

Bittium in daily use

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November 2021

Medical Analysis Service Solutions

Bittium Faros™ Remote Cardiac Monitoring

Bittium Respiro™ Sleep Apnea Screening Device



Bittium

Web-Based Service Platform

Service Center



Diagnostics Group

Verifying and allocating the recording

Analysis and report



Cardiac data for analysis

Diagnostic report with instructions



Clinics



MedicalSuite™ BackOffice
(Administrative tool)

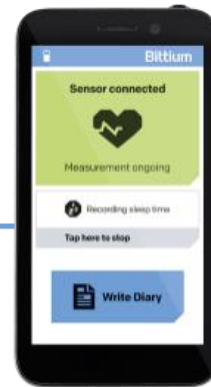
Bittium Faros™ - Remote Cardiac Monitoring



The small, lightweight and waterproof Bittium Faros™ ECG recorder is easy to use and set up on a patient.



During an ECG recording, Bittium HolterPlus™ mobile application enables the patient to report symptoms, activity and sleep via a digital diary.

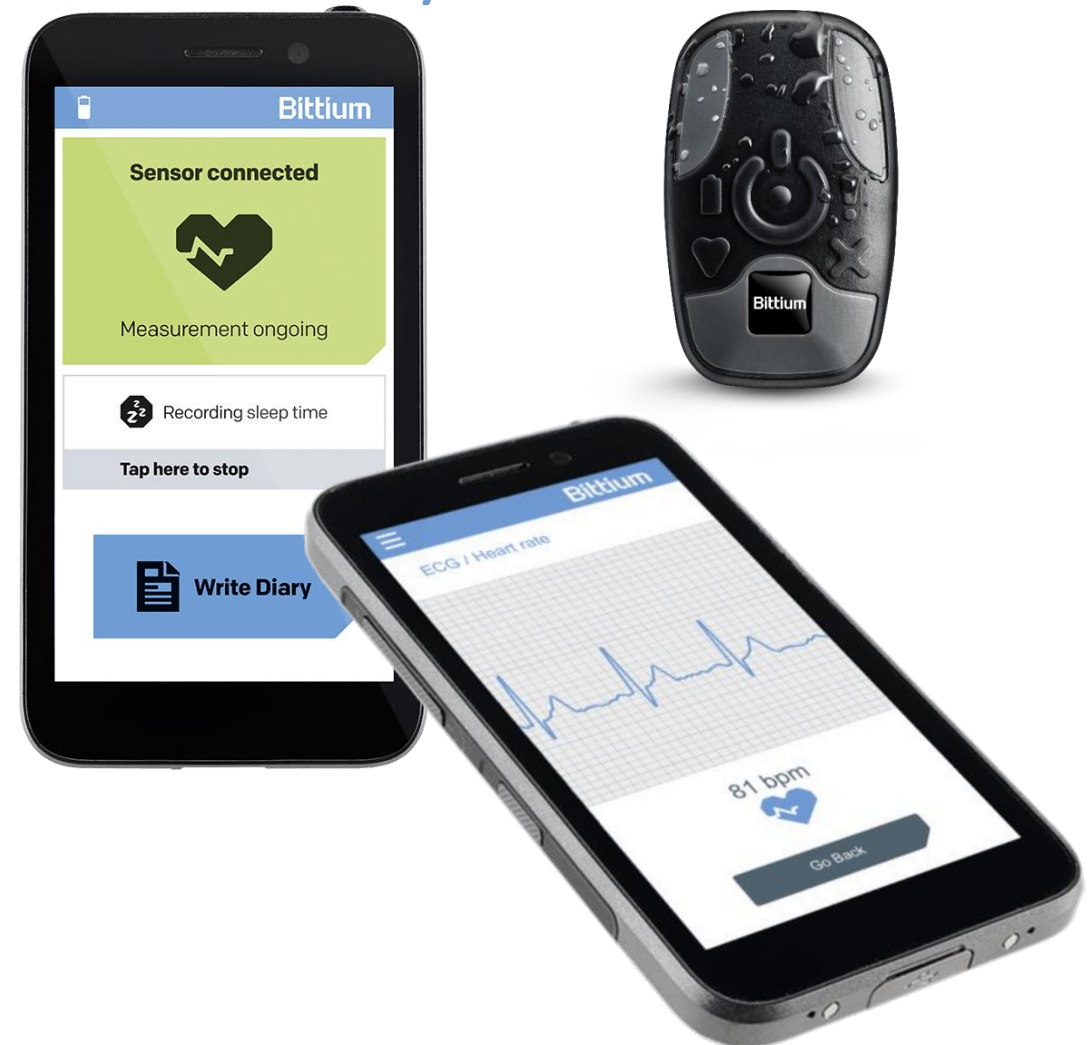


The recording device transmits the ECG data via bluetooth to the mobile device which, in turn, serves as the gateway for sending the cardiac data to the web portal for analysis. Cardiologist is able to do daily checks and adjust the individual recording length based on the received ECG data.

