

Real value, real results: Drive business impact with intelligent document processing (IDP)

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AI Sales Director, Asia
UiPath

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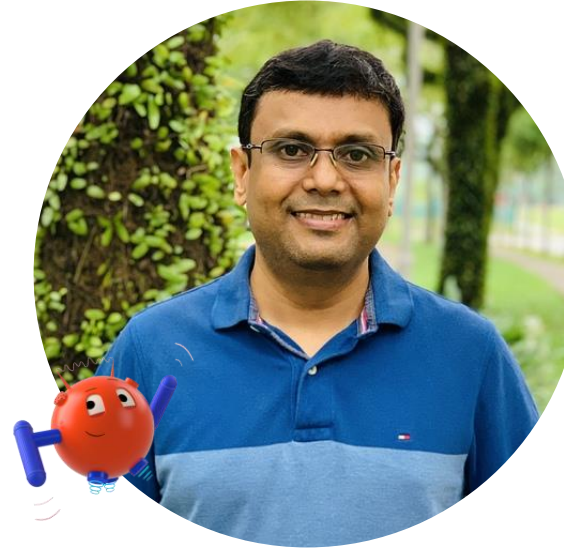
10 September 2024



Speakers



Nicholas Yap
AI Sales Director, Asia
UiPath



Harish Venugopalachar
Director, Solution Engineering
UiPath

Agenda

01 Bringing value with AI-powered intelligent document processing (IDP)

02 Customer use cases and success stories

03 Driving and measuring business value with IDP

04 Platform demo

05 Q&A

Bringing value with AI-powered intelligent document processing



Business runs on documents and communications

Enterprise



- > Hiring & onboarding processes
- > Finance processes (e.g. accounts payable & receivable)
- > Sales & order management processes
- > Customer service & support processes

Healthcare



- > Patient registration & processing
- > Consent and assent processes
- > Health insurance claims
- > Health history

Banking & Financial Services



- > KYC – Know Your Customer
- > Mortgage application & processing
- > Client & customer onboarding
- > Trade settlement & amendment processes

Public Sector



- > Immigration application & processing
- > Benefit application & processing
- > Unemployment verification & processing
- > Citizen questions & feedback

Insurance



- > KYC – Know Your Customer
- > Underwriting processes
- > Claims handling & processing
- > Customer queries & communications

Manufacturing



- > Sales & order management processes
- > Accounts payable & accounts receivable
- > Purchase order processing
- > Customer & vendor communications

End-to-end intelligent document processing (IDP) solution

1

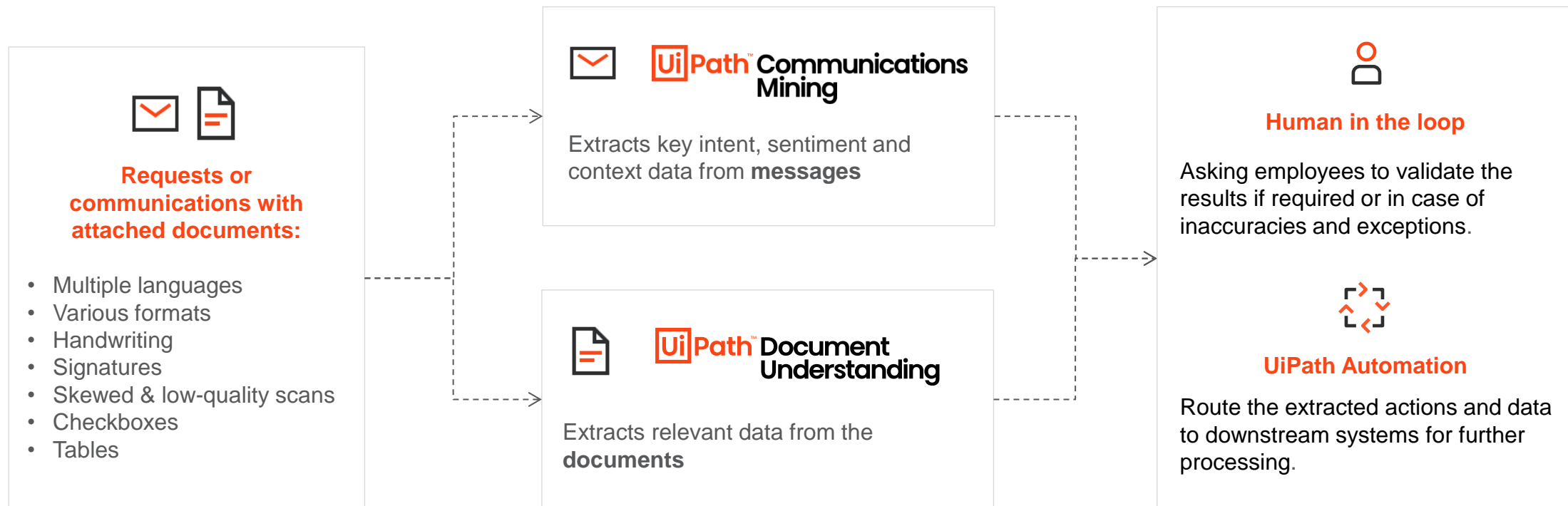
Receive

2

Understand

3

Act



Processing documents manually can be a lot of work & costly



Document Source

Email

Upload

Fax & Scan

File Format

PDF

JPG

...

.zip

INVOICE

NO. 5727346
PO NO: 5928452

PROTECH

Date: 02 June, 2022

Billed to: Lorena Martinez
16 Mincing Ln
Denver CO 80202

From: Olivia Wilson
316 Lewisham St
Milwaukee, WI 53223

Item	Quantity	Price	Amount
Samsung Phone	1	\$500	\$500
Legal Notepad	10	\$9	\$90
Water Bottle	3	\$55	\$165
Tax			\$5
Total			\$760

Terms: Net 30

Note: Thank you for choosing us!

ERP

PO Number	Vendor ID	Vendor Name
5928452	12345	Protech
3758292	98734	Protech Inc

Verify Zip Code vs. Tax Rate

Verify Payment Terms

CRM

Record data against job


Actions

- Notifications / Approvals
- Save doc, rename file
- Additional Processes...


Processing documents manually can be a lot of work & costly



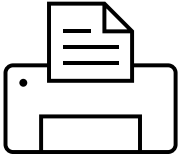
Document Source



Email




Upload




Fax & Scan


File Format



PDF




JPG



https://

⋮



.zip

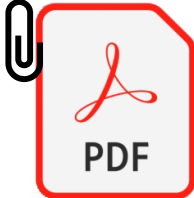
Important Context

Subject: Please pay overdue invoice

Created: June 29, 8:33pm

From: Dylan James <djames@protech.com>

To: ap@acme.com



Hi AP team

This is our 3rd request for payment of products we invoiced on June 2, 2022.

Per the terms of the contract, we will impose penalties if not paid ASAP.

Please send us up update to ar@protech.com for when payment will be received.

Terms Net 30

Note: Thank you for choosing us!

