1 Big Data and Enterprise Repositories

**COHORT** - DHA leverages the SpinSys MDACA product, winner of the 2013 Red Hat Best Middleware Implementation Award, to support their mission of developing an enterprise data mart from ICDB/CHCS data into a central repository. MDACA consolidates, extracts, and provides over 1.6 billion medical data transactions per day, in near real-time, from various military health care facilities to provide quality of care analysis, health analytics applications, early detection of epidemics, and disease trend analysis.

**Essentris Data Consolidations** – SpinSys supports the DoD in collection, extraction and consolidation of patient health records from all MTFs by using the MDACA product to provide flexibility in designing enterprise common data models and normalization.

2 Electronic Health Record

**Longitudinal Record of Care (LROC)** - SpinSys designed, developed and currently supports the LROC system, which aggregates patient medical history from across all the Armed Forces Integrated Clinical Database (ICDB) instances available in Military Treatment Facilities (MTFs) across the globe. SpinSys provided software engineering, architectural design and integration services in support of Electronic Health Record (EHR) for the DHA military personnel.

**Personal Health Record (PHR)** - SpinSys designed, developed and supports the next generation Electronic Health Record (EHR) by providing enterprise level integration and delivery services. SpinSys provides full lifecycle support and development and fully integrates into RelayHealth (a division of McKesson Corporation), SaaS-based HIE, PHR platform and other certified EHR applications.

3 Business Intelligence, Data Visualization & Discovery

**MHS Dashboard** - SpinSys designed, developed and currently supports the MHS Dashboard by providing a core set of Military Health System Enterprise measures for monitoring and improving patient access, quality of care, and patient safety for the medical components of the Army, Navy, Air Force, and DHA. This shared service dashboard is an ongoing collaboration driven by the 2014 Secretary of Defense MHS Review mandate to establish clear enterprise performance goals with a standardized measurement tool to support continuous improvement. SpinSys leveraged advanced big data and web development techniques to provide a cutting-edge analytical tool.
Health IT Capability

AFMS Dashboards - SpinSys designed, developed and currently supports AFMS Dashboards by providing a suite of risk-adjusted outcome metrics designed to provide a clear understanding of the quality of medical care being provided in a given MTF facility.

AFMS Wing Commander’s Heads Up Display (HUD) - SpinSys designed, developed and currently supports specialized, secure, interactive dashboards, which measure metrics designed to provide quality of care analysis for wing commanders throughout the USAF.

Enterprise Usage Analytics - SpinSys designed, developed and currently supports data collection from multiple enterprise SharePoint farms to provide executive level dashboards, data analysis tools, and reports designed to show detailed usage metrics from the program to application levels.

4 Health Information Exchange (HIE)

Agile Core Services Data Access Layer (ACS DAL) – SpinSys performs requirements analysis, technical support, system engineering, cybersecurity, system integration and development in support of ACS DAL, an integration platform that provides a single, scalable architecture for the exchange of messages between internal MIDS systems and external systems. ACS DAL has three primary functions: application integration, data integration and business rules management.

SMART on FHIR – SpinSys prototyped SMART on the Fast Healthcare Interoperability Resources (FHIR) interface to allow innovators to create apps that seamlessly and securely run across the healthcare system. Using an electronic health record (EHR) system or data warehouse that supports the SMART standard, patients, doctors, and healthcare practitioners can draw on this library of apps to improve clinical care, research, and public health.

DAVINCI - SpinSys provides interoperability subject matter expertise, engineering and project management for DoD/VA Interagency Consolidated Clinical Data Repository that is accessible to both agencies.

Cerner Data Exchange - SpinSys performs integration and interoperability efforts by providing subject matter expertise, data architects, systems engineers and project management for integration with the future Electronic Health Record (GENSIS) and DHA enterprise data repositories.

Enterprise Data Virtualization (EDV) - SpinSys provides data visualization, subject matter expertise, data architect and data warehousing expertise to develop comprehensive data abstraction, integration, federation, transformation, and delivery capabilities in order to combine data from one or multiple sources into reusable and unified logical data models.

5 Registries

Military Health System Population Health Portlets (MHSPHP) - SpinSys is currently leading the architecture, development and support efforts to develop over 50 health registries which identify MTF Tricare Prime and Plus enrollees in need of potential clinical preventive services, disease management, or case management. SpinSys provides military health care professionals and researchers with first-hand information about people with certain conditions, both individually and as a group, in order to increase the understanding of the treatment of those conditions over time. SpinSys supports a large number of registries including: Antidepressant Med Management, Anxiety, Asthma, Back Pain, Breast Cancer Screening, Cardiovascular Disease Risk, Cervical Cancer Screening, Children with Pharyngitis, Children with URI, Chlamydia Screening, Cholesterol in CVD, Colon Cancer Screening, COP, Depression, Diabetes, Health Services, High Risk Admissions, High Utilizers, High Utilizers Summary, Hypertension, Immunizations, Lipid Panel, and Opioid Management.

Hearing Center of Excellence (HCE) - SpinSys is currently leading the architecture, development and support efforts for the Joint Hearing Loss and Auditory System Injury Registry (JHASIR) that is used to identify personnel with hearing loss auditory/vestibular injuries. The application supports readiness through monitoring comprehensive hearing health programs by establishing and leveraging bidirectional data sharing between the DoD and VA.

