Towards a trusted Internet

where consumers can avoid fraud and transparently select vendors and services

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The technical infrastructure for the internet was conceived in the 1980'ties. The goal was to create a decentralized network which could provide robust connections between research institutions and military facilities. This infrastructure has since proven itself scalable and cost effective even for today's global private communications purposes.

Contrary, the escalating problems with online fraud, marketing costs, ad-blocking, and personal privacy are a direct consequence of the fact that similar structural considerations were never made for how companies and persons on a global scale may discover and build mutual confidence in each other.

Problem 1: Identity & Discoverability. A strong binding between companies activities on the internet and their corresponding legal and physical identities has never been realized. Not only does this create a basis for fraud. It also implies that consumers cannot systematically explore and analyse the market for registered companies and their services.

Problem 2: Scalability. In spite of today's technological data processing options, we still maintain a one-way web where all information directed towards consumers is targeted for their eyes only (transport digitization). This is manageable when the number of potential suppliers is very limited. But in a world with more than 100 million companies wanting to establish 1-to-1 relationships to consumers, there is a need for companies to exhibit API's and data in machine-readable formats for processing by consumer tools or agents.

Identity and fraud experts usually focus on the consumer side, which is a difficult problem to handle due to privacy concerns as well as consumers dynamically changing locations and devices. Hence this author now suggests to partly shift focus to the company side.

For several years the EU has taken on a series of initiatives in relation to company registration that may now provide a foundation for solving the problems outlined above:

- companies registration data are now publicly available, often with annual accounts
- every company in the EU has now been assigned a unique EUID
- companies in several countries can now update their records via a secure login (eID)

If business owners are granted a similar possibility for linking to business related meta data as domain registrants have for linking to a name server, an efficient coupling can be made between legal entities and their business services. Such a solution will provide similar benefits of decentralisation and scalability as currently provided by the technical infrastructure.

EU company registries have made large efforts to be among the leaders in providing digital reporting as well as free access to download company data in machine-readable formats.

Proposal: It is proposed that European business registries enable companies to enter a "Business Service URL" in their public record, either by manual entry or via an API.

This will provide business owners a simple and flexible way to prove their ownership and associate data from their public records with various self asserted information as well as third party attested claims. It supports entrepreneurs developing data driven web applications and may save EU citizens and companies around 100 billion EUR pr. year.

SOME SPECIFIC CONSEQUENCES:

The "Once-Only" principle

Andrus Ansip's "once-only" principle for reporting to public authorities in the EU is equally relevant and cost saving in relation to commercial purposes. By entering relevant service information in its "Business Service Record" the company avoids having to register and maintain information, e.g. opening hours with all search and directory services, or price and delivery information with each and every price comparison service. And each service is relieved from the need to validate the data source, a process that can take several weeks.

"Big Data" analysis
Banks, insurance companies and many others have an interest to systematically analyse the corporate data that are freely available from an increasing number of national company registries. But in a majority of cases, there is a need to integrate these data in a reliable way with other relevant data about the companies, e.g. profiles and communication on social platforms, reputation portals, and various third party attestations.

Identity validation
The "Certificate Authority" system, that allows any of the many CA's around the world to issue certificates for any domain has proven to be a both expensive, complicated and often compromised solution for documenting who is in control of an internet domain. Also today commerce is often conducted from web pages hosted at dedicated market places, agencies, or social platforms. If the communication to a domain has been secured using a simple domain validated certificate (e.g. the new, free, and automated Lets Encrypt service), this proposal will enable the legal identity of a company to be verified by simple mutual reference, not only at the domain level, but for individual web pages on a trusted domain.

EV-certificates that provide a green coloured address bar or padlock in most browsers do not offer browsers or end users sufficient information to properly assess the company hiding behind the certificate, e.g. a 1 EUR equity company started yesterday or a billion EUR annual turnover corporation. This proposal would enable browsers and email clients to display verification info such as nationality (flag), start date, industry code, turnover, equity, state (e.g. active or filed for bankruptcy), as well as relevant 3.party attestations.

Search options and platform cost
The current lack of native company and service discovery mechanisms has led to the creation of dominant "platforms", connecting businesses and consumers in so called "2-sided markets" benefitting from the "network effect". Merchants are now worried as platform costs are escalating and currently represent up to 90% of the merchants contribution margin or 15-30% of their turnover. These non-value adding connection costs amount to approx. 100 billion EUR pr. year in the EU. Only the companies offering the highest fees to the platforms will be presented to the consumers, leaving consumers without real options to convey their personal preferences and requirements to companies, products, and services.

When consumers get means to freely discover company and service information – directly or via an agent under their control – they will be able to apply search criteria that give them the best personal choices between quality and cost. And agents, such as search engines or "personal information management" solutions will also be subjected to direct competition.

Privacy and Consent
When consumer's agents can discover machine readable business terms and privacy policies directly from companies business service records, the consumers handling of these terms and policies will become an integral part of their search and selection criteria. Hence, companies that present onerous terms – or do not publish them via their business service record – will be filtered off by consumer tools or agents to never reach the eyes of the consumer. From being a useless ticmark exercise, terms and policies can thus become a competitive issue.

The currently high cost for a business to to become discovered via a platform requires an extremely targeted approach, which is a major reason for businesses to profile consumers. This incentive for profiling will drop when services can be directly discovered by consumers.

Platform independence
A special problem arises when there are more competing platforms in a non-transparent market. This is typically the case for market places, provision of artisan offers, and cab rides. It forces companies and/or consumers to make parallel use of several platforms to discover a broad segment of potential transaction partners. In the physical world you can hail any cab by lifting your arm. While you currently need half a dozen apps on your phone to reach a fair proportion of the cabs within a single city. By publishing relevant data via their business service record, cab drivers can make themselves visible to any potential customer, just as easy as they can switch the traditional roof light on and off. No need for "platforms" at all.