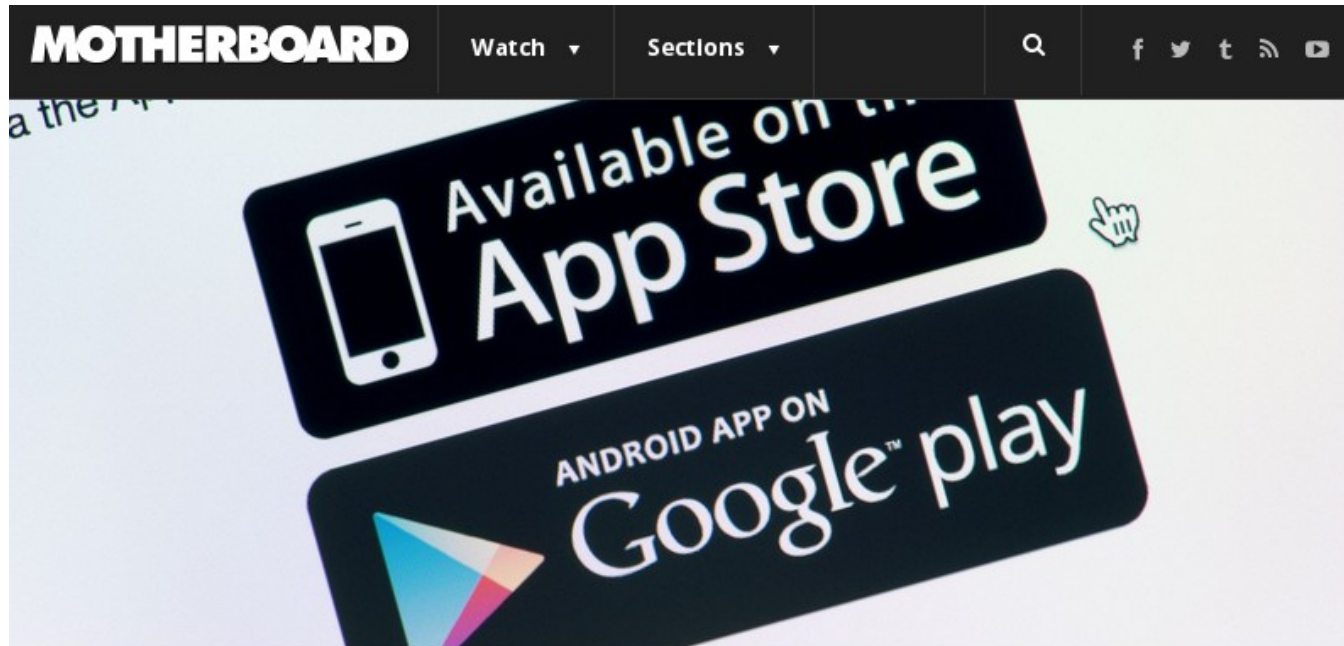
# 3NWeb client platform core



Client platform

- Talks to servers all 3NWeb protocols for messaging, storage, identity
- Keeps keys, does all of encryption
- Provides to apps fine-grained capabilities. For example, app X will not see files of app Y.

# 3N Web provider doesn't know what apps run on a client!



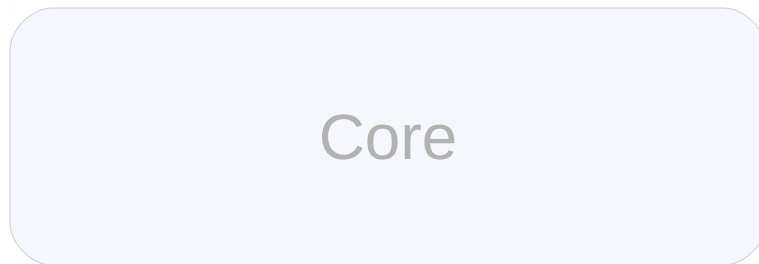
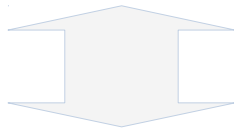
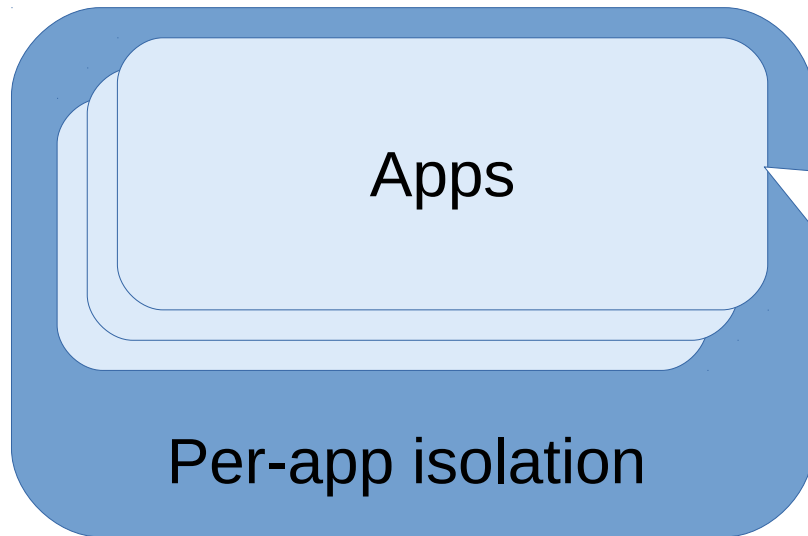
## Police Officials: Google and Apple Should Censor Encryption Apps in Their Stores

