





Redefined in the Age of AI: Power Automate for desktop Workshop

Speakers

Mustapha Lazrek



Ken Seong Tan

Quentin Sele Barancy

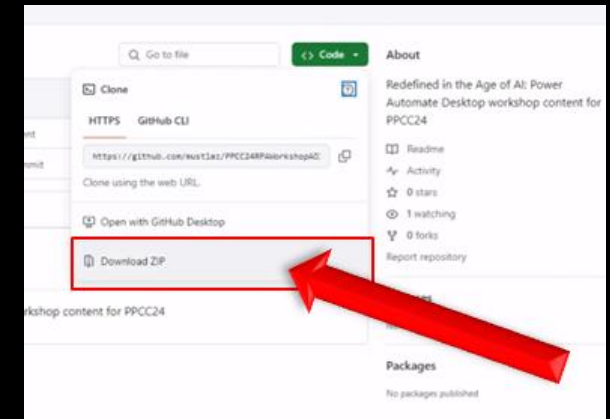
Module	Timing	#	Session	Lab	Timing
Pre setup work office hour	8:00 - 9:00	0	Environment and setup check. Setup lab, troubleshooting		60 minutes
Workshop officially starts here					
Part I: Introduction	09:00 - 9:30	1	Lab prerequisites 1 – Install hosted machine and required software	Lab 1	30 minutes
	9:30 - 09:50	2	Introduction to Power Automate, Desktop flows and Hosted machine demo		20 minutes
Part II: Discover Desktop flows with Copilot	09:50 – 10:20	3	Discover Power Automate for Desktop and create your first Desktop flow with Copilot 	Lab 2	30 minutes
	10:20 – 10:50	4	Use input and output parameters 	Lab 3	30 minutes
Break (10 minutes)					
Part III: Excel and Web automation	11:00 – 12:00	5	Subflows, Excel and Web automation, AIBuilder with GPT action, suggested actions 	Lab 4	60 minutes
Lunch break (60 minutes)					
Part IV: Hyperautomation	13:00- 13:30	6	Cloud integration (Outlook Trigger)- Machine connection & Attended run 	Lab 5	30 minutes
	13:30 - 14:00	7	[Optional] Intelligent document processing with AI builder	Lab 6	30 minutes
	13:30 - 14:00	8	[Optional] Integration with Teams for Approvals	Lab 7	30 minutes
Break (10 minutes)					
Part V: Scale your automations and infrastructure	14:10 - 14:40	9	[Optional] Work queues and unattended automation	Lab 8	30 minutes
	14:40 - 15:10	10	[Optional] Monitor or troubleshoot your automations 	Lab 9	30 minutes
Part VI: Copilot free lab	15:20 - 15:40	11	AI Recorder demo + Try Copilot experiences 	Free lab	20 minutes
Part VII: Closing	15:40 - 16:00	12	Survey, Closing + Q&A		50 minutes

Welcome to the workshop!

Download the lab resources

1. Go to <https://aka.ms/PPCC24RPALabs>
2. Click on , then on **Download ZIP**
3. Once zip file downloaded, extract it.
4. Open  Lab 01 - (Prerequisite) Install required software.pdf
5. Follow the instructions.

Your password is...



Part I

Introduction

Lab 1

Prerequisites - Install required software

30 minutes

What you'll learn



How to create an end-to-end automation with:

- Desktop flow (UI and Web)
- Cloud flow
- AI model for document processing

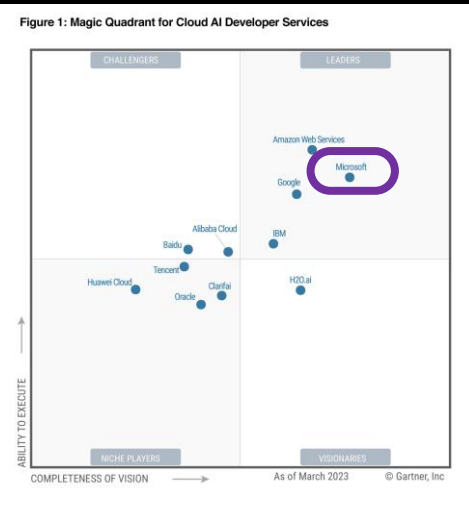
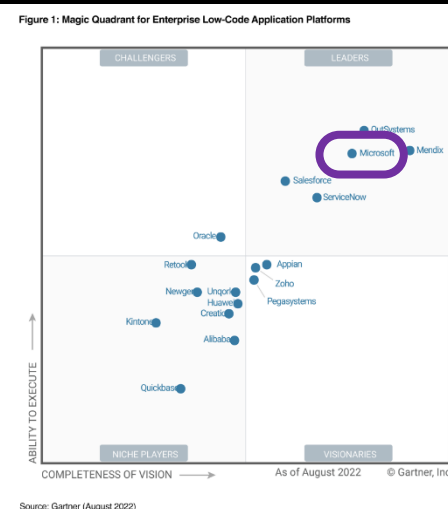
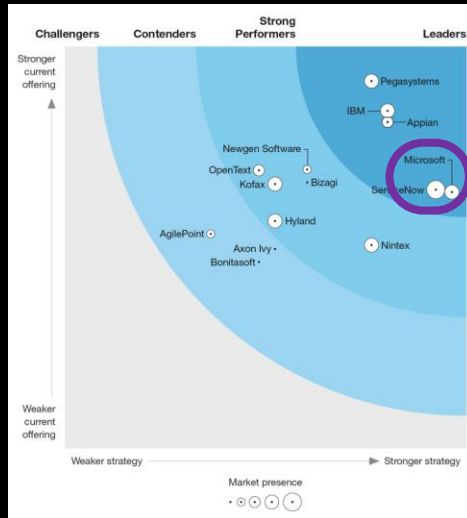
How to run, troubleshoot and monitor your automations with:

- Desktop flow activity
- Automation Center

With the assistance of Copilot



Microsoft is a Leader in Hyperautomation



Digital
Process
Automation
(DPA)

Robotic
Process
Automation
(RPA)

Low-Code
Applications
(Power Apps)

Business
Intelligence
(BI)

