



CASE STUDY

From Paper to Electronic Processing:

Supporting USCIS and the State Department's Mission to Deliver for Americans



Background

— Previously, USCIS immigrant petitions were filed manually and, after approval, the paper files were transported to the Department of State (DOS), National Visa Center in New Hampshire. USCIS incurred significant logistic, preparation and transportation costs with this laborious process. Additionally, the inefficient procedures created delays in getting the approved petitions from USCIS to DOS. Once the paper files arrived at the State Department, data from the approved I-130s had to be manually entered into the DOS system. This cumbersome operation delayed the beneficiary's opportunity to file their DS-260, Immigrant Visa Electronic Application.



The Challenge

— For years the U.S. Citizen and Immigration Services (USCIS) and the Department of State (DOS) sought a streamlined process for the I-130 data sharing. USCIS immigrant petitions were strictly paper based and transferred to the DOS manually, which created weeks or even months of delays for most family-based I-130 petitions. The paper-based system was cumbersome to staff and a burden on families whose lives could be put on hold while they awaited adjudication. The slow and costly process also had an unnecessary impact on the environment because DOS received thousands of paper files related to I-130 petitions from USCIS. USCIS needed a new interface to efficiently send verified information for I-130 petitions from the Electronic Immigration System (ELIS) to DOS to meet the increasing demands of American Citizens for the efficient adjudication of their immigrant petitions for their family. Additionally, DOS needed assistance to build their interface to process the digitized records from ELIS into their systems.



The Solution

— ArdentMC's Agile Architecture and Design Services and our key insights gleaned from engagement with USCIS and DOS made this project successful. Additionally, ArdentMC utilized leading-edge technologies such as cloud, containerization, CI/CD, and DevOps methodologies. We understood the technology stack available at USCIS ELIS for the solution. We analyzed and developed modernized solutions to replace the inefficient and cumbersome business process of the I-130 petition case life cycle at USCIS and the Immigrant Visa process at the State Department by modernizing platforms. ArdentMC took into consideration the limitations of the State Department's Development teams and methodology. Finally, for optimum compatibility and flexibility for future use, the team chose to produce a REST service that could be used elsewhere at USCIS and State.

Modernized Data Information Sharing
Process Cut Transfer of Information from

53 DAYS to 1 HOUR



The Outcome

— In 2019, USCIS introduced the electronic I-130, which allows for direct online filing and digital upload of documents by U.S. petitioners. USCIS also began to process all newly-filed I-130 family-based immigrant petitions on its modernized ELIS platform more securely.

The average time it took to transfer an approved USCIS I-130 case to State's National Visa Center was 53 calendar days. Today, using the ELIS interface, the approved I-130s data is systematically sent to State's PreImmigrant Visa Overseas Technology (PiVot) system immediately after the approval and takes less than one hour, due to ArdentMC's work to modernize USCIS and DOS platforms and processes.

American citizens and Legal Permanent Residents who file the I-130 on behalf of their family members, now wait less time for their petitions to be more securely verified and transferred from USCIS to DOS using the state of the art ELIS Digital Platform. Additionally, there is significant savings to the U.S. taxpayer through the decreased cost in preparation, storage, and transportation of sending each paper file from USCIS to the State Department and there is significant labor cost savings by eliminating the need to manually data enter I-130 data into State's system. Finally, the new process decreases the impact on the environment by eliminating the use of paper.

Tools used to achieve these outcomes:



AWS Technologies

Amazon Aurora	Amazon RDS	AWS Database Migration Service	Amazon EC2 for Microsoft Windows	AWS Server Migration Service	Amazon CloudFront	Amazon Direct Connect	Amazon Lambda
Amazon API Gateway	Amazon DynamoDB	Amazon EMR	Amazon Kinesis	Amazon Redshift	Amazon Quicksight	AWS CloudFormation	AWS Service Catalog
AWS Config	AWS Systems Manager	Amazon Connect	AWS Web Application Firewall	AWS GovCloud	AWS IoT Core	AWS IoT Analytics	AWS IoT Greengrass



Agile Stacks

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Adobe Livecycle	AdoptOpenJDK OpenJDK; OpenJRE	AngularJS	Apache ActiveMQ; HTTP Server; Tomcat; Kafka	Apache Software Foundation Tomcat Native
Atlassian Confluence; Jira	CapitalOne Hygieia	Cloudbees Jenkins	Docker	Eclipse
GitHub	Google Apigee	Gradle	HashiCorp Terraform	HP WebInspect
JBoss Hibernate	Jenkins	Microsoft SQL Server; Windows Server 2008 R2 Enterprise	Open Hibernate Core for Java	Oracle JDBC Drivers; Solaris 10; SQL Developer
OSS GNU Ansible	Splunk	SpringSource SpringBoot; Spring Framework	Tableau	Twistlock



About Ardent

— Virginia-based Digital Transformation, Location Intelligence, and Data Analytics firm, Ardent Management Consulting (Ardent) is a certified HUBZone Small Business, CMMI-Dev Level 3, v2.0, and ISO 9001:2015; ISO 27001:2013; ISO 20000-1:2018 with offices in Arlington, VA and Tulsa, OK. Ardent brings a significant history of innovative and “at the speed of the mission” proven best practices in geospatial analytics, cloud services and modernization, and software development. Ardent is the “All In” trusted provider to many government agencies, DHS mission components, state and local projects, and the commercial and non-profit sectors. For more information, visit www.ardentmc.com.