GlobalLogic Solutions: Embedded Medical Device Software Development

Driving Exceptional Patient Experiences

Medical Devices and Software Development

Explore what is driving rapid growth in the medical devices industry and see how embedded software for medical devices is driving new revenue for clients.

Medical devices & applications

...have become a fundamental and critical part of how medical treatment is delivered.

They provide vastly improved ways for clinicians to treat, diagnose, rehabilitate, and even prevent illnesses in a safe, secure, and effective way.

Recent exponential growth in the medical devices industry, including embedded systems, is being driven largely by:

The inherent value of engaging directly with patients to play an active role in their disease management.

The increasing computing power and high-quality visual presentation capability embedded in mobile phones.

With ubiquitous communications capabilities, medical device software architects are able to partition the functionality of medical device systems and repartition key product attributes to the mobile phone, taking advantage of more capability and lower cost of goods sold (COGS).

The significant rise in data captured, communicated, and made available for cloud computing and analysis, along with the significant reduction in the actual cost of cloud computing. This is fueling a major buildout of data lakes and HCP analysis capability.

How GlobalLogic Can Help

As a fully ISO 13485–certified partner, GlobalLogic can help you expedite the development of embedded software applications.

We maintain a virtual "innovation lab" across our global engineering centers to create compelling use cases, develop meaningful prototypes, and participate in activities that have a direct impact on your product roadmap. We're ready to hit the ground running with:
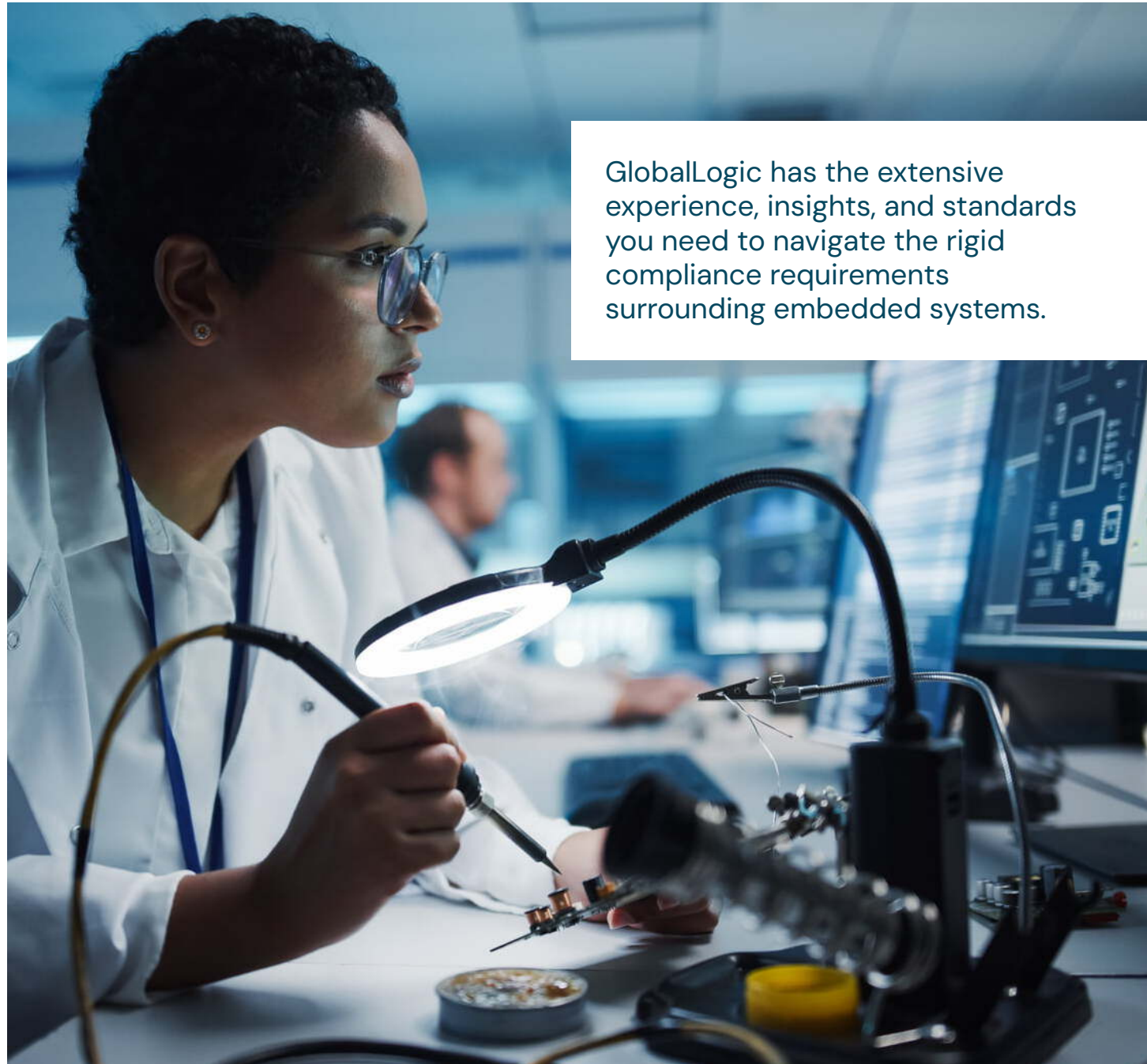
- Strong embedded skills in using real-time operating systems
- Extensive experience using Linux as an embedded system
- Fluency with the languages and designs associated with these systems, like C++ and C

