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Jurisdiction: Canadian Federal Government

POLICY PROPOSAL
For IMPROVING MEANINGFUL CONSUMER CONSENT TO EMBEDDED SOFTWARE

I.   Rationale:

Currently, many common hardware products require consumers to consent to broad surveillance protocols of proprietary embedded software. Consumers rarely read, nor understand the content of the agreements they sign, and even if they did, they lack alternative goods. Copyright laws and corporate practices give manufacturers monopoly control over the software that can run on their devices. This is particularly a problem for Internet of Things devices. These factors undermine the meaningful consent process with users, as well as allowing firms to engage in monopolistic behavior.

II.   Objective:

This policy has two objectives, (1) to improve consumer awareness about embedded software terms. (2) To provide consumers with meaningful software alternatives. To improve awareness, and accessibility, informational services need to be created that translate terms of service agreements into layman's terms. For the creation of meaningful alternatives, markets must exist for embedded software, allowing users choice between competing alternatives, including softwares designed with privacy in mind. Creating such a market requires removing barriers that prevent users from tinkering with products that they own, and making proprietary hardware more accessible to third party developers.

III.   Policy:

Firstly, grants should be provided towards an organization that informs consumers about embedded software terms. This should be in the form of a website that publishes simplified versions of popular legally-binding software license agreements. This organization will consist of staff with backgrounds in technological communication and legal professionals.

An informational campaign must come in conjunction with policy that removes barriers to consumer sovereignty in embedded systems. Firstly, legislators must pass digital right to repair laws that amend outdated copyright regulations that prevent consumer circumvention of software protection systems on their devices. These policies, such as DMCA article 1201 or article 41.1(1)(c) of the Canadian Copyright Act were created prior to ubiquitous software use, and no

longer succeed in balancing consumer interests against innovator's rights. Canadian bill C-272 is a step in the right direction on this issue.

Additionally policy makers should require that hardware manufacturers publish the specifications of their Hardware Abstraction Layer (HAL). The HAL is what allows developers to develop operating systems for proprietary hardware, without it independent development is prohibitively difficult. Many producers already do this, for example Intel publishes the HAL for their processors. This policy creates an environment in which large hardware manufacturers no longer have software monopolies on their hardware products, allowing consumers to meaningfully choose and consent to use of software
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IV.   Stakeholders:

Current producers of IoT products will need to provide their hardware abstraction information to allow for alternative embedded software on their device. These current producers will be forced to compete with other software developers, losing market share. They will likely retain a strong competitive advantage however, since they can develop their software and hardware together, and release before other software developers.

The creation of a competitive market creates new opportunities for software developers. These corporate, non-profit, and individual groups could fill their own niches for embedded software, for both private and public interest. Various groups like the GNU Project would be able to produce software that gives users surveillance protections.

Consumers will be better informed about the nature of the privacy laws they agree to, and empowered through a variety of software options. Consumers will be much better served by being able to customize the software on their devices to their needs. Many users may choose to continue using current softwares, however this will be a decision made by informed and meaningful consent.

Costs/Resources:

The outreach organizational aspect of this service must be made freely available on the internet. Public funds need to be allocated for hiring legal consultants, tech communicators, and web developers as well as pay for costs of website maintenance.

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