



Paperwork, Processed

State health assistance office leverages Intelligent Document Processing (IDP) to build and optimize a searchable document repository.

a story of **owning change**

Owning Change in State Government

To reduce time spent analyzing high volumes of paper documents to process cases, a U.S. state health assistance office needed a solution to digitize all paper documents and then automatically index the newly digitized document information. The end goal? A new, consolidated digital document repository where all case document content is optimized with advanced search functionality.



What We Did

AI/ML Automation
Business Modernization



Industry

Public Sector



Results

State health assistance office leverages AWS to build a customized digital document repository.



Key Integrations

AWS

Digitally Storing Documents for Fair Hearing Appeals

Indefinite Physical Recordkeeping

Paperwork plays an unavoidable role in many fields and must be processed regardless of the time required, as physical documents often hold critical data. This office is no exception: They must indefinitely store all physical documents from fair hearings and provide a way for individuals to access information from those documents. The office's caseworkers had to manually locate, extract, organize and analyze information in a repository by reading through each individual document. Processing in this fashion was inefficient, time-consuming and frustrating and quickly became an unsustainable solution.

The department's leadership knew a technological solution could be found—they just needed the right partner to help outline their exact needs and help build it. Their cloud service provider? AWS. Their partner of choice? TEKsystems Global Services, an AWS Premier Tier Services Partner.

Implementing a Fully Customized IDP Solution

Automating Data Extraction and Searchability

The team wanted to build an IDP solution to directly address their unsustainable physical document processing challenge head-on. Our role was to help them build and test an IDP solution utilizing our first version of the TEKsystems Global Services' proprietary AMPGS® Intelligent Document Processing accelerator. The workflow we implemented digitizes and creates a searchable repository of documents using the following AWS services:

- Amazon Textract: a machine learning tool that uses optical character recognition to automatically extract text, handwriting and data from various documents
- Amazon DynamoDB: a serverless, NoSQL database where data is extracted and stored until ready for use
- AWS Lambda: a tool our delivery experts use to build and run code to process information extracted from the documents by Textract, organizing them as assigned
- Amazon Kendra: an intelligent search service that uses natural language processing and advanced machine learning algorithms to return specific answers to search questions from your data

This workflow efficiently indexes the documents it processes for search, creating a repository that caseworkers can access, updating the documents stored within it as needed. Our customization also enables PHI data detection for the redaction of sensitive information, critical to the nature of public sector work.

Adjusting Scope To Provide Advanced Features

A Repository for Multiple Document Formats

Because the division wanted to also use IDP as a central document management repository, additional capabilities were required. The IDP solution addressed immediate needs from the original repository to process images and PDFs, but the team quickly realized they would need to store additional digitized document formats associated with the appeals documentation, everything from Excel spreadsheets to PowerPoint slides. They also needed the ability to edit Word template files once uploaded. As we assessed the repository—and our customer discovered additional workflows lacking support—we identified gaps and dedicated resources to meet their needs.

Our ability to adapt and shift focus delivered the necessary results, and our scope of work has slowly expanded as leadership seeks to include powerful new features.

Real-World Results

The solution allows the state health assistance office to extract data from 7,000 multipage documents a month and index them to enable advanced search capabilities—automatically. That means hundreds of hours of administrative work taken off the shoulders of their caseworkers, who can spend that time working directly with residents. The advanced features we implemented give them the power to search for those documents easily, further reducing time spent on repetitive, manual data governance. This translates to an average of \$50,000 of administrative labor costs saved per month.

Future iterations of this repository will give users the power to edit documents directly, turning the maintenance of recordkeeping for fair hearing appeals into a far more manageable task.

90K

documents in backlog
automatically stored and indexed

7K+

additional documents
processed per month

\$50K

of estimated savings in
administrative labor per month

“ Phenomenal ... TEKsystems Global Services is a great partner who went above and beyond. ”

—State Health Office Coordinator

About TEKsystems and TEKsystems Global Services

We're TEKsystems. We accelerate business transformation for our customers. We bring real-world expertise to solve complex technology, business and talent challenges—across the globe. We're a team of 80,000 strong, working with over 6,000 customers, including 80% of the Fortune 500 across North America, Europe and Asia, who partner with us for our scale, full-stack capabilities and speed. We're strategic thinkers, hands-on collaborators, helping customers capitalize on change. We're building tomorrow by delivering business outcomes and driving positive impacts in our global communities. TEKsystems is an Allegis Group company.

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