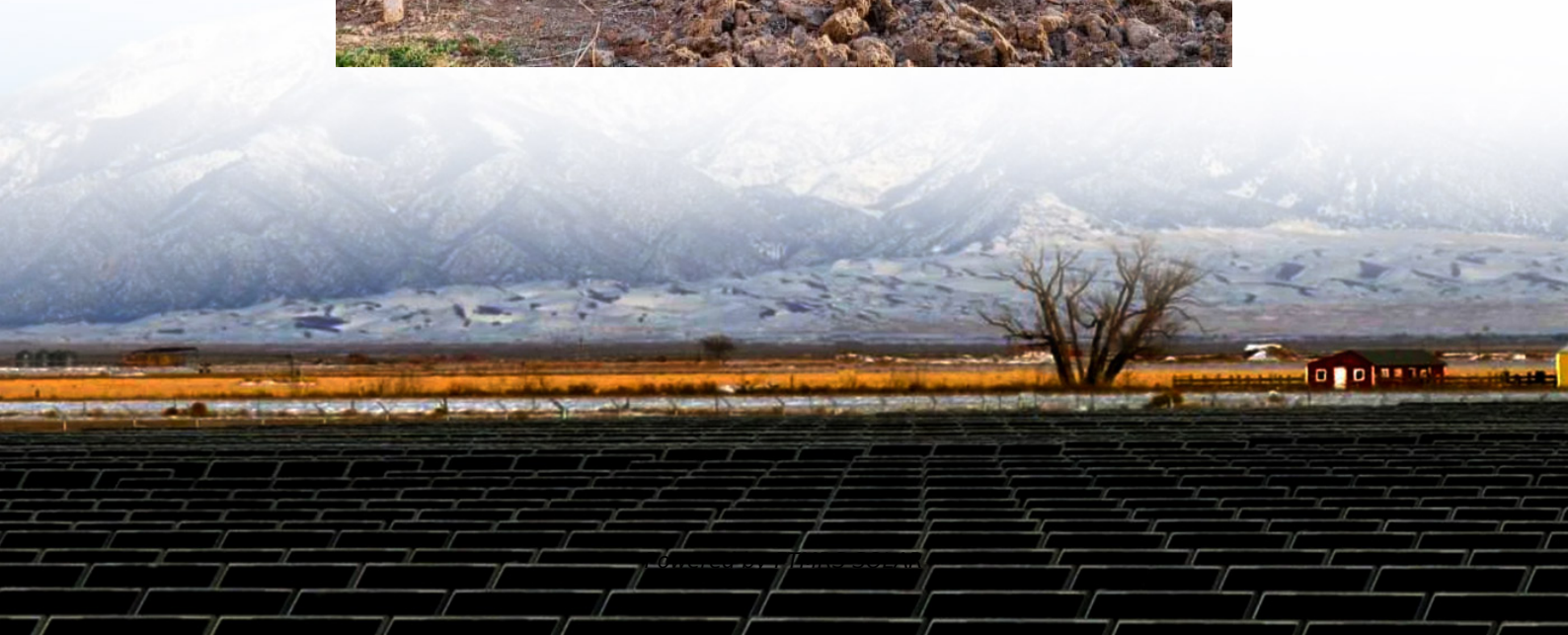


Madrid Communications 5g base station detection





Overview

How does 5G protect users from false base stations?

The framework complements other mechanisms introduced in 5G to protect users against false base stations, for example encrypted long-term identifiers and fresh short-term identifiers. This blog post outlines the framework and describes some practical experiments we have performed in our lab. Strategic Product Manager, RAN Security.

Can mobile networks detect false base stations?

SA3 has described a solid framework based on this information, enabling mobile networks to reliably detect such false base stations. The framework complements other mechanisms introduced in 5G to protect users against false base stations, for example encrypted long-term identifiers and fresh short-term identifiers.

Does 5G work if a base station is fake?

We empirically validate that the 5G connection works well when the base station is the legitimate base station. Against a fake base station, we implement enabling vs. disabling our scheme.

Can a 4G network detect a false base station?

The setup, shown in Figure 3, uses base stations of two network generations, 2G base stations called BTS, and 4G base stations called eNB. The purpose is to verify that a 4G network can be used to detect both 4G and 2G false base stations.



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Cellular Networks Kazi Samin Mubasshir*, Imtiaz Karim*, Elisa Bertino

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