

CASE STUDY

Fortifying the VA's Vast i-VA Healthcare Strategy:

How Cognitive's Application of HL7 Standards Enhanced Interoperability and Security Across Disparate Electronic Health Record Systems



PROJECT DETAIL:

CAPABILITIES:
Interoperability

AGENCY:
Department of Veterans Affairs
Knowledge Based System Office,
Standards & Interoperability
(S&I) Division

INTRODUCTION

Interoperability has become a vital component of ensuring accessible care. When health systems can seamlessly transfer healthcare information across disparate electronic health record systems, clinicians can more readily provide the quality care Veterans need, when and where they need it. Yet establishing this interoperability can be daunting. It requires both a framework for securely transmitting accurate data and a consistent approach to delivering clinical care.

To facilitate the seamless transition of data between care institutions—and enable effective clinical decision support guiding collaboration in workflow, use cases, and processes—the Department of Veterans Affairs Knowledge Based System Office (KBS) Standards & Interoperability (S&I) Division turned to Cognitive, an expert it knew it could trust to advance its **Veteran Interoperability Pledge**.

CHALLENGE

The Health Level Seven International (HL7) standards serve as an essential component in the seamless exchange of electronic health information across interoperable systems. Yet ensuring interoperability across a healthcare landscape as vast as the one operated by the VA—a system spanning three component agencies and more than 1,300 facilities across the nation—is no simple task. Not only did the VA require a plan for moving forward, it needed guidance for its clinical and technical teams on how to apply HL7 standards while advancing its mission of care.

SOLUTION

Cognitive was contracted to carry out two task orders, each requiring management of a multi-disciplinary clinical and technical team of subcontractors and representation of the VA's interests at standards development events. At the heart of these contracts was strategic planning and support essential for ensuring the interoperability of health information technology (HIT) systems across the VA.

Cognitive experts collaborated with a range of VA stakeholders to identify a standards and interoperability strategy, perform gap analysis, and make recommendations for moving forward. This data was gathered through an inclusive range of strategies, including representation at industry meetings, work groups, and “Connectathons” designed to bring HIT stakeholders together to test the interoperability of evolving systems. As this research began to shape a comprehensive picture of industry best practices, emerging trends to address, and applicable standards, Cognitive was able to update the Interoperable VA (i-VA) Blueprint, the VA's strategy for achieving interoperability.

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With a clear roadmap and established objectives, Cognitive's experts were able to get to work on the complex task of writing and modifying implementation guides for several HL7 standards. Under Task Order 2, the team provided guidance for those individuals who would apply HL7 standards—and set the stage for future enhancements.

Guidance included a Clinical Quality Language (CQL) standard implementation companion that provides direction on best practices and risk reduction strategies for users of the CQL standard. The i-VA Blueprint was also updated to include an i-VA Maintenance Guide, as well as a strategy for enhancing interoperability across the VA. Cognitive also launched a project to explore the implementation of Artificial Intelligence/ Machine Learning (AI/ML) tools in developing and using standards-based interoperable datasets, per HL7 standards. This work would prepare the VA to thrive as technologies evolve.



RESULTS

While Cognitive provided far-reaching guidance for enhancing interoperability across the VA, every recommendation was rooted in Cognitive's commitment to security and scalability. This commitment would ensure that Veterans' protected health information remains secure, even as technologies change and new systems are adopted. In fact, this commitment to security is why the Veterans Health Administration trusted Cognitive to represent its interests in security standards development as part of the HL7 Security Working Group.

What's more, Cognitive helped the VA prepare to thrive within this new way of operating. Team members led change management sessions and a range of training opportunities to prepare VA clinicians and technical professionals to navigate the new standards. Cognitive's experts also helped VA project leaders align future initiatives with broader industry initiatives, closing gaps between VA and industry standards.



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