

# 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-SA 3.0	<a href="http://sonicontrol.fhstp.ac.at">http://sonicontrol.fhstp.ac.at</a>
2	Literature survey on ultrasonic communication technologies	CC BY-SA 3.0	<a href="http://sonicontrol.fhstp.ac.at/soniwiki">http://sonicontrol.fhstp.ac.at/soniwiki</a>
3	Audio dataset of ultrasonic recordings with visualizations, including documentation	CC BY-SA 3.0	<a href="http://sonicontrol.fhstp.ac.at/wp-content/uploads/2017/04/audio_resources.zip">http://sonicontrol.fhstp.ac.at/wp-content/uploads/2017/04/audio_resources.zip</a>
4	Developer documentation	CC BY-SA 3.0	<a href="http://sonicontrol.fhstp.ac.at/documentation/">http://sonicontrol.fhstp.ac.at/documentation/</a>
5	User documentation	CC BY-SA 3.0	<a href="http://sonicontrol.fhstp.ac.at/documentation/">http://sonicontrol.fhstp.ac.at/documentation/</a>
6	Software prototypes for detection of ultrasonic cookies	GNU License	<a href="https://git.nwt.fhstp.ac.at/m.zeppezauer/SoniControl">https://git.nwt.fhstp.ac.at/m.zeppezauer/SoniControl</a>
7	SoniControl Application (complete source code, compiled application)	GNU License	<a href="https://git.nwt.fhstp.ac.at/m.zeppezauer/SoniControl">https://git.nwt.fhstp.ac.at/m.zeppezauer/SoniControl</a> , <a href="https://play.google.com">https://play.google.com</a>
8	Final Project Report	CC BY-SA 3.0	<a href="http://sonicontrol.fhstp.ac.at">http://sonicontrol.fhstp.ac.at</a>



#### Contact

email: [Matthias.zeppezauer@fhstp.ac.at](mailto:Matthias.zeppezauer@fhstp.ac.at)  
web: <http://mc.fhstp.ac.at/people/matthias-zeppezauer>

