

BiomedConnect: Cloud platform for collection and analysis of biomedical data

Rybinsk, 2014



Modern development areas



- Mobile Technologies
- Wearable Electronics
- Cloud platforms

• Health 2.0



The need for telemedicine today

- Desire to take care of ones health and parents and relatives health, and struggle withlack of time
- Early diagnosis of diseases
- Remote monitoring of the health status of the patient (e.g., Holter monitoring)
- Informatization of medicine increasing opportunities
- Health personalization searching convenient tools

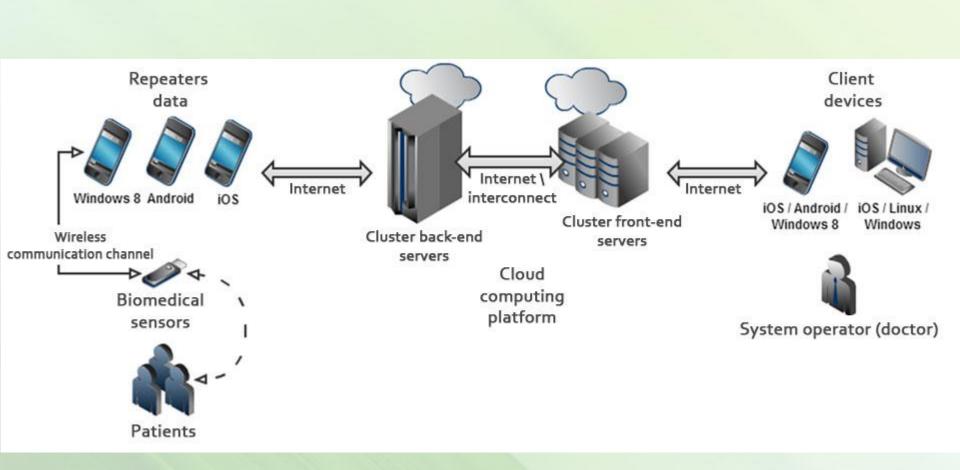


Growth points

- Development of biomedical sensors

 Wearable Electronics
 Create construction
 - Smart sensors and wireless communication
- Developing expertise analysis of sensor data and expert systems
- Infrastructure projects that allow introducing results of developments today - BiomedConnect

Cloud Platform BiomedConnect





Users

- Regional cardiac centers
- Remote medical facilities (medical and obstetric stations)



Biomedical sensors for BiomedConnect

- Currently, 6 and 12 channel portable electrocardiographs
- To be developed:
 - Spirometer
 - AD-monitor
 - Pulsometer
 - It can be any device with an open protocol and wireless (Bluetooth, WiFi) communication channel





Application areas

- Hazardous cardiac arrhythmia (WHO: "80% of premature heart attacks and strokes can be prevented")
- Acute coronary syndrome
- Severe diabetes
- Bronchial asthma
- Epilepsy
- etc.



BiomedConnect features

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- Receiving data from biomedical sensors and visualization on a mobile device
- Relaying data to the cloud
- Processing data in the cloud
- Videoconferencing with doctor from browser
- Visualization of data and processing results in a thin client with an adaptive user interface design
- Formation of user response (reaction doctor)
- Utilitarian function (keeping the database of doctors, patients, searching, filtering, statistics and so on.)

ФИО Дата рождения	Большаков Олег Сергеевич					
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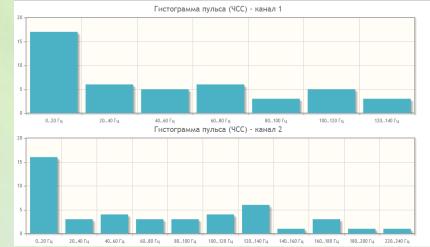


Image: Standard Stand

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Platform test

- Product testing
 - Load testing (10,000 patients, 1,000 doctors)
 - Emergency testing (testing platform resiliency in case of failure of equipment)
- Field experience
 - Tests based on FAP Krasnaya Gorka, Rybinsk district and City Hospital Nº 6 Rybinsk









Support of IHE \ IH7 standards

- Currently, work is underway to test IH7 integration on the Russian Federal Health Information System
 - Integration with the registry of patients service
 - Integration with CDA services
- Unified patient identification implementing
- IHE XDS.b (Cross-Enterprise Medical Document Sharing) implemented