# **Healthcare and Life Sciences**



## **Improving Patient Outcomes Through Cloud Innovation**

Healthcare and Life Sciences organizations have increasingly moved towards cloud adoption as they strive to innovate and improve patient care in a fast-paced, competitive and highly regulated environment. The cloud use cases in these verticals range from Big Data and Analytics to AI, telemedicine, connected medical devices and Machine Learning powered diagnostics. We help healthcare organizations leverage the cloud to work faster, smarter, comply with regulations, and to improve diagnostics and patient outcomes.

#### What you get with our Healthcare and Life Sciences expertise:

When the capabilities of AWS are combined with Onica's team of certified architects and engineers, the end result is a personalized solution that enables healthcare providers and payers to securely store, process, transmit, and analyze clinical information.

#### **Capabilities & Solutions:**

## Connected Medical Devices

Extract data in real time from IoT powered devices to monitor and measure vitals and adherence to prescribed therapy helping patient outcomes. Onica has experience developing IoT enabled arthroscopic cameras, glucometers and inhalers along with the platforms to ingest and manage the data, enabling smart clinical diagnostics for enhanced patient monitoring.

# **Big Data Analytics**

Perform genome mapping in minutes rather than days and analyze medical scans & records quickly with AWS's unlimited compute power, enabling healthcare professionals to make more holistic medical decisions based on complete patient data.

# ML Powered Diagnostics

ML can help power the new age of digital doctors who can create solutions powered by chatbots like Amazon Lex to extract current clinical information to make predictive diagnosis based on a patient's past medical records either

in a Health Care Provider's office or using a Digital Doctor at home. These tools can help gather a patient's symptoms at regular intervals, capture and classify imagery showing potential symptoms, and help improve the overall medical experience for patients.

## Hedical Record Digitization

Custom built solution to help your organization quickly digitize medical documents in a secure environment with Amazon Textract. This NLP based solution is HIPAA compliant and allows you to search for keywords in your records.



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Healthcare Competency Machine Learning Competency IoT Competency Data & Analytics Competency Migration Competency

## ପୁ🛱 Secure Data Migration

Onica's comprehensive migration services allow healthcare businesses to decommission their legacy server hardware and move to a faster and more secure cloud-based infrastructure on AWS. Onica has worked with most on-premise appliances along with all major ETL tools. This allows Onica to quickly help you transition into the cloud.

# Compliance Know How

Deliver on performance and security while meeting strict compliance in regulated markets. Medical device manufacturers and healthcare providers with numerous regulatory requirements rely on us every day to meet their needs.

### **Case Study: Arthrex**

**The Customer:** Arthrex is a global medical device company and a leading provider of orthopedic products. Arthrex approached Onica to connect its new line of endoscopic camera systems to the cloud and supports thousands of physicians across the globe.

What we did: Onica worked closely with Arthrex to tap into the benefits of the AWS ecosystem, developing architecture, software engineering and design, user experience, and various DevOps practices to create an effective hybrid cloud solution for machine learning based image evaluation that is fully HIPAA compliant.

**The Outcome:** Called the Synergy Surgeon Vault, the finished product supports thousands of physicians across the globe, providing them with real-time, remote access to critical surgical information and reinforcing Arthrex's role as a technology innovator in the industry.

# Customer Success

## **Case Study: Cerapedics**

**The Customer:** Cerapedics is a medical device company from Colorado that makes bone graft technology for patients with spinal issues. Cerapedics approached Onica, looking to modernize and automate their production process to track large amounts of data in real-time and improve cost-effectiveness, efficiency and analytics.

What we did: Onica crafted a PoC IoT solution that connected digital and analog sensors on the sterilizer, extracted data, and sent it to the AWS cloud for display. An optimal data model was defined, and a data ingestion, enrichment and storage pipeline was built for real-time and historical analysis that is scalable, cost-effective and resilient to outages.

**The Outcome:** By transitioning to a smart factory to utilize real-time data and insights, Onica helped Cerapedics enable predictive analytics and maintenance so that they could improve the yield of their manufacturing batches and minimize production losses.