Learn more about our Healthcare & Life Sciences services

Our products are regulated under ISO and IEC standards that include:

- Patient engagement applications on mobile devices that are associated with diagnosis or therapy.
- Patient and healthcare clinician applications deployed on healthcare desktops, networks and clouds used for making patient diagnosis and treatment decisions.

GlobalLogic helps to integrate mobile devices, mobile apps, and tethering communications while enabling data analytics capabilities for diagnostics and treatment.

GlobalLogic has the extensive experience, insights, and standards you need to navigate the rigid compliance requirements surrounding embedded systems.

Embedded Software for Medical Devices

GlobalLogic designs algorithms, firmware, and applications for medical devices.

We work directly with key decision makers in development and engineering in your organization to build embedded software solutions to exacting specifications according to your quality management system (QMS) and software development lifecycle (SDLC).

We've developed software systems for:

- Patient monitors
- Surgical robots
- Cochlear implants
- External and implantable cardiac defibrillators
- Insulin pumps / glucose monitors
- Ultrasound machines
- Pain management systems

"

Following their product release, one client increased its revenue in the diabetes segment by 11%, driven primarily by the successful adoption of the product on the market.

Take this live poll and instantly see industry benchmarks from other respondents:

What is your most pressing challenge in embedded software development?

◯ Lack in-house resources and/or technical expertise

◯ The complexity of regulatory compliance

◯ Prioritization of development roadmap

◯ Other

[Post answer]

Our Key Differentiators

We excel at helping healthcare organizations create world-class digital customer experiences and transform their business operations.

Deep Medical Expertise

- 20+ years of experience developing regulated FDA (I, II & III products) with FDA clearance and CE mark
- 2300+ engineers dedicated to healthcare and life sciences
- 300+ new products
- ISO 13485 certified QMS, IEC 62304 compliant SDLC

Processes for Healthcare

- Delivery processes tailored to healthcare domain
- Working within our client's QMS or using GlobalLogic's 13485 compliance QMS
- Setting up internal and external audit processes
- Building policies on security and data privacy
- Establishing healthcare and ISO/IEC standards training programs for staff assigned to these projects

Innovative Technologies

- Infrastructure-, platform-, or software-as-a-service (IaaS, PaaS, SaaS) implementations using public, private, and hybrid deployment models
- Cross-platform development
- AI/ML, big data
- Microservices architecture, DevOps, cloud operations, and management tools
- Embedded systems, Bluetooth Low Energy (BLE), WiFi, NFC integration

How Can We Help You?

Book a 15-minute call with one of our healthcare technology experts and let's explore the possibilities for your business.

Yes! Let's Book It

About GlobalLogic

With more than 20 years of experience in regulated software product development and engineering services, GlobalLogic helps some of the world's leading Medical Technology, Medical Devices, Pharma, and Life Sciences organizations create world-class digital patient experiences, accelerate new product development, and capture new revenue streams.

GlobalLogic®
A Hitachi Group Company

20 + years industry experience

2300 + industry-dedicated engineers

300 + new products

90 + clients

GlobalLogic is a trusted partner in the fields of medical devices, medical technology, clinical research, and diagnostics.

We develop Class I, II, and III products in accordance with ISO 13485 certified QMS and IEC 62304 compliant SDLC.

Why choose GlobalLogic as your software engineering partner?

- Our deep working knowledge of ISO governing standards enables us to work with many different companies' QMS and SDLC.
- Our experience in using various tools, software languages, cloud environments, and infrastructure to integrate and collaborate with your in-house engineering team seamlessly.
- Our experience in building, designing, implementing, and testing systems per agreed-upon product definitions and specifications.

To learn more, or to speak with one of our experts, please reach out to info@globallogic.com.

We are on a two-decade-young journey and we're proud of our growth and the milestones we have achieved. A startup to a Hitachi group company, our product engineering story is unique. Thanks to our people who have been our companions and growth drivers in this amazing journey.

'We are GlobalLogic' is a spectacular showcase of what we do, what we represent, and our capabilities as a global leader in product engineering services.

Learn More: Visit Our Website

Thank you for reading

GlobalLogic Solutions: Embedded Medical Devices and Software Development