Artificial
Intelligence
(AI)

Power Automate

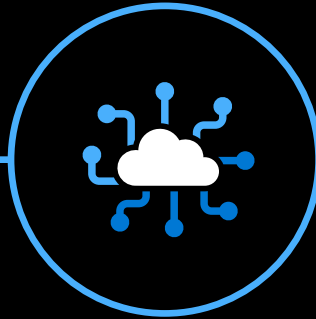
Microsoft's AI-first Automation platform

Workshop content



Robotic Process Automation

Automate UI actions in desktop or browser, across legacy and modern apps



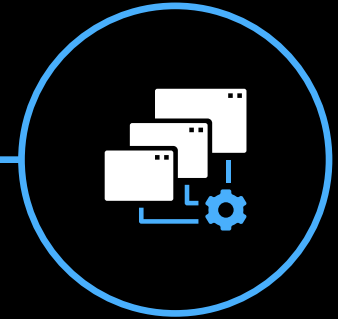
Digital Process Automation

Digital Process automation to build simple to complex workflows with 1K+ of *pre-built* or custom connectors



Intelligent Document Processing

Data extraction and content generation with AI Builder



Process & Task mining

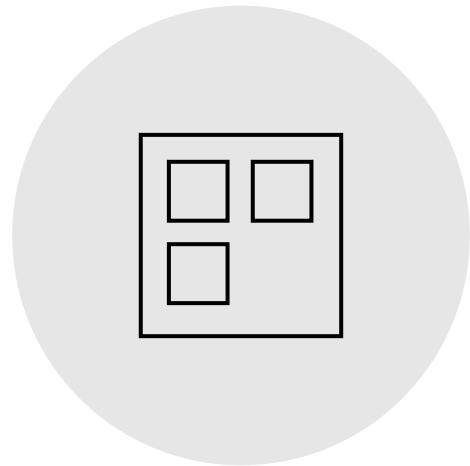
Analyze bottlenecks and get recommendations on how to improve automations



Copilot assisted automation

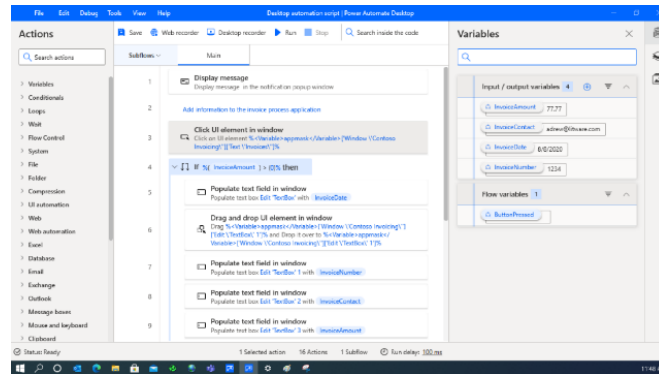
Infuse AI/ML into any workflow to transform data into actions, without code