Total \$760

Key Data

Key data

Domain: protech.com

Response Email Address: ar@protech.com

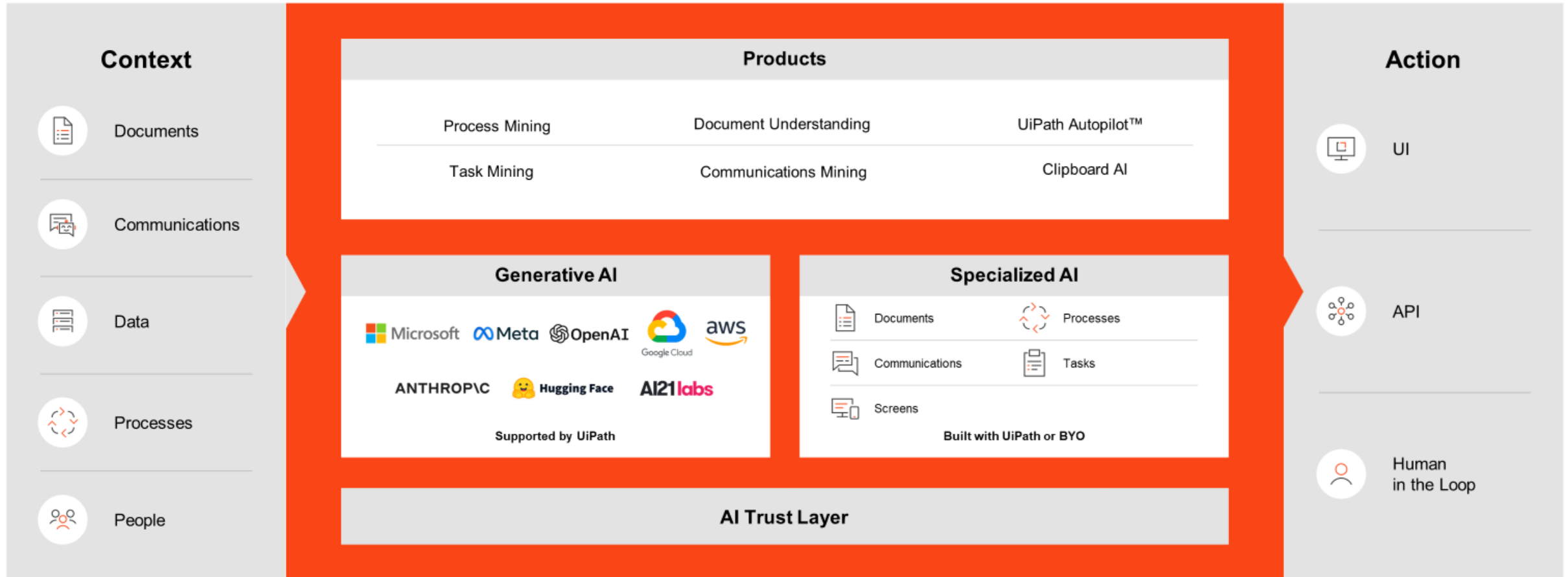
Inferred intents

Chaser > Overdue Invoice

Financial Impact > Penalties

Notifications / Approvals
Save doc, rename file
Additional Processes...

AI-powered Automation



Open | Flexible | Responsible

Which documents can be handled by Document Understanding?

Support local Asia languages – Korean, Chinese, Indonesia, Malay, Thai, Tagalog, Vietnamese, etc.



Structured documents

- Like forms, passports, licenses, time sheets
- Fixed in format and can contain handwriting, signatures, checkboxes



Semi-structured documents

- Like invoices, receipts, purchase orders, medical bills, utility bills
- Containing fixed and variable parts like tables

C03 Social Office,
2-3, Jalan Merbah 1,
Bandar Puchong Jaya,
47170 Puchong, Selangor.
T: 012-3803369
E: ask@biztory.com.my

BILL TO
Biztory Cloud Accounting Software
2-3, Jalan Merbah 1, Bandar Puchong, Jaya, Bandar Puchong Jaya, Puchong, 47170 Selangor
T: 0123803369
E: ask@biztory.com.my

DELIVER TO

INVOICE DETAILS

INVOICE NO: INV0265
INVOICE DATE: 09 May 2020
DELIVERY DATE: 09 May 2020
SALES PERSON: smentprise

SALES INVOICE

NO.	DESCRIPTION	QTY	UNIT	PRICE (MYR)
1	Name card	1		1.50
2	Apple iMac with Retina 5K display 27-inch - 8GB 2666MHz DDR4 memory - 1TB Fusion Drive storage - Magic Mouse 2	1		7,699.00
3	new ipad 2018 - RoseGold	1		2,000.00
4	Name card	1		1.50

PAYMENT TERM Cash

MYR 9,702.00 Due on 09 May 2020

TOTAL 9,702.00

DUE NOW 9,702.00

Unstructured documents

- Like contracts, agreements, emails, scripts, drug prescriptions, news
- No fixed format, free-form sentences/paragraphs

MASTER SERVICE AGREEMENT

THIS MASTER SERVICE AGREEMENT (the "Agreement"), is entered into the ____ day of _____, 201_, by and between BLACKSANDS PACIFIC ENERGY CORP a Delaware Corporation (the "COMPANY"), whose address is 11601 Wilshire Boulevard, Suite 500, Los Angeles, CA 90025 and _____ ("Vendor" or Contractor). Vendor/ Contractor and Company may be referred to individually as a "Party" and collectively as the "Parties."

RECITALS

WHEREAS, the Company is engaged in the business of acquiring, developing, drilling, operating, servicing and maintaining oil and gas wells and properties and producing oil and gas; and in the course of such operations regularly and customarily enters into contracts with independent Consultants, Vendors, and Contractors for the performance of various services relating thereto; and

WHEREAS, Consultants, Vendors and Contractors provides such services either with its own employees and/or through consultants fully experienced and recognized as skilled in the performing the Services (as defined below), and desires to act as an independent Consultant, Vendor or Contractor for the Company;

NOW, THEREFORE, the Parties agree as follows:

- SERVICES.** This Agreement shall control and govern all work and services performed by Consultants/Vendor/Contractor for the Company under written or oral work orders or agreements. This Contract does not obligate to order work from Consultant, nor does it obligate Consultant to accept such orders, but this instrument together with any written or oral work order or agreement shall control and govern all work, services and related activities agreed to be done by Consultants/Vendor/Contractor and shall define the rights, liabilities, and obligations of Company and Consultants/Vendor/Contractor during the term hereof. Consultants/Vendor/Contractor will perform the Services in accordance with either rate set forth in Exhibit "A" or specially agreed to rates, or on a lump sum basis, as agreed to in writing by the Parties for a specific Order.
- FEES AND PAYMENT TERMS.** The prices, rates, or amounts to be paid by Company, including labor rates, shall be those specified on a company Rate Sheet, or those agreed at the time the Work is ordered, or those specified on the written Work Order or other otherwise agreed to in writing and made part of this Agreement. Unless otherwise specified and agreed to in a written work order, all work performed under this agreement shall be on time.

Document Understanding: Generative Annotation (Pre-labeling)

What is it?

Fast & easy document annotation for ML model training with Generative AI

You can annotate any document samples with Gen AI, accelerating annotation from a week to a day or two for complex scenarios, or down to minutes for simpler forms.

The screenshot shows a 'Loan Application Form' with several fields. The 'Name' section has three input boxes: 'Mr.' (Title), 'Missouri' (First Name), and 'Reilly' (Last Name). The 'Birth Date' section has three input boxes: '12' (Month), '11' (Day), and '2023' (Year). The 'Marital Status' section has three radio buttons: 'Single', 'Married' (checked), and 'Other'. On the right side, there is a 'REGULAR FIELDS' sidebar with a list of fields and their values: 'Contact First Name' (Missouri), 'Contact Last Name' (Reilly), 'Loan Amount' (290000.00), 'Annual Income' (59800.00), and 'Loan will be used for' (Education). Each field in the sidebar is highlighted with a colored letter: 'N' for Name, 'C' for Contact, 'L' for Loan, 'A' for Annual, and 'D' for Loan will be used for.

