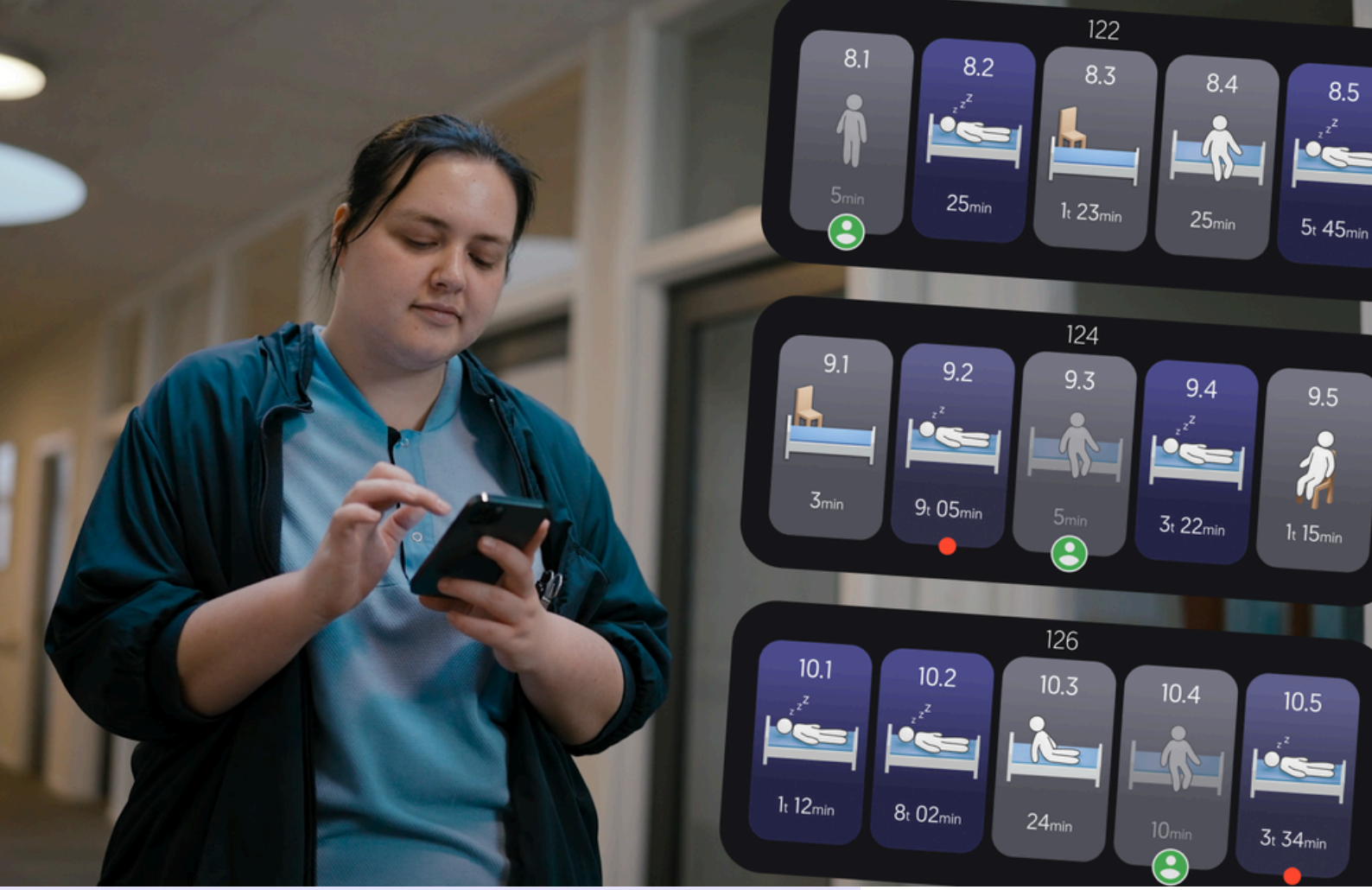

Technical Documentation

Teton

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Overview

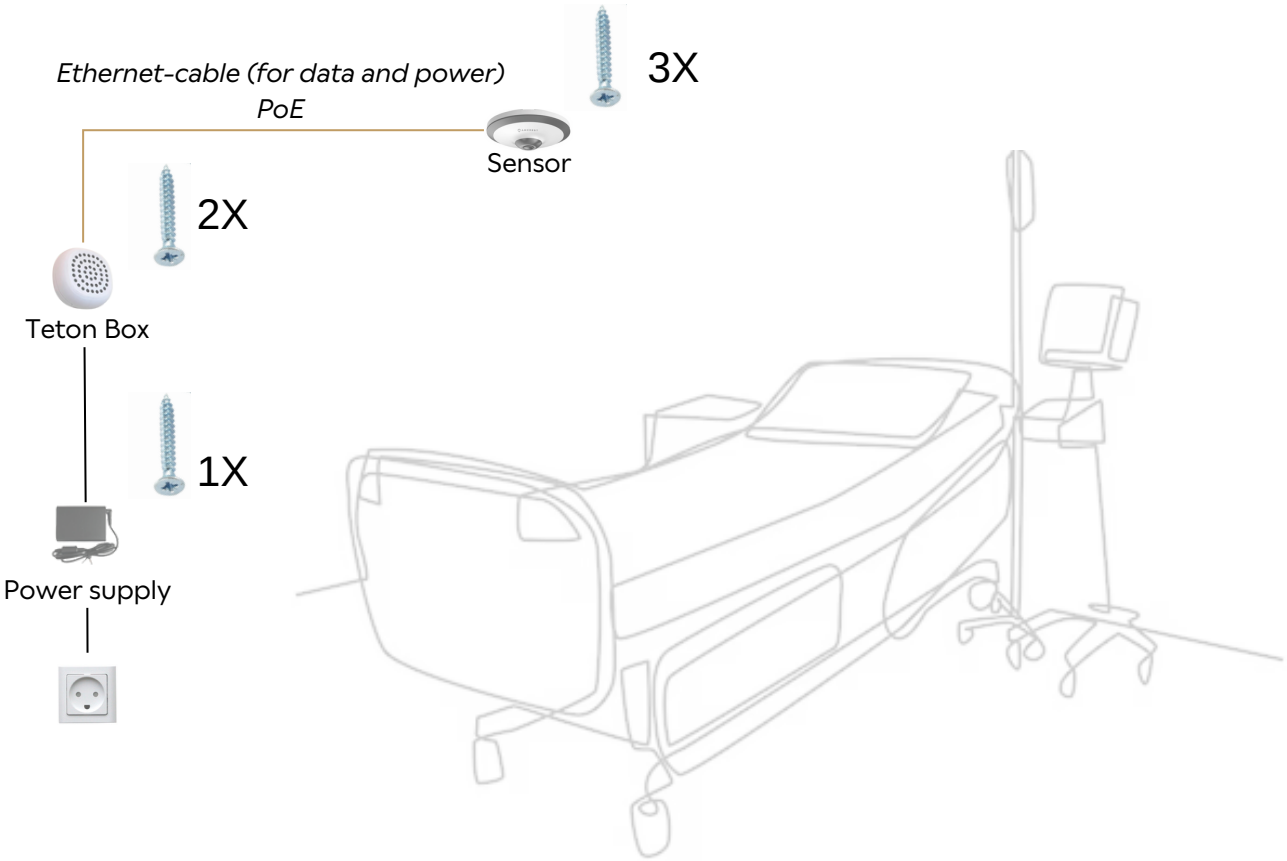

Illustration 1: Simplified setup

A monitoring unit consists of the following hardware:

- A sensor.
- An Ethernet-cable (Cat 6) (between sensor and the Teton Box-computer).
- A Teton Box (processing unit).
- A power cable from Teton Box to the power adapter.
- A power cable from power supply to plug

Teton provides all the above hardware for the implementation.

Please note that the above hardware items are required for each observed patient/per bed.

Hardware

Sensor and mount

Teton uses the Amcrest 360° sensor as a sensor to capture images that are analyzed locally in the Teton box connected with a cable.

Technical specifications:

- Dimensions: Height: 44.6 mm. Diameter: 126.2 mm.
- Amcrest 5MP Fisheye IP PoE Sensor 360° Panoramic FOV IP5M-F1180EW-V2
- High resolution panoramic sensor.
- Infrared LED for night vision.
- Power supply: via Ethernet (PoE) to Teton Box.
- Built-in microphone.
- Dimensions: Height: 44.6 mm. Diameter: 126.2 mm.

