



CHECKPOINT
CARDIO

WORLD'S FIRST MOBILE
REAL-TIME REMOTE PATIENT MONITOR

Hearts Online

**Check Point™ Telemonitoring Platform for remote monitoring,
diagnosis and emergency reaction**



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Telemonitoring today

- Cardiovascular disease causes 47% of all deaths in the world
- Each year cardiovascular disease causes over 15 million deaths
- In the same time biometric monitoring in cardiology, surgery , etc, is still:



And the main consequence is...

- High risk for sudden and severe health problems
- Lack of early diagnosis
- Lack of prevention
- Expensive treatment, when the damage is here
- Expensive logistics for helping people in trouble .
Especially for
 - Aircrafts
 - Ships
 - **Island countries**



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What is Check Point Cardio

- **Multinational** medical technology development project
- With **mission** to identify and integrate the best practices in world telemonitoring
- Own telemonitoring centre with capacity of **15 000** patients simultaneously monitored
- Proven track record **since 2000**
- Specialised in **innovative** telemonitoring applications
- Primarily **focused** on telemonitoring of vital-signs
- **Key applications** are telemonitoring of:
 - ECG
 - SpO2
 - Temperature
 - Cardiac Events
 - Early Warning Score (Visensia Index)
 - Fetal Heart Rate
 - Ventilation parameters
 - Health and fitness testing (Vital-Vision)
- Distribution **network** in Europe, Asia and United States of America
- Product solution comprises monitoring equipment, servers, software and **Smartphone applications**
- Product suite **certified** by CE, FDA, FCC and PTCRB



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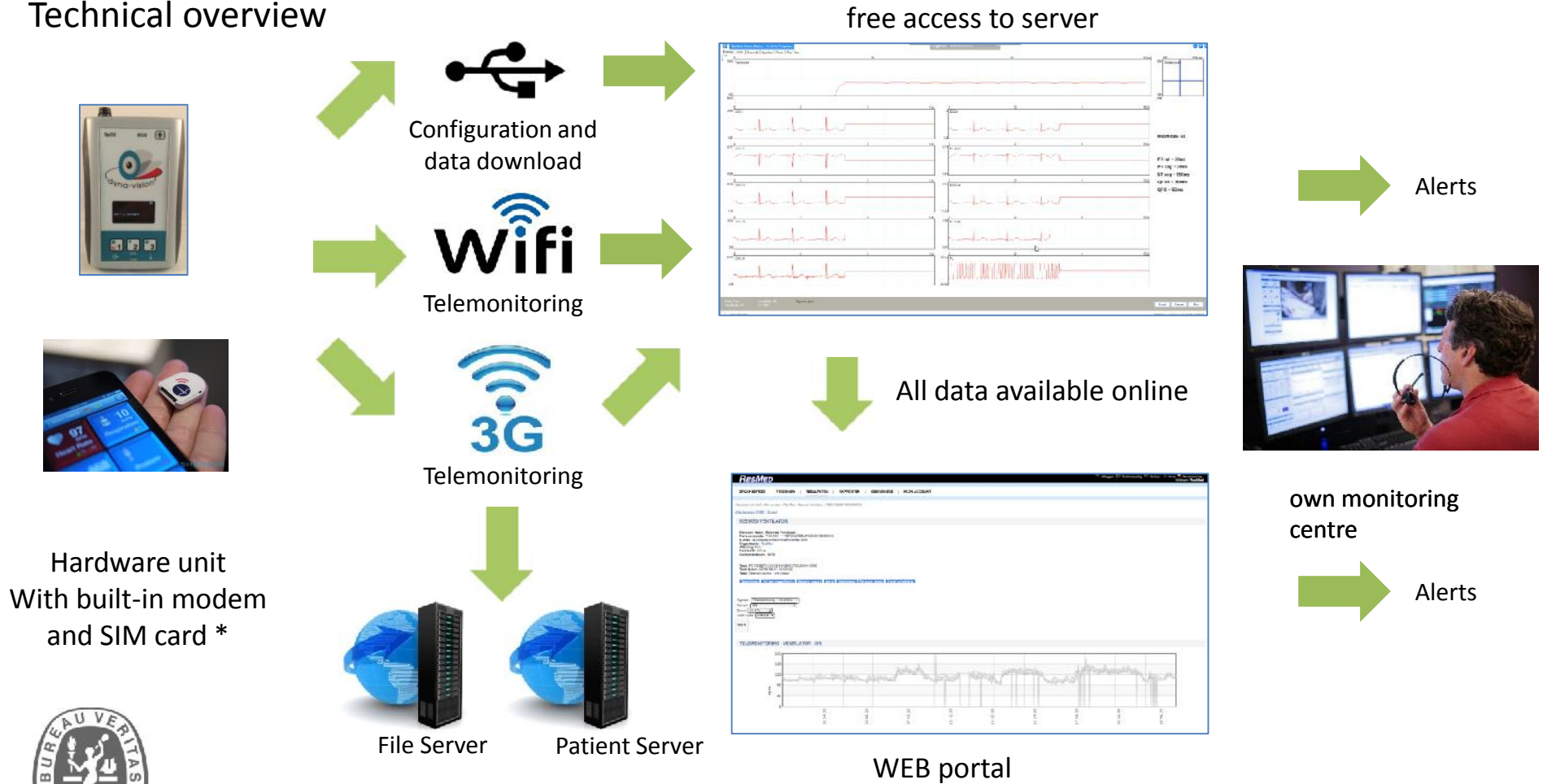
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Proposition

