

Review

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**Software-defined mobile networks security**

Chen M., Qian Y., Mao S., Tang W., Yang X. Mobile Networks and Applications 21 (5): 729-743, 2016. Type: Article

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The tremendous success of mobile devices and their applications raises a lot of questions regarding security, quality of service (QoS), and user satisfaction. It is therefore very important to address these challenges and provide cost-effective architectural solutions. One of them is software-defined mobile networks (SDMN), an extension of software-defined networking (SDN) that involves cloud computing and network function virtualization (NFV). The separation of the data layer from the control and application layers improves flexibility and scalability among several performance parameters, leading to an increased capacity for data traffic. However, there are challenges, the most important being posed by the security threats.

This paper addresses the research on the security challenge of SDMN by reviewing many research papers that discuss specific security threats and propose adequate countermeasures. The concepts of SDMN and OpenFlow as the main protocol are clearly defined at the beginning of the paper, allowing the reader to understand the architecture and easily follow the authors' presentation. The paper is logically well structured, addressing the threats at all layers of the architecture and the communication protocols. For example, the authors discuss first the security problems associated with SDN that are inherited by SDMN, and then review the open security issues specific to SDMN. The list of references is comprehensive.

This paper can be recommended as a good starting point for researchers in the area of SDMN, or to fifth generation (5G) system designers.

Reviewer: [D. Grigoras](#)

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