Cloud and Desktop flows

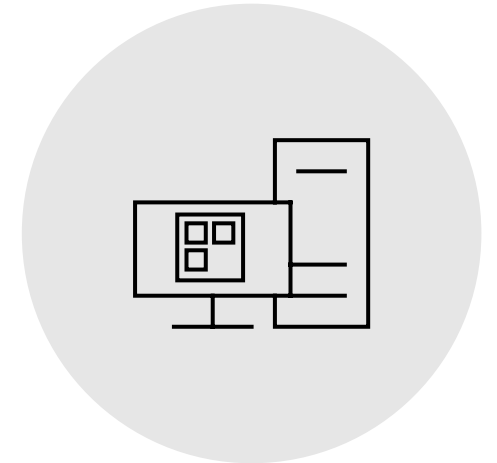


Old apps
without APIs

Desktop flows
RPA

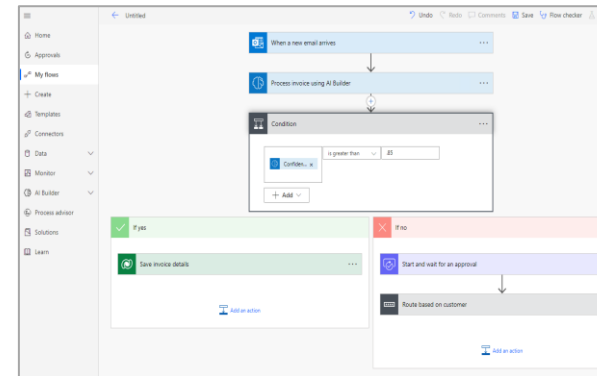


Power Automate
bridges the gap,
across on-premises and cloud



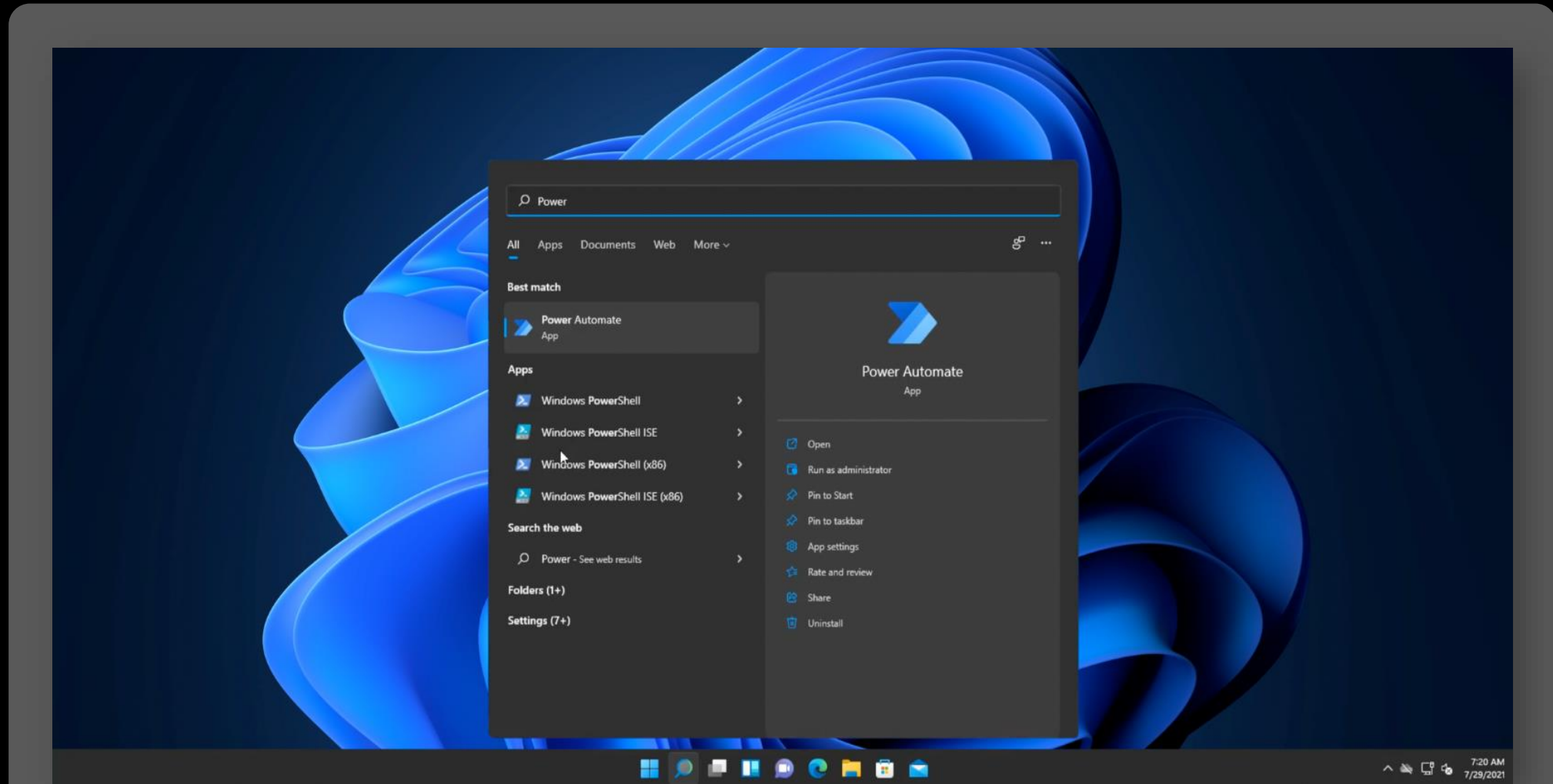
Modern Systems
with APIs

Cloud flows
DPA



Power Automate in Windows 11

Windows 11 users can begin using Power Automate for desktop right from the Start menu



Introducing Power Automate desktop flows

Ease of use - Low-code/no-code Drag & drop approach with Recorders (Desktop and Web)

Input –Output and flow **variables**

Advanced **Debugging** features

Reusability of **Controls, Images** and **Subflows** or even desktop flows

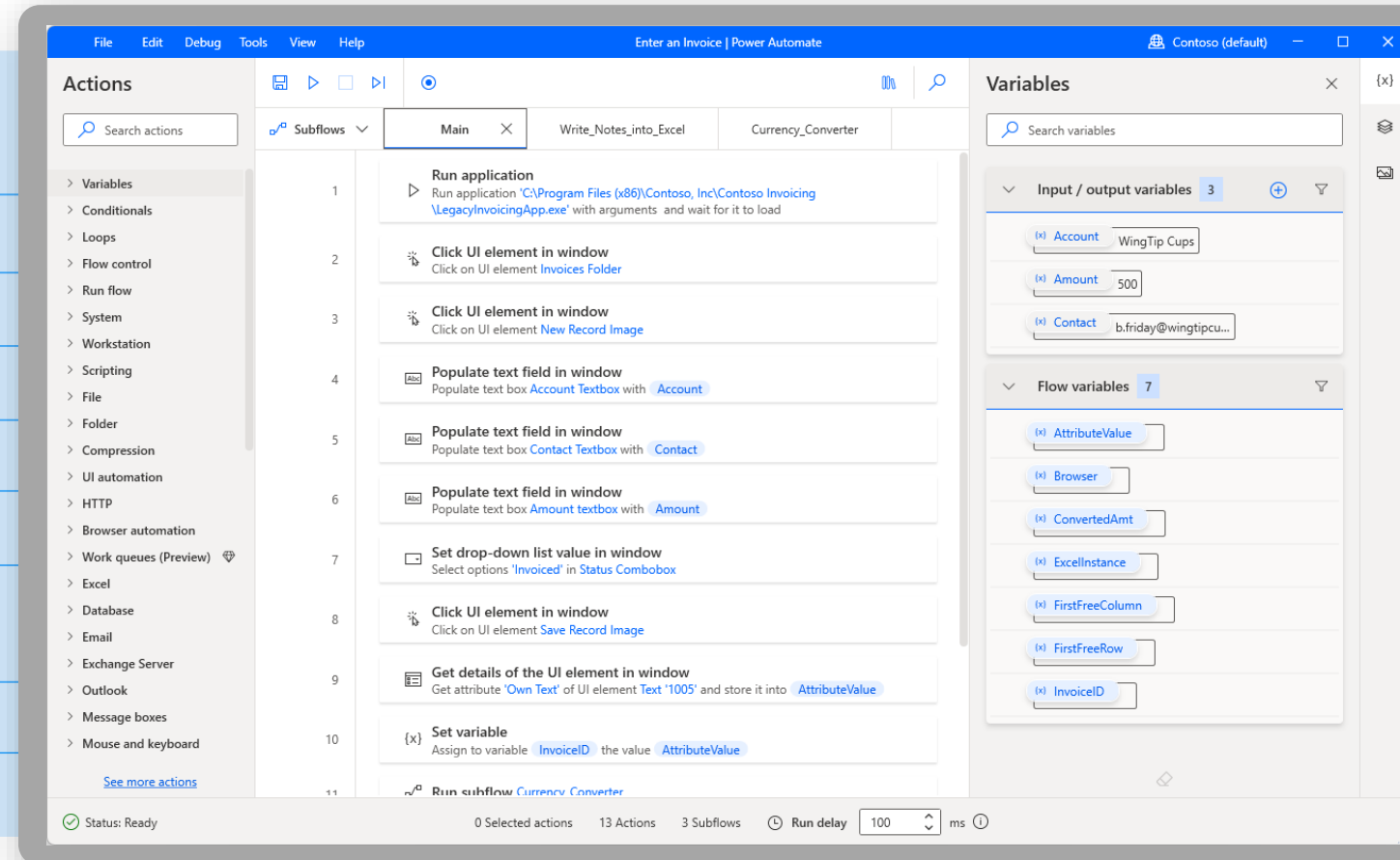
User and Process collaboration through **message boxes** for attended