Document Understanding: Generative Extraction

What is it?

Question-answering model powered by Generative AI

Generative AI can answer questions and summarize content which works perfectly for free-form unstructured documents – with no need to train custom ML models.

Dictionary editor

Process Employment Letter using GPT > Queries (Dictionary<String, String>)

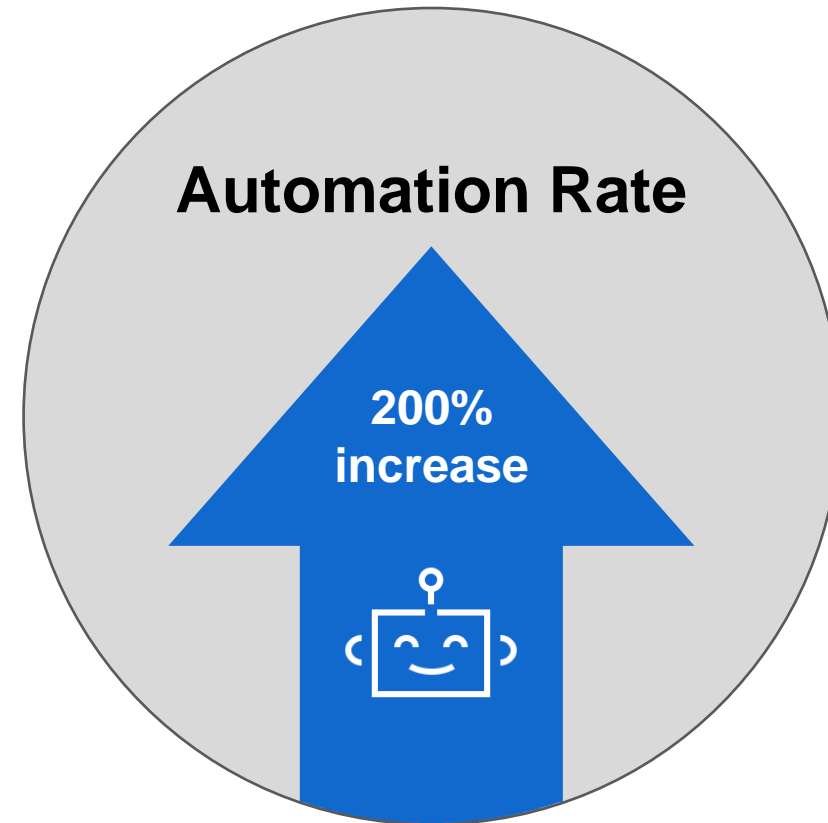
Key	Value	
employee_name	What is the name of the employee?	🗑️
company_name	What is the name of the company?	🗑️
employee_salary	What is the salary of the employee?	🗑️

Document Understanding: Generative Validation

What is it?

Get a 'second opinion' on the extracted data from Generative AI to reduce the human validation effort

With Generative AI used to confirm the output of Specialized AI, the overall automation rate increases by up to 200% and the average handle time decreases – reducing the time spent on human validation.



Source: Test by UiPath AI R&D on a diverse set of enterprise documents

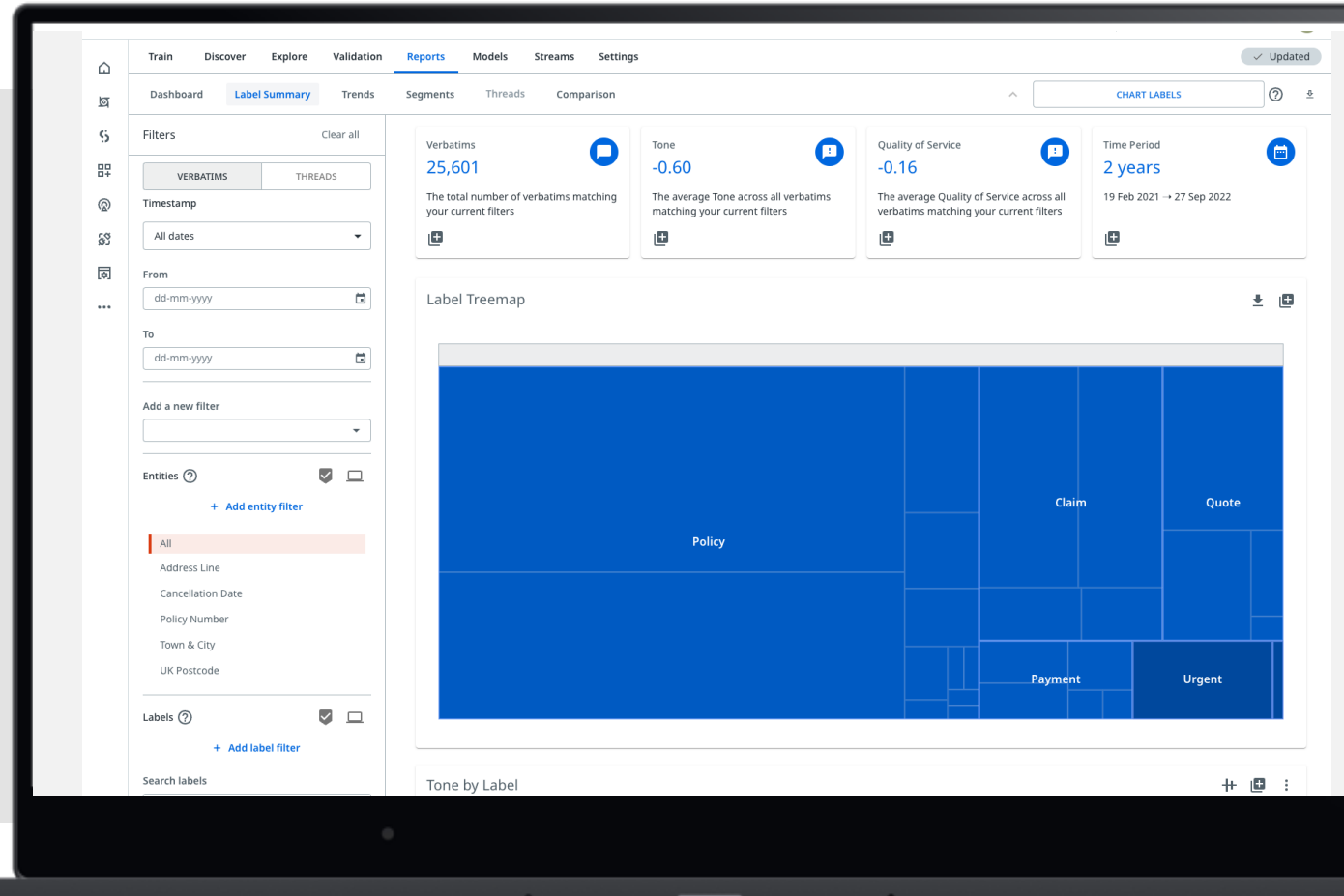
UiPath Communications Mining

A **no-code, state of the art NLP platform** combining unsupervised and active learning to build **customer-specific ML models** to **analyze** and **automate** business communications.

Mine, monitor and **automate** every conversation.

UiPath Communications Mining turns **every message** into **actionable data** in **real-time**.

Communications Mining's AI enables businesses to **automate their most common and time-consuming requests**. From beginning to end.



