AI

NIA CAN

Nia DocAI

Unlock Enterprise Document Intelligence

State of Enterprise Document extraction, processing and comprehension & Impact

Enterprise strategic decision-making requires availability of data, actionable insights and instant access to contextual information. Across industries and functions, there is a variance in document types and complexities, a challenge for manual and disjointed approaches.

Huge volume
Massive amount of unstructured data that hides business value; needs to be unlocked for effective business outcomes.

Domain Specificity
Each business has its specific document types ranging from waybills, loan applications, Tax forms, Invoices etc.

Manual Efforts
Manual efforts involving different people take time and reduce productivity; leads to inconsistent results and errors.

Document Complexity
Textual context such as tables, signatures, handwritten / handprinted text and non-textual content such as visuals & logos.
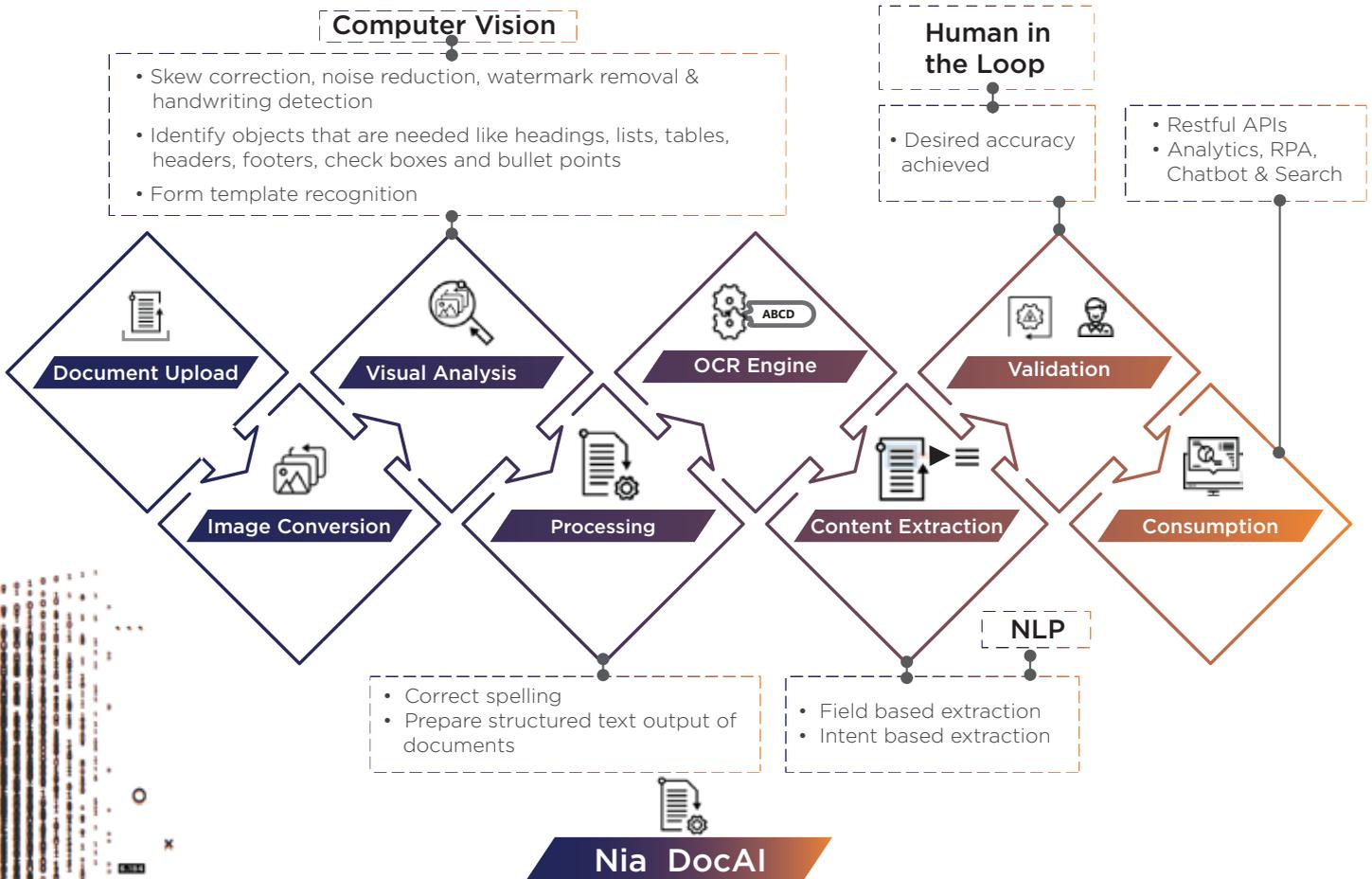
Disjointed Approach
Most solution approaches are disjointed compared to ensemble learning models and are unable to efficiently solve the enterprise document problems.

