

Atos Breakout session
11 09 2019 – 10.00

Silencing WiFi – Bane and Boon

Bernhard Griener & Frank Schraml



Abstract:

- ▶ Wireless networks have moved from private homes and public networks into industry and office use. This renders availability and security of WiFi much more crucial, both for our customers and Atos itself.
- ▶ In our presentation, you will learn some background to 802.11 wireless networks (common WiFi), their weaknesses and how these can be exploited.
- ▶ It is not hard to completely block WiFi traffic. Our talk takes this further: We will show in a live demonstration how to selectively interrupt WiFi communication of specific networks or devices.
- ▶ We will do this using a self-built device based on a typical IoT microprocessor, and visualize the events with professional wireless network capture equipment.
- ▶ Besides the bane of denial of access, we highlight how such *selective* WiFi blocking can also be used as a boon to actually increase security, acting as a WiFi “firewall” to enforce secured access, block rogue access points and prevent spoofing attacks.
- ▶ Of course, the presentation will also discuss potential counter measures.
- ▶ As our customers are faced with the decision of moving towards WiFi-only offices, awareness of the risks is essential to prevent expensive mistakes. If successful at the Expert Convention, the demonstration could also be turned into a marketing tool.
- ▶ This talk is targeted at experts with a general IT background, but also those specializing in IT security or networking should be able to learn something new here.

Presenters:

Bernhard Griener

Domain I: Cybersecurity



A mathematician by training, I have been working in IT security for >15 years, planning and building firewalls and VPNs, rushing to incidents, adopting innovative technologies and creating new tools.

During last year's Expert Convention, my presentation then was generously elected among the top three.

Frank Schraml

Domain H: Telecom & Network



I am a member of the NPA-Team. We take care about network and application troubleshooting. At the moment I am heavily involved in the WiFi-First Project for planning and site survey measurements.