

5G RAN synchronization vulnerability

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Abstract

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Abstract:

Fifth-generation mobile network standards offer almost endless opportunities for the advanced mobile networks. They can provide connections between terminals and other nodes with quite high data rates, low latencies with low jitter. The 5G networks could be seen as Formula 1 cars of mobile networks in the aspect of performance. But what happens if something goes wrong? Do we become inoperable immediately? In 5G networks, synchronization is one of many things that can cause serious problems. In this article, the synchronization methods in 5G networks were examined and the importance and the impact of their vulnerabilities was explained. These experiments were performed at the National Laboratory of the Ministry of Innovation and Technology, National Research, Development and Innovation within the framework of the Infocommunication and Information Technologies.

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