PhD position available
Enhancing Transparency and control in the Internet of Things

Inria
Privatics Research Group

Transparency is important on the Internet but even more in the context of IoT (Internet of Things), which, by definition, measures and collects a large amount of personal data in a continuous manner. Transparency is a necessary condition to allow users to make informed choices about their use of the services and the resulting disclosure of their personal data. However, transparency is not sufficient in itself. Users should also have ways to express their wishes, to control the data that is collected about themselves and to object to some of these data collections. Transparency and control over personal data altogether contribute to user empowerment, which is essential in the context of IoT.

However, implementing transparency and control in the context of IoT raises a number of challenges. Adressing these challenges is the main goal of the UPRISE-IoT European (CHIST ERA) project in which this PhD will be conducted.

Among these challenges, specific attention will be paid to the following topics:

- Analysis of the physical environment of the users to get an accurate picture of the devices surrounding them and the data that they collect.
- Analysis of the purposes of these collections (how the data are supposed to be used) and their legal basis (e.g. the privacy notices of the entities collecting the data).
- Analysis of the potential privacy risks posed by these data collections.
- Definition of a framework for interacting with the users. This framework should make it possible for users to get a good understanding of the above information and to express their wishes (e.g. through user-centric privacy policies) in a user-friendly and non-ambiguous way.

The PhD project will be conducted in collaboration with the members of the Inria PRIVATICS group and the other partners of the UPRISE-IoT project. It will not necessarily address all the above topics, and the specific focus will be adjusted in agreement with the successful candidate, based on his expertise and motivation.

Location:
The thesis will be located in the Inria Rhône-Alpes Research Center, either in Grenoble or in Lyon (south-east of France).

Required skills:
The candidate should have a Master's degree in computer science or a related field. Knowledge and motivation for one of the following fields would be appreciated: networks, privacy, security, human computer interaction.
Knowledge of French is <u>not</u> required.

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Links:
https://team.inria.fr/privatics/
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