

Case Study

Advancing Healthcare Interoperability Through Secure, Scalable Platform Modernization

The Client

The client is a not-for-profit organization that owns, maintains, and advances the world's most comprehensive multilingual clinical terminology system, used by healthcare organizations across the globe. It ensures accurate and consistent data capture in Electronic Health Records (EHRs), enabling interoperability and supporting clinicians in recording, sharing, and analyzing patient information.

Its mission is to standardize clinical information worldwide to improve patient care quality, population health management, and medical research outcomes.

The Challenge

The client's healthcare terminology platform, built on AngularJS and Node.js, had become difficult to maintain due to security vulnerabilities, performance issues, and limited scalability. Outdated frameworks and unstable integrations hindered compliance with global healthcare standards. The organization required a secure, scalable modernization to enhance reliability, performance, and user experience across its global operations.

- ✔ **Modern Architecture:** Migrated from AngularJS/Node.js to Angular and Java for scalability and performance.
- ✔ **Enhanced Security:** Implemented secure authentication and compliance measures for healthcare data protection.
- ✔ **System Reliability:** Rebuilt APIs and integrations to improve stability and interoperability.
- ✔ **Optimized Performance:** Boosted processing speed and responsiveness across the platform.



Technology Environment

Telliant worked with the client to identify/create the most suitable tech-stack for the project to include:

LANGUAGES

- Java
- Angular 20

PLATFORM

- PostgreSQL

INTEGRATION

- Git
- Automated CI/CD

About Us

Telliant Systems, offers a diverse selection of custom software product development services, such as product strategy, software design, application development, QA/Testing, and application management services. Expert teams are available to develop web, enterprise, and mobile applications, including iOS and Android development.

Solution Highlights

Telliant modernized the client's platform into a secure, high-performing, and scalable healthcare solution. The new architecture improved compliance, stability, and usability while ensuring long-term performance and reliability.

- ✔ **Security Overhaul:** Identified and remediated vulnerabilities with advanced encryption and access controls.
- ✔ **Robust Backend:** Rebuilt the backend in Java for scalability, faster performance, and secure API integration.
- ✔ **Modern Front-End:** Upgraded to Angular with a responsive, modular design and improved user experience.
- ✔ **Enhanced Features:** Added advanced reporting, faster data sync, and simplified user mgmt.
- ✔ **Optimized Performance:** Applied caching and database tuning to boost speed and maintainability.
- ✔ **Ongoing Support:** Delivered continuous monitoring and updates.

Insights and Results

Telliant transformed the client's platform into a secure, scalable, and high-performance solution supporting global healthcare interoperability.

- ✔ **Security & Compliance:** Eliminated security vulnerabilities and ensured compliance.
- ✔ **Performance Improvements:** Improved speed, scalability, and system reliability.
- ✔ **Modern UI:** Delivered a modern, responsive user interface.

