



MEDITECH & HEALTHCARE PRACTICE TECHNOLOGY SERVICES



The medical device industry has been experiencing tremendous growth over the past 20 years, in both revenues and the technical complexity of the products that it produces. With the emergence of new markets, rapidly expanding patient populations, there is an increasing need for creating innovative solutions which will allow the medical device companies to address these demands, reduce costs and, at the same time comply with the rapidly changing regulatory requirements.

Based on its extensive experience working with Medical device companies as well as its expertise in the device industry and the healthcare space, Encore's Meditech Practice specializes in developing and implementing solutions and services aiding its Client's products go-to market rapidly. Some of the specialties that the practice has been majorly associated with, besides others, include Ophthalmology, Radiology, Cardiology and Oncology.

Encore Meditech Practice associates with its clients and adds value in one or more of the following areas:

- **Product Engineering** - in new product initiatives involving but not restricted to Application development, Driver Development, Imaging technologies, Algorithm implementations, Mobility, Cloud/IoT implementations etc., across specialties
- **Data Management & Connectivity** - implementing connected health based on standards like DICOM, HL7, FHIR, IHE, and services & solutions around DICOM-enabling modalities
- **Software Verifications & Validation towards compliance** - in offering Verification & Validation services for the client's products towards meeting Quality as well as Regulatory compliance requirements
- **Sustenance Engineering** - including but not restricted to preventive, corrective, remote (L2/L3), and sustenance of existing products till sunset of the product/application
- **Enterprise Services** - in implementing and maintaining the business process systems and services that are essential for the companies to better manage their customers, operations, and their growth

Product Engineering Services

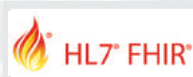
We work as a part of Engineering teams of Medical device and Healthcare companies, and offer solutions, architecture, design & development of their software products and applications that run on the devices, and ones that form part of the device eco-system.

- We are conversant with the Modality implementations, Usability, workflows and procedures, and development standards like IEC 62304 for development of medical device software
- We are technology agnostic and our teams are sound in varied technology stacks & frameworks, just to name a few,
 - Microsoft stack (Visual Studio, C++, C#, .NET, UWP, WPF, ASP.NET MVC, SQL Server, Entity Framework, nHibernate, Xamarin etc.),
 - Java stack & tools (Core Java, J2EE, JSP, Spring, Hibernate, Eclipse, Apache etc.), Micro-services
 - Linux/Unix/Posix, C++, Device-Drivers, Middleware
 - Open-Source (Python, Ruby on Rails, Php etc.)
 - Qt/C++/QxORM,
 - Web-technologies (Javascript, HTML, Ajax, jQuery, AngularJS, NodeJS, ReactJS, Web-services etc.),
 - Databases (MS Sql Server, Oracle, MySql, PostgreSQL, MongoDB, Sybase/Informix, NoSql etc.),
 - Cloud implementation (AWS, Azure etc.),
 - IoT (AWS, Azure IoT, ThingWorx, Eclipse IoT etc.),
 - Mobility (Android, Windows, iOS and related platforms etc.) as well as early adopters of new technologies.
- We have expertise in working with OCT, Ultra-sound, CT, & other Bio-Medical Imaging applications.
- We have experience in Image processing and rendering applications, in areas like Visualization, Smoothing, Montage, Transformations, 2D/3D Rendering etc., and conversant with tools like OpenGL, OpenCV, VTK/ITK etc.
- We have also worked in implementation of algorithms for registration, segmentation, tracking etc., and converting MATLAB implementations into applications
- Creating Device Simulators and Emulators, as per requirement, is also part of our specialty.
- New initiatives are in AR, Computer Vision & Machine Learning, for the Medical device industry

Data Management, Interoperability & Connected Health

Based on the periodically changing healthcare and reimbursement models, our practice helps the healthcare and device companies to build software & integrate solutions to deliver actionable information into existing Electronic Medical Record (EMR) systems, PACS, and Health Information Exchanges (HIE).

- We have expertise in interoperability standards like DICOM (Data Management, Networking services, WADO/DICOMWeb etc.), HL7, FHIR and IHE and work with different toolkits & frameworks to offer interoperability solutions including DICOM-enabling modalities.
- We have expertise in IoT, M2M both on-premise, as well as on Cloud platforms, and can provide Connected Health solutions as per market & customer requirements.



Software Quality Assurance (SQA) - Verification & Validation – Regulatory & Compliance

We help our clients mitigate Product quality risks and to overcome Regulatory compliance challenges in taking their product to market, by offering Quality Assurance services which includes Verification & Validation.

- We offer SQA as an exclusive service apart from it also being part of our product engineering service.
- Also, with the awareness of compliance requirements like FDA CFR Part 11, ISO 13485, ISO 14971, HIPAA etc., we offer services covering compliance, security & risk aspects.

Sustenance Engineering - Support & Maintenance (Adaptive, Preventive, Corrective, Remote)

We provide Sustenance engineering services covering the entire life-cycle of a product from deployment to the sunset.

- This includes L2/L3 support - via remote support - offering 24/7/365 support - incident-based, based on customer defined SLAs across global time-zones.
- We build a variety of tools and accelerators that enable:
 - Remote Diagnosis and data collection for triage.
 - Preventive and Corrective Maintenance thus improving efficiency and productivity of the support teams
- We also create calibration tools, installs, patch-management tools for the devices deployed at client sites.
- We also offer IoT & mobility solutions for enhancing the maintenance process by implementations providing data for preventive maintenance and better managing the health of the devices.
- We also work as part of the client's product sustenance teams working on fixes, changes, enhancements for continued usage in a changing environment including new statutory compliance requirements etc., till the sunset of the product

Scaling to Market - Enterprise Services

Once product enters the market for Sales there are Enterprise needs like Asset Management - ERP, Infrastructure services, Security services, Customer Relationship Management (CRM), Data Analytics - for market feedback, increasing sales & marketing, etc.

- As a part of Encore's Enterprise & IT Infrastructure management services, we offer these business process system implementation and maintenance services to meet Enterprise-wise IT needs of the client.



With an established team with wide-ranging experience & expertise of close to 100 Consultants in the USA and 150+ Consultants in our global facility, we look forward to associate with your esteemed organization, add value and be a part of your product development & success story.

For any enquiries, further information or proposal on any of your requirements, please e-mail us: meditech@encoress.com