

CASE STUDY

Transforming Manual Processes into Automated Web Applications in the Cloud

BUSINESS NEED - One of our client's missions is to ensure the health of our economy. Their public-facing website (.gov) provides critical information to stakeholders about institution trends, statistics, and regulations. The majority of the agency's website was hosted on Cloud.gov, a General Service Administration (GSA) Platform as a Service (PaaS) cloud solution using Amazon Web Services (AWS). However, the agency's web content authoring and publishing processes had not been migrated to the Cloud. The client used a custom content management platform with a manual content publishing assembly line, which significantly slowed down important website content updates and resulted in rendering errors. No environment existed for previewing content before it was published to the live site on Cloud.gov. The client needed to develop a secure application that automated the content authoring and publishing processes, migrated these processes to Cloud.gov, and integrated the cloud and on-premise systems.

OUR SOLUTION - Based on our past performance at this agency, Pyramid Systems was asked to resolve the technical complexities. Pyramid compiled a cross-functional Agile team to investigate and evaluate the problem. We developed a Cloud.gov application which automated and standardized 20 of the agency's manual web content authoring and publishing workflows into one consolidated system workflow. This cloud application served as the user interface (UI) in which a user can create, modify, approve, and automatically publish content with the click of a button. The Pyramid team pioneered Cloud.gov development at the agency, implementing the architecture required to integrate the cloud system with the agency's existing on-site infrastructure and services. Some of our innovative features include:

- Developed an Authorization Proxy (AuthProxy) to enable Cloud.gov communication with the agency's on-premise Enterprise Identity Management (EIDM)
- Implemented a custom Cloud Access Security Broker (CASB) solution/ServiceNow connector on the agency's NetScaler to facilitate Cloud-to-Cloud communication and integrate the system with the agency's ServiceNow implementation

These integrations and the associated architecture allowed our client to achieve their goal of allowing a user to automatically deploy and publish web content updates directly to Cloud.gov. As a result, the new cloud application developed by Pyramid provided significant cost savings and efficiencies to the agency.

RESULTS - Pyramid was the first team at this agency to successfully deliver a new application hosted on Cloud.gov and we developed an authorization proxy that is now used as an enterprise resource for Cloud development. The agency used Pyramid's system to successfully publish 2,000+ changesets to their Cloud.gov website during the first 5 months the system was live. The agency's Chief Web Officer and Product Owner stated that Pyramid is "the only team we have worked with in the past 25 years that has a demonstrated master of excellence." Our notable achievements include:

- Delivered the Cloud.gov project under budget while achieving all scope and schedule milestones
- Completed the entire backlog of system features
- Provided business users with the ability to publish web content changes directly to Cloud.gov with the click of a button, significantly reducing labor costs and removing the dependency and need for technical staff to write scripts to publish changes
- Implemented additional cost-savings by staffing and training cross-functional resources, supporting multiple projects. For example, allocating a BA/Tester 50% of the time saved the agency approximately \$111K

Due to our success, our client awarded Pyramid additional work for a new Cloud.gov application. Pyramid leveraged our Cloud.gov experience and previous innovations with the AuthProxy to create a working prototype for the new system in 8 business days - a feat the agency identified as one of their innovations for 2018 during their Chief Information Officer (CIO) All Hands meeting.



Need help migrating to the cloud? Contact us at Info@PyramidSystems.com.