How customers use Communications Mining

Communications Mining creates both analytics and automation opportunities. Enabling continuous improvement across critical communications-based processes. **Discover**, **Monitor** and **Automate** business communications.

Discover

Communications discovery

Mine historic communications to identify and quantify transformation opportunities.

Voice of the customer

Understand and continuously improve quality of service and the customer experience.

Monitor

Communications monitoring

Real-time view of all service communication channels. Measure, monitor, and improve.

Quality of service

Real-time, proactive flagging of performance issues and identification of recovery opportunities.

Automate

Auto-triage

Automate the classification, prioritization and routing of incoming communications.

Case automation

Automate case creation in service desk tools.

Query automation

E2E automate frequently occurring transactional requests.

Understand and action every message at speed and scale

1 Connect

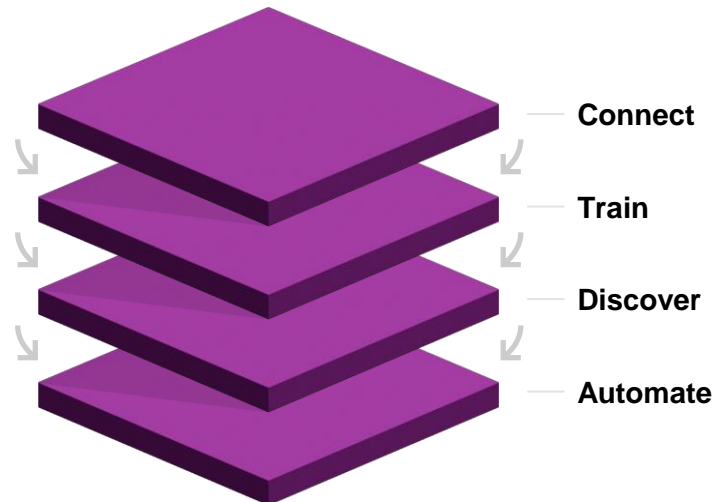
2 Interpret

3 Drive

- Email
- Tickets
- Service Desk
- CRM Notes

Emails, tickets, notes, surveys, cases, etc.

UiPath™ Communications Mining



AI and NLP automate the interpretation of every message in real time

- API
- ERP
- RPA**
- CMS
- CRM

Structured data to drive and trigger process automations



Communications Mining example: Insurance

Interpret the message...

Subject: Policy amendment

Created: June 29, 8:33pm

From: Ed Crossey

To: support@

Hi Steve,

Our client wishes to change their name to John Tan, he's also moved to a new home, the new address is 20 W 34TH St, New York, 10001.

Can you please amend and issue updated docs? It's policy XE-182943 by the way.

And on XF-929381 they've also moved, please can you update it to 96 Park Road, Sheffield, S5 8PL.

Cheers,

Ed

Extract key insights

Policy > Amendment > Address Change

Policy number	Street	City	Zip code
XE-182943	20 W 34TH St	New York	10001
XF-929381	96 Park Road	Sheffield	S5 8PL

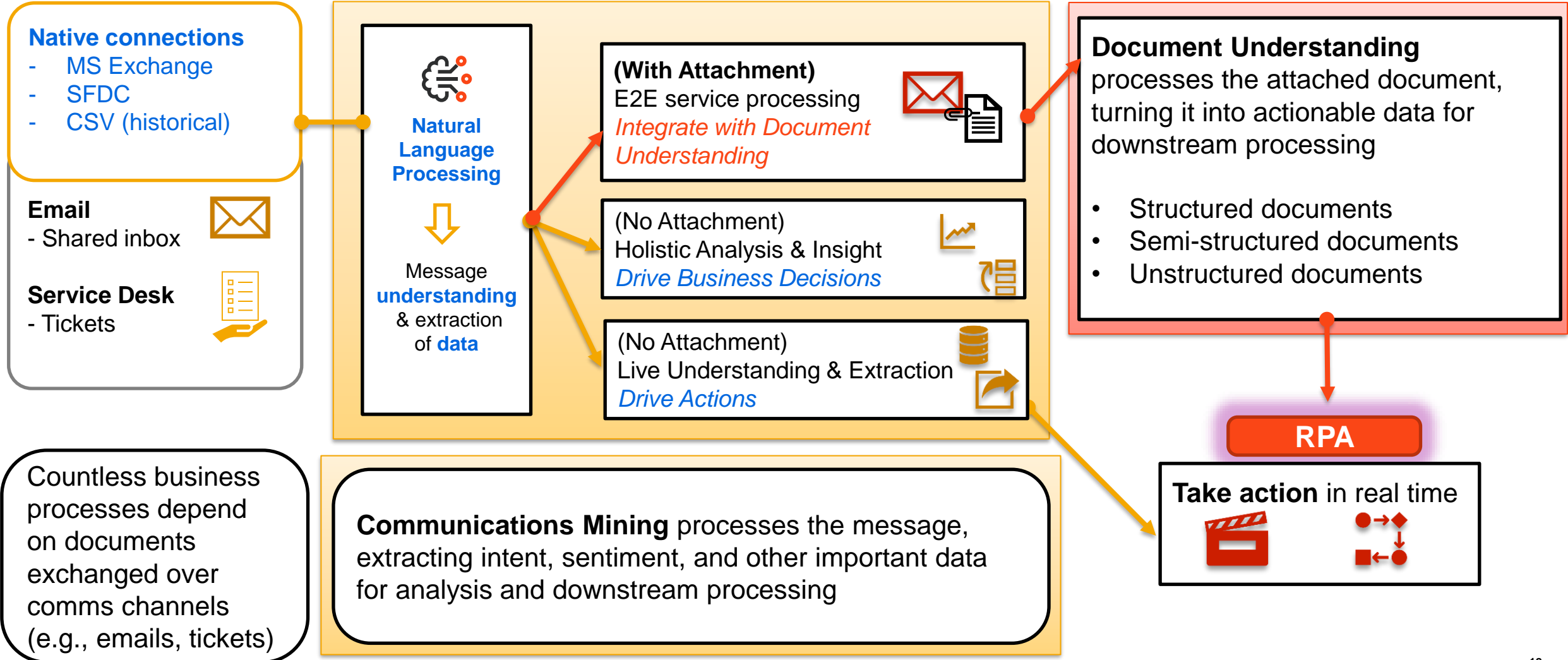
Policy > Amendment > Name Change

Policy number	First name	Last Name
XE-182943	John	Tan

How do they work together?