A one size fits all approach to document extraction, processing and comprehension does not apply in most enterprise scenarios. To successfully unlock business value from enterprise documents regardless of their complexity or domain specificity, a purpose-built document extraction, processing and comprehension platform like Nia DocAI is required. In this flipbook, you will see how Nia DocAI unlocks business value from enterprise data by extracting intelligence from complex enterprise documents. The platform is business-user friendly, quick-to-train, and extensible for any business use-case.

Nia DocAI structures complex multi-document data, making it useful and business consumption ready. It supports hundreds of out-of-the-box connectors which provide the capability to ingest a wide array of diverse documents from a vast set of enterprise data sources. It can also integrate via enterprise hooks with downstream applications such as RPA, Chatbot, & Analytics tools, accelerating business outcomes for customers across industries and enabling end-to-end automation.

Document Complexity – An Illustration

Full text, structured layout, uniform background & font style	Image rich background, forms, detailed layout, elements	Complex layout & data elements, Handwritten text, image objects	Heterogeneous, very complex layout, elements, image details
OCR issues	**Table Detection**	**Quality of Scans**	**Visual Objects**

Ensemble Learning

Computer Vision
- Skew correction, noise reduction, watermark removal & handwriting detection
- Identify objects that are needed like headings, lists, tables, headers, footers, check boxes and bullet points
- Form template recognition

Human in the Loop
- Desired accuracy achieved

- Restful APIs
- Analytics, RPA, Chatbot & Search

Document Upload

Visual Analysis

OCR Engine
ABCD

Validation

Image Conversion

Processing

Content Extraction

Consumption

- Correct spelling
- Prepare structured text output of documents

NLP
- Field based extraction
- Intent based extraction

Nia DocAI

DocAI – Enterprise KPIs

DocAI for On-Demand Decision making

Unlock intelligence from enterprise documents and leverage on-demand contextual information to help enterprises make strategic decisions.
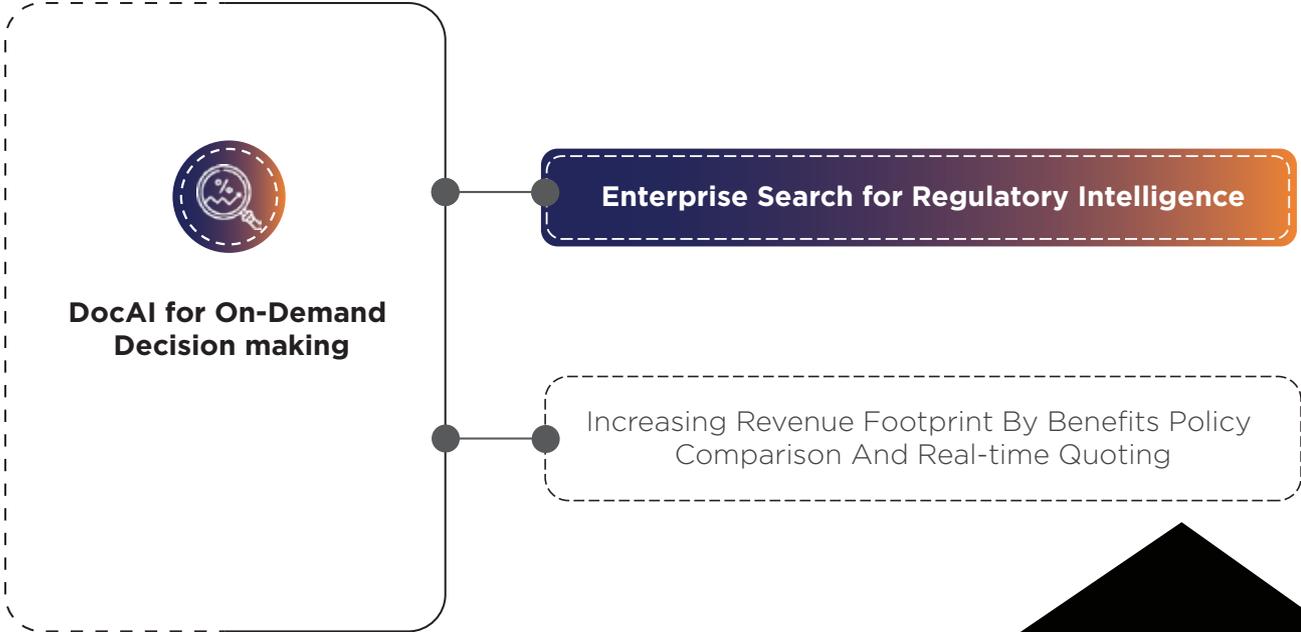
DocAI for Operational Transformation

Unlock hidden business value from huge volume of unstructured data and achieve higher throughput and faster business outcomes.

