

Supplementary Bulletin

Exhibitor-operated Wi-Fi networks

Supplementary to the "Organizational and Technical Regulations" IAA TRANSPORTATION 2022"

Why are there special guidelines on exhibitor-operated Wi-Fi's?

Speaking figuratively, Wi-Fi is like a freeway – or, better said, two freeways – the so-called frequency ranges. These are technically independent of each other, bringing data traffic from point A to point B. There is the 2.4 GHz frequency range and the 5 GHz frequency range. These have an invariable number of lanes – frequency channels – over which data are transmitted from the sender to the receiver. The speed of data traffic is largely determined by the density of **traffic**. Based on this, there is the same rule of thumb as on the freeway: the more vehicles in the lanes, the slower the flow of traffic. And if you add to that reckless drivers who do not adhere to the speed limit, constantly change lanes without warning or accelerate and brake again for no reason, the result is pure chaos. **The 2.4 GHz frequency range is now so heavily utilized that it has only a limited scope of use due to the traffic problems described above. The 5 GHz frequency range is still usable, but only because it has five times the number of channels (lanes) and the operation of proprietary networks in this range is not permitted (thus reducing the volume of traffic).**

The above-described situation with regard to the freeway is invariable. The number of lanes (frequency channels) is physically limited and increasingly intense data traffic via Wi-Fi is a given in the digital world. To avoid traffic chaos on the freeway, the traffic needs to be regulated, so that we are forced to optimize the available channel resources through a wide range of measures to ensure that every exhibitor and visitor has the best possible Wi-Fi experience. Although these measures will lead to restrictions in the use of proprietary networks, they will ultimately ensure the best possible result in an environment that is highly demanding for Wi-Fi technology.

An overview of the main points:

- Only Deutsche Messe is entitled to offer 5 GHz Wi-Fi service.
- Exhibitors' proprietary networks can only be operated in the 2.4 GHz frequency range.
- Every exhibitor Wi-Fi must be registered individually for 2.4 GHz use.
- Deutsche Messe does not allocate channels; channels 1, 6 or 11 can be used.
- Wi-Fi is more than just "Internet Wi-Fi": machines, remote controls, cameras and additional terminal devices also have Wi-Fi transmitters. These are also classified as exhibitors' own Wi-Fi implementations and thus subject to the relevant guidelines.
- **To ensure trouble-free operation, we strongly recommend using the Deutsche Messe 5 GHz Wi-Fi. You can order it in our online shop.**

What are you doing to ensure the ideal Wi-Fi quality?

To achieve the best possible quality for the two different frequency ranges, it is absolutely necessary to regulate these technically and organizationally. The relevant measures include the following:

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- Mandatory registration of exhibitor's own Wi-Fi by the exhibitor
- Individual configuration specifications for exhibitor Wi-Fi in the 2.4 GHz frequency range
- Wi-Fi explanatory video
- E-mail and telephone campaigns
- Provision of a high-performance 5 GHz Wi-Fi
- Telephone support for planning and implementation
- Wi-Fi guides during the event

How will the above items be implemented?

Wi-Fi registration: Anyone who wants to set up their own Wi-Fi is obliged to register that Wi-Fi network on the basis of the Technical Regulations. This registration serves as an information channel so that we can inform each customer specifically about the details of using the Wi-Fi.

Individual configuration in the 2.4 GHz frequency range: Proprietary Wi-Fi's may only be operated in the 2.4 GHz range. Deutsche Messe does not allocate channels; channel 1, 6 or 11 can be used. The configuration specifications according to the confirmation must be implemented.

Wi-Fi explanatory video: To give you a better understanding of the special features of Wi-Fi, we have created an explanatory video, which you'll find in the Exhibitor Shop for the event as well as under the following links:

DE: <https://www.messe.de/de/messen/wlan-erklaervideo/>

EN: <https://www.messe.de/en/trade-fairs/wifi-explainer-video/>

E-mail and telephone campaigns: It is important to us that every exhibitor be informed about the special characteristics of Wi-Fi. It is especially important to us that everyone is aware of the risks involved in operating their own 2.4 GHz network. For this reason, we are working to inform our exhibitors about Wi-Fi in the best possible way through a series of e-mail campaigns. Just as with the e-mail campaigns, every telephone contact is also an opportunity for us to inform you about the risks involved in using a 2.4 GHz Wi-Fi.

Provision of a 5 GHz high-performance Wi-Fi: Only Deutsche Messe's 5 GHz Wi-Fi guarantees Wi-Fi availability on the exhibition grounds, and is therefore the only alternative to your own 2.4 GHz Wi-Fi. Please watch the Wi-Fi explanatory video.

Phone-based support: We will help you plan how to use our 5 GHz Wi-Fi for your tradeshow appearance. Tell us what you want to do, and we'll make sure our Wi-Fi gets the job done.

Wi-Fi guides: During the event, our team will check on the quality of Wi-Fi in the event area, inform exhibitors about the applicable Wi-Fi guidelines and, if necessary, enforce them. Should you then need an alternative solution, our team will support you in finding a solution.

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Anything else I need to know?

Particular types of equipment do not allow the 5-GHz range to be switched off. This applies to Apple's AirPort Extreme products in several different versions. These devices may not be operated. If you want to operate a Wi-Fi yourself, you may only do so in the 2.4 GHz range.

Do not use any consumer-grade devices for the setup. These will not allow you to set the data rate for beacons and invariably result in an excessive reach for access points, up to a distance of 150m – a bad situation for you and your neighbors.

Use professional Wi-Fi equipment to limit the reach. With some manufacturers, this can be found under RF profiles (Cisco) or under the Wi-Fi settings. You will then need to make the settings on each SSID. The lowest mandatory data rate should be 24 Mbps.

Wi-Fi is not exclusively reserved for Internet use. Wi-Fi is also found in many other devices, e.g. remote controls, cameras and machines. These devices also may only be operated in the 2.4 GHz range. If this leads to usage limitations during the show, you can order access to the Deutsche Messe 5 GHz Wi-Fi for the relevant devices.