The patient's recorded ECG information is analyzed with Bittium Cardiac Navigator™ and turned into a comprehensive report, including treatment instructions by the cardiologist. The treating doctor is notified when the analysis is ready and a report is made available via the web service.

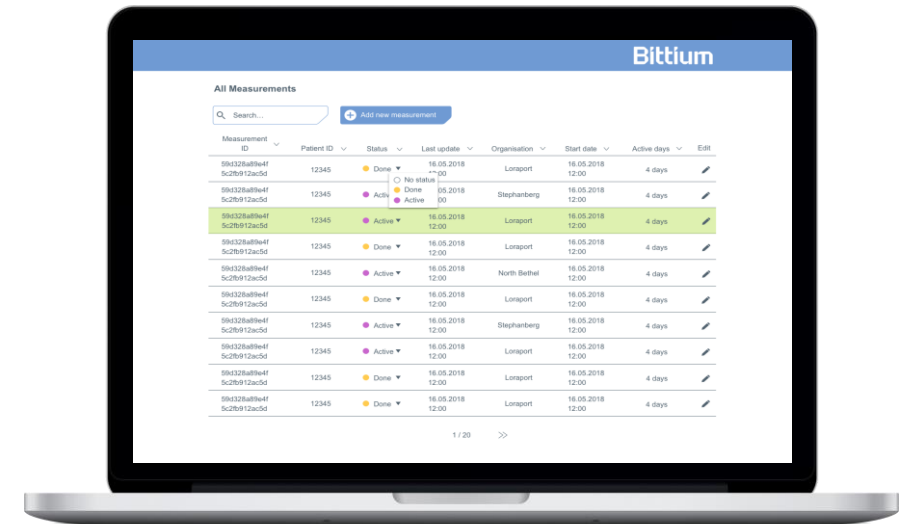
Mobile Device Functionality for Patient / Nurse

- Single purpose device built to withstand and be simple to use with high security
- Hands-on instructions and support to recording period directly from application
- Digital diary for symptoms, activity and sleep
- Continuous automatic data transfer to platform service for remote analyzing
- Easy and Fast device setup
- Live ECG on the mobile device display to verify signal quality



Web Service Functionality for Nurse / Technician

- Create recordings to the system with the required patient related information
- Near real-time visibility to recordings status
- Quick preview tool to remotely verify the signal quality of recordings
- Ends recordings from the web service
- Assign recordings to cardiologist or cardiologist group
- View and download diagnostic reports provided by cardiologist



Nurse and technician roles can be separated based on the needs of operating environment

