

# J P Systems, Inc.

## Client Case Study: VHA VHIE



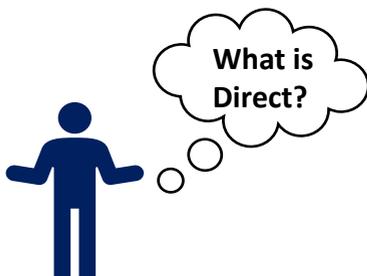
### Direct Secure Messaging Support for Federal Enterprise HealthCare Client

In 2016, Veterans' Health Administration (VHA) sought a contractor to support the VHIE Health program, formerly known as VLER, in developing health information exchange (HIE) software processes, content, and business and systems architecture. They needed a contractor to conduct and coordinate terminology standards activities, which included analyzing knowledge management and creating and managing healthcare terminologies. They needed a contractor who could also develop and maintain terminology standards within the VHIE Health Business & System Architecture, including FHIR™, Security Labeling Service (SLS), and Direct mail protocol.

J P Systems used prior expertise in Knowledge Based Systems, clinical terminology standards, interoperability, and HIEs to fulfill VHA's needs. Working alongside internal VHA groups and external partners, we transformed and defined VHIE Health's business objectives for standards based data exchange into goals and milestones for VA's Integrated Project Team (IPT). We did this by analyzing the SCRUM framework's business architecture and focusing on four areas: C-CDA expansion, Electronic Health Exchange (eHX) architecture enhancement, direct integration with apps, and tool integration.

We also helped develop VHIE Health's Business and System Architecture by analyzing its current state: architecture business capability, service capability, capability maturity, targets, and gaps associated with the VHIE program strategy and investment planning. We also made recommendations for the future state, suggesting optimal workflows associated with HIE Business & Systems Architecture and defining the As-Is & To-Be End-to-End Data Flow Architecture.

Over multiple option years, we continue to work with VLER Health to optimize their Business & System Architecture through planning future state architectures and middleware evaluations for interoperability planning purposes. The VA has recently just been accepted into the Direct Trust's ATAB bundle.



Direct is a Health Information Service Provider (HISP) and organizational model that allows individuals, providers, and organizations to share information with best practices that have trust and privacy considerations. Direct has Legal Business Associate Agreements with HIPAA and follows data collection, use, retention, and disclosure policies.

# Data Quality Improvement & Data Standards Expansion

**Part 1** VHA Office of Informatics and Analytics (OIA) Knowledge Based Systems (KBS) sought to improve the quality of the data that flows between their systems, its commercial partners, and other government agencies. They needed a contractor to analyze their data flow, make recommendations on C-CDA and other standard clinical document formats, and establish interoperability performance metrics for data improvement. They also needed a firm who could engage healthcare data standards development organizations and other federal agencies to improve and clarify standards.

J P Systems provided non-personal Data Quality Management services to enable the Veteran's Health Information Exchange program (VHIE) to improve and expand VA's ability to securely share computable electronic health information with other healthcare providers that care for Veterans. We tracked the flow of health data generated by commercial partners, analyzed the data, identified errors, planned how to fix data quality errors, and made recommendations for improving the systems that move and display the data. We analyzed requirements, provided guidance on expanding the use of HL7 standards and implemented the new HL7 standards through mapping their legacy data into HL7 structures.

We accomplished much more than the customer anticipated in virtually every area, and we were rewarded with continuing work on this effort.



Through our DQ Doctor website, [DQDoc.com](http://DQDoc.com), we offer potential clients demo sessions on our terminology, data quality and interoperability planning services.

## Part 2

The VHA issued us a sizable follow-on project to continue improving and managing the quality of data that is sent and received in the Veterans Health Information Exchange (VHIE). They needed to export up-to-date CCD files, as they were only able to export C32 files.

J P Systems continued to outperform client expectations, improve clinical data quality, engage external partners and track performance metrics. Plus, after recognizing patterns of problems, we began to directly engage the EHR vendors involved to correct problems in their systems with their CDA file exportation earlier in the data exchange and transmission cycle. We analyzed data to identify errors and found ways to trace them to the source of the problem. We presented recommendations to VHA and their external partners on how to improve. We also implemented the exportation of new versions of the CCD health standards specifications, C-CDA. Thus VHA's program, **MyHealthVet, now empowers over three million veterans and their providers to access their clinical data worldwide**. To continue improving standards and performance, we corresponded with federal regulatory bodies, allowing us to develop a nationally standardized Testing Plan to test and enhance implementation of C-CDAs to accelerate external Partner Onboarding for clinical data exchange.

In 2018, another follow-on task, TO 25, was issued by VHA OIA KBS to continue this work of monitoring data quality, engagement, and onboarding more external partners for data exchange. To date, we have helped over 210 major hospital systems (2000 hospitals) be on-ramped into VHIE.



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