Base station link communication scheme

Why should a base station switch to a link routing scheme?
Furthermore, our link routing scheme enables the base station to switch in order to restore the connectivity availability and limit the threat impact. We also discuss future directions to facilitate and encourage R&D in securing telecommunications and base station security.

What is a link routing scheme?
Unlike the current practice, which has the victim UE stay with the fake base station, our link routing scheme enables recovery from the fake base station by dropping the connection to it and rerouting the RRC connection to a legitimate base station. In this section, we focus on the performance overheads of our link routing scheme.

What does a base station do?
The base station acts as a bridge gatewaybetween the user equipment and the core network. The core network provides service connectivity to the user equipment by authentication management,identity management,and mobility management.

Does our scheme detect a fake base station?
Against a legitimate base station,our scheme correctly does not detectand blacklist the base station. Against a fake base station persistently withholding the connection,our scheme correctly decides that it is a fake base station,and the false-negative rate is zero.

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Introduction Sidelink is a 3 rd Generation Partnership Project (3GPP) standardized technology that enables direct user-to-user communications, with or without the assistance of ...

Driven by the intelligent applications of sixth-generation (6G) mobile communication systems such as smart city and au-tonomous driving, which connect the ...

Most of the current research is based on the performance of the base station (BS) itself or the operation mode of the communication operator without considering the users' ...

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A defense scheme is designed and built which detects and blacklists a fake base station and then, informed by the detection, avoids it through link routing for connectivity availability and to ...

The link quality in cellular networks strongly depends on the location of the users relative to the serving and interfering base stations (BSs). This paper proposes a location ...

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