INSURANCE · SOVEREIGN AI FOR DOCUMENTS

Scaling Document Intelligence for a Major U.S. Insurer

High-volume claims ingestion and workflow acceleration

> The client is a Tier 2 insurance provider with a 10% share of the U.S. insurance market, offering services under physical and behavioral health coverage. Operating within regulated segments like Medicare and Medicaid, they support a high volume of patient interactions, claims, and compliance workflows.

6–7x
THROUGHPUT INCREASE

160M+
PAGES PROCESSED ANNUALLY

500+
FORMS HANDLED PER PEAK HOUR

The Problem

The client's prior authorization and claims processing workflows were severely strained by an immense volume of inbound fax communications during peak hours, handling up to 500+ forms per hour. The influx consisted of 5 million faxes for physical health and 1 million faxes for behavioral health, averaging 25 pages per fax with up to 58 data fields per form. These documents contained critical patient demographics, diagnoses, provider details, referral data, and treatment locations.

Manual intake of this unstructured, mixed-format data created severe workflow bottlenecks, high operational costs, delays in service approvals, and heightened compliance risks due to human error. The scale and variability became unmanageable for human teams during peak periods.

The Solution

The client implemented Intics Sovereign AI for Documents (SAID), the world's first agentic document intelligence product, to automate workflows, actively interpret documents, understand context, and make decisions at scale. Built for high-variance and high-volume document ingestion, the solution deployed three core capabilities:

- **Intelligent End-to-End Automation:** Streamlined processes from ingesting PDFs generated by fax machines to data extraction and routing.
- **Field-Level Intelligence:** Extracted structured data across millions of pages, effortlessly handling varying layouts, formats, and handwritten notes across pages containing 7 million pixels each.
- **Human-in-the-Loop Design:** Kept humans involved for validation, which enhanced trust and accuracy while augmenting human capacity without replacing oversight.

Business Impact

- **Massive Throughput Scale:** Enabled the client to increase throughput by 6 to 7 times with minimal downtime, scaling from approximately 25 million to over 160 million pages processed annually, with the resilience to scale up to 270 million pages if required.
- **Workload Flexibility and Cost Efficiency:** The solution could handle peak loads from 500+ faxes per hour to as low as 7 to 8 forms during slack periods.
- **Infrastructure Optimization:** Built on a managed Kubernetes infrastructure running on Azure, the system utilized container orchestration to optimize computing resources, prevent over-provisioning, and minimize operating costs.

Tech Stack and Infrastructure

Document Processing	Intics Sovereign AI for Documents (SAID)
Compute Infrastructure	Distributed load across ~150 NVIDIA GPUs
Orchestration	Managed Kubernetes on Microsoft Azure