

AI-Powered Document Translation for **HNW Underwriting**

Customer:

A Leading Pan-Asian Life Insurer

Abstract:

By embedding AI-driven, in-house document translation, the insurer cut turnaround and cost by 90%, ensured compliance, and accelerated HNW underwriting, boosting efficiency and enabling faster policy placement.

The Context:

High-net-worth underwriting teams handle application packs containing medical and KYC documents in multiple languages like Traditional Chinese, Bahasa, Thai, and more. Manual translation via external vendors added 24-48 hours and significant costs per case. Trials with generic AI produced errors in clinical data and failed privacy compliance, creating the need for a secure, accurate, in-house translation pipeline.

- Multilingual medical and KYC documents slowed case setup.
- External vendors added delays and cost per policy.
- Generic AI tools lacked clinical accuracy and compliance safeguards.
- Need for secure, auditable translations within the insurer's cloud.



The Solution:

Neutrinos deployed a multi-agent translation pipeline hosted securely within the insurer's environment, combining language detection, PII redaction, OCR, and medical-grade translation to ensure accuracy, compliance, and speed.

- **Ingest & classifier agent** detecting document type and source language.
- **PII redactor** masking personal data pre-translation, stored securely.
- **OCR & structured extraction** preserving layout and traceability.
- **Fine-tuned translation & verifier agents** ensuring clinical accuracy and compliance.

The Impact:

In a 90-day pilot processing 600 documents, translation turnaround dropped from **1-2 days to under 2 hours**, with costs reduced by 90%.

Accuracy met a **95% quality benchmark**, expediting case setup and freeing underwriting teams to focus on risk assessment rather than clerical tasks.

Value Realized:



Achieved **annual OPEX savings exceeding \$2M** through vendor cost elimination



Improved **underwriting efficiency** by automating translation and case prep



Enabled **faster, accurate translations** meeting 95% clinical precision standards



Enhanced **broker win rates** with quicker, consistent underwriting decisions