Truly intelligent and automated document management solution

Every business, irrespective of its size, have a document management system in place to keep track of huge amounts of documents generated every day. Though the document management system process has evolved over the years, but the pain remains unchanged. From getting hard copies of all documents to one place, tagging, arranging, describing, and then filing – it is a time-consuming process. Not to mention the errors that might creep in, while arranging multiple documents.

Fast forward to the present. Electronic document management system has replaced manual efforts. Businesses are using the latest content management that manages information stored in various formats like videos, audio clips, voice recordings, images, and texts.

With multiple types of documents at play and arranging and analyzing them to gain insights fast, an effective document management system is critical.

Though multiple document management solutions available today offer to digitize these documents, there is no customized solution that is truly intelligent and helps businesses get rid of the manual effort.

To address this gap, Algoscale helped a SaaS-provider design an AI-based intelligent document management solution that automates the entire process and has features like task monitoring with status dashboards, automated indexing and filing, built-in OCR to make text readable and usable.

Client Overview:

The client provides a web-based software designed specifically to create submittal packages quickly and professionally. Headquartered in Idaho, the client has been creating innovative Software-As-A-Service (SaaS) applications since 2004.

Challenges:

The client was looking for an intelligent solution to help end-users smoothen the submittal process. With multiple similar solutions available in the market, the client was looking for a stable, scalable, and economical solution that would be able to perform complex tasks like optical character recognition (OCR) and datasheet aggregation. The client wanted the solution to be agile to support the following functionalities:

- Task monitoring
- Easy searchability
- Clear communication
- Daily task review

Moreover, the client wanted the solution to be improved continuously based on the data fed and was looking for maintenance support.

Solution:

Algoscale defined the tech stack required for creating a cloud-based SaaS application with OCR technology to create submittal packages quickly and professionally. The solution automated the entire flow of the submittal process that requires performing the following tasks manually, which would often take days.

The manual process:

Once the project owner sends a product schedule (for example, a 50-page document) with details to multiple distributors for procuring raw materials for the project, the distributor performs the following tasks:

1. Reads the product schedule
2. Searches for specification sheets of all the products from the internet
3. Downloads the sheets in PDF format
4. Tags/names the documents in accordance with the product schedule
5. Signs all documents and stamp logo
6. Arranges the PDFs in the order mentioned in the product schedule
7. Combines multiple PDFs into a single PDF or create a zip file

The automated solution

The Algoscale-defined tech stack automated the entire process for the distributor, saving time and reducing the chances of errors that can creep in when large numbers of files are handled manually.

Algoscale designed the SaaS application with the following capabilities:

- Built-in optical character recognition (OCR) to convert images to text
- Convert and optimize PDFs
- Status dashboards
- Automated indexing and filing

The solution was deployed on AWS cloud and used:

- Amazon RDS to set up, operate, and scale a relational database and automate time-consuming tasks like hardware provisioning, database setup, patching, and backups.
- S3 for scalable storage
- EC2 instances for secure and resizable compute capacity in the cloud
- Elastic search to store, search, and analyze huge volumes of data in near real-time
- Web crawlers to collect the data sheets

The solution reduced days of effort to hours and enabled the distributors to fulfill the requirements within the stipulated time.