The Robot Era

Attended vs Unattended Automation: *Explained*
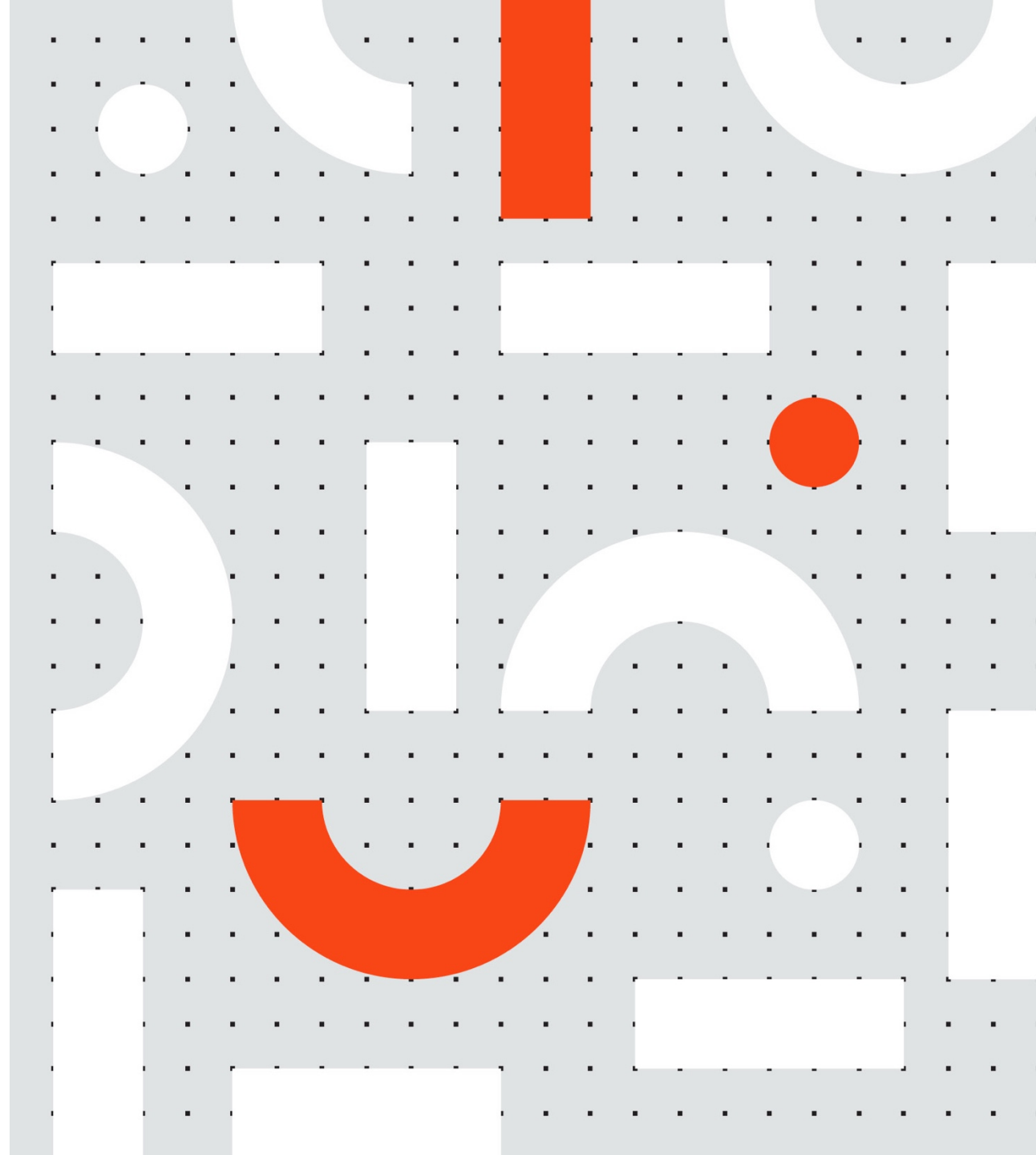
Alex Tataran, UiPath
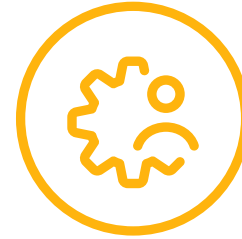
Sam Bultitude, UiPath

