Unifying the technology landscape to deliver AI-driven modernization for healthcare technology

Client
US-based healthcare technology company

Company Size
700+ employees

Location
North America

Featured Partners

aws ANTHROP\C

A US-based healthtech company, had grown through more than 10 acquisitions, each bringing its own systems and data. The resulting fragmented technology landscape made unified reporting, shared infrastructure, and coordinated delivery difficult to achieve.

With Claude Code, Anthropic's agentic coding tool, Marlabs applied AI-driven development across legacy modernization, shared services, data centralization, and AI integration. The client completed a 5-year program in one year and saw a 43% productivity gain. A nearshore team in Brazil scaled to 60 engineers, and the engagement grew into a full digital product development partnership.



- Data Warehousing & Analytics
- Application Modernization
- AI-Powered Analytics & Development
- Cloud Engineering

The Challenge: Fragmented acquisitions hindered data unification and delivery scale

Objective: Unify data across acquired companies, centralize shared services, modernize legacy applications to cloud-ready infrastructure, and accelerate delivery.

Existing Issues: More than 10 acquisitions left disconnected systems with duplicated functionality and fragmented data.

Solution Needed: Our team used Claude Code to apply AI-driven practices across modernization, shared services, data centralization, and AI integration workstreams.

Outcome: We achieved accelerated modernization, a 43% productivity gain through AI adoption, reduced operational costs, and a long-term strategic development partnership.



The client had grown through more than 10 acquisitions, each operating on its own systems and data, making unified reporting and shared infrastructure nearly impossible. The company needed to modernize its stack, eliminate redundant functionality, and build a foundation for AI-driven insights while accelerating time-to-market.

The Solution: An AI-powered modernization program delivered at scale

Marlabs designed and delivered a modernization program centered on AI-driven development with Anthropic's Claude Code throughout the software development lifecycle. A nearshore engineering team in Brazil scaled from 10 to 60 engineers, providing the capacity to execute across four workstreams: legacy migration, shared services, data centralization, and AI integration.

Phase 1: Legacy System Modernization

We migrated the client's applications to .NET Core, React, and AWS, eliminating legacy dependencies and improving scalability, resilience, and security.

Workstreams:

- Legacy application migration
- Cloud infrastructure adoption
- Security posture improvement

Phase 2: Shared Services Development

The team built reusable shared services to modernize ecosystem architecture and eliminate duplicated functionality across applications.

Workstreams:

- Reusable component development
- Ecosystem architecture redesign
- Resource utilization optimization

Phase 3: Data Warehouse & Analytics

Marlabs consolidated data from the client's acquired companies into a centralized data warehouse, enabling unified analytics and BI dashboards for management reporting.

Workstreams:

- Data warehouse buildout
- Business intelligence dashboards
- Cross-company data consolidation

Phase 4: AI Integration & Team Scaling

Our team used Claude Code to boost development velocity and scaled the engineering team from 10 to 60 specialists to meet delivery demands.

Workstreams:

- Claude Code development tooling
- Nearshore team scaling & onboarding
- Continuous improvement processes

Services and Technologies Used:

Services:

- Data Warehousing & Analytics
- Application Modernization
- AI-Powered Analytics & Development
- Cloud Engineering

Technologies:

- .NET Core
- React
- AWS
- Claude Code

The Results: Impact on the client organization

The engagement transformed the client's technology landscape from a fragmented collection of acquired systems into a unified modern platform. AI-assisted development delivered a 43% productivity gain, and migration to cloud infrastructure eliminated legacy dependencies while reducing operational costs.



5-Year Program Completed in 1 Year: AI integration in the software development lifecycle compressed a legacy modernization program that would have taken five years into a single year.



Unified Data & Analytics: A centralized data warehouse gave the client's leadership a single view of performance across all acquired businesses.



43% Productivity Gains: AI-assisted development with Claude Code boosted team velocity and deliverable throughput across the engineering program.



70% Time Savings: AI integration in the software development process reduced the time required to develop requirements by 70%, accelerating delivery across all workstreams.



Reduced Costs & Improved Reliability: Consolidating the technology stack and eliminating duplicated functionality lowered operating costs and improved system reliability.



Strategic Partnership Established: The client now partners with Marlabs as an extension of its own organization and a trusted, long-term development partner.