Abstract:

Contacting peers in a decentral landscape is challenging, even more as platforms like Matrix start to offer bridges among the different platforms (i.e., e2e encryption between WhatsApp and Matrix): how do you learn about a peer’s current coordinates and their preferences? The platforms themselves often offer directories, but these are (again) logically central rendez-vous servers with a partial view and require trust in these platforms. Instead of conceptualizing an uber directory service we propose a global information dissemination system that focuses on the data, asserting an allowance of “200 bytes of novelty per month and citizen”. This global broadcast channel can (and should) be implemented in many ways, starting from sneakernets to shortwave communication and including Internet-based online-services. Beyond its use for an initial handshake and for announcing your HEAD state (in Git parlance), such a no-thrill channel is also useful for calamity situations like “earthquake destroyed the house but all family members are alive” or “root key X was compromised, use the spare key Y established a year ago after confirm with Alice and Bob”. With above dimensioning, the aggregated worldwide monthly data is in the order of 1 Terabyte which nowadays fits in a small harddisk or SSD. Such devices can be made accessible in city halls or tents of the red cross/crescent, and its content be queried via online service or through radio amateurs when the Internet is not available and when SSDs cannot be shipped. We venture that the MGB channel is an irreducible element for handling the rendez-vous problem in the decentral ecosystem. Once existing, access to the MGB channel and exercising your broadcast should be promoted as a basic human right. Regarding the technical and economic viability of such an approach we point out the CT system (certificate transparency) where companies in the trust business have created such a global channel for themselves because of the requirement of not accepting a central trust entity. MGB aims, for the same reasons, at a similar globally shared data structure that enables citizens to build their own trust systems but to also convey basal rendez-vous information without having to rely on intermediaries.