Ui Path™

Agenda

- Introduction

- The UiPath Platform

- What Robots can do – Attended / Unattended

- Automation Scenarios

- Q & A

Ui Path™
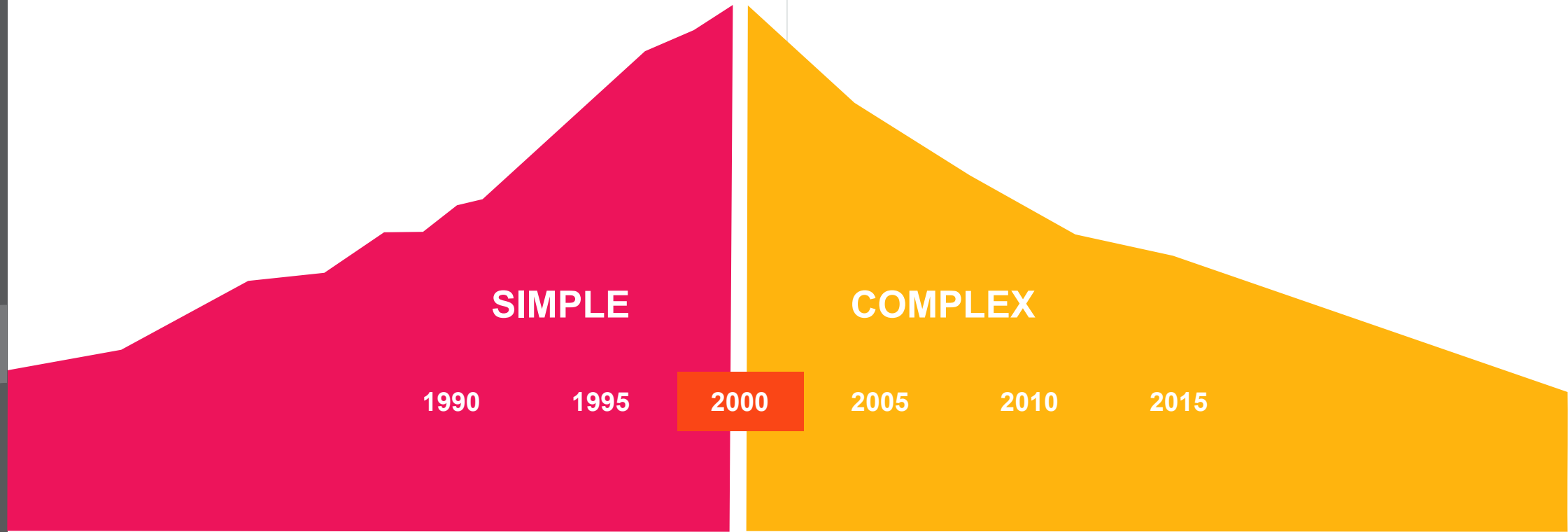
The Productivity Growth Chasm

**ERP and Spreadsheets
digitise existing work**

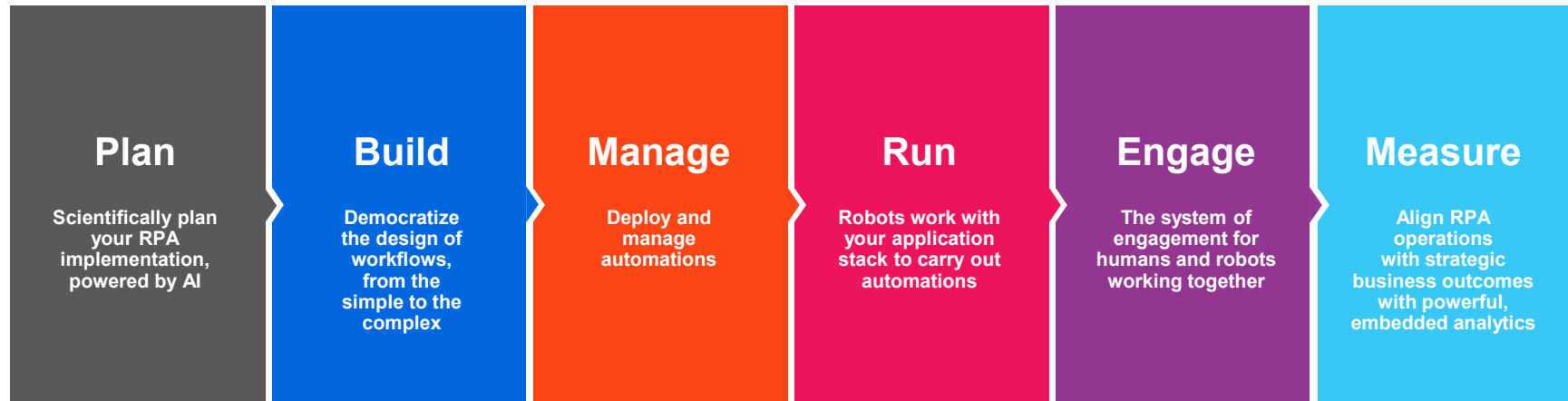Faster and Easier With New Tech

Same Work

**Modern Technologies
Promise the "Future of Work"**

Digital Transformation of the Enterprise

Overwhelming and Disconnected Tech

SIMPLE

COMPLEX

1990   1995   2000   2005   2010   2015

Ui Path

The End-to-End Automation Process

Plan

Scientifically plan your RPA implementation, powered by AI

Build

Democratize the design of workflows, from the simple to the complex

Manage

Deploy and manage automations

Run

Robots work with your application stack to carry out automations

Engage

The system of engagement for humans and robots working together

Measure

Align RPA operations with strategic business outcomes with powerful, embedded analytics

What robots can do

MONITOR / RESPOND
- Monitor user events/actions
- Human interaction – enter / edit / validate data, take decisions
- Trigger unattended bots

READ
- Computer Vision
- OCR
- Web Scraping

CONNECT
- 3rd party apps
- API
- SDK
- Website requests
- Databases

WORK IN BACKGROUND
- Simulate type
- Simulate click
- SendWindowsMessages
- Hidden options

PROCESS DATA
- Read and transform
- Excel
- SQL
- Google Sheets/Docs

Robot

Attended

Unattended

Attended

Runs on user's desktop

Triggered by user activity

Uses user's credentials

Real-time user/robot interactions

Unattended

Runs on a stand-alone PC

Scheduled by Orchestrator

Has robot-provisioned credentials

Notifies users of status updates

Common

Activities & plugins	Logging, analytics & reporting	Queues, assets & licensing	Hybrid automation	Background automation

Automation Scenarios

ATTENDED
(INTERVAL)

Human	Attended	Human

Human involves robot at defined intervals.

ATTENDED
(TANDEM)

Human + Attended

Human can use the computer while a robot process runs in the background

HYBRID

Human + Attended	Unattended

An attended process makes use of the human's computer (asynchronous or not) and kicks off an unattended process in the background

UNATTENDED
(HAND-OFF)

Human	Unattended

A human sets the stage for the unattended process to work, like polling a network drive for files to process

UNATTENDED
(HUMAN IN THE MIDDLE)

Unattended	Human	Unattended

Unattended bots hands off exceptions to humans to make key decisions before they are handed off to other unattended bots

UNATTENDED

Unattended

100% automated performed by unattended bots

Attended (Interval)
Computer takeover

Human	Attended	Human

Human involves robot at defined intervals

Highlights

• Attended processes are kicked off by the end user and runs directly on user's desktop.
 	