Advanced **Error handling** features with 2 error handling levels

Support for advanced **coding-scripting**
(VBScript, JavaScript, Python, PowerShell, Command Line)

Local Attended, Attended and **Unattended** execution mode

500+ **actions** to choose from +Cloud **connectors** and **Custom Actions**



...and more

Lab scenario Overview – Contoso Coffee shop company Invoice processing



Email triggers cloud flow



AI Builder extracts data



Desktop flow interacts with
desktop app, Web, GPT



Confirmation email sent
back



A vendor of Contoso Coffee shop has delivered the order and would like to process the invoice. The vendor sent the invoice pdf file to Contoso Coffee shop by email



Power Automate monitored the inbox of Contoso Coffee shop, used AI builder to extract information from the invoice file attachment



Power Automate desktop flow will open the legacy desktop application that Contoso Coffee shop using to manage invoices and fill in the invoice details

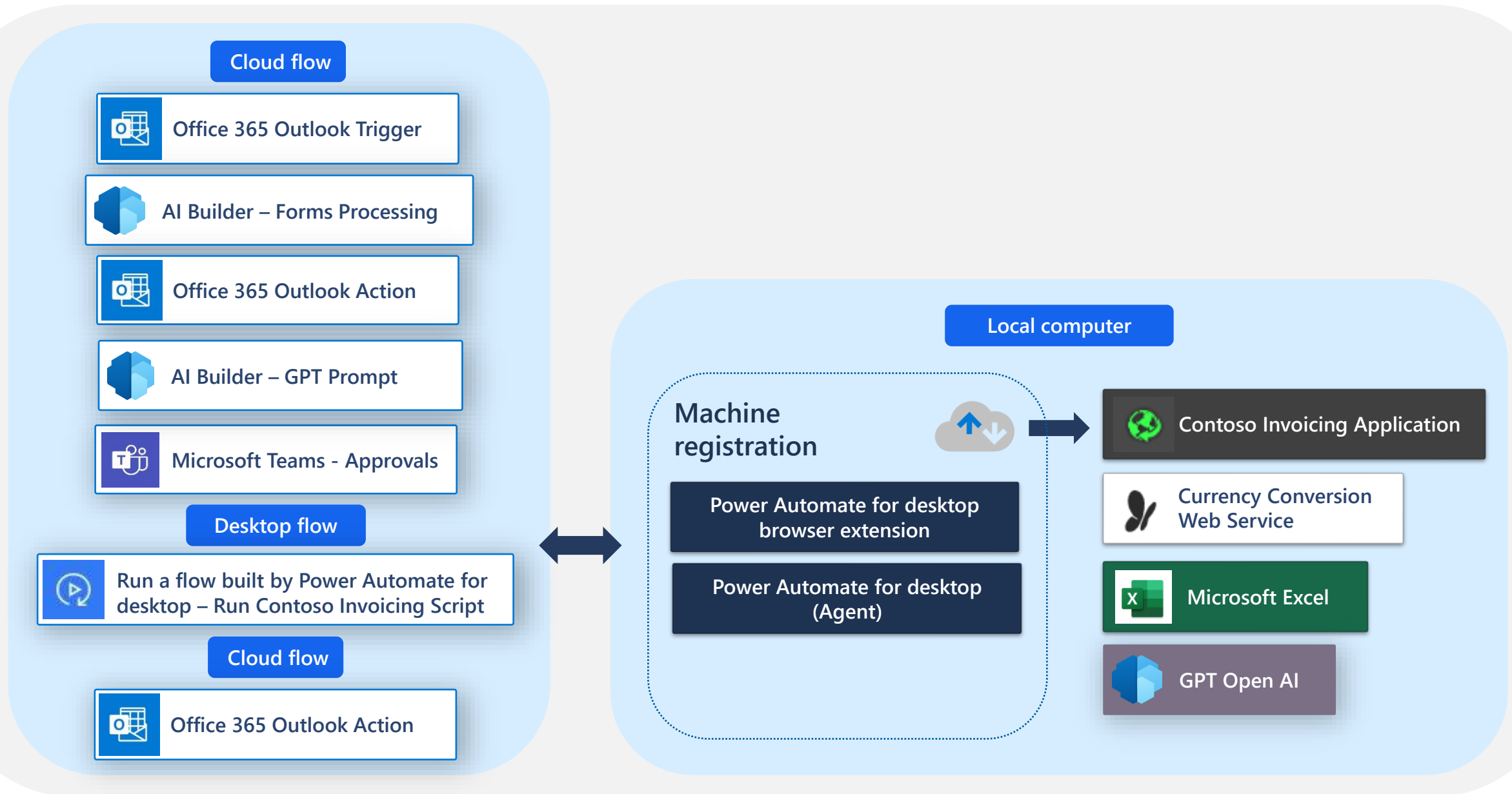


In the Desktop flow a web-based real-time currency conversion is used, and an audit log is captured in Microsoft Excel



Power Automate sends an email back to the vendor to notify that the invoice has been approved