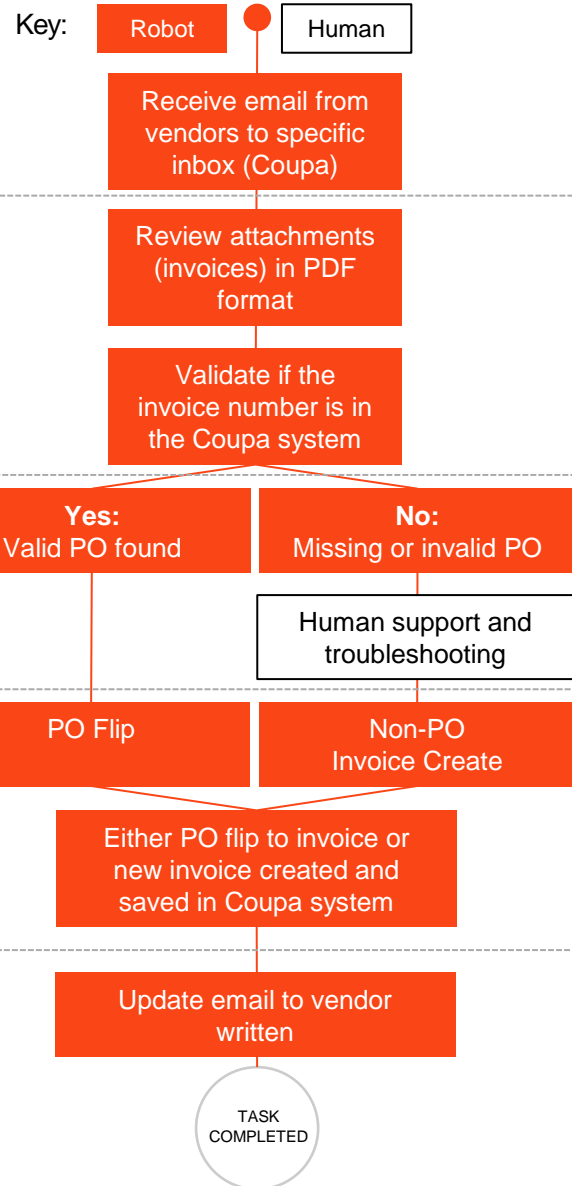
UiPath™ Communications Mining

UiPath™ Document Understanding



Process example: Invoice automation

Example process



UiPath capabilities

UiPath™ Communications Mining LLM Model

- Real time connect and analysis of emails
- Recognize specific intent, entities and emotion

UiPath™ Document Understanding Invoice Model

- Pre-trained invoice model
- Extract all invoice details

UiPath™ Automation Cloud™ UiPath™ Action Center

- Validates invoice number against source system(s).
- Human in the loop validation.

UiPath™ Automation Cloud

- UiPath Automation Cloud PO Flip or invoice creation.
- Records updated to reflect process updates.

OpenAI

UiPath™ Action Center

UiPath™ Automation Cloud™

- UiPath OpenAI Connector prompts GPT to draft email update response for vendor.
- UiPath Action Center for human in the loop validation of drafted email
- Automation cloud updates systems of record.

Quote to Issuance Processing



Underwriters spending time on non-core activities leading to efficiency loss of \$85-\$160 billion over the next 5 years. Accenture (2022)

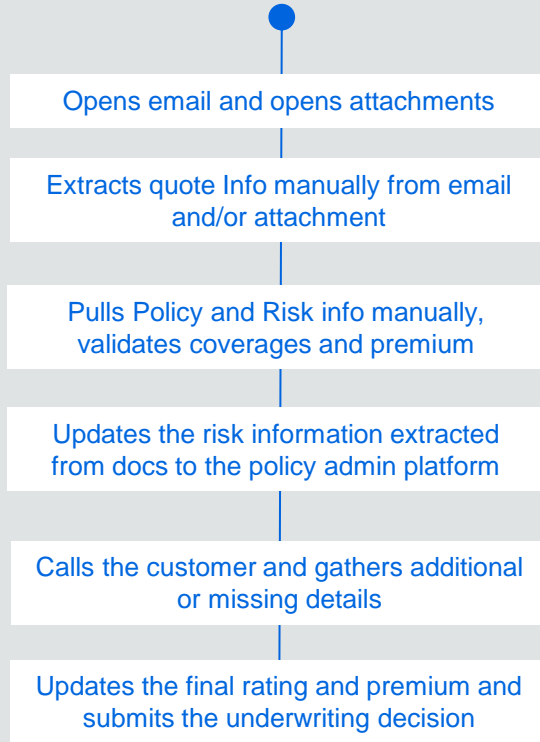
Location: Europe
Customer: Commercial Insurance Carrier
Solution: Comms Mining + DU + Gen AI (LLM)

- ❑ Reduction of 300% in process lead time: from 3 days to under 3 hours
- ❑ Over 90% accuracy in pricing and rating and reduction in quote abandonment
- ❑ Improvement in Broker experience and placement rates increased by 9%

BEFORE

Underwriter spent 60% efforts & time in data collection and 40% in Adjudication

80% human effort

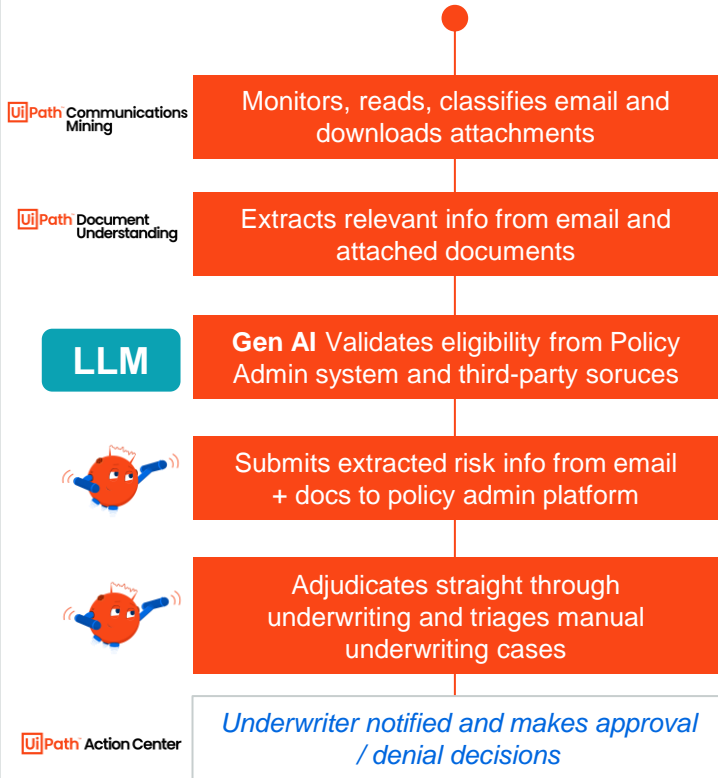


- 5+ Applications per process
- 20+ Minutes for each document
- 3+ Days turn around for each doc
- 20% Average error rates