 • Run processes directly from Robot tray
 	
 • Monitor user events/actions and trigger processes
    o Use hot keys (for example, Ctrl+A) to trigger a process
    o Use mouse clicks within a particular application
 	
 • User cannot use the machine for the duration of the process

Examples
• Team leader runs the expense approval process on an ad hoc basis to verify and approve his direct report's travel expenses   • Call center agent clicks on "Address Change" Button in response to customer's request. This action automatically pops up a form window for the Agent to enter information about the new address. This in turn is propagated to CRM, Billing and Service Provisioning systems without the agent having to copy and paste across multiple systems.

Vanessa

Sold

Bank

Nick

ACME Bank CRM

Customer Security Checks

Name: Vanessa

Postcode: PR5 5QT

Find Customer

ACME Bank CRM

Enter New Address

Address Line 1: 34

Address Line 2:

Town/City:

County:

Postcode: FY3 1AB

Submit

ACME Bank CRM

Enter New Address

Address Line 1: 34 Edinburgh Drive

Address Line 2: Bispham

Town/City: Blackpool

County: Lancashire

Postcode: FY3 1AB

Submit

Address Finder

Enter Address Details

Address Line 1: 34 Edinburgh Drive

Address Line 2: Bispham

Town/City: Blackpool

County: Lancashire

Postcode: FY3 1AB

New Search

Address Finder

Enter Address Details

New House Number: 34

New Postcode: FY3 1AB

Find Address

Attended

# Process: Financial Report Translation – Attended Computer Take Over

CUSTOMER: Leading Financial Services Company

THE CHALLENGE

The client needs to translate annual financial reports from English to French. This task is outsourced to two different teams, one handles the translation task and the other ensures all translated reports have the same layout and format as the original one. The entire translation process usually takes 3 weeks or more, however, the client wants to reduce the time to one week.

THE SOLUTION

This was a UiPath attended Robot solution. Once the process was triggered, a UiPath Robot read all English reports and translated them to French by using Google Translation Engine and a predefined translation dictionary. The low confidence translation was then sent to a separate team for validation. Finally, the Robot returned to the original report and mimicked human "search and replace" action to maintain the original layout.

Sales/Front Office	HR	Real Estate
F&A/ Procurement	Supply Chain	IT
Tax, Compliance	Other	
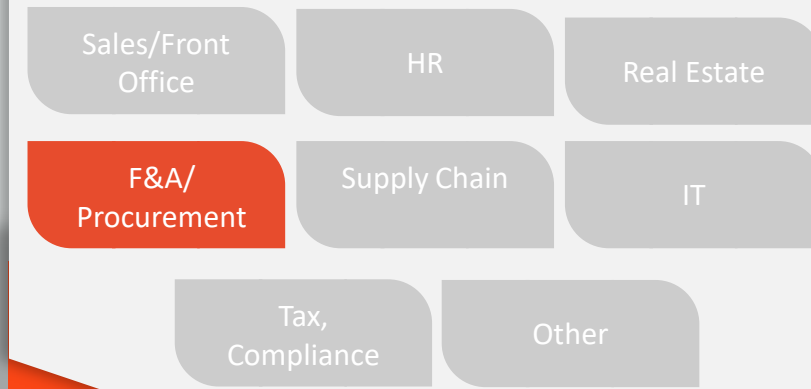
THE BENEFITS

- 50% FTE savings
- Process turnaround time reduced from 3 weeks to 4 days.
- Expected productivity savings of approximately 200 hours per year