Lab scenario – Invoice processing Solution Architecture



Part II

Desktop flows basic

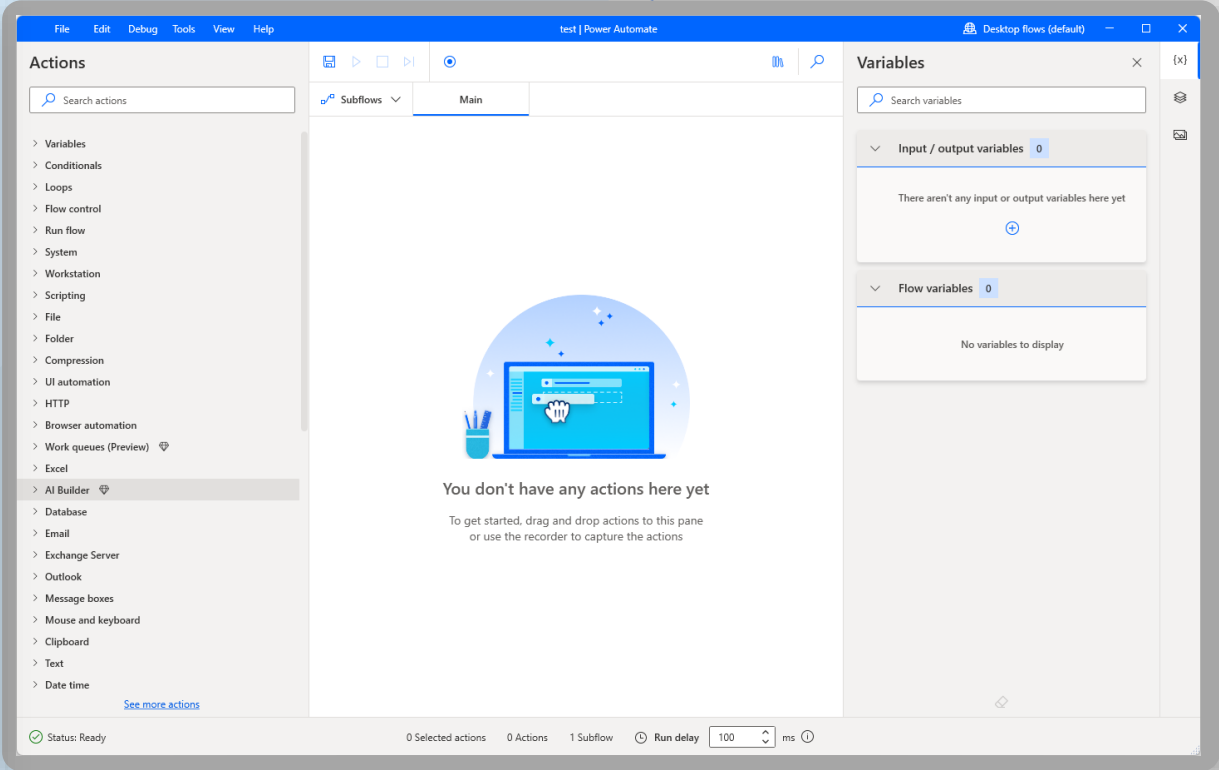
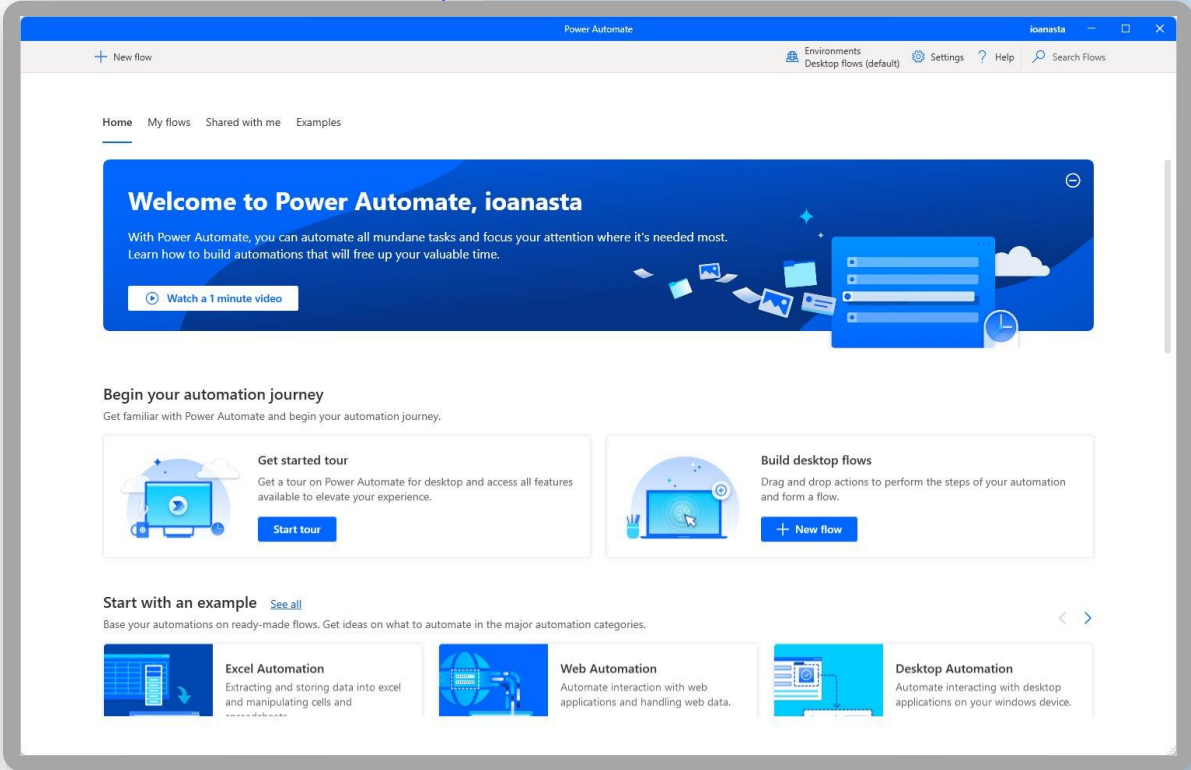
Lab 2

