HEALTHCARE TECHNOLOGY · UTILIZATION MANAGEMENT

Automating Pre-Authorization Workflows in Healthcare Tech

Eliminating manual transcription in utilization management

> The client is a healthcare technology company that provides software solutions and services to help healthcare providers improve patient care and optimize operations. Their primary business focus is healthcare utilization management solutions for health plans and pharmacy benefit managers (PBMs).

No-touch
STRAIGHT-THROUGH ROUTING

Zero
MANUAL TRANSCRIPTION ERRORS

Lower
TOTAL COST OF OWNERSHIP

The Problem

The client's product is used by insurance providers to complete their medical insurance pre-authorization workflows. However, users were forced to manually transcribe data from inbound fax PDFs into forms. This reliance on manual transcription resulted in a costly, slow, and error-prone workflow, creating a major operational pain point that the client actively sought to alleviate.

The Solution

Intics Sovereign AI for Documents (SAID), built on AI and ML technology, utilizes a suite of pre-trained models to extract required information from unstructured fax documents and deliver it in the exact desired format for downstream processing. Key capabilities include:

- **Master Data Matching:** Extracts member data, requesting and service provider details, and drug service details. It uses Member ID as the primary key to pull patient metadata like date of birth and address, identifying unique patients and scoring match accuracy.
- **Dynamic Process Routing:** Automatically derives No-Touch, Low-Touch, and High-Touch workflow pathways directly from the master data verification and match scores.

- **Custom QR Code Extraction:** Deploys a custom-trained internal model to extract multiple embedded QR codes per form, falling back to First Name and Last Name matching if no QR code is present.

Business Impact

The implementation of Intics SAID provided significant operational and business advantages to the client's customers, including:

- **Enhanced Speed and Accuracy:** Eliminated mundane manual data entry tasks, accelerating the pre-authorization workflow while eliminating transcription errors.
- **Commercial Growth:** Drove an increase in value-added sales for the business.
- **Financial Optimization:** Reduced the overall Total Cost of Ownership (TCO) and delivered a stronger Return on Investment (ROI) by optimizing compute infrastructure and operational workflows.
- **Data Visibility:** Granted users direct access to valuable data insights related to the Source of Origin, Source of Truth, and System of Record.

Tech Stack and Infrastructure

Document Processing	Intics Sovereign AI for Documents (SAID)
Compute Infrastructure	Distributed load across NVIDIA GPUs rather than a single one, to optimize resource allocation and idle-time compute costs
Internal Routing Model	Starling model deployed for load sharing across the GPU cluster