We **offer** healthcare providers (hospitals, governments, private companies, life insurers) an all-encompassing solution for remote monitoring and diagnostics of their patients to:

- **Improve patient comfort** by keeping them in their home environment longer without risk
- **Reduce number of complication** events in post-operative and post-clinical stage
- Reduce the workload and **increase cost efficiency** of telemonitoring services by remote monitoring
- Contribute to **improving overall health** by offering health and fitness testing services
- **Increase self-confidence** in patients, reduce stress
- **Reduce expences** for logistics, hospital stay, surgery invasions , of the state or private health systems

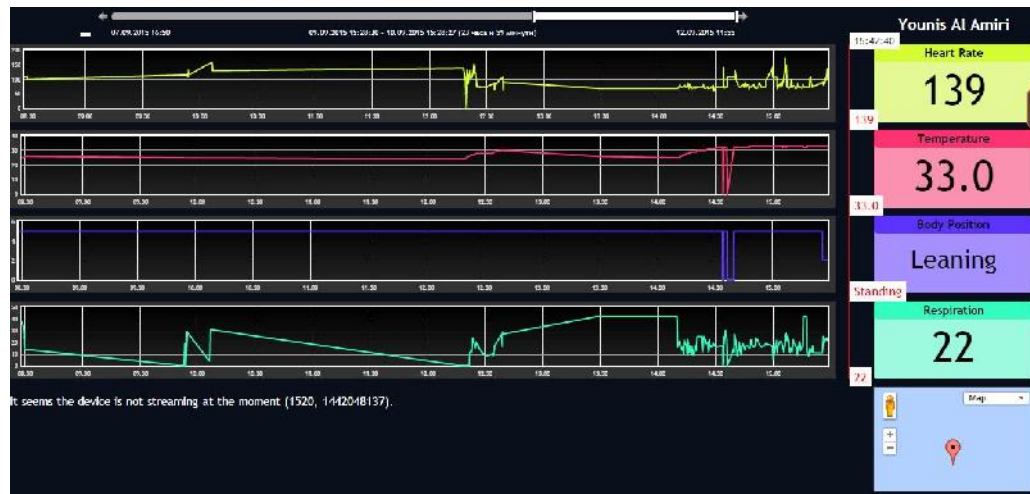
Technical overview





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Simple, easy to wear, modern