Create your first Power Automate Desktop flow

30 minutes

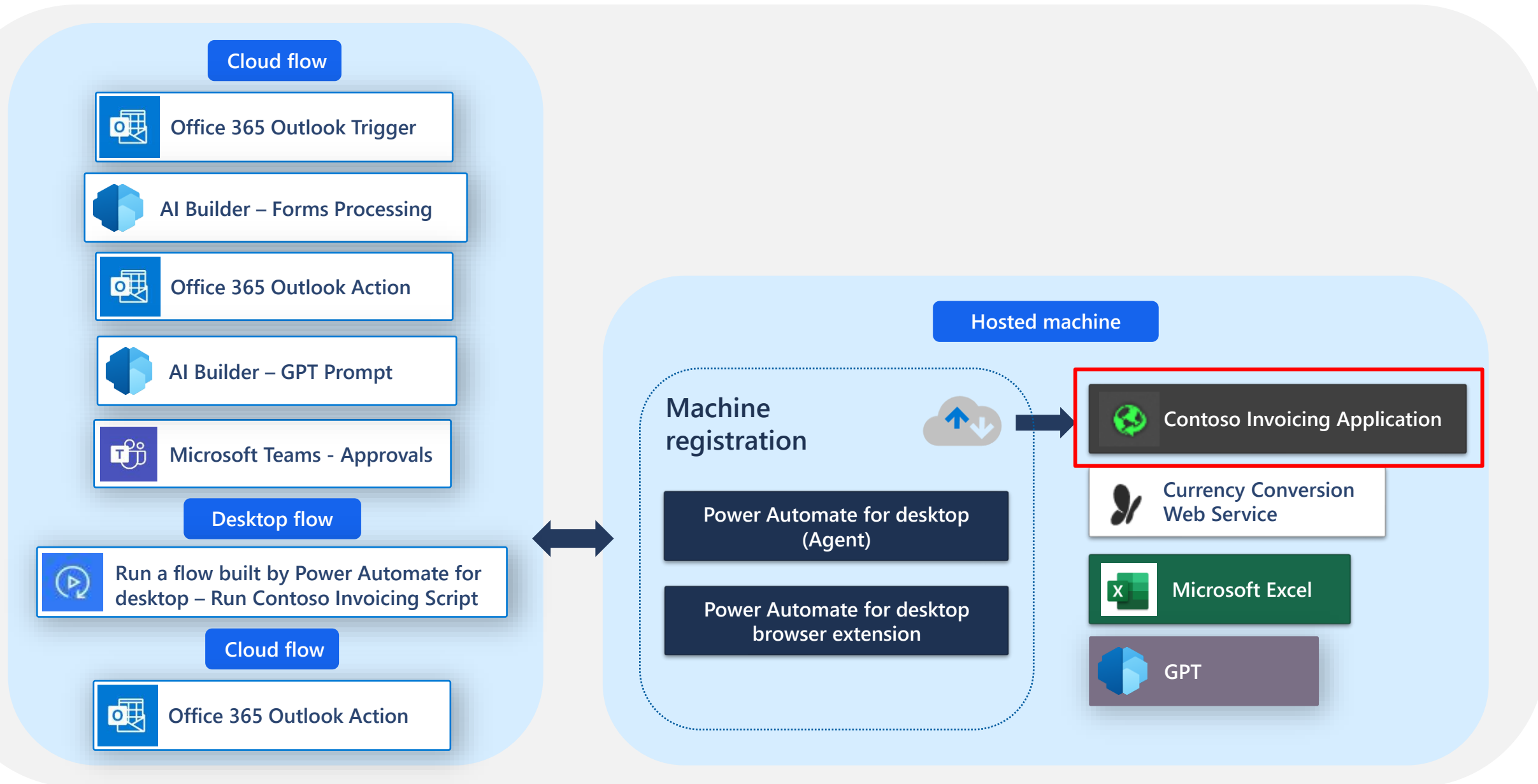
Power Automate for desktop

PAD Console



PAD Designer

Where are we in the scenario in this Lab?