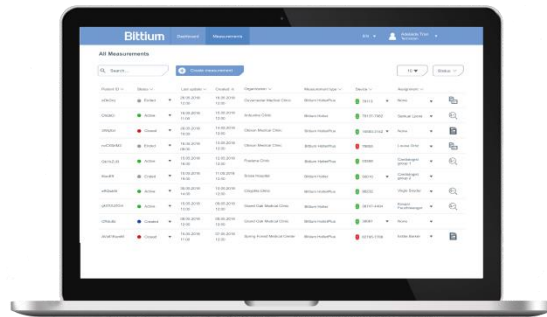
Bittium Cardiac Navigator for Cardiologist

- Daily check for meaningful events during recording period to make a decision of recording length
- Analyzing of full recording period data with the help of automatic analyses
- Writing the statement based on the event findings and creating the diagnostic report



Main Benefits

For Clinics



- Time savings and removed bottle necks with automatic data transfer and digital diary
- More efficient use of resources by optimizing the recording time
- Improved success rate of recordings

For Cardiologists



- Increased quality control of recordings
- Possibility to carry out long-term holtering with daily checks
- Faster patient care

For Patients



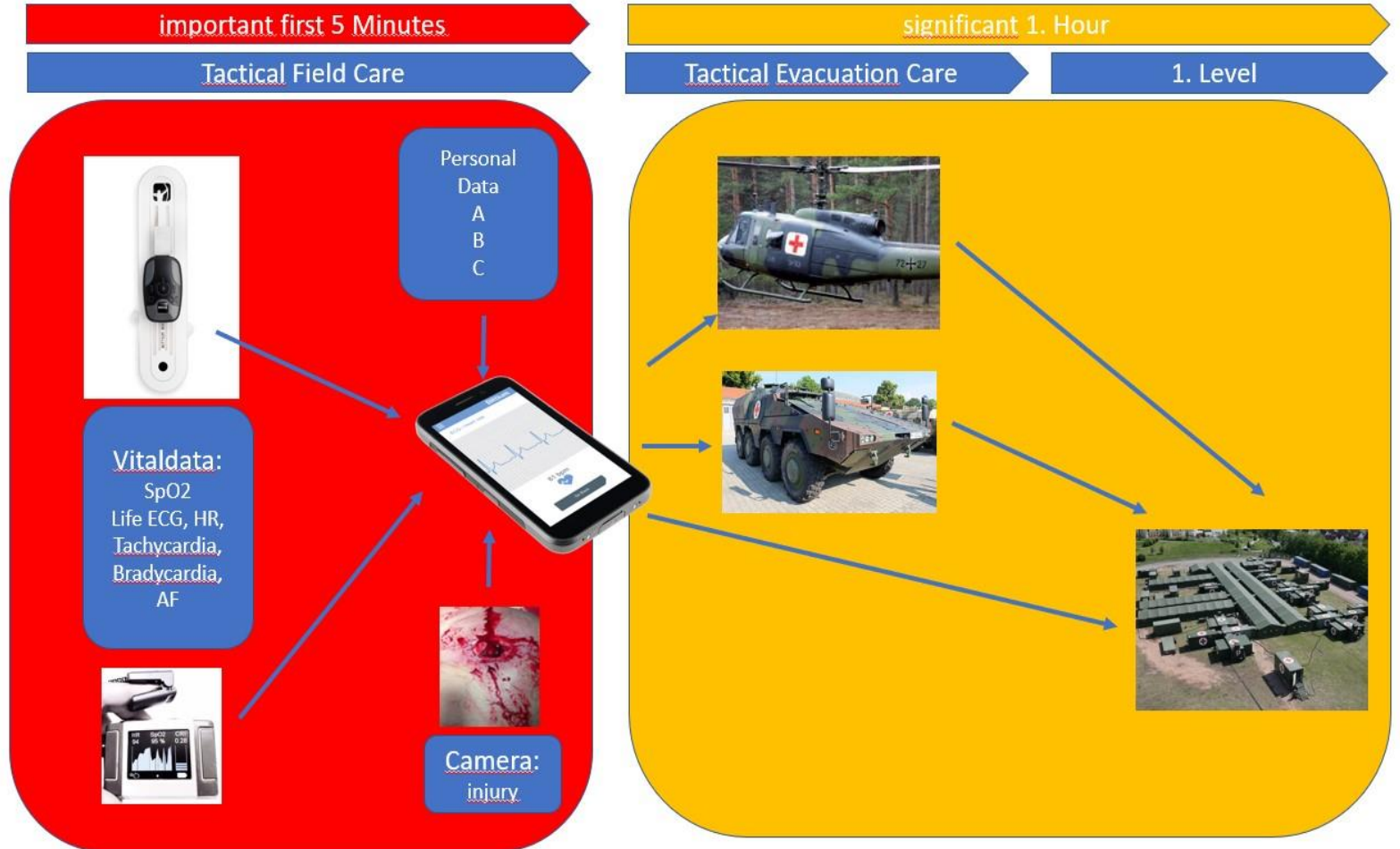
- Enables normal everyday life with comfortable, waterproof Holter device
- Optimization of recording time for each patient

