

Nexus Intelligent
Document Processing

Financial Services Industry

nexusfrontier.tech



How a company uses data will differentiate between those that fail and those primed to succeed.

In the financial services industry, data is a key strategic asset and source of value. Despite the fact that data is becoming available in exponentially larger volumes, many companies struggle to utilise data to enhance their business strategies and operations. While there is growing recognition of the need to become more data-orientated, a majority of companies have not created a data-driven organisation.

How a company uses data will differentiate between those that fail and those primed to succeed. Hence, now more than ever, it is necessary to adapt to the new business landscape by adopting innovative, data-centric solutions. Maximising the value of data is no longer merely about getting ahead; it is now a necessity to keep up with the curve and stay competitive in an unpredictable environment.

Although the majority of financial institutions are well aware of the need to maximise the value of their data, a myriad of challenges are delaying or altogether halting their AI or digital transformation initiatives.

CHALLENGES



Large amounts of unstructured data

Over 80% of companies' data comes in an unstructured format which cannot be easily processed with traditional IT systems.



Slow back-end processing times

Manual, repetitive and tedious tasks such as data gathering, analysis and extraction takes hundreds of hours away from higher-value and customer-centric tasks.



Various document types & formats

Back-end processes involve various types of documents that come in inconsistent formats and often are of low-quality (skewed, shadowed, torn, folded, etc.).



Error-prone processes

Due to the tedious nature of data processing, humans are prone to make errors. These errors often need to be rectified or can lead to more serious compliance issues.



Strict compliance & data protection regulations

In 2020 alone financial services industries were hit with over US\$10.4B in fines due to non-compliance in their AML, KYC and MiFID processes.



Ever-changing business environment

Digital, agile business operations mean more companies must keep up with industry regulations while they deal with a highly remote workforce and increased competition.

