Paper2App

Transforming documents into actionable insights

Businesses can now access more data than ever before, but most data are unstructured, and documents are still a primary input source. Hence, many documents must be read, understood, and processed in different formats (paper, PDF, emails, images, etc.) to augment insights to ensure business processes are measured and delivered with greater precision. Manually extracting and managing embedded insights from documents is tedious and prone to errors, leading to a lack of productivity and unmet business KPIs. Businesses need an intelligent solution to rapidly extract, validate and visualize data from multiple sources to make timely and informed business choices.

Introducing Virtusa's Paper2App solution, a simplified tool with flexible deployment for overcoming the challenges of data extraction, processing, and visualization from multiple mediums and sources. The solution is one of Virtusa' 's critical faculties for customers' digital transformation. With Paper2App, businesses can achieve higher organizational agility and coherence between business processes by digitally transforming the document management processes into a pivotal source for the data-driven enterprise

Why Virtusa

Virtusa uses Intelligent Data Processing or IDP technology combined with AI/ML capabilities and computer-trained algorithms to scan, read and understand digital and paper documents as humans do. In addition to building data curation, extraction, and engineering pipelines, our solution interprets the documents' critical contents and transforms unstructured to structured data spread across various heterogeneous mediums. We help businesses overcome essential challenges of;

Integrating upstream and downstream for digitization

Digitizing large volumes of data and business application creation

Generating interactive and actionable business insights

Building business KPIs and visualizations from documents and images across mediums as an end-to-end orchestration
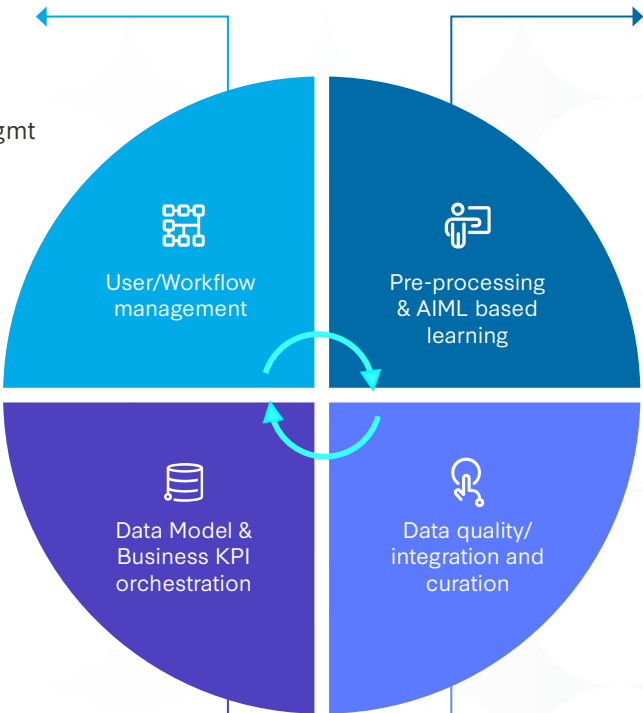
Capabilities

Virtusa's Paper2App is a solution that uses a pre-built AI/ML model to interpret business metrics from unstructured artifacts across multiple mediums and file formats (PDFs, emails, images, and other documents). The solution uses Optical Character Recognition (OCR) capabilities crafted and augmented by AI/ML and IDP technology, enabling users to upload and train data models that visualize extracted or interpreted data and integrate business KPI metrics.

The accuracy of data processing constantly increases as Paper2App allows users to override learning-based interpreted values if the data accuracy level is below par. The overrides are fed back into the system using the closed-loop method to improve subsequent learnings.

Some of the additional capabilities of the solution are:

Angular screens and front end framework for ease of use and user/workflow mgmt

- Well established preparatory steps, complemented by performance upgrades for efficient documen/ image processing

- Proprietary domain specific learning algorithm build to suit multiple biz contexts

User/Workflow management

Pre-processing & AIML based learning

Data Model & Business KPI orchestration

Data quality/ integration and curation

Pre-built business process oritented data model, which can be deployed in any target platform. Increased alginment of data model to BIZ KPIs

Throughly evaluated domain specific DQ rules and robust data curation framework to increase accuracy of BIZ KPI.

Benefits

Paper2App reads and processes any document type accurately by extracting text forms, tables, and other data without compromising the native structure. Some of the key benefits are:

Business benefits

- Vendor agnostic IDP capabilities, by leveraging customer investments to the maximum
- Modularized approach to solution deployment
- A sizeable reduction in data processing time, with improved interpretation accuracy
- Reduced "Document to Insights" realization cycle time
- 40%-50% reduction in costs related to manual data processing

Improved technicalities

- Support for reading hand-filled forms
- Custom model definition
- Extract text, key-value pairs, and tables
- Data validation
- Pre-built unsupervised and supervised learning to understand layouts and field relationships
- Support for multiple file formats
- 80% of data interpretation accuracy.

Flexible model

- Subscription model with production support
- Onshore and offshore support
- Support smart automation initiatives to include AI/ML, NLP, Conversational Interface
- Customized and dynamically configurable dashboards with a rich set of UI components, metrics, and analytics

Paper2App offers the ability to combine the efficiency of artificial intelligence with human judgment to make complex decisions with both speed, accuracy, and confidence.

Success stories

The client provides legal and regulatory services for local and international companies and has an office in Doha. The existing financial spreading process was manual, with inconsistencies in treatment, processing, and interpretation of data from multiple sources. Non-standardized curation and resource fatigue was causing challenges to the client.

Virtusa's Paper2App enabled the client to automate the workflow with holistic usability across the current manual process using digital extraction, account mapping, automated reports extraction, and data analytics-enabled dashboard. With a highly scalable, fully managed solution that unifies AI/ML, data engineering, data science, and visualization, the client is expected to realize the following benefits:

- 40%–60% savings by significantly reducing FTE effort in the manual spreading process

- Repurposing FTEs for analysis of KPIs to sharpen business onboarding in Qatar

virtusa

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