Written by **LORENZO FRANCESCHI-BICCHIERAI**

April 19, 2016 // 01:01 PM EST

Law enforcement officials, led by the FBI, have been [wringing their hands](#) about how strong encryption

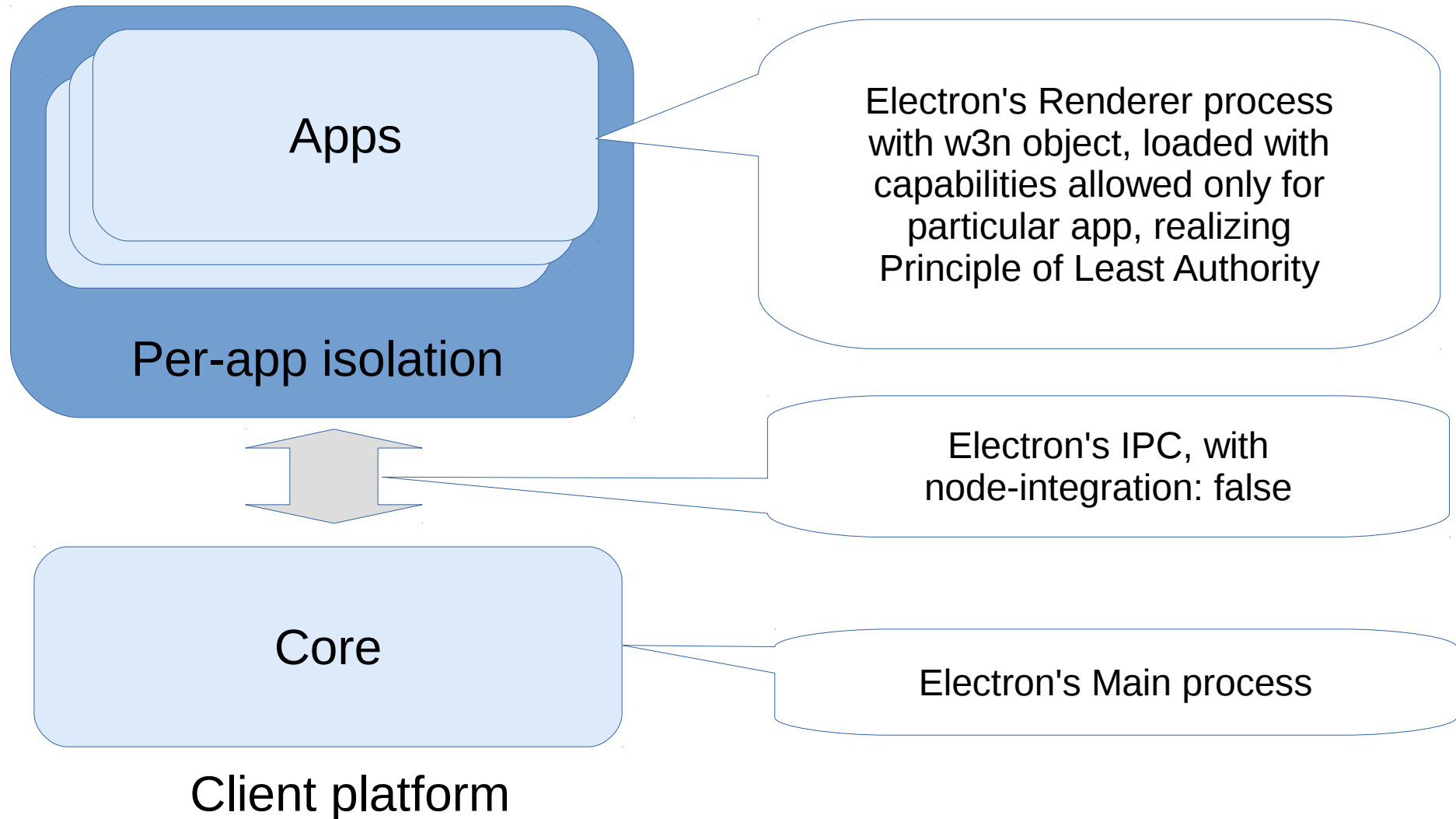
# 3NWeb apps



Client platform

- Apps are simple to write, as one does not deal with keys, cryptography, etc.
- App uses capabilities, provided by core, like synchronized over several devices file systems.
- Apps are isolated from each other

# Dive into details: desktop



# Code

- Spec server implementation with test suites is available on GitHub under GPLv3.  
*<https://github.com/3nsoft/spec-server>*
- Client side is available on GitHub under GPLv3.  
*<https://github.com/3nsoft/core-platform-electron>*
- *All 3NWeb protocols are open for everyone.*  
Help us to prepare RFCs for them.

# Economics

- App developer doesn't need a server farm for 3NWeb!
- 3NWeb service is chosen by user, be it ones own servers or contracted from a provider
- It's like model on a desktop, and it's unlike current model on a web, where app developers need to provision the likes of AWS'





What is your  
data ownership  
model?