Illustration 2: Sensor and mount

Hardware

Teton Box

Teton Box is an intelligent, AI-based computer that provides caregivers with information about their residents.

The box receives real-time images from the home and processes them locally in the Teton Box. The processing consists of "annotating" the real-time images with text data and line drawings.

The video material is only processed on the device to protect privacy.

At night, it uses infrared light for the sensor to better capture the space.

Technical specifications:

- **Main purpose/task:** Local GPU processes images received from the sensor via the Ethernet cable.
- **OS and firmware:** NVIDIA Jetson Linux 35.3.1 provides Linux kernel 5.10, a UEFI-based bootloader, a root file system based on Ubuntu 20.04, NVIDIA drivers, necessary firmware and tool chain.
- **Internet connection:**
  - **Optimal:** Ethernet.
  - **Working well:** Wi-Fi with DHCP
- **Updates:** Teton provides continuous updates as soon as they are available. Updates do not affect uptime.
- **Power supply:** Supplied via a standard 230 V power outlet with an included power adapter (supplied by Teton).
- **Communication:** Built-in speaker.

Illustration 3: Teton Box and mounting.

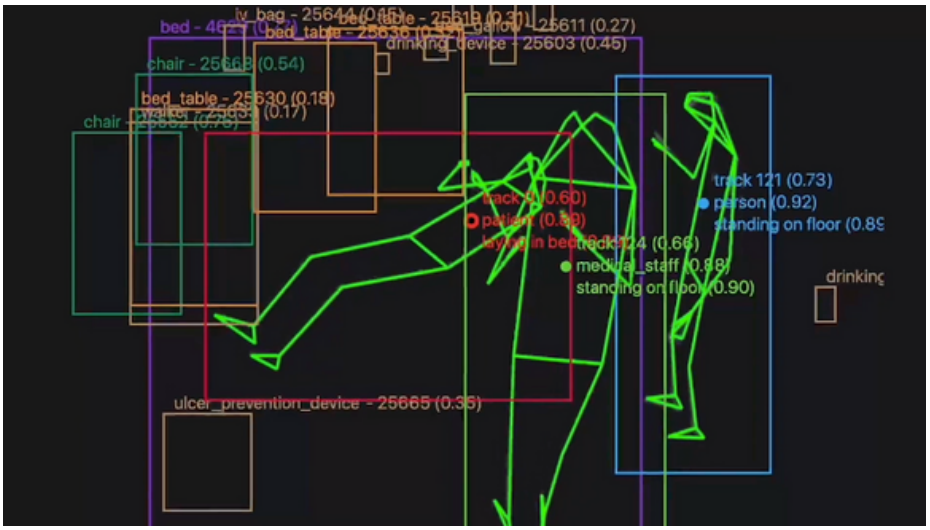

Illustration 4: Annotated image. Processing is done locally in the Teton box.

Cloud-connection

We have designed the system to only use outgoing connections.

This means that it is not necessary to open inbound ports specifically for our device.

However, if there are firewalls blocking communication in both directions, it may be necessary to open some ports to be fully functional.

Each device uses an average of 5 GB per month.

Technologies and ports:

- HTTP/HTTPS - Port 80/443.
- MQTTS - Port 8883.
- UDP messaging - Port 53/443.
- Fleet management - Port 7835

