Prof. Dr. Thorsten Holz, Chair for Systems Security
RUHR-UNIVERSITÄT BOCHUM | 44780 Bochum | Germany

RUHR
UNIVERSITÄT
BOCHUM
FAKULTÄT FÜR ELEKTROTECHNIK
UND INFORMATIONSTECHNIK

Chair for Systems Security Universitätsstraße 150 44801 Bochum Germany

Prof. Dr. Thorsten Holz Phone +49 (0)234 32-25199 Fax +49 (0)234 32-14956 thorsten.holz@rub.de www.syssec.rub.de February 2, 2021

Re: Letter of Support for the Osmocom project

To Whom It May Concern,

To Whom It May Concern

My name is Dr. Thorsten Holz and it is without hesitation that I write this recommendation letter regarding the Osmocom project. I am a full professor in the Faculty of Electrical Engineering and Information Technology at Ruhr-University Bochum (RUB). My research interests include systems-oriented aspects of secure systems, with a specific focus on applied computer security. Over the last years, we have published impactful security research concerning mobile networks with far-reaching consequences for the industry and daily users. Moreover, we have taught students the foundations of mobile networks and their security mechanisms in our courses.

The Osmocom project has been pioneering open-source software development in the traditionally very closed field of cellular communications. Osmocom, with all its subprojects, is one of the central components for our research and teaching activities. We appreciate the project for its feature-rich software with a low entry barrier for inexperienced students, helping them obtain first hands-on experiences with mobile networks. On the other hand, we use the Osmocom projects as the foundation for our mobile networks' security analysis. We can build complex scenarios with the help of the different Osmocom components. Additionally, the Osmocom community offers quick support in cases of questions, and in the case of complex problems, the community is willing to help beyond ordinary expectations.

We have used several Osmocom projects within the last years to secure our everyday used mobile networks. For example, on top of the Osmocom project, we investigated the security of GPRS encryption algorithms' and found that those algorithms do not hold the modern security expectations. Based on this research, future phones discontinue supporting weak cryptographic algorithms. This example demonstrates that the Osmocom project is a necessary tool for our research, leading to real-world consequences for our daily used communication.

In summary, we fully support the project and encourage any kind of contribution. This includes financial support to extend the scope, functionality, testing, usability, and documentation. Such support will help the Osmocom project to continue developing an open mobile network stack and thus fundamentally contribute to the security of our all communication. I wish you success with your application and look forward with anticipation to hearing about the progress of this highly relevant and exciting project.

Best regards,

Dr. Thorsten Holz WWW.RUB.DE