Attended (Tandem)
Asynchronous activity

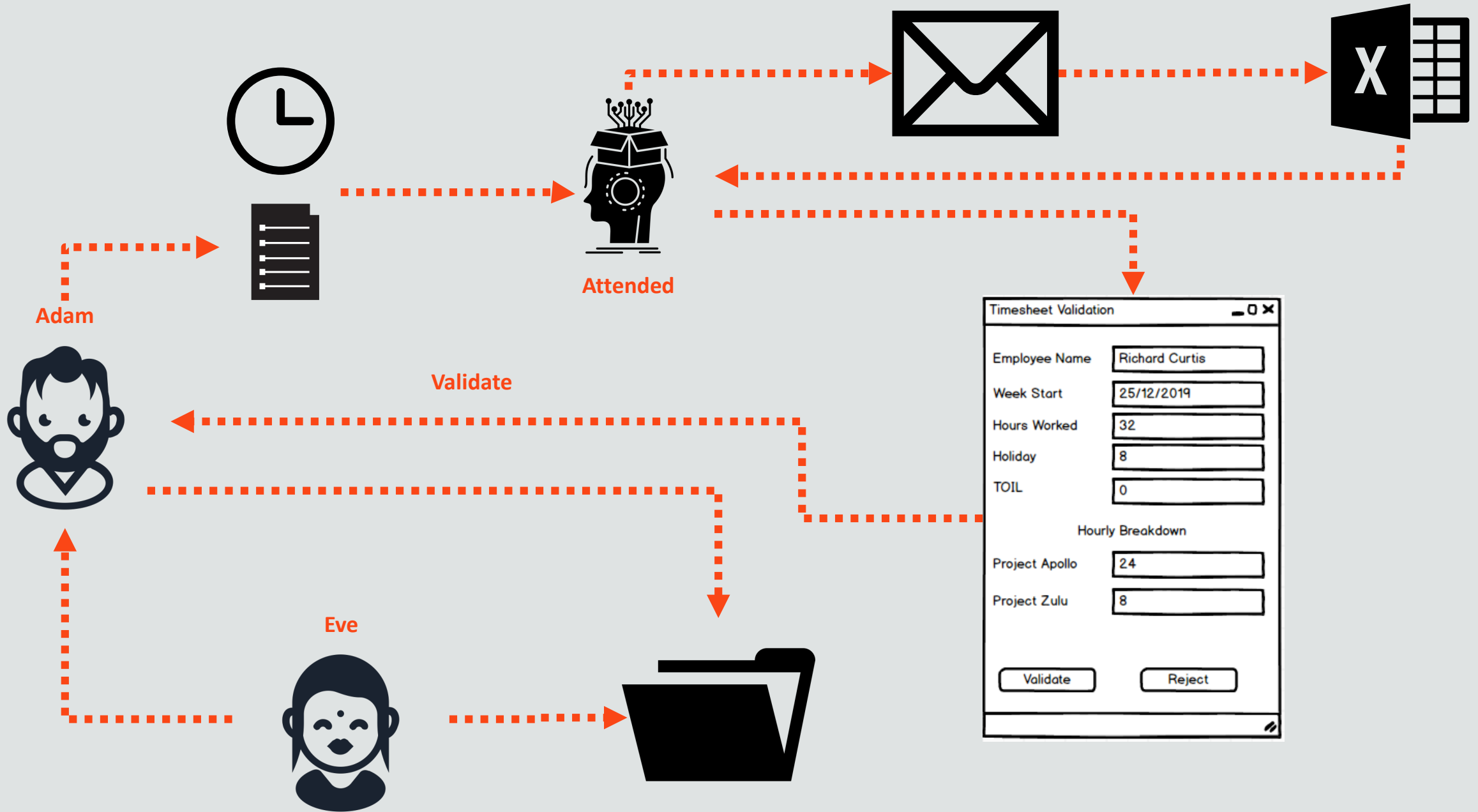| Human + Attended	Unattended

Human can use the computer while a robot process runs in the background

Highlights

• Attended processes run in the background on user's desktop whenever they are kicked off by the user
 	
• Run processes directly from Robot tray
 	
• Monitor user events/actions and trigger processes
    o Use hot keys (for example, Ctrl+A) to trigger a process
    o Use mouse clicks within a particular application
 	
• User can use the machine for the duration of the process

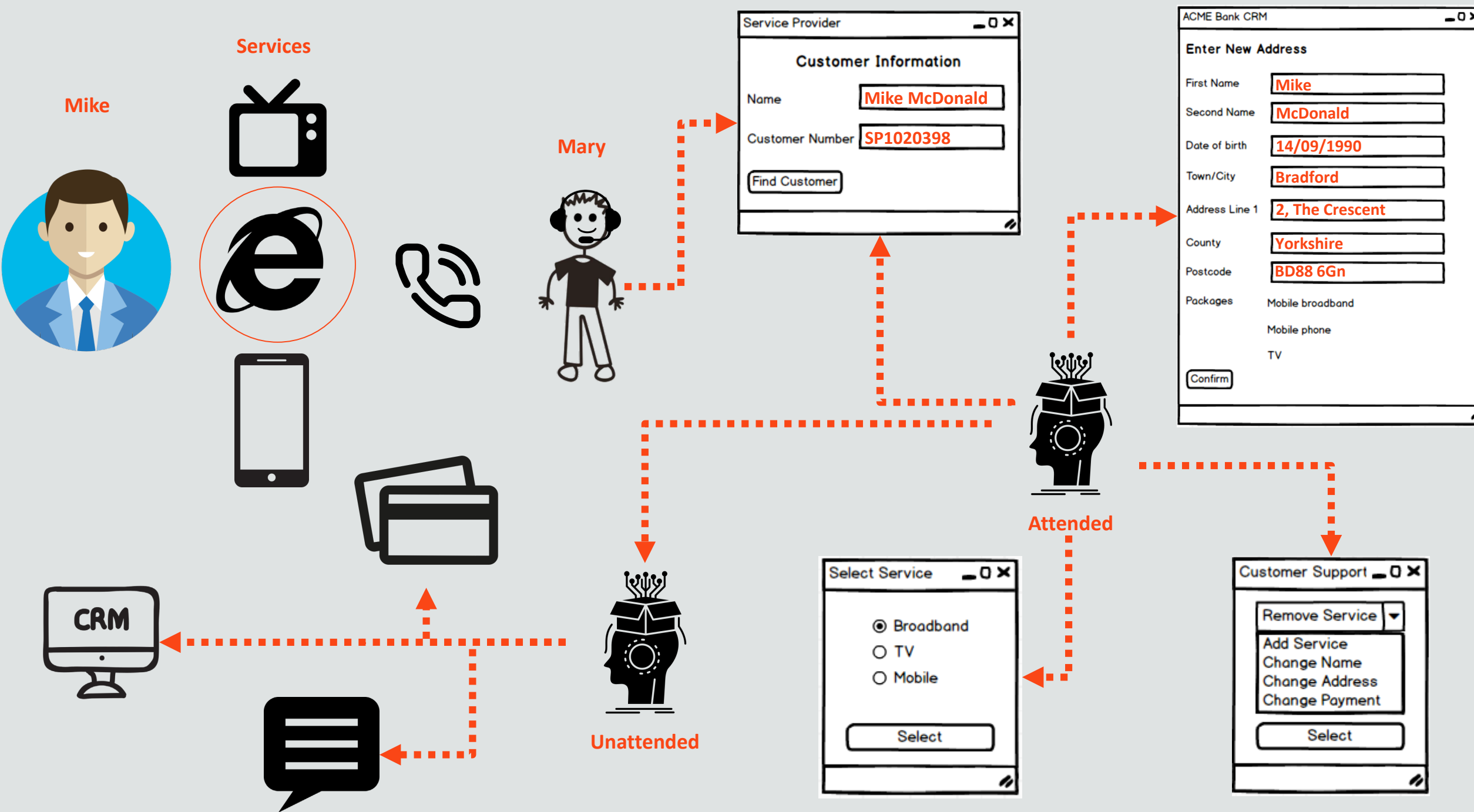| Examples |
|---|
| • UX designer triggers an automation process to clean up the log files whenever the application that is creating the log files is closed. Designer is still able to use the desktop as the log files are cleaned up in the background.