AFTER

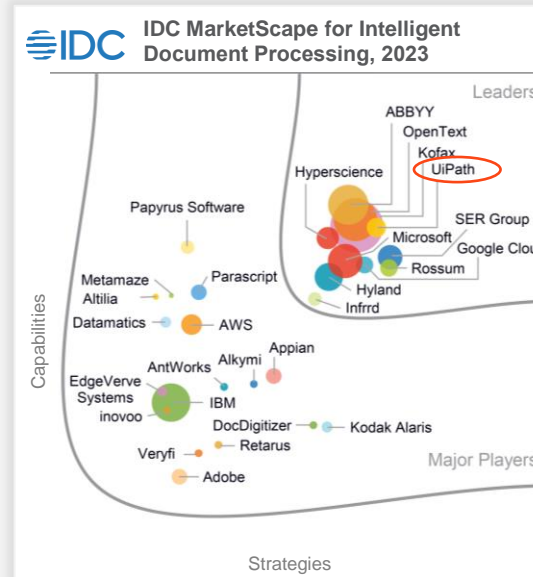
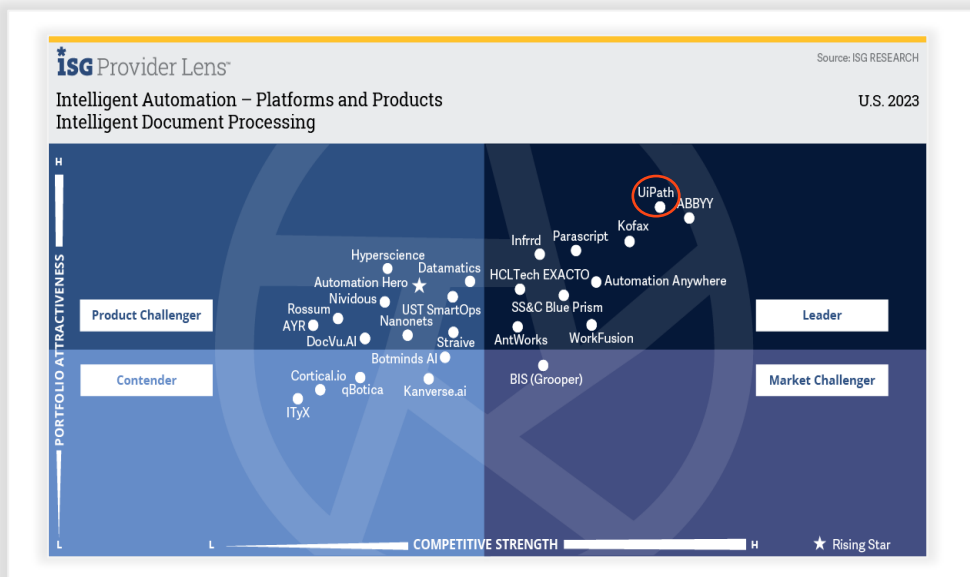
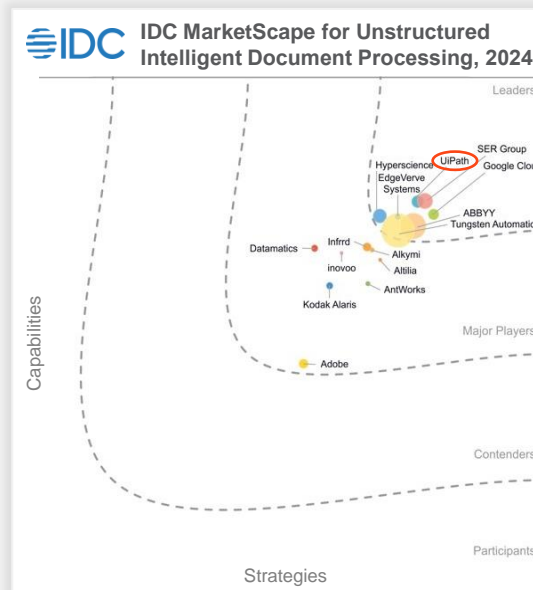
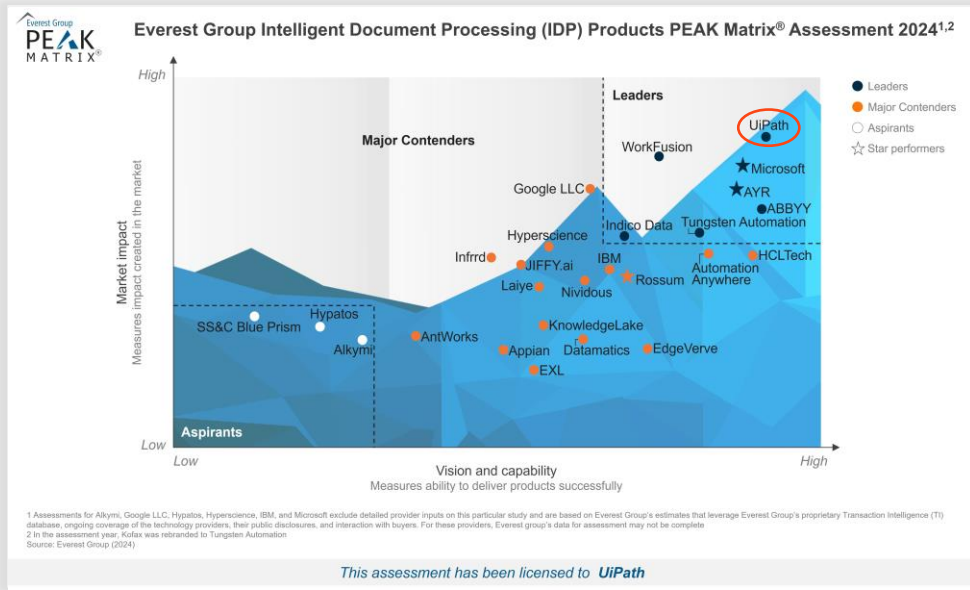
With automation, now Adjuster spends 80% of time on claims Adjudication

80% robot effort

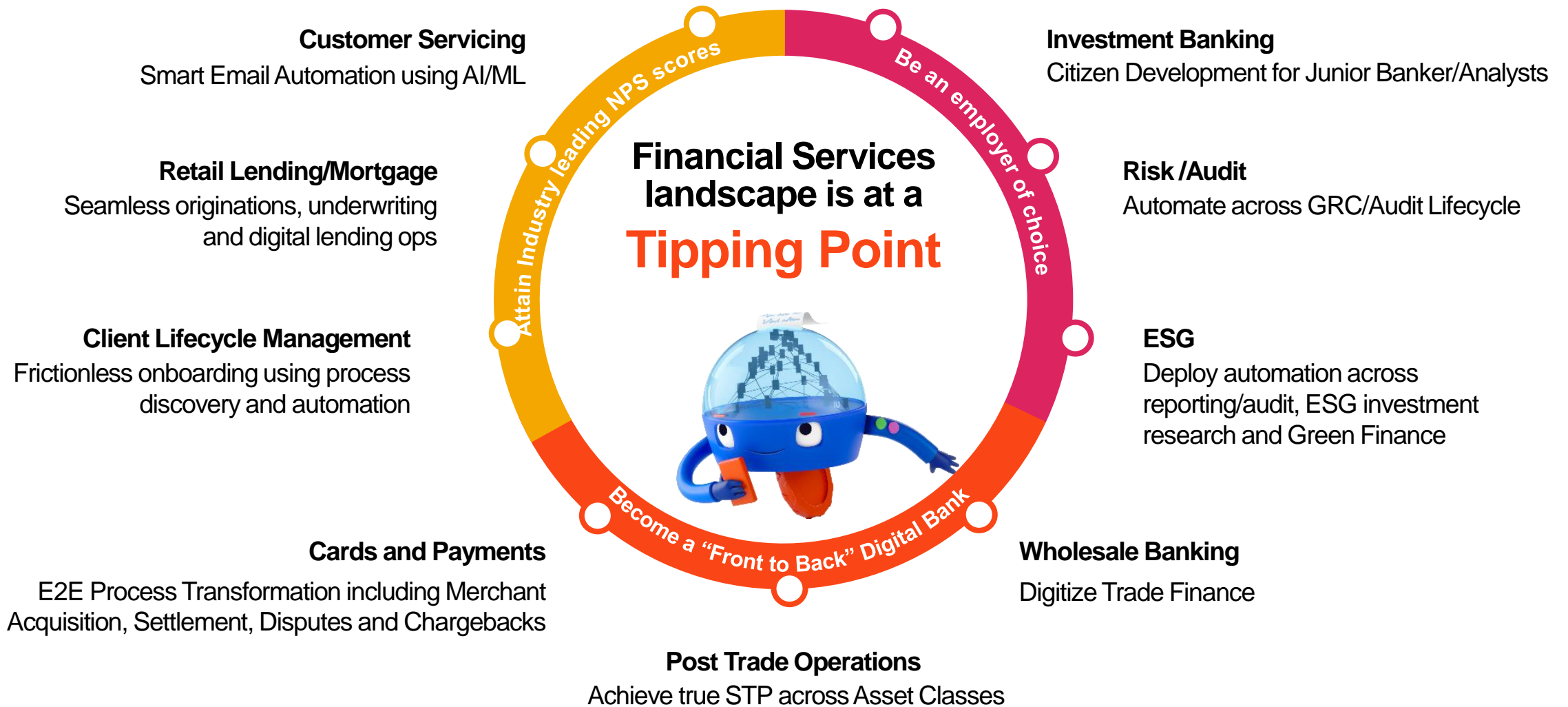


- 1 Workflow for all applications
- < 5 Minutes for each document
- < 3 Hour turn around for case
- 95% Average Accuracy

