CASE STUDY

MOBILE ENABLED GLUCOMETER APPLICATION FOR BLOOD SUGAR MONITORING

For a digital health start-up, providing wearable computing and digital health solutions.

BUSINESS NEED

The customer envisaged a 2Net enabled mobile application that could connect to an end-to-end system including the glucometer device, Qualcomm Life's 2Net gateways (2Net network hub), 2Net platform's cloud component with a high level of security and precision.

TECHNOLOGY USED

- Environment: PHP, SQL Lite, XAMPP for Windows
- Platform: Qualcomm's 2Net platform, 2Net Hub
- Devices support
  - Entra Glucometer (Serial 2NET00001)
  - Nonin PulseOximter
  - A&D Weight Scale
  - A&D Blood Pressure Monitor
  - Asthmapolis Spiroscout

BUSINESS BENEFITS

- FDA compliant wireless health solutions - The 2net Platform, 2net Hub and 2net Mobile Core are separately FDA listed as Class I MDDS in the U.S., Class I MDD and CE Registered in Europe, and Class I in Canada
- 2Net APIs provided a cross platform development capability and the solutions could be easily deployed on iOS, Android and Windows, thus reducing cycle time
- 2Net platform has in-built security

SOLUTION DELIVERED

This solution could be used to track patients' heath parameters remotely, accurately and round the clock. It allows them to access glucometer readings and track their blood sugar levels from anywhere, anytime on smartphones (iOS, Android and Windows).

The glucose monitoring solution provides the following features for the patients

- Patient profile
- Glucometer level
- Recent updates/alerts

ALTEN Calsoft Labs' Mobility CoE team developed the solution leveraging Qualcomm Life's 2Net platform and suggested the following workflow.

- Glucometer device collects reading from blood test samples and transmits the data wirelessly to the 2Net Hub
- The 2Net hub acts as a gateway and collects data from medical devices and biometric sensors to transmit data via a wide area network (WAN) cellular module to the 2net Platform's cloud data server
- The 2Net platform cloud server captures and transmits biometric data in the cloud through connectivity gateways.
- The 2Net mobile application client designed using PhoneGap enables the creation of cross-platform mobile apps that can access native device features over any uniform API using web technologies like HTML5, CSS and JavaScript. The mobile application uses the 2Net Connect API and retrieves the users' glucose data and display on the application's screen.

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