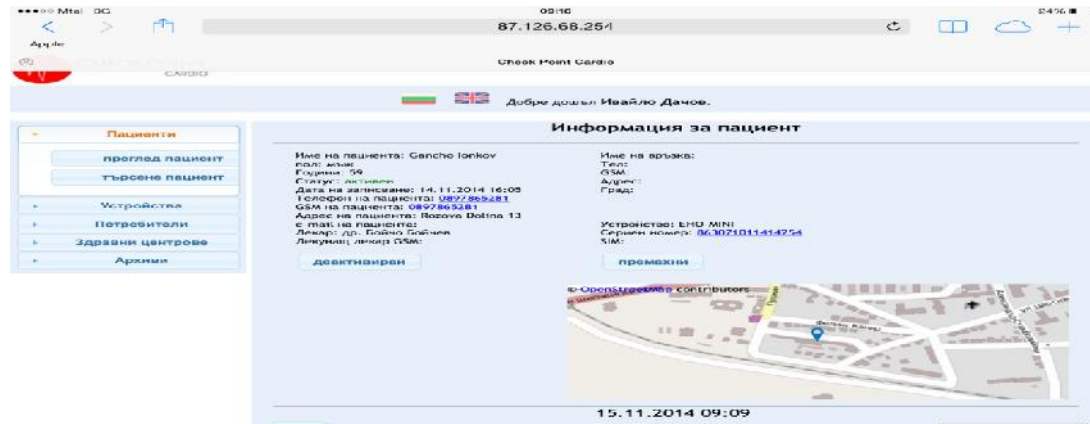
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Remote ECG diagnosis and consultation



Data transfer

Data visualizing

Diagnose



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Certifications

- ✧ Vital connect is certified as a complete solution, including data transmission, server system, software and Smartphone applications for real-time monitoring of patient's vital signs and ECG waveforms.
- ✧ Vital connect is a IIb medical device and is allowed for use in the Intensive Care Unit and Operating Theater.
- ✧ The products are allowed for sale in Europe, USA, Asia, EMEA and Africa.
- ✧ The products are designed and manufactured by ISO standards for medical products (ISO 9001 and ISO 13485).
- ✧ Vital Connect comes with the following certificates:
 - CE-mark (0344)
 - FDA 510(k) approval for the Americas
 - CAMDCAS approval for Canada
 - FCC approval for the radio transmission for USA and Canada
 - PTCRB approval for the cellular transmission
 - SAR approval for body worn telecom units





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Different applications for different needs



1-Lead



3-Lead patch



12-Lead patch



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Check Point Tele medicine center

MONITORING, DIAGNOSTICS, EMERGENCY REACTION



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What is Medical center Check Point?

- Created 2010
- **Over 15 000 patients files** with different telemedicine systems
- **24/7 monitoring** of cardiac and gynecology data
- 6 doctors, 18 nurses
- With automatic data analyses , up to **1 000 patients capacity** for simultaneously monitoring
- **Own ERP** for management, first reaction within 2 minutes standard
- **Certified** by suppliers for 13 485 and ISO 9001 standards
- **Know-how** for spreading design and structure in other countries

CP center

- Telemedical centre has emergency operators, administration operator and call operator for registration, observation and contact with the patient, physicians and emergency centers
- This is the place where heart rate and its variability, rhythm and conduction disorders are analyzed, together with physical activity of the patient, allowing some conclusions about his/her current cardiovascular condition and risk.
- In case a predefined critical condition is met, short messages (SMS) are generated and sent to the medical specialist, or/and call to the patient, his physician or emergency centre are initiated.



Effectiveness of the system 2010-2015

- Total **number of patients** telemonitored with different Checkpoint cardio systems = **15 500**
- Mean period for telemonitoring – 5.34 days
- Indications:
 - **Rhythm disorders – 74%**
 - **Ischemia detection – 26%**
- Detection of a **new condition** during telemonitoring (undocumented rhythm disorder, evidence of ischemia) – **76.7%**
- Telemonitoring **resulting in therapy modification** / change (either because of a new diagnosis or because telemonitoring revealed that previous therapy was inappropriate / ineffective for the present patient condition) – **84.6%**
- **Urgent hospitalization** for a condition detected during telemonitoring – **33.6%**; mean time from detection to hospitalization – **2 hours**;
- Patient driven telemonitoring **discontinuation** due to side effects – **0.6%**



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We are already piloting several projects worldwide

- Pilot IASO Greece
- Pilot with DIANA shipping – Athens
- Pilot Dubai
- Pilot Saudi Arabia
- Operation center Nepal, Kathmandu
- Pilot Phoenix, Arizona
- Pilot Moscow
- Pilot FYROM, Kosovo
- Successful trial onboard Turkish airlines



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