Problems with MAC randomization

This Wiki page isn't complete yet. If you know how to disable MAC randomization for operating systems which are not listed here, please tell us how via helpdesk@fem.tu-ilmenau.de so we can improve this wiki page. Thank you for your help!

What is the problem?

MAC randomization is a new technology used in many mobile devices to prevent you from being tracked by your MAC address when searching for Wi-Fi networks. Hence, the feature contributes to privacy and protection against tracing. A MAC address is randomly determined and used when searching for and connecting to networks.

However, in FeM-Net, devices are identified by their MAC address. So, if MAC randomization is activated, the device tries to connect via a MAC address that does not match the one in our database, which is why the connection fails.

You can recognize MAC randomization when you see a different MAC address on our MyInfo page in the FeM_Welcome Wi-Fi than the one in the settings of the affected device, for example.

How do I disable that?

This varies for each operating system, but there is usually the option of deactivating the feature only for individual Wi-Fi networks, which ensures privacy.

Android

Android supports MAC randomization from Android 10. This feature is therefore not available on older systems.

For deactivation:

- Open settings > Network & Internet > Wi-Fi
- For our Wi-Fi networks (e.g. „FeM.PSK“ and „FeM.1X“) open the settings by pressing and holding down the respective Wi-Fi network > Modify network
- In the advanced options, there should now be a corresponding privacy setting that allows to switch off MAC randomization or set the MAC address type to the phone's original MAC address (“phone MAC”).

iOS

Apple Support offers a guide for iOS 14: https://support.apple.com/en-us/HT211227

Windows

In the Wi-Fi settings (Start menu –> Settings –> network and internet –> Wi-Fi) there is a section called „Random hardware addresses“. The switch „Use random hardware addresses“ must be deactivated. This should deactivate MAC randomization for Wi-Fi.

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