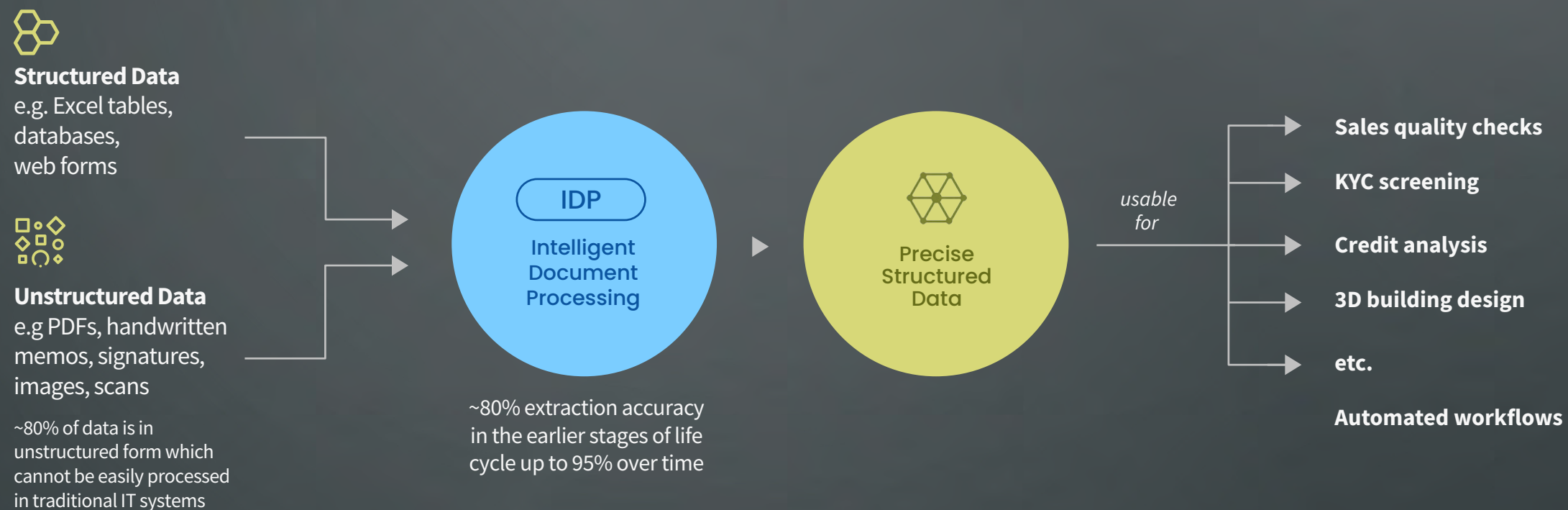
What is

Intelligent Document Processing

Intelligent Document Processing (IDP) is a form of process automation which uses AI models to convert data across documents into a more useful format and to streamline document processing. This is essential for organisations to stay competitive since data is, now more than ever, a key strategic asset to inform and empower decision-making. However, a streamlined data process is difficult to achieve when documents still exist in the majority of business operations, and mostly in unstructured formats. IDP is a mechanism by which a company can make their data usable and, in fact, reusable.

IDP is an automated solution to process data that prepares an organisation for further automation and value-generating activities, leading to improved efficiency, cost savings, and data-driven decision-making overall.

Nexus IDP



Annotated Data

```
{
  "Address": "",
  "Base pay": "9,323.02",
  "Bonus": "",
  "Customer name": "",
  "Date": "21/11/2015",
  "Employee loans": "",
  "NI Payment - Monthly": "",
  "NI number": "AJ 66 40 49A",
  "National Insurance - YTD": "934.93",
  "Net Income": "9,128.01",
  "Payment period": "",
  "Payments": "Salary: 9,323.02 Holiday pay: 90.00",
  "Expenses: 230.04 Other pay: 200.00",
  "Pension - YTD": "273.02",
  "Student loans": "",
  "Tax - YTD": "230.02",
}
```

[illegible]

AMAZON.COM, INC.		
CONSOLIDATED BALANCE SHEETS		
(in millions, except per share data)		
	December 31, 2017	2016
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 20,522	\$ 35,790
Marketable securities	16,462	9,508
Receivables	16,847	17,574
Inventory	13,245	16,677
Prepaid expenses and other	40,177	73,181
Total current assets	107,253	152,730
Property and equipment, net	46,216	62,797
Goodwill	73,979	14,548
Intangible assets	5,862	13,295
Other non-current assets	\$ 13,172	\$ 12,648
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 34,614	\$ 38,182
Accrued expenses and other	18,779	27,643
Unearned revenue	3,692	4,876
Total current liabilities	57,085	68,399
Long-term debt	24,743	24,445
Other long-term liabilities	20,973	23,213
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, \$0.01 par value:		
Authorized shares — 100		
Issued and outstanding shares — none		
Common stock, \$0.01 par value:		
Authorized shares — 5,000		
Issued shares — 397 and 411		
Outstanding shares — 397 and 411		
Treasury stock, at cost	\$ 3	\$ 3
Additional paid-in capital	15,779	15,875
Retained earnings	(1,046)	(1,030)
Accumulated other comprehensive loss	1,215	(8,552)
Noncontrolling interests	27,769	43,588
Total stockholders' equity	\$ 71,797	\$ 50,296
Total liabilities and stockholders' equity	\$ 131,172	\$ 162,648

See accompanying notes to consolidated financial statements.

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BENEFITS



COST SAVINGS

Save on labour and operational costs. An initial investment also enables data to be used in the future at a much lower cost.



SPEED

Retrieve relevant information quicker and increase the speed of business operations with access to more organised information. Teams can focus their efforts on more important activities.



COMPLIANCE

By reducing errors from manual data processing and providing greater coverage of compliance gaps, organisations can decrease the risk of contravening internal and external regulations.



RISK REDUCTION

Manual data extraction is a repetitive and mundane task, making it highly error-prone. Nexus's IDP solution extracts data with up to 95% accuracy, reducing the risk of error.



TRANSPARENCY

Data is more visible immediately, providing a more holistic view of your business processes and allowing for data visualisation tools to be used, allowing for improved decision-making.



IMPROVED CUSTOMER INSIGHT

Having a comprehensive overview of the customer journey and relevant information makes it easier for your business to make timely decisions and improve engagement.

What makes Nexus IDP different?