DocAI for Risk Reduction & Compliance

Mitigate contractual risks, reduce compliance check cycles and perform risk review in legal documents and contracts.

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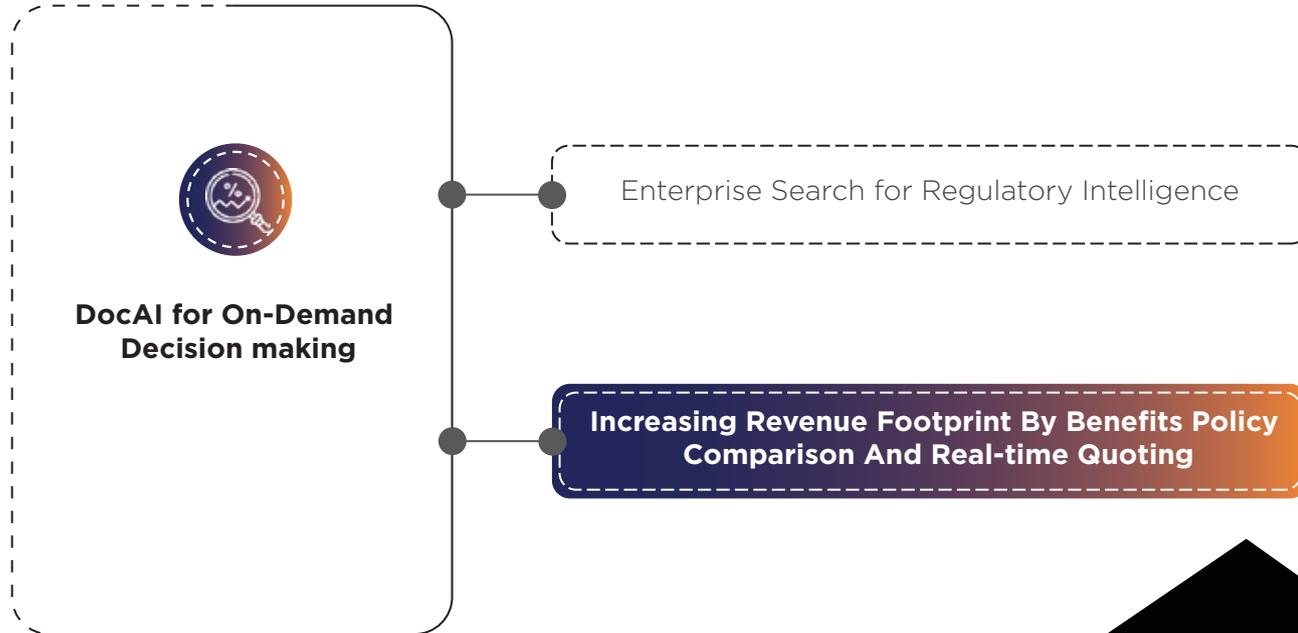
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DocAI – On-demand Actionable Insights

DocAI for On-Demand Decision making

Enterprise Search for Regulatory Intelligence

Increasing Revenue Footprint By Benefits Policy Comparison And Real-time Quoting

AI led Regulatory Intelligence for an American Pharmaceutical Enterprise

Challenge

The American pharmaceutical enterprise wanted a solution to sift through thousands of R&D documents and reports and mine insights from data related to clinical drug trials. Regulatory intelligence requires ingesting variety of documents across multiple formats from government portals, and clinical trials data and finding precise answers to a set of questions.

Solution Delivered and Benefits

- **Cognitive** aided precise intelligence
- **Scalable, customizable** document ingestion and workflow
- **Continuous learning** based on user feedback
- **NLP-driven answers** to natural language questions and cognitive-aided precise intelligence
- **Improvement** in workforce productivity
- **High accuracy** of search results
  across document types

Staff Productivity increase

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Decision making

Enterprise Search for Regulatory Intelligence

Increasing Revenue Footprint By Benefits Policy
Comparison And Real-time Quoting

Policy Comparison and Real-Time Quoting for a Leading American Health Insurance Provider

Challenge

With more than 40 million members, the insurance provider wanted to process a variety of complex Benefits Plan documents on the fly during negotiation cycles, to give a competitive quote to enterprise employers. Our client needed to ingest numerous documents across 40 benefit categories and with business and structural variations across all states in the USA.