UiPath is a Leader in IDP



Automation Opportunities for Banking & Financial



Insurance is inundated with documents processed manually leading to business inefficiency



Document processing challenges



Limit business growth and scalability

Labor-intensive document processing limits ability fast-track the quote to issuance or claims processing



Result in poor customer experience

Complex, unstructured data leads to premium errors, claims leakage and customer complaints



Increase risk

Higher chance of data input errors, missed information, and incorrect procedures leading to underwriting loss



Supply chain, Manufacturing, Exploration and Operations are inundated with documents processed manually. This is leading to business inefficiency across Oil & Gas, Energy, and Manufacturing industries.



Document processing challenges



Limit business growth and scalability
 Labor-intensive document processing limits ability to scale efficiently and capture market opportunity.



Result in poor customer experience
 Complex, unstructured data mandates human decisioning, slow onboarding, and servicing.



Increase risk
 Higher chance of data input errors, missed information, and incorrect procedures.



Telco is inundated with documents processed manually leading to business inefficiency



Document processing challenges



Limit business growth and scalability
 Labor-intensive document processing limits ability to scale efficiently and capture market opportunity.



Result in poor customer experience
 Complex, unstructured data mandates human decisioning, slow onboarding, and servicing.



Increase risk
 Higher chance of data input errors, missed information, and incorrect procedures.



Retail is inundated with documents processed manually leading to business inefficiency



Document processing challenges



Limit business growth and scalability
 Labor-intensive document processing limits ability to scale efficiently and capture market opportunity.



Result in poor customer experience
 Complex, unstructured data mandates human decisioning, slow onboarding, and servicing.



Increase risk
 Higher chance of data input errors, missed information, and incorrect procedures.



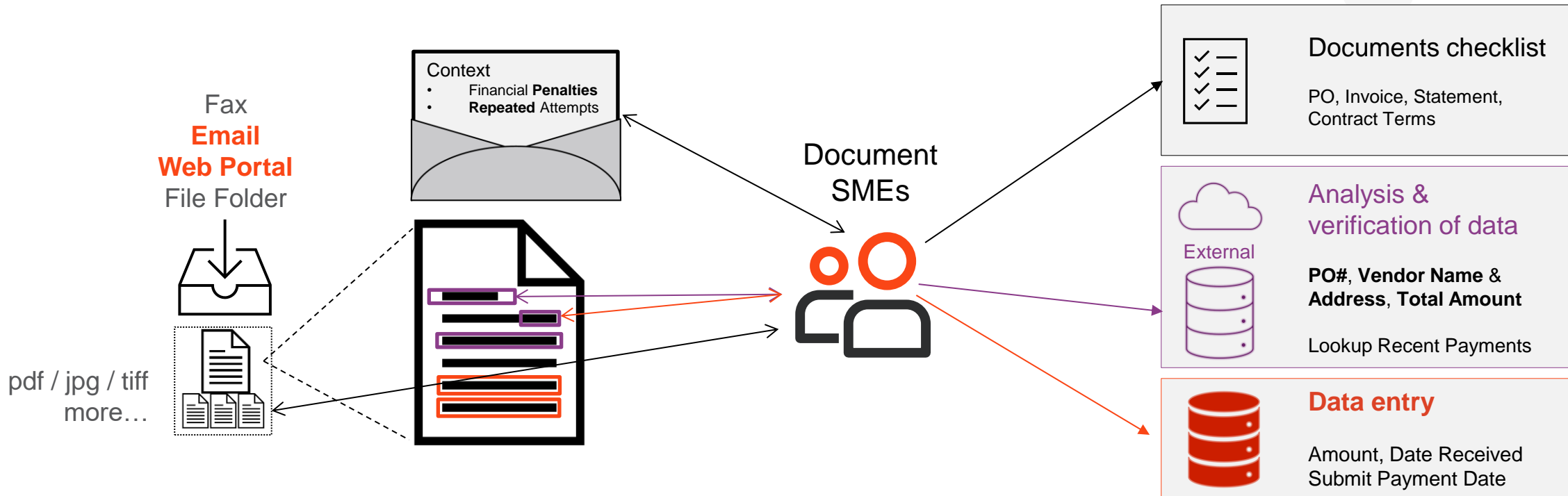


Driving and measuring business value;
Platform demo

Harish Venugopalachar

Director, Solution Engineering
UiPath

The work in manual document processing



Historical challenges to automate end-to-end:

Message context
critical in processing

Multiple / custom source and destination systems

Multiple document types with **variable layouts**

File type **inconsistency & splitting**

Document processing **software maintenance** /
FTE specialization

How do you deliver business value?



Accelerated productivity

Automate highly-manual document processing tasks to accelerate productivity rates



Higher efficiency

Save time and costs spent on paperwork with easy to deploy and maintain automations



Better customer experience

Mitigate the risk of errors and decrease the response time to deliver better customer experience



Happier employees

Help employees escape from the mundane chores and focus on higher-value tasks

Document Processing Flow - Automated

Interpret the message...

Subject: Please pay overdue invoice

From: Dylan James <djames@protech.com>

Created: June 29, 4:03pm

Hi AP team,

This is our 3rd request for payment of products we invoiced on June 2, 2022

Per the terms of the contract, we will impose penalties if not paid ASAP.

Please send an update to ar@protech.com for when payment will be received.

Entities (data)

Sender: Dylan James

Invoice Date: 6/2/2022

Vendor: Protech

Follow-up Contact: ar@protech.com

Inferred intents

Order > Escalation > Potential SLA Violation

Sentiment

Frustrated

Interpret the attachment...

INVOICE

NO. 5727346
PO NO: 5928452

PROTECH

Date: 02 June, 2022

Billed to:
Lorena Martinez
16 Mincing Ln
Denver CO 42321

From:
Olivia Wilson
316 Lewisham St
Milwaukee, WI 23923

Item	Quantity	Price	Amount
Samsung Phone	1	\$500	\$500
Legal Notepad	10	\$9	\$90
Water Bottle	3	\$55	\$165
		Tax	\$5
		Total	\$760

Terms: Net 30
Note: Thank you for choosing us!

Fields (data)

Invoice Num: 5727346

Vendor: Protech

PO Num: 5928452

Total Amt: \$760

Item	Qty	Price	Line Amt
Samsung Phone	1	500.00	500.00
Legal Notepad	10	9.00	90.00
Water Bottle	3	55.00	165.00

Use data to automate actions!

