![Xoriant logo]

DEVELOPMENT OF AN END-TO-END HEALTHCARE APPLICATION

Improved patient care with a cost-effective solution for a leading medical company

Client Background

Our client is a leading medical devices company reshaping patient health management with the use of digital technology. A legacy Transcranial Doppler (TCD) system coupled with ultrasound technology, was used to conduct primary brain health analysis tracking cerebral blood flow velocity. This device had siloed operation, limited desktop functionality, demanding skilled personnel, making it highly expensive.

- The client needed a portable solution to treat patients in an emergency with easy access to patient history and test analysis insights
- An application interfacing TCD for blood flow analysis, data collection, and plot on a spectrograph to provide insights
- Develop a software to maintain patient information, including patient creation, type of examination conducted, attach snapshots of the graphs, report generation

Xoriant Solution | Key Contributions

The client needed a cost-effective solution for their existing patient health management system. With strong expertise in the healthcare domain, the client selected Xoriant as the preferred partner for this initiative. Xoriant leveraged its deep expertise in end-to-end healthcare application development to build the solution contributing the client with:

- Application development on Windows Runtime platform to connect with TCD Ultrasound System and graphically plot the brain blood flow signals on a tablet computer screen
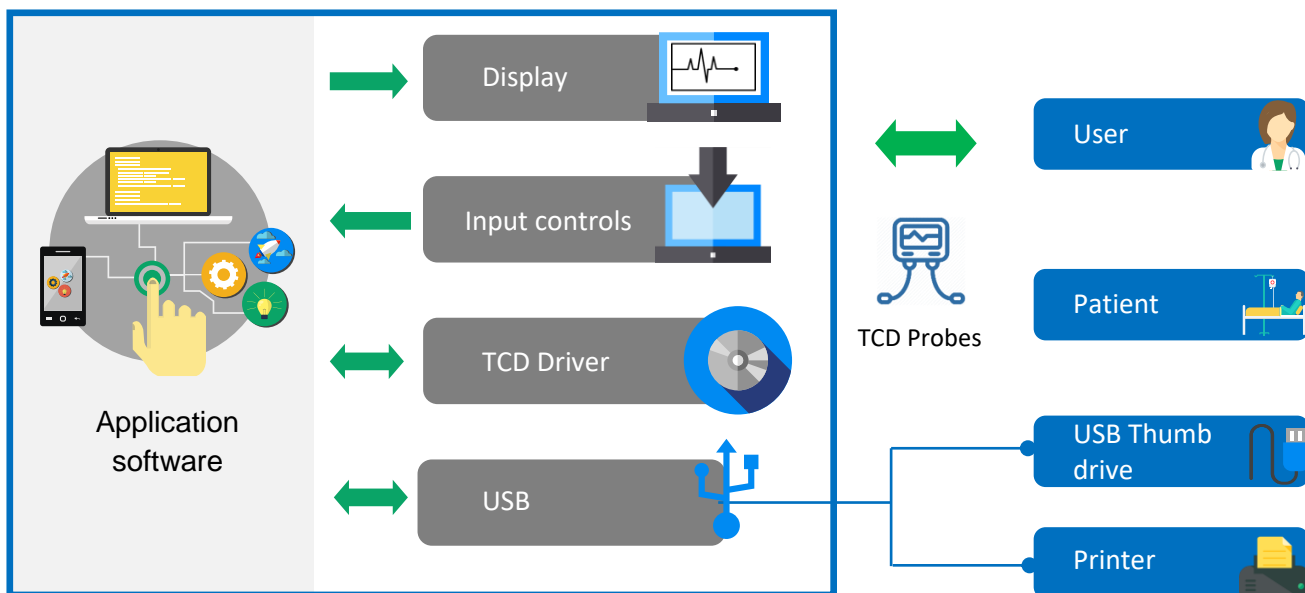
KEY BENEFITS

- Acquired significant growth in customer base with portable setup enabling exam conduction at patient locations
- Achieved 100% accuracy in exam results using audio sync with a real-time graph
- Reduced operational costs
- Ensured quick and easy approval from the US FDA as the application adhered to its regulations

- Feature development that will plot graphs in Spectrogram and M-ode formats in real-time
- Implementation of device connectivity feature to enable the application to conduct various exams attaching transducer probes on the patient's head for diagnosis
- Feature development to enable ultrasound technician, adjust various parameters of the exam (while the exam is running) to observe blood velocity in different blood vessels
- Application deployment on a tablet computer fitted in a specially designed case along with TCD

Client Testimonial

Xoriant has demonstrated technical competency and healthcare domain knowledge to understand our requirement and improved the cost-effectiveness of healthcare.

High Level Architecture

Technology Stack

Microsoft .NET | Windows RT | XAML | AMQP

Xoriant is a product engineering, software development and technology services Company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2500 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.