

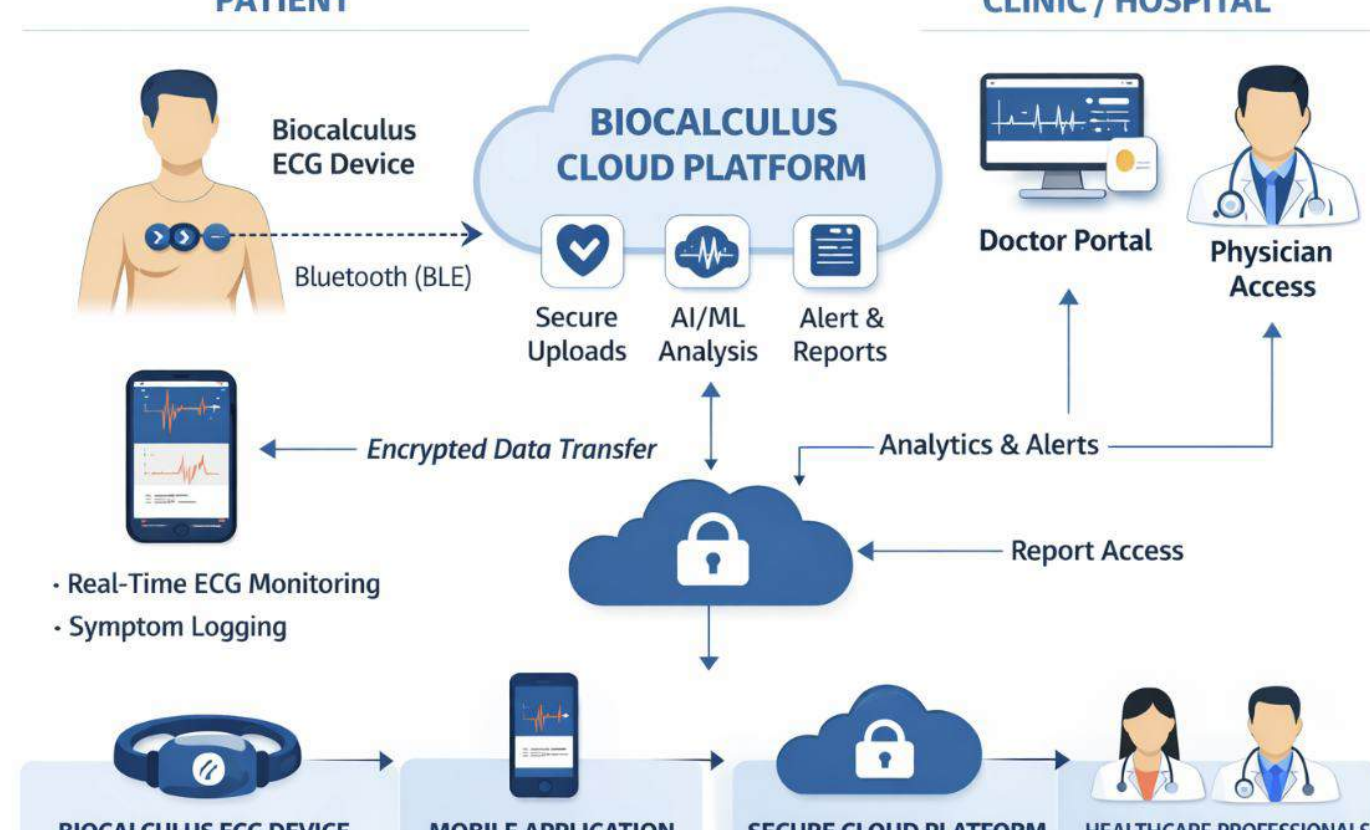


Biocalculus – Digital Cardiac Monitoring Platform

Biocalculus is a healthcare technology solution developed by Oodles Technologies Pvt Ltd, a medtech company focused on advanced cardiac monitoring systems. The platform aims to enable continuous ECG monitoring and improve early detection of cardiac abnormalities.

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Case Study



Objective

The primary goal of the project was to build a comprehensive digital platform that:

- Enables real-time ECG/EKG monitoring
- Connects medical devices with mobile and web interfaces
- Provides actionable insights for clinicians
- Enhances patient engagement and remote diagnostics



Key Features Delivered

1. Device Integration & Real-Time Monitoring

- Seamless Bluetooth connectivity with cardiac monitoring devices
- Continuous ECG data capture and display on mobile devices

2. Mobile Application Functionality

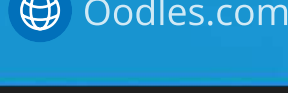
- User-friendly interface for patients
- Recording options (device/manual)
- Symptom diary for tracking patient conditions
- Secure data upload to cloud for analysis

3. Cloud-Based Analytics Dashboard

- Centralized storage of ECG data
- AI-driven analysis for detecting conditions like:
 - Atrial fibrillation
 - Tachycardia
 - Bradycardia
- Detailed reports accessible to healthcare professionals

4. Web Platform Development

- Responsive and scalable website
- Information hub for product, services, and medical use cases
- Integration with backend systems for report access and data visualization



Technology Stack

- **Frontend:** Angular / Web technologies
- **Backend:** Cloud-based architecture

Challenges

- Ensuring **real-time data synchronization** between device, mobile, and cloud
- Maintaining **high data accuracy and reliability** for medical-grade usage
- Designing a **secure and compliant system** for sensitive health data
- Creating a **simple UX** for both patients and clinicians

Solution Approach

- Built a **robust integration layer** for device-to-mobile communication
- Implemented **cloud-based pipelines** for scalable data processing

Outcomes & Impact

- Enabled **remote cardiac monitoring**, reducing hospital visits
- Improved **early detection of heart conditions**
- Enhanced **doctor-patient collaboration** through shared reports
- Delivered a **scalable digital health solution** for wider adoption

Conclusion

The Biocalculus platform demonstrates how IoT, mobile technology, and AI-driven analytics can transform cardiac care. By bridging the gap between patients and healthcare providers, the solution delivers accurate, real-time insights and supports better clinical decisions.



About Oodles

We are a technology services company and project delivery platform that helps businesses build, scale, and manage digital products with skilled tech teams. We offer services across software development, web and mobile apps, AI, blockchain, cloud, and enterprise solutions, with a focus on giving clients flexible access to talent, project visibility, and delivery support.