Customer example

For Military



- Support with the triage
- Time savings and remote service
- Medical planning
- Standard equipment



Bittium Respiro™ Sleep Apnea Screening Device

- Bittium Respiro™ is a medical device & analysis service focused to Home Sleep Apnea Testing (HSAT).
- With the related analysis service, it is intended to record standard PG level data and analyse typical sleep related breathing disorders.
- The main focus area is measurement and analysis services for:
 - Obstructive sleep apnea
 - Central sleep apnea
 - Mixed sleep apnea
 - Hypopnea
 - Cheyne-Stokes breathing



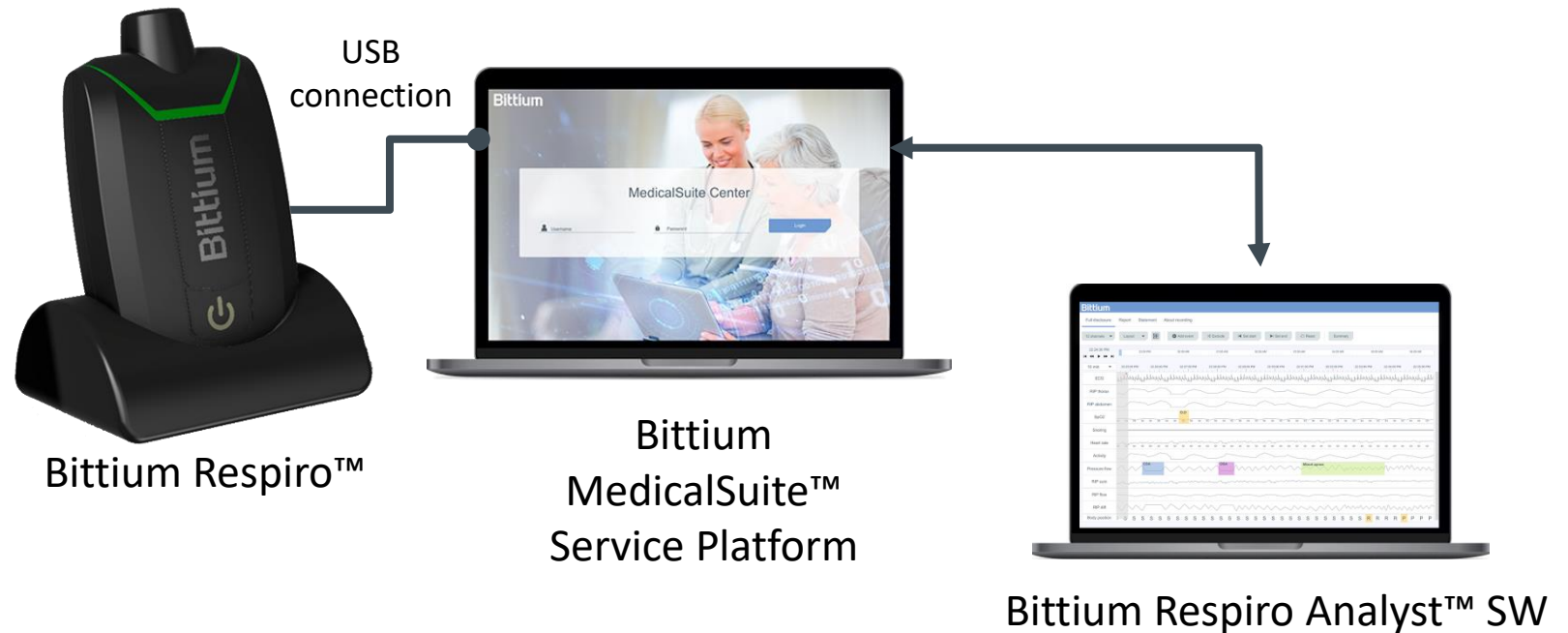
Offline Mode

