CASE STUDY

Federal Agency Uses Capability and Technology Management to Transform and Streamline

This federal agency set out to build optimal IT solutions to handle a myriad of challenges to the business. With an Enterprise Architecture (EA) discipline enabled by Planview Enterprise One - Capability and Technology Management (formerly Troux), the agency now has a more integrated business overall, underpinned by an IT decision process, collaborative governance, and a common knowledge base. It all adds up to increased agility, efficiency and innovation.

The Environment

This federal agency has a significant mandate: to be the leading source of data about the nation's people and economy. Not an easy task for a country with more than 310 million citizens of increasingly diverse heritage and a gross domestic product (GDP) approaching $16 trillion.

Technology is critical to the agency's ability to produce dozens of regular reports. The data is used to distribute more than $400 billion in federal funds each year and determine Congressional seats. So the agency needs to stay on top of timeliness, relevancy, quality and cost.

However, in 2012 the agency found itself at a crossroads. It had a siloed, organizational view of its business with independent processes and minimal shared infrastructure. Duplication and complexity abounded and there were few economies of scale.

Moreover, pressure was mounting from a range of sources. Like all federal agencies, it was hit with a 10% budget cut, challenging at any time, but even more so as it faces increasing demand from the private sector and a more and more technically-savvy and connected American public. The popularity of search engines such as Google is fueling an appetite for fast, current and in-depth statistical information. It was clear that to keep pace with these changes, the agency needed more digital options to connect with the public.

Overview

Industry

Federal Agency

Geographies

North America

Employees

~6,000 employees

Indeed, demands for IT mobility, efficiency, and agility are playing a major role in mission planning and the overall enterprise architecture as the agency moves toward its mandate. Equally important are federal drivers such as open data and cloud innovation that raise questions about the agency's role in an era of big data and open source analytics.

"Within IT, we knew we had to put in place significant structural changes," said the Chief Technology Officer (CTO). "We needed a mechanism that would move us away from 'business as usual' to a more streamlined and collaborative environment in which to make better informed decisions."

Working with Planview's solution for capability and technology management to leverage its Enterprise Architecture (EA) became central to the agency's ultimate goal to be more elastic and have the scale to meet the needs of more than 500,000 field users and a complex system of information collection and analysis that spans all corners of the U.S. and its territories.

The Cultural Shift

The Chief Technology Officer appointed a Chief Architect to launch a group to develop and enforce IT product standards, and established a review board to provide solution design guidance and develop design patterns.

"Over time, each of the autonomous program areas had developed an IT shop," the CTO explained. "These were mainly focused on applications development, but they led to a complex, inefficient and redundant environment."

As a result, the agency was seen as disconnected, with a vast and undocumented network of systems, applications, programs and processes. It lacked consistent standards and metadata. For example, the agency's three main program areas had three different ways to describe their work. There were more than 1,500 IT products, featuring multiple competing platforms and multiple product versions. More than 1,000 business applications provided redundant functionality, and there were many one-off systems that should have been shared solutions.

The paradigm change really began with the initiation of what the agency calls a lifecycle and "mission-enabling support work" (MES) frameworks. "With these, we can look at things like processes, capabilities, assets, resources and more through a common lens and perspective," said the CTO. "This in turn initiated a cultural shift in our mindset – away from the traditional organizational-centric view of our operations."

"This transformation gives us more innovative ways of doing business, faster results, and more cost-effective capabilities."

– Chief Technology Officer

The agency's EA Framework

1. EA policy to govern IT decisions

2. Enterprise Standards Profile (ESP) to reduce software and hardware footprint

3. Standards Working Group (SWG) to establish the ESP

4. Architecture Review Board (ARB) to promote reuse and shared solutions

5. Service Oriented Architecture (SOA) Strategy for rolling out core infrastructure, including reusable solution patterns

6. IT infrastructure roadmap to guide selection and deployment decisions

7. Developing apps inventory to identify opportunities for consolidation, reallocation and shared services

8. Lifecycle to categorize business activities supporting the execution of surveys and information lifecycle into functional categories that cut across organizational boundaries

9. Center for Adaptive Design (i.e. Multi-Mode Data Collection) to architect common target solutions that support more adaptive data collection capabilities

10. Digital Strategy / Dissemination Segment Architecture to synchronize disparate data dissemination initiatives/solutions to make more data sets publicly available, standardize on dissemination platforms, and develop APIs for the public to more efficiently access data and for developers to build applications that leverage data

The lifecycle and MES frameworks allow the agency to view things from a common perspective with regard to what to invest in, which solutions to build or products to buy, and how to secure the environment – critical when dealing with gigabytes of data.

"The EA policy sets the framework that gives us this common approach," says the CTO. "It formally establishes the EA program and gives it the teeth to serve as an enterprise-wide tool and discipline to make better integrated and informed IT decisions."

By migrating to a functional, shared perspective of business and IT assets enabled by EA, the agency has greater integration within IT's decision-making processes as well as more collaborative enterprise decision-making. Enabled by its EA practice, the agency has established:

- Common, single framework to describe work across Directorates from functional perspective using standard definitions (i.e., lifecycle and MES)

- Enterprise applications inventory to provide a centralized view of deployed automation and identify shared services opportunities

- Adaptive design to develop target shared solutions for data collection

- Comprehensive enterprise approach to address dissemination using open data, shared platforms, and APIs

- Shared solutions that span multiple directorates

- Enterprise SDLC to support consistent and common development

- IT product standards to reduce IT footprint by retiring obsolete technology, reducing number of duplicative products, reducing product versions

- Shared IT infrastructure deployed via the cloud

- Leveraging internet and mobile technology to increase efficiencies and customer service

- Enterprise IT security framework applied to all IT solutions to continuously monitor risk

The CTO is pleased with the changes the team has already put in place. "We are already benefiting from the results, with a common nomenclature across the organization and a dramatic reduction in duplication of assets and our business."

The Benefits of EA:

- A single standardized set of cross-organizational functional categories to describe the work of the agency

- Fewer duplicative products and streamlined product footprint

- Increased shared applications built from reusable services

- More shared IT infrastructure solutions

Next Steps

The team has multiple goals as it moves toward a greater shared services-enabled IT environment, informed and shaped via insights gleaned from the current architecture.

With the success of the first phase already in place, the IT team is setting its sights on the future.

Reducing the number of redundant investments is critical. "We intend to use the architecture to drive and evaluate investment decisions by linking applications to investments and projects," the CTO explains. "By identifying the breakdown of O&M and investment costs, the team can drive and gain insight into how best to realign our IT investment portfolio to support modernization strategies and priorities."

The team is also planning to mature the applications inventory, and gain insight from architectural analysis of the existing applications portfolio to identify areas for shared services, and simplified solutions and streamlined operations.

"The agency set out to build optimal IT solutions that in turn support the business," said the CTO. "We now have a more integrated IT decision process, our governance is now collaborative across the organization, and we have achieved an informative EA knowledge base. This transformation gives us more innovative ways of doing business, faster results, and more cost-effective capabilities."

For more information, visit Planview.com

planview™