Design and use cases of cooperative security in the internet and 5G

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The talk describes the idea of cooperative security for the Internet and 5G. The idea of cooperative security is that all good guys would cooperate automatically to mitigate all hacking over the Internet sharing evidence of misbehaviour, constraining detected infected hosts and deploying security patches as quickly as they become available. The talk outlines the solution called Customer Edge Switching as an implementation of cooperative security. The paper discusses the design choices in the architecture and describes briefly some use cases under the constraints set by the network neutrality regulation. The technical details can be found in www.re2ee.org and naturally e.g. in IEEE Explore. Most concepts presented in the talk have been proven by Proof of Concept or running code level experimental implementation. Our current work is targeted to complementing the body of running code for further research and development. Code is published in GitHub/Aalto5G.