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## Agile Case Study

### DHS (Dept. of Homeland Security)

### Domestic Nuclear Detection Office (DNDO)

#### Challenge

Existing Joint Analysis Center Collaborative Information System (JACCIS) version 1.0 was deployed to production but didn't meet user acceptance criteria. The system requirements included 24/7 capabilities, maintaining situational awareness of the Global Nuclear Detection Architecture (GNDA) based on the HSPD-14 (Homeland Security Presidential Directive) through data fusion (domestic & international), alarm adjudication for state / local / tribal users, rapid / short turn-around analytic service for nuclear detection questions (from DHS/DNDO), and information sharing / exchange connectivity with partner agency systems worldwide. Customers mandate was to design, develop, build, deploy and maintain a unified and integrated system.

#### Solution

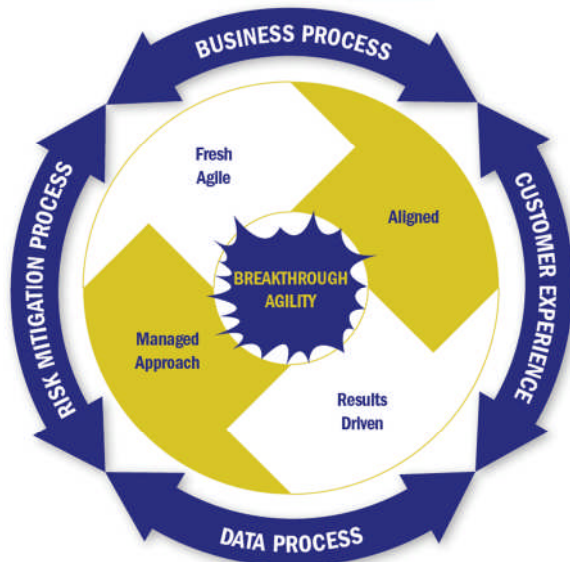
CANDA led the analytical and scope efforts, and started the project using Agile methodology (Scrum) tailored to DHS SELC (Software Engineering Lifecycle) by interviewing users, understanding issues, minimizing deliverables, doing Rapid Prototyping while utilizing User Stories to collect, document, estimate and prioritize requirements for successful IOC (Initial Operating Capability).

CANDA achieved and in many cases exceeded customers' expectations by utilizing our own **FARM** (Fresh Agile, Aligned, Results Driven, Managed Approach) process proven to take failing IT projects in the government and made them referenceable accounts. This proprietary process is the result of the combined experience from our team of seasoned IT professionals, all that have been on the front lines and intricately engaged with all aspects of development, security, deployment to production and client requirements. Business Process, Customer Experience, Data Process and Risk Mitigation Process are all aligned and working together, providing results – results that create breakthrough Agility.



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## Results & Impact

Operational	Agile
From previous contractor transition to operational prototype in <i>three (3) months</i>	Managed all <i>DHS gate approvals</i> as well as documentation in addition to Scrum Master role
Substantial <i>cost savings</i> by using a virtualized development environment paired with quick prototyping, building consensus among diverse stakeholders and user feedback	Agile “ <i>User Story</i> ” 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
<i>Information data sharing</i> 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 ( <i>every 90 day</i> ) release
<i>Sharing / integration capabilities</i> 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 ten (10) versions of JACCIS system to production in less than three (3) years.***