Frequently asked questions

Mobility Monitor Wireless

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1.   This Document

This document contains a collection of frequently asked questions (FAQ) and their answers about Mobility Monitor Wireless.

2.   Frequently Asked Questions (FAQ)

2.1.   How do the data from a Mobility Monitor reach the screen of the user?

The mobility data from the Mobility Monitor are transmitted by radio to a receiver. If the radio distance is too large, a repeater is used, which relays the signal. The receiver is then integrated into the local IP network via Ethernet. A server establishes a connection to the receiver and receives the data. The "WirelessServer" software writes the received data to an SQL database. The user software "Mobility & Care Manager" retrieves the data from the database and visualizes it on the PC.

2.2.   Which radio standard is used?

A proprietary radio protocol is used in the freely available 868 MHz ISM band. Thus the radio transmission of the Mobility Monitors is independent of WiFi networks.

2.3.   What are the advantages of proprietary wireless transmission to the WiFi standard?

Some of the advantages of our wireless system:

- The radio range is much larger than with a WiFi network. This is due to the lower frequency (better penetration of walls) and a higher permitted transmission power (regulatory limitation).

- There must be no covering WiFi infrastructure. In order for the data connection to be constantly guaranteed by the Mobility Monitor, at least one wireless internet access point (experience value) should be available in each patient room when using WiFi. With the Wireless-868 system from compliant concept AG, a receiver and possibly a repeater per floor are usually sufficient (depending on building conditions)

- The mesh network is self-organizing and self-forming: It is not necessary to register or configure every single device in the network. As soon as a device runs, it connects itself to one (or more) receivers.

- The IT infrastructure does not need to manage, configure, and monitor a variety of devices (static IP addresses, etc.). Only the receiver(s) must be integrated into the LAN.

2.4. What problems can be expected if other WiFi devices are used in parallel?

None, since the radio frequencies are different and all electrical and wireless devices must comply with the legal limits so that the devices do not interfere with each other. For electrical medical devices even stricter regulations apply to immunity to interference.

2.5. How is data transfer secured?

The radio transmission is secured with AES128. In addition, the sensor data are formatted with a proprietary code. It is important to understand that the data is transmitted completely anonymously. The data is assigned to a patient only on the database server. The server and workstations must, of course, be protected against unauthorized access.

2.6. What is the frequency and transmission power of the radio transmission

The frequency used is 868MHz and the transmit power is 25dBm.

2.7. Which outgoing ports must be allowed by a firewall?

To query and update the license, the Mobility & Care Manager application must be able to establish an outgoing https connection on TCP port 443 to our license server (https://licensing.compliant-concept.ch). TeamViewer also requires ports TCP 80, TCP 443, and TCP 5938 for remote maintenance and support (optional).

3. How to reach us

Fragen zum Mobility Monitor? Gerne bieten wir Ihnen technischen Support per Telefon oder E-Mail.

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Change History

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1.0.0	06.04.2017	First Edition	Jdo	Men	men