Offline mode: Bittium Respiro™ is returned, data is uploaded from the device's memory card and stored to the Bittium MedicalSuite™ Service Platform. Data is analysed afterwards with Bittium Respiro Analyst™ software.

Data upload to Bittium MedicalSuite™ Service Platform

The device returned to clinic / hospital after every measurement period

Simplified, cost efficient solution



Online Mode

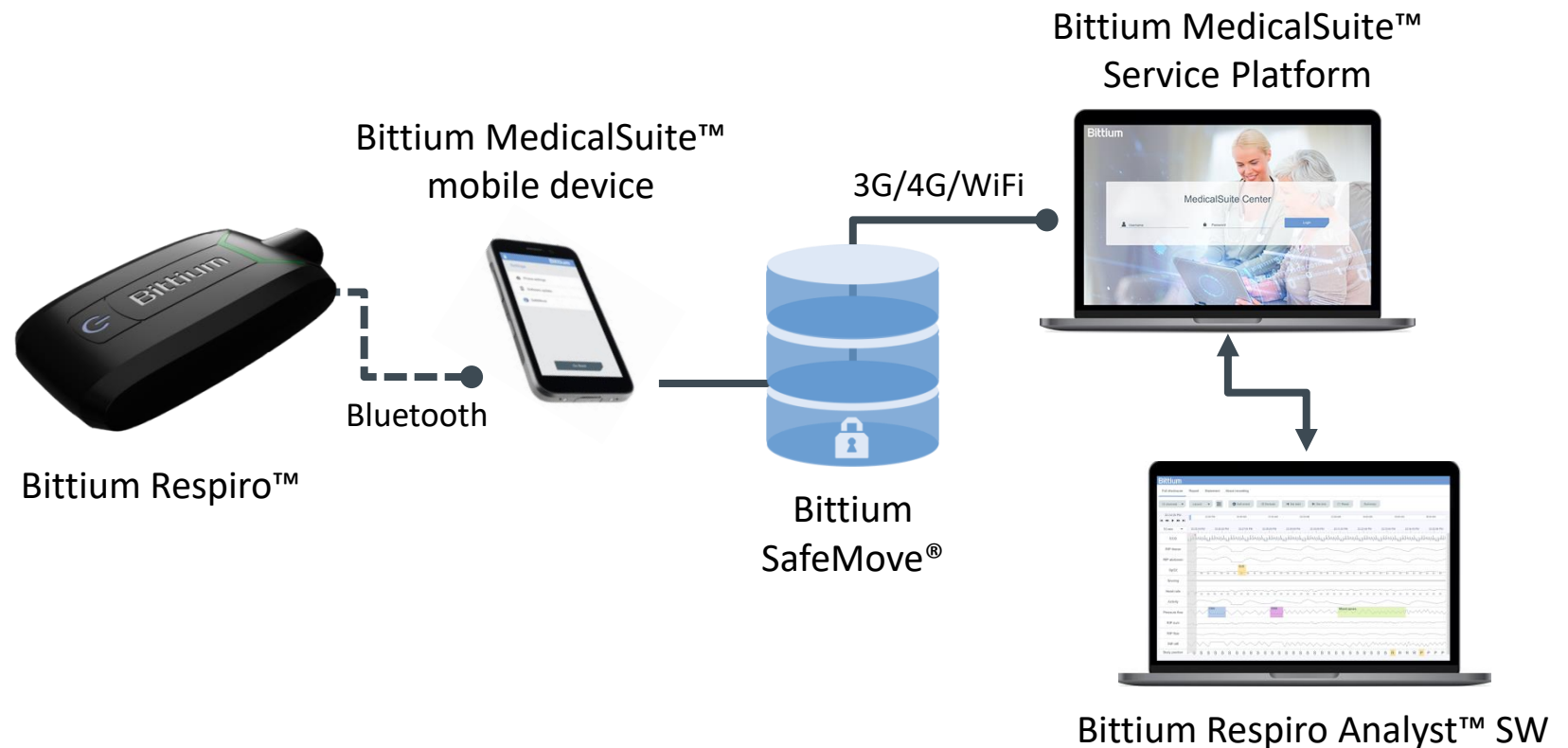
Online mode: Bittium Respiro™ is wirelessly (BT) connected to the Bittium MedicalSuite™ mobile device which is connected via mobile network or WiFi to Bittium MedicalSuite™ Service Platform. Data is analysed with Bittium Respiro Analyst™ software.

