

Healthcare · HealthTech · Case Study — RPM SaaS Cloud Migration

Scalable HealthTech Cloud Migration for *High Availability* and Rapid Growth

Modernizing a legacy Remote Patient Monitoring (RPM) platform to a cloud-native, resilient and multi-tenant HealthTech SaaS — achieving 99.98% uptime and 5x patient scalability.

AWS Cloud Migration

Microservices Architecture

DevSecOps CI/CD

FHIR Interoperability

Multi-Tenant SaaS

CLIENT

HealthTech RPM
Platform · Multi-country

DOMAIN

Healthcare
· HealthTech

MODEL

Cloud-Native Migration
& Modernization

DISCIPLINES

AWS · DevSecOps
FHIR · Multi-tenant SaaS

30%

Reduction in infrastructure costs

5x

Increase in supported patient users

99.98%

Platform uptime achieved

CLIENT OVERVIEW

Our client is a HealthTech company providing a remote monitoring solution for chronic care management to healthcare providers and patients across multiple countries. As platform adoption grew, legacy infrastructure could not keep up with demands for scalability, reliability, and faster innovation. 10decoders delivered a complete cloud-native modernization — migrating to microservices on AWS, implementing DevSecOps CI/CD, FHIR streaming, and a multi-tenant SaaS model — achieving 99.98% uptime and 5x patient scalability.

CHALLENGE & APPROACH

The Problem, and *How We Solved It*

An RPM platform under strain — from a monolithic architecture, manual deployments, and no multi-tenant model for B2B growth.

The Challenge

- ✗ Monolithic interdependent servers made it impossible to scale independent features — higher patient volume caused bottlenecks and inconsistent user experience
- ✗ Manual deployments with no CI/CD automation caused regular outages — directly disrupting care continuity for providers and patients
- ✗ No multi-tenant SaaS model made enterprise and B2B partner onboarding slow, complex, and resource-intensive — blocking commercial expansion

Our Approach

- ✓ Migrated the monolith to containerized microservices on AWS with elastic scaling and fault isolation — 5x patient capacity, 99.98% uptime
- ✓ Implemented DevSecOps CI/CD automation with integrated security enforcement — eliminating manual deployment risk and outage-causing errors
- ✓ Built configurable multi-tenant SaaS architecture with FHIR real-time streaming — enabling rapid partner onboarding and seamless interoperability

THE APPROACH

The Solution

10decoders partnered with the client to deliver a secure, scalable HealthTech modernization — migrating their legacy RPM platform to cloud-native microservices on AWS, automating deployments through DevSecOps CI/CD, and introducing FHIR-based streaming and a multi-tenant SaaS model for rapid B2B partner expansion.

The result: 99.98% platform uptime, 5x patient scalability with zero performance degradation, 30% reduction in infrastructure costs, and an architecture built for continuous innovation and rapid enterprise partner onboarding.

Cloud-Native Microservices on AWS

Transitioned legacy monolithic platform to containerized microservices — enabling elastic scaling, fault isolation, and resiliency for 5x patient growth.

DevSecOps-Driven CI/CD Implementation

Automated CI/CD pipelines with integrated security and compliance enforcement — faster, safer releases eliminating outages from manual deployments.

FHIR-Based Real-Time Health Data Streaming

FHIR-compatible real-time event streaming pipelines for seamless, low-latency health data interoperability across all connected provider and patient systems.

Multi-Tenant SaaS Architecture

Configurable, secure multi-tenant model enabling rapid enterprise partner onboarding — with full data isolation and centralized governance across all tenants.

HOW IT FITS TOGETHER

From legacy monolith to *a resilient, scalable SaaS platform.*



THE OUTCOME

Impact Across the Organization

PROVIDERS & PATIENTS

99.98% Uptime
Continuous Care

High-availability cloud architecture eliminated outages — giving providers and patients uninterrupted access to the RPM platform and care data.

ENGINEERING & INFRASTRUCTURE

5x Scalability
30% Cost Reduction

Containerized microservices support 5x more patients at peak load with zero degradation, while container orchestration cut costs by 30%.

BUSINESS & PARTNERSHIPS

Rapid B2B
Partner Expansion

Multi-tenant SaaS architecture with configurable isolation reduced onboarding complexity — enabling rapid commercial expansion.

THE SHIFT

What Changed

- 1

Platform Architecture
Monolithic interdependent servers → Containerized microservices on AWS with elastic scaling, fault isolation, and improved resiliency.
- 2

Deployment Process
Manual deployments causing regular outages → DevSecOps CI/CD automation with integrated security — faster, safer releases with zero outage risk.
- 3

Partner Onboarding
Slow, resource-intensive B2B partner onboarding → Multi-tenant SaaS model enabling rapid, configurable partner onboarding at scale.
- 4

Data Interoperability
Siloed health data with no real-time streaming → FHIR-based real-time event streaming pipelines for seamless, low-latency interoperability.
- 5

System Reliability
Frequent outages disrupting patient care continuity → 99.98% uptime with high-availability cloud architecture and automated failover.
- 6

Infrastructure Costs
Over-provisioned legacy infrastructure → Cloud-native container orchestration and right-sizing reducing operational costs by 30%.

WHY IT WORKS

Reliability, scale, and compliance — by design

99.98% Platform Uptime
High-availability cloud architecture with automated failover eliminated outages — continuous, uninterrupted access for providers and patients.

5x Patient Scalability
Containerized microservices with elastic scaling support 5x more patients with zero performance degradation — even at peak load.

30% Lower Infrastructure Costs
Right-sized container orchestration and cloud resource optimization eliminated over-provisioning — cutting operational costs by 30%.

Secure DevSecOps Deployments
CI/CD automation with integrated security enforcement delivers faster, safer releases — dramatically reducing deployment risk and compliance exposure.

FHIR-Compliant Interoperability
Real-time FHIR event streaming enables seamless, low-latency health data exchange across all connected provider and patient systems.

Rapid B2B Partner Onboarding
Multi-tenant SaaS with configurable data isolation and centralized governance enables rapid enterprise partner expansion without friction.

THE DELIVERABLES

What We Built

- 01

Cloud-Native Microservices on AWS
Containerized microservices with elastic scaling, fault isolation, and high-availability — replacing the legacy monolithic RPM platform.

02

DevSecOps CI/CD Pipeline
Automated deployment pipeline with integrated security and compliance enforcement for faster, safer platform releases.
- 03

FHIR Real-Time Streaming
FHIR-compatible event streaming pipelines enabling seamless, low-latency health data interoperability across all connected systems.

04

Multi-Tenant SaaS Framework
Configurable, secure multi-tenant architecture with data isolation and centralized governance for rapid B2B partner onboarding.