DOCUMENT DIVERSITY	We process documents considered unreadable, even when they are folded, shadowed and skewed.
PRODUCTION-GRADE ACCURACY	Accuracy rate is at least 80% on day 1 in live environments (NOT PoC) and increases up to 95% with optimisation.
TRAINING DATA SYNTHESIS	Our ability to generate synthetic training data allows us to work with small datasets (~100s of sample documents) and get around issues with limited data availability.
DATA PROTECTION & SECURITY	We do not require access to actual customer data during either model training or implementation phase. Our solutions can be deployed on-premise, ensuring customer data never has to leave local secured networks.
RAPID TIME TO MARKET	We quickly assemble a solution that meets exact client needs. Clients can rapidly arrive at insights and decisions on the technical feasibility and business potential of AI applications, achieving implementation in as fast as 6-8 weeks.

Use Case examples



BOND PROSPECTUS ANALYSIS

Bond prospectuses are known to run into hundreds of pages and are filled with legalese, making them difficult to read. When multiple deals hit the market at the same time, investors may not have the luxury to go through these deal documents carefully and risk missing hidden terms and covenants—particularly for new issuers.

Nexus IDP extracts necessary information from prospectuses, increasing data usability by converting unstructured data to a machine-usable format. Integrate this solution into multiple workflows and set validation rules to detect missing information and compare key clauses across multiple bond deals.



CONTRACT MANAGEMENT

Contract analysis requires combing through huge volumes of text that can take hours, if not days and in some cases, even weeks. The time and resources involved in the analysis of highly complicated contracts lead to decreased revenues and profits and slow growth. Contract analysis is also highly vulnerable to human error and bias, causing legal problems due to non-compliance issues.

Nexus IDP converts data from unstructured contracts into a machine-usable format with sufficient accuracy. Extract salient data points such as contract expiry, pricing conditions, and SLAs. Easily track the workflow within the system with a user-friendly dashboard, complete with filtering and tagging mechanisms.



LIFE INSURANCE CLAIM PROCESSING

The claiming process is time-consuming, labour-intensive and riddled with mistakes during the data-entry process, resulting in the delay of the release of funds. This process not only results in a loss of time, resources and costs for the insurer, but adds additional emotional burden on the relatives during an already difficult time, making the insurer look insensitive.

Nexus's IDP solution extracts the required information from claims and directs it into a database automatically, reducing or altogether removing manual data entry. Reduce costs and time spent while priming your organisation for a move towards a digital workflow and improved customer experience.



MORTGAGE SALES QUALITY ASSURANCE

Due to sheer volume, sales quality checks are often conducted weeks after sales completion and on only a small sample (roughly 10-15%) of completed sales. Often a large team of reviewers manually cross-reference various different data sources and hundreds of data points to find and extract the necessary information for the audits. A single review could take hours to conduct.

Automate this internal compliance process with AI models that extract data from unstructured documents such as bank statements and payslips. Close compliance gaps by checking all completed sales close to real-time.



FINANCIAL SPREADING

By capturing, spreading and analysing financial data, banks can calculate a business's credit score and make investment or loan decisions accordingly. However, financial spreading can be a very time-consuming and exhaustive process, specifically due to its case-specific nature and requirement for manual input.

AI-powered models collect and extract unstructured data from various financial documents and apply spreading rules in accordance to an internal credit scoring system. Expert-in-the-Loop AI models gradually learn and improve, reducing the frequency of human intervention.



CLIENT ONBOARDING/KYC

"Know Your Customer" (KYC) is a challenge for financial institutions of all sizes as it requires a complex workflow across both front and back offices and a large team of specialists. Traditionally done manually, the workflow involves long onboarding times, error-prone processes, fragmented communications and a poor customer experience.

Automate the identification and verification of client identities with AI models and perform sanctions screening using an API integration that automatically connects to KYC utilities (such as World-Check). Our team integrates the solution into Cloud or on-premise to ensure maximum data protection and privacy.

Ready to kickstart your Intelligent Automation Journey?

Book a free consultation with a data assessment and demo to accelerate your decision-making processes.

[Schedule a Meeting](#)



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About Nexus FrontierTech

INTRODUCTION

Nexus FrontierTech is a technology company that develops AI and digital transformation solutions for businesses, with a specialisation in finance. Our proprietary platform powers modular AI components that automate data-driven processes, extract valuable insights from unstructured data, and improve decision-making through predictive analytics. We help organisations integrate AI into their operations, leverage data to drive business growth, and stay ahead in a rapidly changing digital landscape.

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