Interoperability and Integration

Interoperability and integration of health care data between agencies and systems is a critical requirement for our federal and civilian health care organizations. In particular, The U.S. Department of Defense (DOD) and The U.S. Department of Veterans Affairs (VA) medical systems and providers have many unique challenges to meet in order to provide the high standard of care we insist upon for our soldiers, veterans, and their families. ManTech provides critical systems integration and interoperability support for several key DoD and VA programs designed to meet these challenges through integration with federal and commercial systems on the national eHealth Exchange used to efficiently and securely share clinical information between health care providers.

Capabilities

- Development of systems that securely share medical data between military, veteran, and commercial providers
- Development of a federated repository for Electronic Health Records (EHR) artifacts and images, with distribution to the enterprise and VA on request
- Early adoption of the emerging Fast Health Interoperable Resources (FHIR) standard
- Connecting Federal Agencies to the eHealth Exchange
- Clinical Document Architecture (CDA) and artifact exchange following the Integrating Healthcare Enterprise (IHE) Cross-Community Access (XCA) and Cross-enterprise Document Reliable (XDR) profiles
**Customer Challenges**

**Problem:** The DoD needed a way to enable data sharing between itself and external health providers through eHealth Exchange

**Solution:** Virtual Lifetime Electronic Record (VLER)

ManTech developed the DoD VLER system building the custom adaptor and its auxiliary support components to enable data sharing between DoD and external health providers through the eHealth Exchange (formerly Nationwide Health Information Network). ManTech has assisted DoD in becoming one of the most successful initial health organizations to navigate the eHealth Exchange on-boarding processes and procedures, including standards compliance and interoperability testing.

**Problem:** The Government needed a way of sharing DoD data with both eHealth Exchange and non-eHealth Exchange partner systems

**Solution:** Defense Medical Information Exchange (DMIX)
Data Exchange Services (DES)

Because of our highly successful work on the DoD Bi-directional Health Information Exchange (BHIE) and VLER (eHealth Exchange) programs, ManTech was chosen to develop the DMIX DES system as a way for sharing DoD data with both eHealth Exchange and non-eHealth Exchange partner systems to enhance clinicians’ access to clinical records. The purpose of the DMIX DES program is to deliver a single capability to seamlessly provide an integrated and standardized health care data exchange service made available to DoD, VA, other federal agencies, and external organizations to include private sector health care providers.

**Problem:** The Government needed support in updating and sustaining the VistA Imaging sites

**Solution:** Sustainment of Telemedicine & VistA Imaging (STVI)

ManTech provides maintenance, sustainment, and Tier 3 user support services of VistA Imaging to STVI VA and Health and Human Services sites using VistA as part of their patient record. The Centralized Vista Imaging System (CVIX) component of the VistA Imaging package has integrated with the DoD through BHIE Image Adapter (BIA) that interacts with DoD Digital Imaging and Communications in Medicine (DICOM) images and artifacts from participating DoD facilities. CVIX and DoD interact with each other using the custom External Communication Adaptor (XCA) that handles the non-DICOM metadata requests from BHIE and Health Artifact and Image Management Solution (HAIMS) servers using Transport Layer Security (TLS) 1.1 and Secure Sockets Layer (SSL) protocols.

**Problem:** The Government needed a way to connect clinical and technical domains to help enable interoperability with the DoD and commercial health care organizations

**Solution:** Enterprise Terminology Service (ETS) Standards and Terminology Services (STS)

ManTech aids Knowledge Based Systems (KBS) and STS to work to establish a collaborative ETS that bridges clinical and technical domains. This helps enable interoperability with the DoD and commercial health care organizations in order to address both the Congressional and Executive mandates for interoperability, standardization, computability, and meaningful use. We accomplished this through a balance of agile development processes using Program Management Accountability System (PMAS) and ProPath (a repository that contains artifacts) compliance and the application of thought leadership.

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