• HR analyst triggers a robot to update backend systems during the new employee onboarding process. The bot is triggered when the analyst clicks the "Approve" button in the HR portal after verifying the information submitted by the employee. |

Attended

Adam

Validate

Eve

Timesheet Validation _ □ ✕

Employee Name | Richard Curtis

Week Start | 25/12/2019

Hours Worked | 32

Holiday | 8

TOIL | 0

Hourly Breakdown

Project Apollo | 24

Project Zulu | 8

Validate | Reject

Hybrid
Unattended Handoff

Human + Attended	Unattended

Attended process uses human's computer to kick off an unattended process in the background

Highlights	Examples

Highlights

- Attended process is kicked off by the end user on user's desktop. This kicks off another unattended process in the background

- When the unattended process is complete, it might compel the user to trigger another attended process (for example, a file has changed)

- Attended and Unattended processes can be chained together

Examples

- Customer service representative triggers an attended automation process to delete customer data from multiple databases as part of a GDPR "right to forget" request

- Customer care agent triggers attended automation process upon incoming call. This presents form with the caller's name, account# and address for agent to verify. Once verified, triggers an unattended process to gather all information about the customer including product & services owned, billing history and pending orders

Mike

Services

Mary

Service Provider _ □ ✕

Customer Information

Name   Mike McDonald

Customer Number   SP1020398

Find Customer

ACME Bank CRM _ □ ✕

Enter New Address

First Name   Mike

Second Name   McDonald

Date of birth   14/09/1990

Town/City   Bradford

Address Line 1   2, The Crescent

County   Yorkshire

Postcode   BD88 6Gn

Packages   Mobile broadband

              Mobile phone

              TV

Confirm

CRM

Unattended

Attended

Select Service _ □ ✕

⦿ Broadband

○ TV

○ Mobile

Select

Customer Support _ □ ✕

Remove Service ▼

Add Service
Change Name
Change Address
Change Payment

Select

Process: Contact Centre – Attended/Unattended (Hand-Off)

CUSTOMER: APAC Healthcare Provider

THE CHALLENGE

The Customer Contact Centre looked to achieve a zero-touch customer experience by simplifying self-service and orchestrating omni-channel requests. This required the automation of front to back case creation and improving the hand-offs between departments with attended and unattended automation. The organisation needed to empower agents with the right information, at the right time to resolve issues faster with greater precision.

THE SOLUTION

With UiPath, the Contact Centre Agents were empowered with attended automation providing pre validated consistent and personalised content with triggers to execute next best actions. The fully integrated front and back office robots ensure end to end processes orchestrating human and AI tasks with accelerated feeds of personalised multiple source customer data.

Sales/Front Office

HR

Real Estate

F&A/ Procurement

Supply Chain

IT

Tax, Compliance

Other
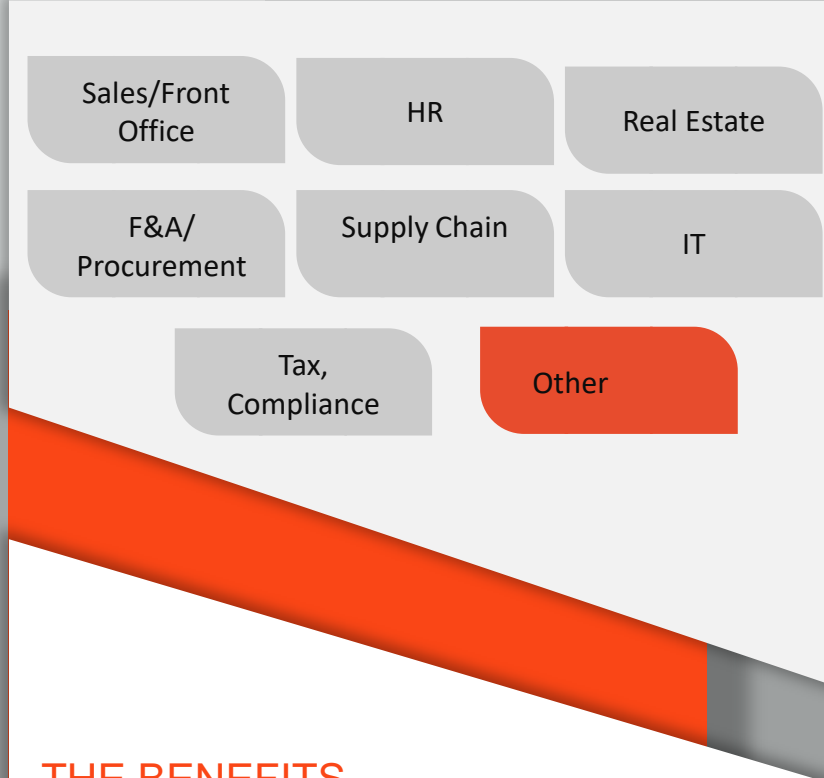
THE BENEFITS

- Boost Customer Loyalty
- Reduce Average Handling Time (AHT)
- Eliminate served contacts (shift left)
- Intelligent agent tools
- Improved First Call Resolution (FCR)
- Lower customer effort
- Rapid time to results
- Reduced overhead and training costs
- Assured compliance

Unattended (Hand-Off)

Human	Unattended

A human sets the stage for the unattended process to work

Highlights	Examples
• Human does some preliminary work before the Unattended process is kicked off.	• HR analyst places files in a network file share folder that is picked up by an unattended process. This process is triggered on a scheduled basis to continuously poll for files and process them. • Benefits analyst inserts records related to new benefit programs offered by the company in the benefits portal. This is picked up by the unattended process that is triggered at a pre-set time interval and processes them.