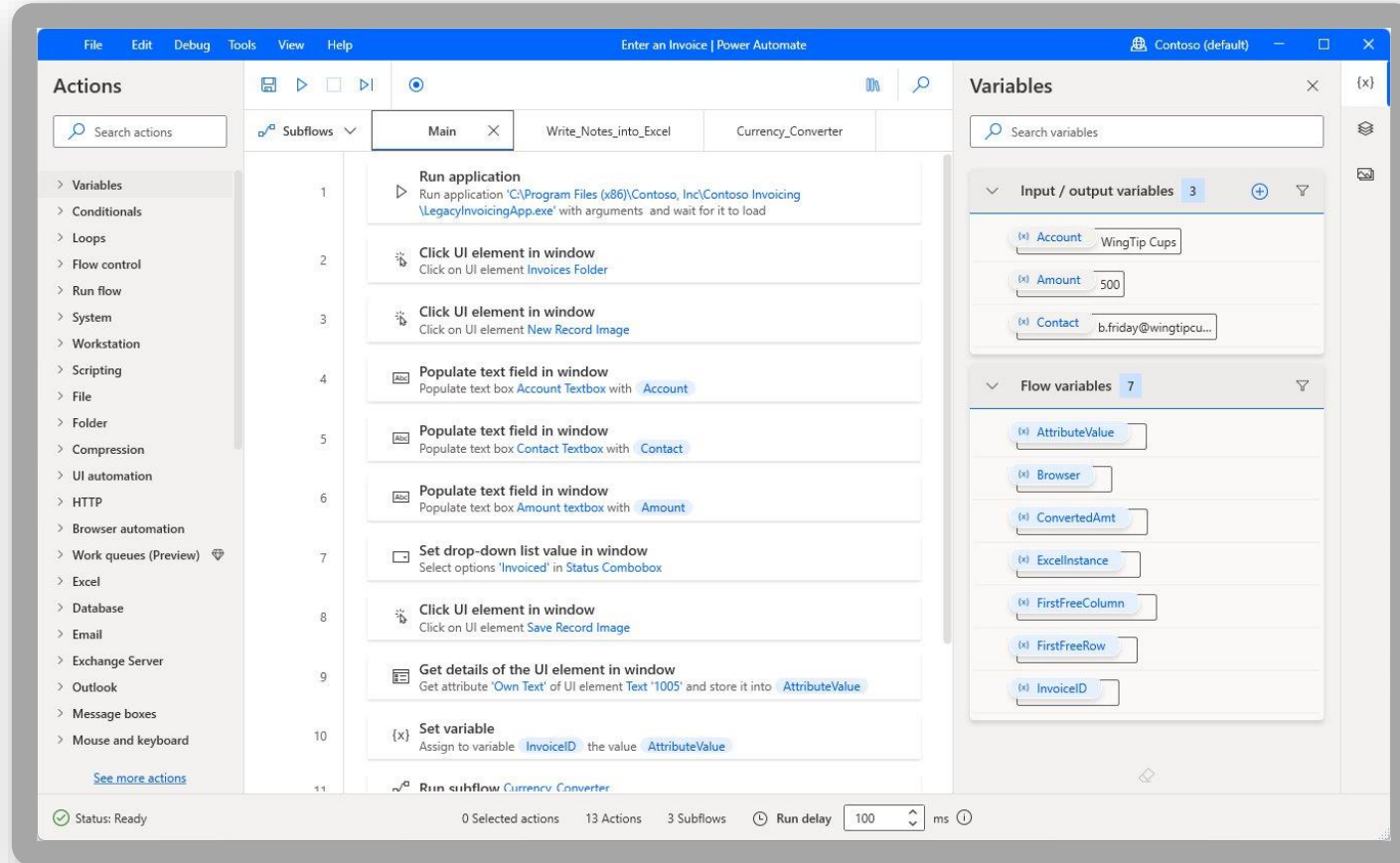


Lab 3

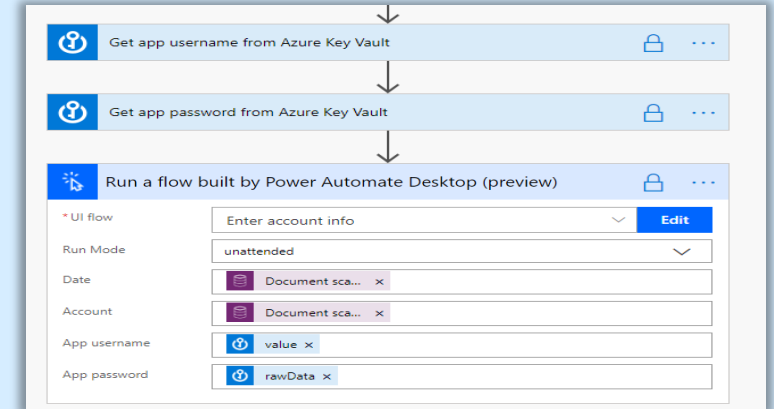
Use input and output variables

30 minutes

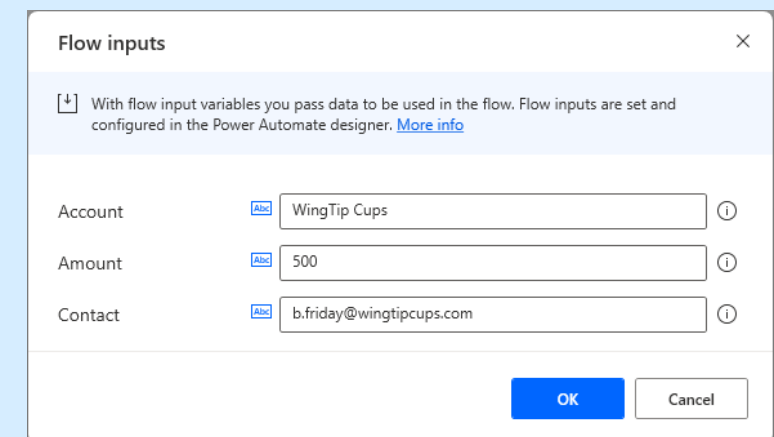
Why use inputs/outputs?



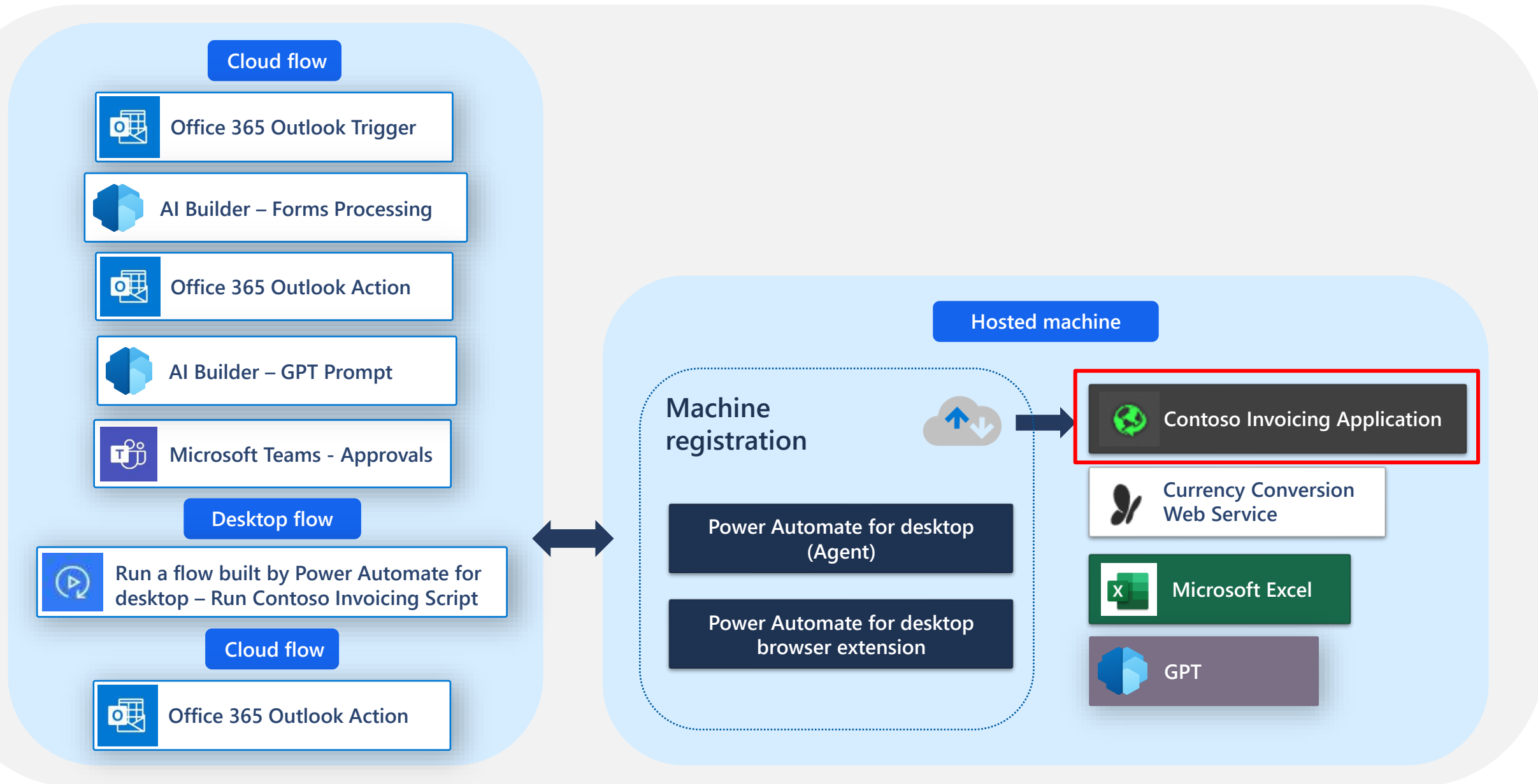
Bind them in the cloud flow that runs the desktop flow



