

SONICCONTROL

the ultrasonic firewall

Novel technologies like Google Nearby and Silverpush build upon ultrasonic sounds to exchange information. More and more of our devices communicate via this inaudible communication channel. Ultrasonic communication enables to pair devices, exchange information but also to track users and their behavior across several devices similar to cookies in the web. Every device with a microphone and a speaker is able to send and receive ultrasonic information. The user is usually not aware of this inaudible and hidden data transfer. To overcome this gap, within the project SoniControl we research the current capabilities of ultrasonic communication and raise awareness for this unknown communication channel. To date there is no technology available that detects ultrasonic communication and that enables the user to protect his or her privacy. We develop a mobile application that detects ultrasonic activity, notifies the user and blocks the information on demand. Thereby, we want to raise the awareness for this novel technology and help users to protect their privacy.

All information about the SoniControl Project can be found on the project website: <http://sonicontrol.fhstp.ac.at>. The website provides general information as well as a number of resources (project deliverables) listed in the following:

No.	Description	License	Location
1	Project One-Pager (short description of the project, i.e. this document)	CC-BY Sharelike-3.0 AT	http://sonicontrol.fhstp.ac.at
2	Literature survey on ultrasonic communication technologies	CC-BY Sharelike-3.0 AT	http://sonicontrol.fhstp.ac.at/soni/wiki
3	Audio dataset of ultrasonic recordings with visualizations, including documentation	Open Data Commons ODB-BY License	http://sonicontrol.fhstp.ac.at/wp-content/uploads/2017/04/audio_resources.zip
4*	Developer documentation	CC-BY Sharelike-3.0 AT	GitHub Repository
5*	User documentation	CC-BY Sharelike-3.0 AT	http://sonicontrol.fhstp.ac.at
6*	Software prototypes for detection and spoofing of ultrasonic cookies	BSD License	GitHub Repository,
7*	SoniControl Application (complete source code, compiled application)	BSD License	GitHub Repository, Google Play Store
8*	Final Project Report	CC-BY Sharelike-3.0 AT	http://sonicontrol.fhstp.ac.at

* Resource will be available in the further course of the project, at latest at project end (December 2017)



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