



About our client

With over 18 000 employees our client is one of the largest bank in South East Asia and among the largest banks in Asia, serving over 4 million customers in more than 200 branches across 50 cities and 15 countries. With 6.5 billion USD operating income it has market-dominant positions in consumer banking, treasury and markets, asset management, securities brokerage, equity and debt fund-raising in Singapore and Hong Kong.

Customer Challenge

Like most large financial institutions our client was also struggling with processing unorganized paper documents and forms containing confidential customer data (credit card slips, merchant summary tickets, sales slips, etc.). Using their existing solution, in over three years they had been able to set up 70 form types, of which only 30 could be processed with automated recognition. The remaining 40 forms were processed using a manual data entry solution, while the remaining hundreds of business documents were simply typed in.

Business issues to improve:

- **Low speed.** The existing solution displayed full page images, so data entry users required a few extra second to find the data to enter.
- **Cost of security.** Forms contained confidential customer data, so every data entry user needed costly security clearances.
- **Low flexibility.** Any change in the forms templates required a several days turnaround time, including costly IT involvement.
- **Low usability.** One single interface for data entry users, supervisors and for all functions.
- **Lack of secure access control.** The solution could only be accessed via desktop clients.
- **No user monitoring.** The existing solution wasn't capable of user monitoring.

The Solution

MPS IntelliVector automatically identifies the type of scanned forms and documents using document fingerprinting. The solution then breaks down the full-page images into small fields of information (microtasks) and sends them for automated optical character recognition (OCR/ICR), and at the same time, to manual data entry users to type in through an easy-to-use web interface. These users have no access to the original documents and see only microtasks, small pieces of information out of their original context, this way the confidentiality of the initial data is preserved.

The results of OCR/ICR and manual data entry are then cross-checked for result validation. In the rare cases when the two results don't match a second data entry user is involved. If there is still no match (1-2% of cases) a supervisor is included to guarantee maximum data accuracy.

This microtask-based approach and processing logic allows for much faster processing as users work with small pieces of information instead of full page images of text. Additionally, microtasking allows secure outsourcing or even crowdsourcing of the data entry process without the risk of exposing confidential customer data. In this case, our client outsourced the data entry and data validation to foreign branches, where the lower cost of human resources allowed to significantly reduce the processing costs.

Results

Today MPS IntelliVector allows our client to process 200 000+ forms per month. Within the first three months 2000 new document types were set up, all with automated recognition. The combination of automated recognition and microtask-based data entry proved to be 55-60% faster. Cost savings were realized due to faster processing, reduced need for human involvement (less data entry, minimized quality control), less security clearances and the ability to utilize cheaper outsourced workforce, instead of expensive internal resources.

- **Higher speed.** Microtask-based data entry is much faster than full page data entry:
 - Merchant Summary Tickets - **63.76% faster**
 - Merchant Sales Slips - **55.24% faster**
 - Loan Application Forms - **41.74% faster**
- **100% secure without clearances.** Working with out of context, anonymous microtasks instead requires no security clearances.
- **Flexibility.** Form design changes are done by operations staff; no need for IT or vendor involvement
- **Usability.** Separate screens for data entry, supervisor and site admin users with a user-friendly UX design for high usability. No training is required for data entry users.
- **Secure access control.** The solution resides within an internal cloud, the web-based client is available all over the client's entire network.
- **Extensive monitoring.** Real time monitoring functions are part of MPS IntelliVector.

Due to its universal integration capabilities, MPS IntelliVector fitted in seamlessly with the already existing enterprise systems and workflows.

About MPS

Multipass Solutions is an independent software vendor and consultancy with broad experience in ECM. We offer flexible award winning software solutions for document and forms processing, secure data entry, system integrations and business data clean-up to raise business efficiency, lower operating costs and create a unified, secure business IT environment.