6 Information Portal and Collaboration Sites

PS Secure - SpinSys provides maintenance and support for the Patient Safety (PS) Secure site which is at the cutting edge of high-quality health care.
CarePoint Information Portal - SpinSys performs requirements analysis, technical support, system engineering, cyber security, help desk support and subject matter expertise in support of the CarePoint Information Portal. It is designed to provide DHA the capability of hosting and managing comprehensive portal applications on a common platform by providing an enterprise platform for business analytics, case management, HIT applications and team collaboration.

MHS Health Statistics – SpinSys provides maintenance and support for the MHS Health Statistics site, a collection of standardized population health indicators. The health indicators are measurable characteristics used to describe the population health of the MHS community.

Naval Health Clinic Cherry Point – SpinSys provides maintenance and support located on MCAS Cherry Point. NHCP sees to the needs of the areas active duty, dependent, and retiree population.

TeleDerm - SpinSys provides maintenance and support for the TeleDerm application that is used by all regions and MTFs to allow dermatology referrals from sites that don’t have dermatology assets near them. This solution gives MTFs the ability to submit, review, and manage referrals aiding in access to care.

ANGSG - SpinSys provides maintenance and support for the Air National Guard Medical Service by leveraging the unique medical experiences and training of guard airmen to conduct domestic and global operations while ensuring medically ready forces for federal & state needs.

SDD Dashboards - SpinSys provides maintenance and support for the SDD (Solution Delivery Division) dashboards. This site provides dashboards on SDD operations to help evaluate efficiency and effectiveness of SDD Activities. It also provides a means to monitor and improve processes within SDD.

CQRM Secure Site - SpinSys provides maintenance and support for the CQRM Secure Site which is a secure area restricted to AF MTF risk managers, consultants selected to do SOC reviews, and medical practice review board members.

7 Cloud

Knowledge Exchange (Kx) AWS Migration - SpinSys worked closely with SPAWAR to support the migration of the enterprise Kx portal to the Cloud. SpinSys leveraged their deep understanding of their federal customer's compliance frameworks including RMF, DoD, FISMA, DIACAP, DCID, to support in the design, architect and implementation of the proof of concept for enterprise level roll-out.

Cloud & Hybrid Cloud - SpinSys demonstrated the capability of leveraging hybrid cloud technologies by showcasing the transformation of the RMF, MDACA, SBF applications from a client-server framework, running on USAF infrastructure, to the AWS Gov Cloud.

8 Referral & Case Management

Referral Management System (RMS) - SpinSys designed and developed a RMS that handles referrals from all the Military Treatment Facilities (MTFs) to Managed Care Support Contractor (MCSC) for DoD health insurance provider referrals and Right of First Refusal (ROFR) determinations. SpinSys worked closely with different health insurance providers to transition from a fax based system to a pure service oriented/messaging based system leveraging HL7.

Referral Management Performance Management Tool (RMPMT) - SpinSys designed, developed and currently supports the DHA RMPMT tool, a health information application that provides leaders and decision-makers global oversight and data on referral management processes and practices at their facility, intermediary command and service. Leaders are better informed on referral patterns and processes that identify areas/tactics for better integrated care and reduced health care costs.

NIcoE Referrals - SpinSys designed, developed and currently supports National Intrepid Center of Excellence (NIcoE) referral submission application. Service members are typically referred to the NIcoE program by their primary care provider. The NIcoE is a DoD organization working to advance the clinical
care, diagnosis, research and education of military service members with traumatic brain injuries (TBI) and psychological health (PH) conditions.

**NCoE Continuity Management Tool (NCMT)** - SpinSys designed, developed and currently supports NCMT to deliver cutting-edge objectives in the areas of Patient Referral Processing and Case Management to include the scheduling of providers, patients, and resources. This solution supports patient referrals received from various referring providers at Military Treatment Facilities (MTFs) and military medical institutions throughout the country. This tool tracks these patient referrals as they go from determination of eligibility for patient admission to discharge.

**9 Health Infrastructure and Security**

**Managed Services and DevOps** – SpinSys provides technical operations and sustainment support to include full operations, management, sustainment and administration of all enterprise servers, applications, network and resources for enterprise Health information Exchange systems and Enterprise Data presentation solutions.

**Information Assurance (IA)** – SpinSys leads multiple IA efforts which leverage RMF security standards in support of security certifications and ATO accreditations.

**10 Mobile, IoT and AI**

**MDACA Mobile and IoT Secure Communication Gateway** - The MDACA gateway provides authorization and authentication between a mobile/IoT device and the enterprise IdAM server leveraging certs, CACs and PIVs.

**MDACA Mobile Development Platform** - Our mobile app platform support both native and progressive apps in the healthcare and analytics domain with two-way SSL communication and pre-built development libraries.

**MDACA Enterprise AI Libraries** - Our Enterprise Artificial Intelligence (EAI) libraries include the industry’s leading open source machine learning libraries designed to support health-related AI applications such as the analysis of the relationship between prevention and treatment techniques with patient outcomes.