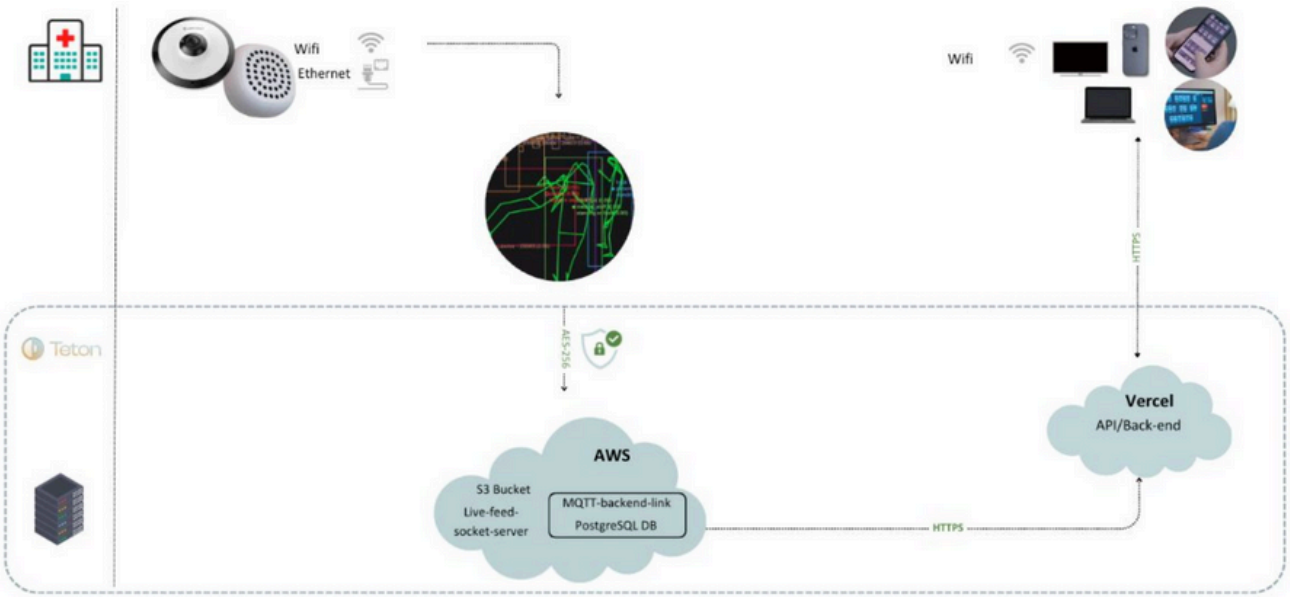

Illustration 5: Dataflow

Information about the app

Here you will find a brief overview of the app and user management:

- **Operating system:** Android and iOS.
- **Availability:** Public or managed app environment.
- **User management:** We offer two options, depending on customer preference:

  1. The customer manages the accesses:
     - Personal logins.
     - Login is done via the customer's own system, which then forwards the login to the Teton application.

  2. Teton manages the accesses:
     - General, station level logins.
     - Direct login.

- **Who can see which patients?** Default: The user can see all residents on the app. The individual user can then choose to see only the patients he/she is responsible for.

- **App updates:** This depends on the customer's app management.
  - Teton App Management: Teton can push and update directly.
  - Client App Management: The client's IT department or caregivers must accept the update.

Desktop version

Web-based Dashboard

- **Browser:** Chrome.
- **Setup:** Shortcut to the browser and the web-based login page.
- **Login:** Same procedure as for the app: personal login, or station level login.

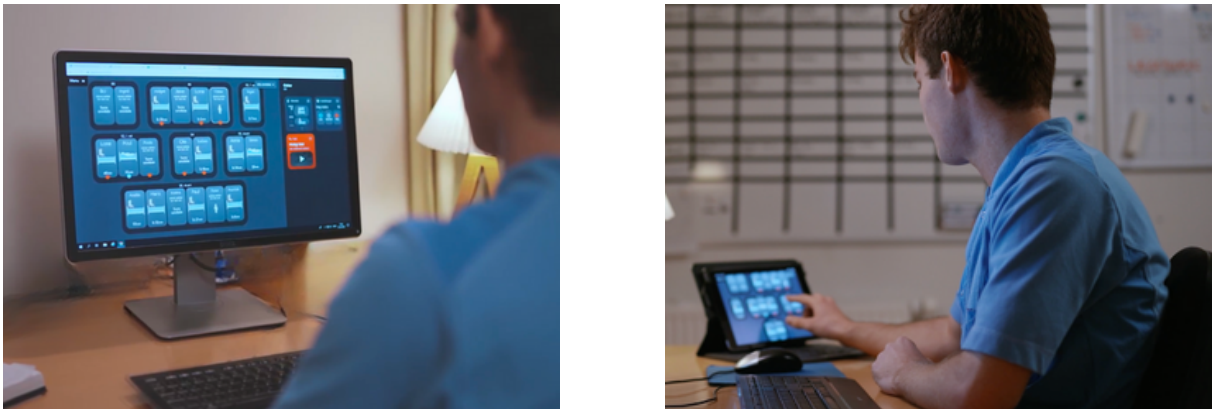

Illustration 7: Web-based Dashboard.

We look forward to a project with you!

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