

Cloud computing promises considerable benefits for public sector and commercial organizations alike, including more efficient capacity utilization, reduction in information technology capital expenditures, flexibility to scale capacity and usage up or down as demand changes, and more rapid deployment of applications and services than in traditional internal agency deployments. While many private-sector organizations have been quick to embrace cloud computing to realize benefits in cost efficiency, flexibility, and solution delivery speed, some government agencies view cloud service delivery models with more skepticism considering concerns about information security, data stewardship, privacy, governance, and change management.

Cognosante has migrated legacy applications and deployed new solutions to cloud environments for multiple Federal and state agencies. We have established partner relationships with Amazon Web Services and Microsoft Azure, with expertise in both commercial and government clouds. We also have proven experience with Google Cloud and IBM Cloud.

OUR EXPERTISE INCLUDES:

- Initiating cloud migrations from a physical data center to AWS
- Migrating applications between cloud providers (AWS to Azure) to improve system performance and further reduce operating costs
- Providing adequate security documentation to obtain authority to operate systems containing sensitive data in the cloud
- Leveraging the cloud to reduce time to deployment
- Using cloud-native tools like AWS Lambda and Azure functions with Spark and Python to automate case resolution
- Conducting cloud architecture design and solutioning, operations and maintenance, and development and operations engineering



Our work in action:

AUTOMATING CASE RESOLUTION FOR THE MARKETPLACE

CONTEXT

As part of the Affordable Care Act, taxpayers who obtain insurance through healthcare.gov receive a 1095A tax form which explains their coverage and any premium tax credit they have received. It is then used to reconcile any coverage detail discrepancies reported by the consumer after receiving the form at tax time. A case must be opened to resolve the matter, and have a corrected 1095A issued to the consumer when applicable.

CHALLENGE

The reconciliation process was largely manual, often taking analysts 30 minutes to research and resolve a single case. To determine the correct resolution, the type of discrepancy (case type) must first be identified. Case types include but are not limited to, address, coverage date, tax credit, and multiple issues. To determine the correct information and resolve the complaint, the consumer's claim must be compared with government, issuer, and consumer data existing across multiple large databases.

INNOVATIVE SOLUTION

Our team leveraged artificial intelligence to identify the case type. Once the case type is known, a series of case-type-specific rules can be applied to resolve the case. We used Spark and Python, available in the Microsoft Azure HDInsight, to extract the necessary information from the large amounts of data to resolve the case.

TANGIBLE RESULT

High volumes of cases can now be resolved at the rate of one case per second with our automated basic data comparisons. We have estimated that between 60 and 80 percent of cases can now be solved automatically.

