

# Detecting Incidents in Wireless Mesh Networks using Flow and Routing Information

Lothar Braun<sup>1</sup>, Alexander Klein<sup>1</sup>, Leon Aaron Kaplan<sup>2</sup>, Georg Carle<sup>1</sup>

<sup>1</sup> Lehrstuhl für Netzarchitekturen und Netzdienste, Technische Universität München

<sup>2</sup> CERT.at - Computer Emergency Response Team Austria

**Abstract:** The topology in wireless multi-hop networks can change frequently due to characteristics of the shared medium, mobility of the users, or misbehaving and malicious nodes. Frequent topology changes typically lead to inconsistencies in the network topology since routing protocols can only cope with certain topology change rate. These incidents may even lead to a temporary collapse of the network if countermeasures are not applied in time. Therefore, an early detection of incidents is necessary to achieve a high availability of these networks. In this work, we propose a monitoring infrastructure for wireless ad-hoc networks which is able to detect incidents by evaluating flow and routing information.