Dedicated Bittium MedicalSuite™ mobile device with secured Bittium SafeMove® connectivity solution

Wireless data transfer. Online connection to Bittium MedicalSuite™ Service Platform.

Measurement results available before the device is returned (re-test needs, travel cost, logistics,..)

Fast, efficient, reliable chain from measurement to analysis phase



Bittium MedicalSuite™ Mobile Device

Online data connection between the Sleep apnea screening device and service cloud

Integrated Bittium SafeMove® secure data connection and mobile management

Visualized UI for the Bittium Respiro™



Mobile device with tailored medical application

Additional information about the sensor connections and measurement data quality. Integrated user manual.

Bittium MedicalSuite™ Service Platform

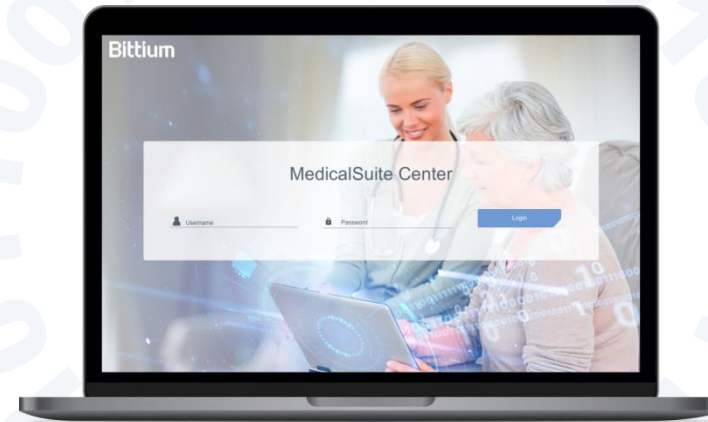
The Bittium MedicalSuite™ is an advanced web-based remote diagnostics service platform; a combination of intelligent analysis, diagnostic, reporting and management modules which can be optimized according to your needs. As a result you can enjoy of effortless workflows and enhanced efficiency.

Same cloud backend system for all Bittium medical products /services

Measurement data transfer to cloud either on-line- or off-line mode

Availability

Data Storage



Bittium Respiro™ & Analysis Service System

End-to-End capability

Scalable

Wireless

Location independent analyzation work

Reliable, secure

Fast. Short response time



Thank you.

Bittium