Dean, PA

Charles, CEO

Meeting Notes
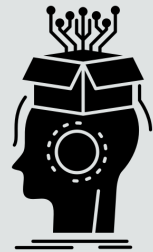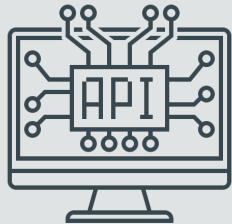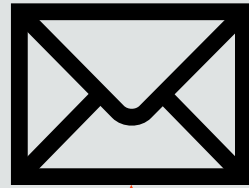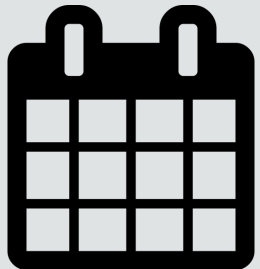
Date   12/11/2019

Meeting Chair: Charles

Participants:
Georgia georgia@rpa.com
Ryan ryan@rpa.com
John john@rpa.com
Annabel annabel@rpa.com

Title of proposed activity: Approve Q1 2020 Budget
Document drafted by: Georgina
Appriasers of the concept: Ryan
Reccomandations:
        Budget needs review due to unrealistic projected expenditures

Next meeting: 02/12/2019
Required participants:
Georgia georgia@rpa.com
Ryan ryan@rpa.com
John john@rpa.com
Annabel annabel@rpa.com

Any other comment: None

Scheduled

Unattended

Process: Back Office retail file report – Unattended – Human Prepared

CUSTOMER: World leading retailer, United States & Brazil

IMPLEMENTATION TIME: within 3 weeks

THE CHALLENGE

The regional (Brazil) back office required all the reports from each store closing on the day before, so store managers could validate the closing information for each cash register. This manual approach required logging into the terminal application, where the reports were located. This included navigating through the terminal, punching the appropriate search fields and navigating to find the report for that particular date. Once the report was found, the employee then needed to use the information found on the terminal to find the report as a downloadable text file in an FTP server. It took a significant amount of time among couple associates to gather all the reports for couple hundred stores.

THE SOLUTION

With UiPath, the report for each store is now stored in each individual FTP server. From there, the Robots read input from the terminal and gathers information for the report. Next, they go inside each FTP server and download the file. Finally, all the reports are aggregated and dumped into a shared drive.

Sales/Front Office	HR	Real Estate
F&A/ Procurement	Supply Chain	IT
Tax, Compliance	Other	
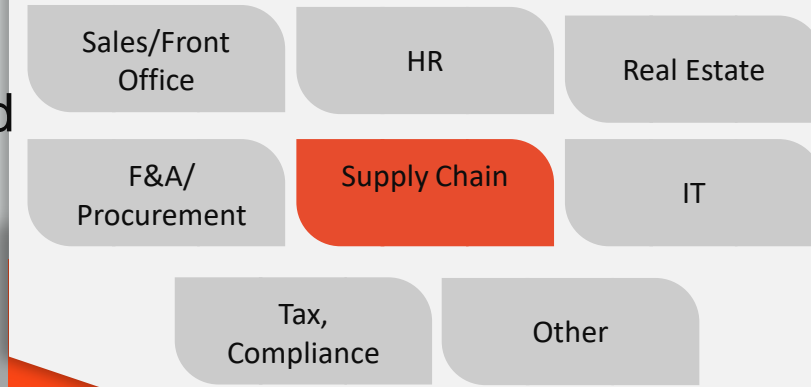
THE BENEFITS

- Reduced processing times
- Reduced manual tedious tasks
- 100% process accuracy

Unattended (Human in the middle)

Unattended	Human	Unattended

Unattended bots hands off exceptions to humans to make key decisions before they are handed off to other unattended bots

Highlights	Examples

Highlights

- Scheduled to run as other unattended processes

- First unattended process signals to human that their part in workflow is needed (i.e. with an email)

- The "human in the middle" then does something where human logic is needed

- Some action taken by the human (i.e. inserting a record, dropping a file into a directory) is then acted upon by an unattended process as in "Partially Unattended" process