Solution Delivered & Benefits

- Computer Vision capability to perform **structural analysis** on the uploaded documents and guide the OCR software to make it more efficient

- Directly **impact** the **topline** of our client by helping them negotiate better and expand their customer base

- **Very high accuracy** of policy extraction for comparing policy benefits in **real-time**

- Increased **productivity**

Increase Customer Footprint

DocAI for Operational Transformation

DocAI for
Operational Transformation

Accelerating Loan Processing

Expediting Loan Processing for a Large US-based Financial Institution

Challenge

The bank was overwhelmed with an unprecedented surge in PPP related loan applications forcing them to scan through 25K+ Small Business loan applications in a short span (10 days). Adding to their problems was the COVID pandemic resulting in them working with a reduced staff. Their current process took ~ 20 mins / application in best case scenario to validate the payroll information. Client had hired 500 consultants to approve the applications manually.

Solution Delivered & Benefits

- **Business Value & Cost Benefit**: Nia DocAI leveraged its Computer Vision capability to enable automation of the underwriting process and reduced manual intervention.

- **Throughput & Speed:** Processing power for 150 K+ documents with high accuracy and processing speed of 1000 docs ~ 15 mins.

Faster Business Value Realization

DocAI – Enterprise KPIs

DocAI for On-Demand Decision making

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DocAI for Risk Reduction & Compliance

Mitigate contractual risks, reduce compliance check cycles and perform risk review in legal documents and contracts.

DocAI – Reduce Regulatory Risk and Manage Compliance

DocAI for Risk Reduction & Compliance

Mitigate contractual risks, reduce compliance check cycles and perform risk review in legal documents and contracts.

AI-powered Contract Review & Risk Reporting

AI-powered Contract Review & Risk Reporting for a Global Communications Company

Challenge

With More than 3 million historic multi-party contracts with high variation in contract clauses and unique contract templates, terms and clauses, wanted quick visibility to find favorable clauses for revenue gains.

Solution Delivered and Benefits

- **Text Analytics and Computer Vision**-based techniques to extract contract clauses faster and more accurately
- **Surgical abstraction** of various contractual provisions and terms to facilitate downstream compliance checks and spend analytics
- **100** minutes saved per contract review over manual review
- **500K** contracts digitized and searchable in 2 weeks
- **10X** productivity increased
- **90%** cost savings

Productivity Increase by Reducing Contract Review Time
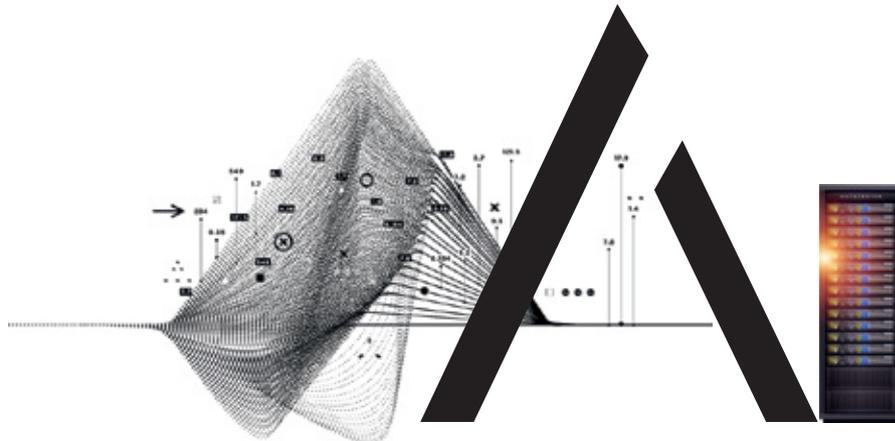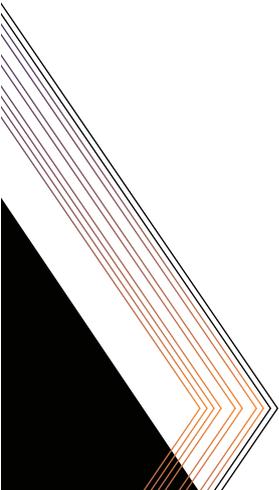
About Infosys Nia

Nia is an enterprise grade AI platform which simplifies the AI adoption journey for Business & IT. Nia supports end-to-end enterprise AI journey from data management, digitization of document and images, model development to operationalizing models.

About EdgeVerve

EdgeVerve is a global leader in AI and Automation, assisting clients thrive in their digital transformation journey. Our technology is deeply integrated into the heart of 350+ Global 2000 companies, medium and small enterprises across 140+ countries, enabling them to derive entrenched value in their business.

Our mission is to create a world where our technology augments human intelligence and creates possibilities for enterprises to thrive in disruption. Our team at EdgeVerve is central to this mission and continuously strives to make it happen for enterprises across the world. We are making constant strides towards transforming enterprises by providing products and solutions across the AI & Automation continuum.

EdgeVerve Systems Limited, a wholly-owned subsidiary of Infosys Limited, through its leadership, employees, and partners, is transforming the AI and Automation industry. Visit us to know how enterprises across the world are thriving with the help of our technology.

For more information, write to us at contact@edgeverve.com   www.edgeverve.com