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Agile Case Study

Department of Homeland Security (DHS)
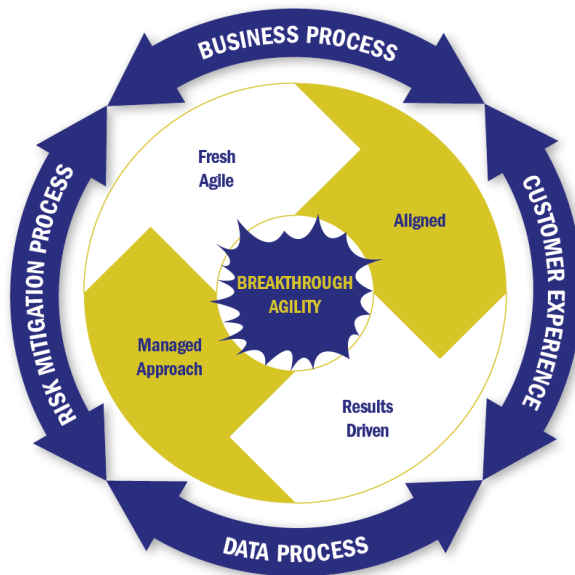
Domestic Nuclear Detection Office (DNDO)

The Challenge

When the Joint Analysis Center Collaborative Information System (JACCIS) version 1.0 was deployed to production, it didn't meet user acceptance criteria. Critical system requirements included 24/7 capabilities, the maintenance of situational awareness of the Global Nuclear Detection Architecture (GNDA)* through both domestic and international data fusion, alarm adjudication for state, local and tribal users, rapid/short turn-around analytic service for nuclear detection questions (from the Domestic Nuclear Detection Office), and information sharing and exchange connectivity with partner agency systems worldwide. The client mandate was to design, develop, build, deploy and maintain, a unified and integrated system.

The Solution

CANDA took the lead and began with the analytical and scope efforts. We started the project using Agile methodology (Scrum) individually tailored to DHS Software Engineering Lifecycle (SELC) by interviewing users, understanding issues, minimizing deliverables, and conducting Rapid Prototyping. Simultaneously, we were utilizing User Stories to collect, document, estimate, and prioritize requirements for a successful Initial Operating Capability (IOC). We achieved, and in many cases exceeded, client expectations by utilizing our own **FARM** (**F**resh Agile, **A**ligned, **R**esults Driven, **M**anaged Approach) process, a proven methodology that has taken failing IT projects in the government and made them referenceable accounts. This proprietary process is the result of the combined experience from our seasoned team of IT professionals, all who have been intricately engaged with all aspects of client and organization development, security, deployment, production and client requirements. Business Processes Customer Experience, Data and Risk Mitigation Processing are all aligned and working together, providing results – results that create breakthrough Agility.

* based on the HSPD-14 (Homeland Security Presidential Directive)

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Results & Impact

Operational	Agile
From previous contractor transition to operational prototype in *three (3) months*	Managed all *DHS gate approvals* as well as documentation in addition to Scrum Master role
Substantial *cost savings* by using a virtualized development environment paired with quick prototyping, building consensus among diverse stakeholders and user feedback	Agile *"User Story"* technique to gather requirements and visualize stakeholder input, despite competing perspectives and strong opposition
DHS Data Center (DC2/DC1) implementation, C&A including the Interagency Security Agreements (ISA) and MOU's	Planned and managed Sprints to speed up software development cycle and included stakeholders throughout the process
Information data sharing development across agencies using RAD/NUC NIEM (National information Exchange Model) XML data standards and data visualization	Instituted contracts to ensure 360-degree agreement on feature set to be built in each Sprint and subsequent *(every 90 day)* release
Sharing / integration capabilities with external partners to enhance common information exchange among agencies. CANDA was the first in DHS to build this important e-bridge between DHS and DOE (Dept. of Energy)	Implementation of new technology SOLACE XML routers that required TRM (Technical Reference Matrix) insertion, security assessment, production system implementation, operational guides & support, with a deployment to DC2

The use of Agile/Scrum methodologies successfully delivered twenty (20) versions of JACCIS system to production and moved workload to the cloud.