Examples

- Unattended process uses OCR to process scanned invoices and upload data to SAP. When the confidence associated with the extracted data is low, it is routed to the human for additional validation using the UiPath Validation Station.
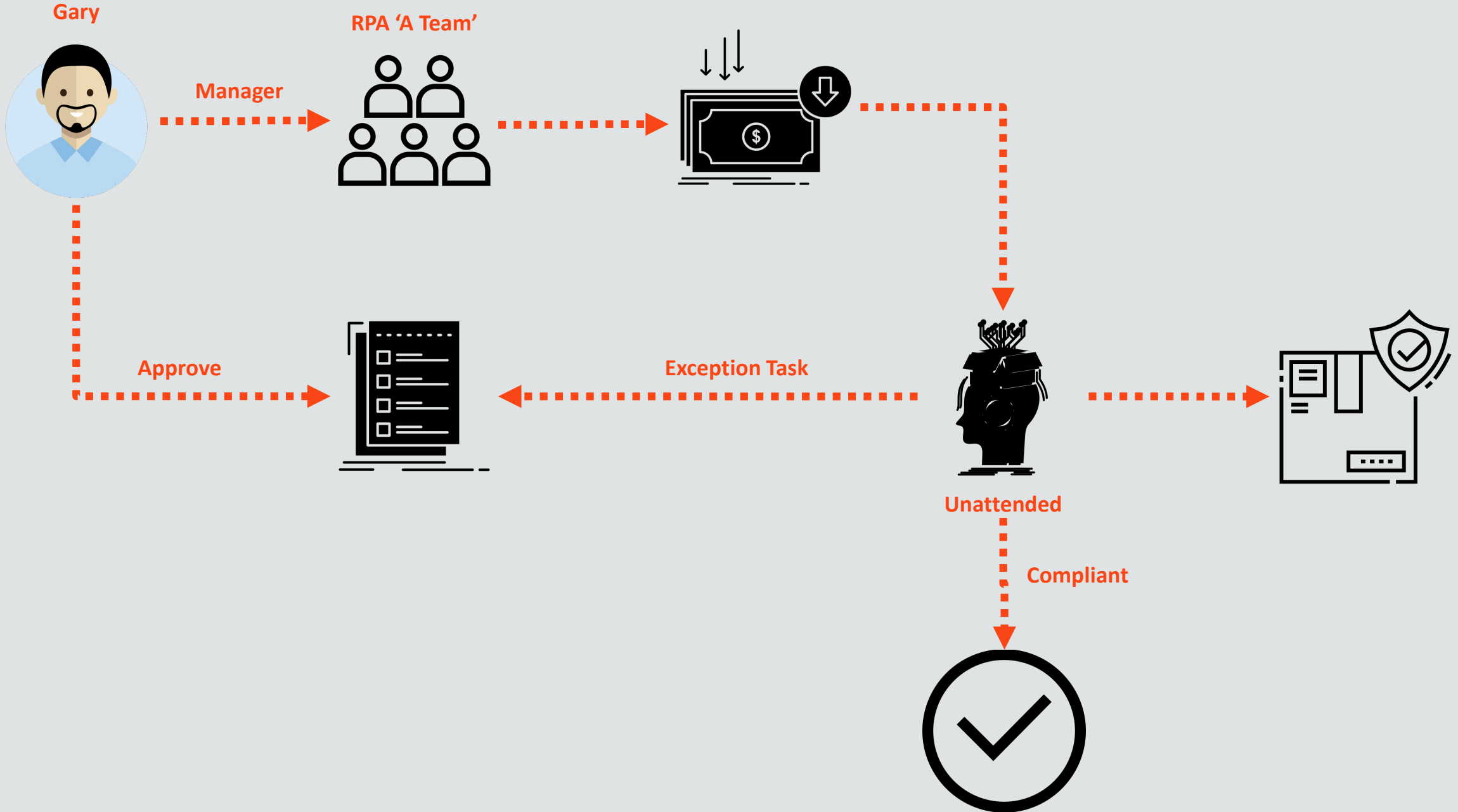
# Process: Insurance broker-driven service delivery - Human in the middle

CUSTOMER: Hollard Group, South Africa

THE CHALLENGE

The customer, a large insurer in South Africa, sought to streamline its operations by adding virtual assistants in end-user processes. Involving 1.5M emails per year coming from the broker community, the process consisted of receiving emails, interpreting email information and the attachments to identify the context and classify the content. The process required accuracy and meeting timely expectations. Completing the workflow in compliance with Service Level Agreements (SLAs) and specific regulatory and statutory provisions represented a big challenge.

THE SOLUTION

The solution implemented involved machine learning, natural language processing, intelligent OCR and analytics capabilities blending into a single user interface the accuracy, speed and scale of UiPath's Enterprise RPA Platform with the expert capabilities from Microsoft Cognitive Toolkit, IBM Watson and ABBYY. The UiPath Robot accesses the email source, interprets the content contextually, classifies and files all the necessary documentation, extracts relevant data and updates necessary systems, interacts with the human users to complete specific instructions and finally delivers confirmation once the process is complete.

Sales/Front Office	HR	Real Estate
F&A/ Procurement		IT
Tax, Compliance	Other	
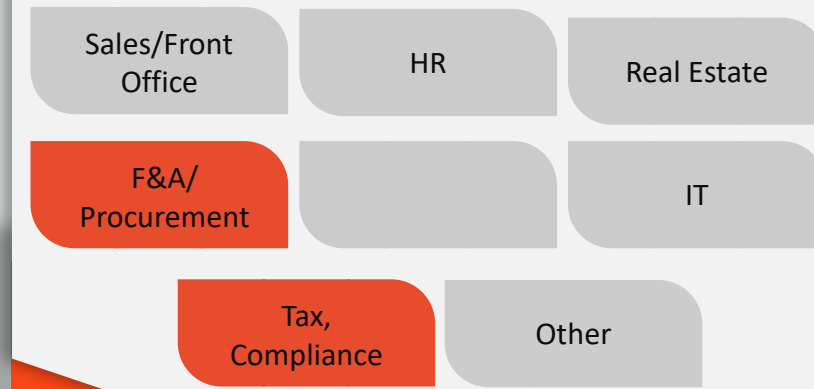
THE BENEFITS

- 2000 hours/month saving in processing time
- 98% fully automated
- 600% reduced mean time to execute
- 91% reduction of cost/transaction
- improved staff satisfaction
- massive error reduction and improvement in the quality of information

Unattended

Unattended

100% automation performed by unattended bots

Highlights	Examples
• Processes set to run without human intervention • Trigger schedules set in Orchestrator and can run 24/7/365 • Humans typically not involved except maybe to handle exceptions	• Unattended process is triggered on a scheduled basis to generate consolidated reports where data is extracted from SAP and imported into Excel. • Unattended process is triggered to automatically log into a vendor's website and apply search filters on the site to find each downloadable link from each page and store the documents in a local drive. These files are then sorted and merged and placed in a shared drive with an appropriate naming convention.