PO Number	Invoice Number	Status	Payment Date	Amount Paid
5928452	5727346	Paid	6/7/2022	760.00
2938572	3758292	Unpaid		

Query ERP & detect duplicate

Invoice Number: 5727346

PO Number: 5928452

Status: Paid

Payment Date: 6/7/2022

Auto generate email response

Hi Dylan/AR Team,

Sorry the team was not updated earlier. Our systems indicate we paid invoice 5727346 in full on 6/7/2022. Attached is a transaction receipt and address sent to.

Understand what every customer wants



Transform the customer experience

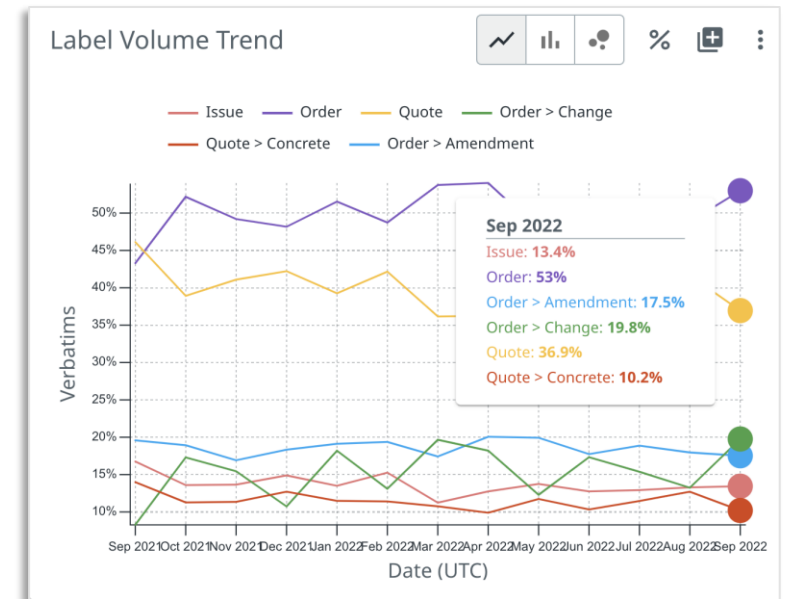
Understand what customers really want. Discover the drivers of workflow and failure demand. See what creates customer success.

Automate every transactional request

Enhance efficiency, performance and scale

Identify and eliminate wasteful service processes. Enhance business productivity with the automation of comms-based work.

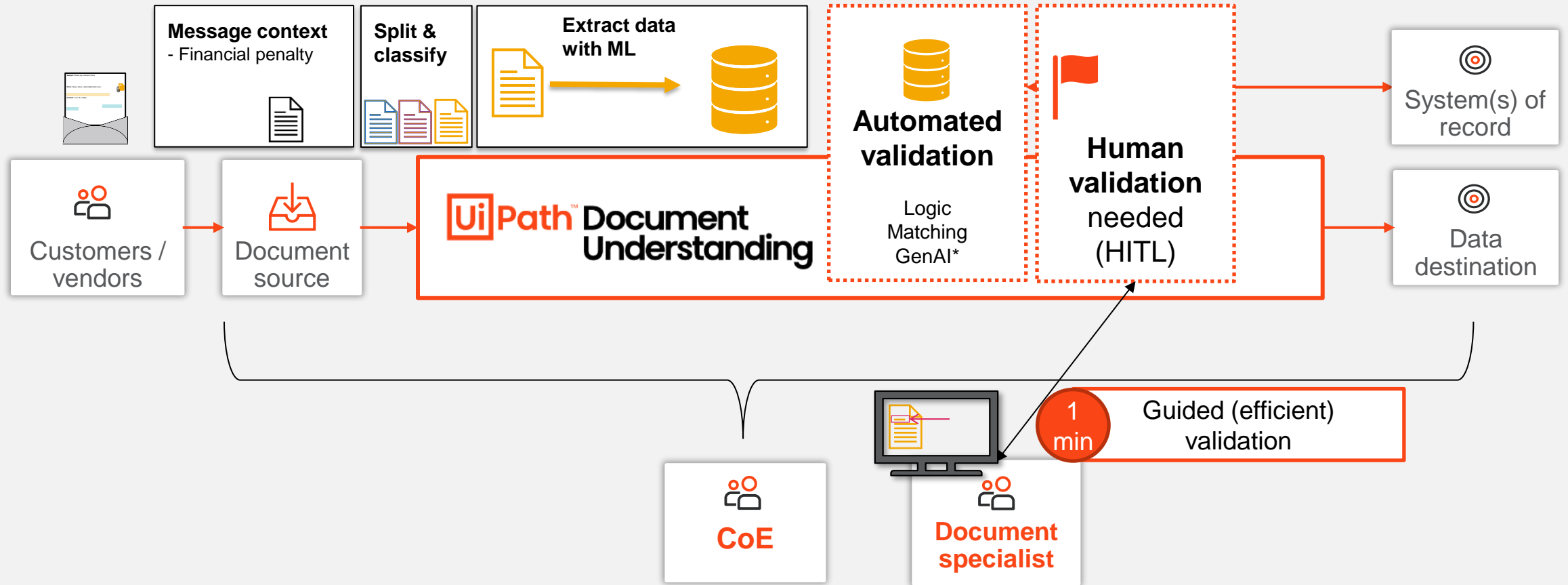
Track and measure all service demand in real time



Grow the ROI of digital transformation

Realize faster, more accurate MI capture. Identify the most valuable change opportunities with powerful AI that generates value quickly.

Drive Value from Document Understanding



100% manual 6min x 1M docs = 100,000 hrs

If 100% human verified 1min x 1M = ~17,000 hrs ~83% reduction

If 50% human verified 1min x 500k = ~8000 hrs ~91% reduction

Demo

Next-gen Document Understanding Experience



Thank you for your time. Before you go...

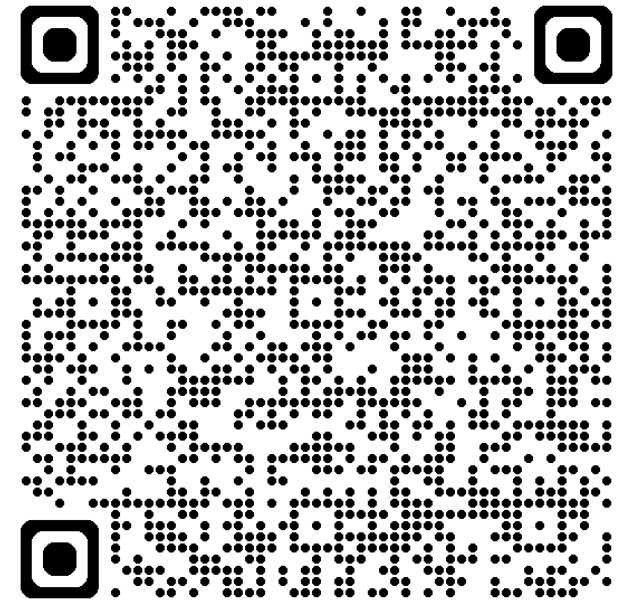
Please share your feedback via our survey. This will pop up right after the session ends.

We will also send you an email with links to access the recording and presentation slides.

Looking for more? **Take your brain for a spin in the Agentic Age!**

UiPath Founder and CEO, Daniel Dines, says the future is both agentic *and* robotic. On our next **UiPath Live episode**, hear from Daniel and other industry experts on how agentic processing automation and RPA work together, as well as how you can rethink your operating model for the agentic age.

Wednesday, 18 Sep | 10:30 am IST / 1:00 pm SGT / 3:00 pm AEST



Scan the QR code to register.
See you there!

Thank you