Karen

Job Spec

RPA Role

x 100's

Unattended

Approve

Reject
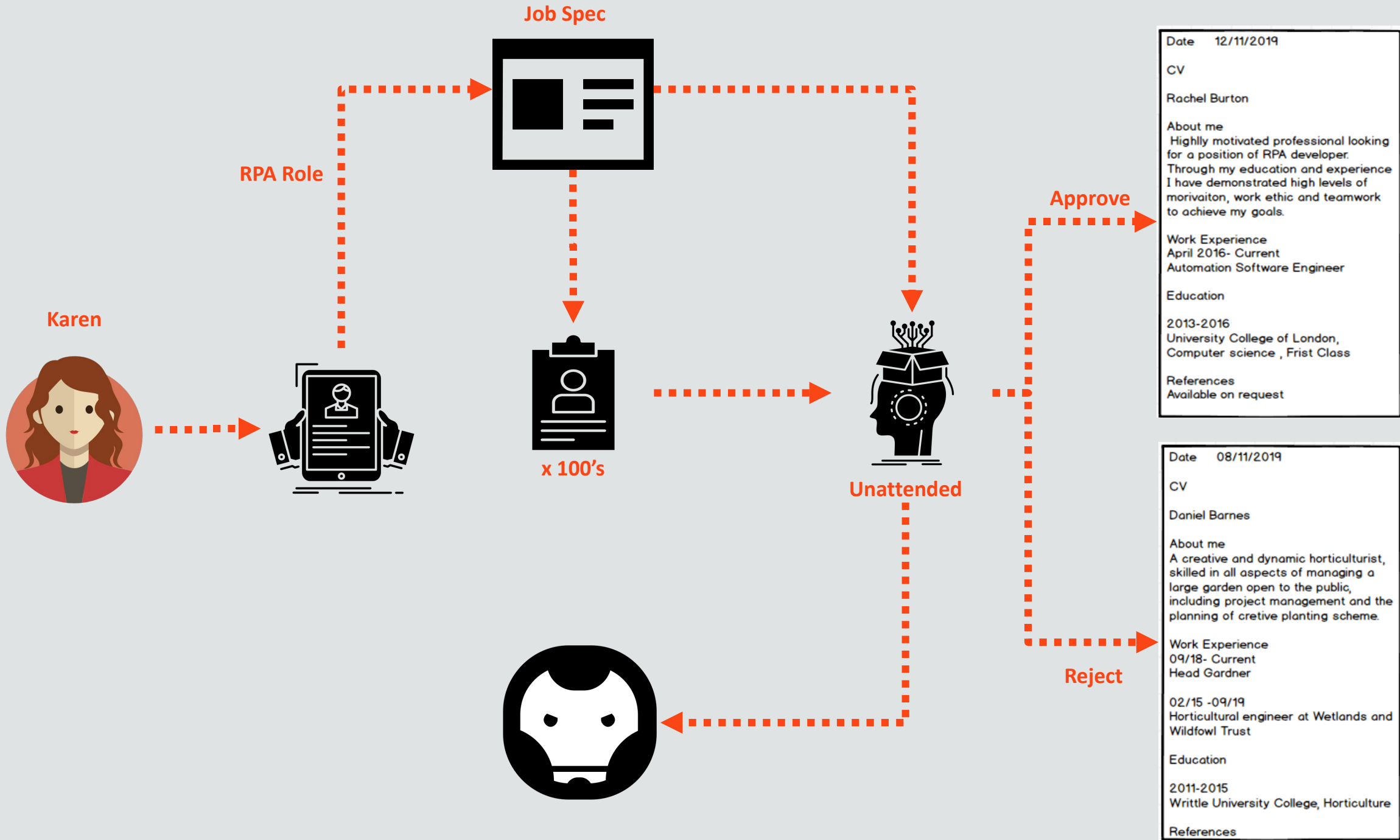
Date   12/11/2019

CV

Rachel Burton

About me
 Highlly motivated professional looking for a position of RPA developer. Through my education and experience I have demonstrated high levels of morivaiton, work ethic and teamwork to achieve my goals.

Work Experience
April 2016- Current
Automation Software Engineer

Education

2013-2016
University College of London, Computer science , Frist Class

References
Available on request

Date   08/11/2019

CV

Daniel Barnes

About me
A creative and dynamic horticulturist, skilled in all aspects of managing a large garden open to the public, including project management and the planning of cretive planting scheme.

Work Experience
09/18- Current
Head Gardner

02/15 -09/19
Horticultural engineer at Wetlands and Wildfowl Trust

Education

2011-2015
Writtle University College, Horticulture

References

Process: Customer transactions LAB/FT validation & payment
Fully unattended

CUSTOMER: Corporate and investment bank, France

THE CHALLENGE

The customer needed to automate a 100% manual process in the Retail Payment department. The employee received an email from the branch client with the transaction LAB/FT reference in an attached PDF and the validation or invalidation of the international payment. The transaction reference and the amount were retrieved from the PDF document and typed in the LAB/FT system and in the payment system for the corresponding operation reference number to release the payment.

THE SOLUTION

The UiPath robot automated the process entirely. It read the mail, transferred the mail in the specific folders, opened and read the attached PDF file with an OCR technology that extracted the transaction amount and reference number. The process had an improved audit trail improvement and the SLA constraints were respected.

Sales/Front Office	HR	Real Estate
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Tax, Compliance	Other	
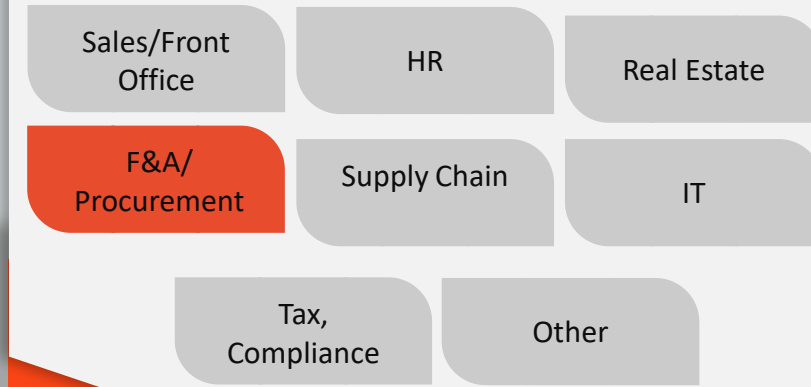
THE BENEFITS

- 0 errors
- ROI within less than 12 months
- 0% exceptions during automation
- RPA handles both the transaction and the new control and audit trail
- Implementation within 3 months

Q&A

UiPath™