Use them to run a local attended desktop flow



Where are we in the scenario in this Lab?



Part III

Desktop flow Web and Office Integration, GPT

Quentin Sele Barancy

Lab 4

Subflows, Excel and Web Automation AI Builder with GPT action

60 minutes

Subflows, Excel, Web, GPT



Exercise 1

Build a Power Automate Desktop subflow to write notes into Microsoft Excel

Create a process with fixed value variables.



Exercise 2

Build web automation using Power Automate for desktop

Web data scraping and writing to Microsoft Excel



Exercise 3

Use AI Builder within Power Automate for desktop

Use the GPT action to summarize the details of invoices

Subflows in Power Automate for desktop

Split the logic of the flow into subflows that can be called from anywhere in your flow

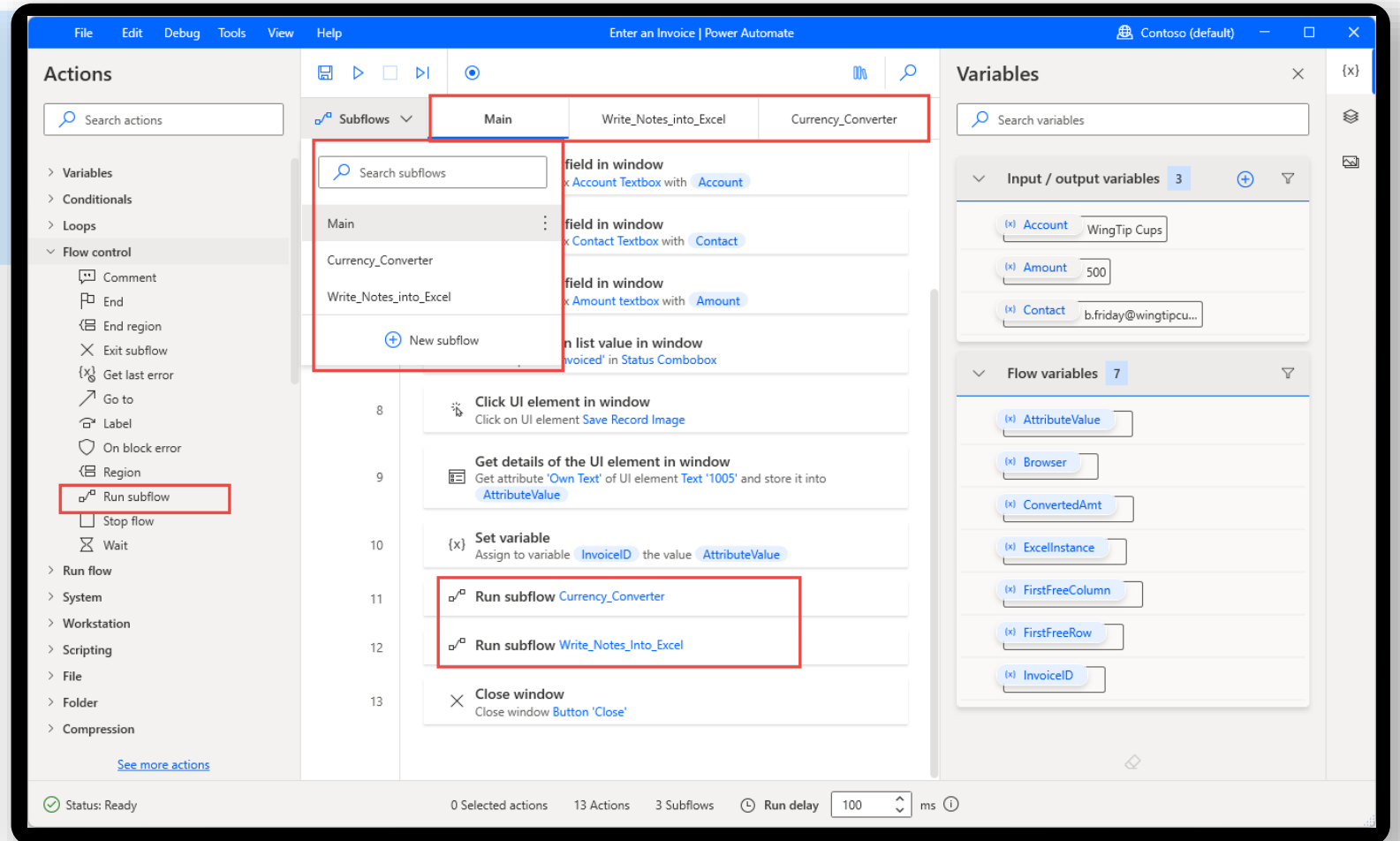


Better organization

Better readability

Better troubleshooting

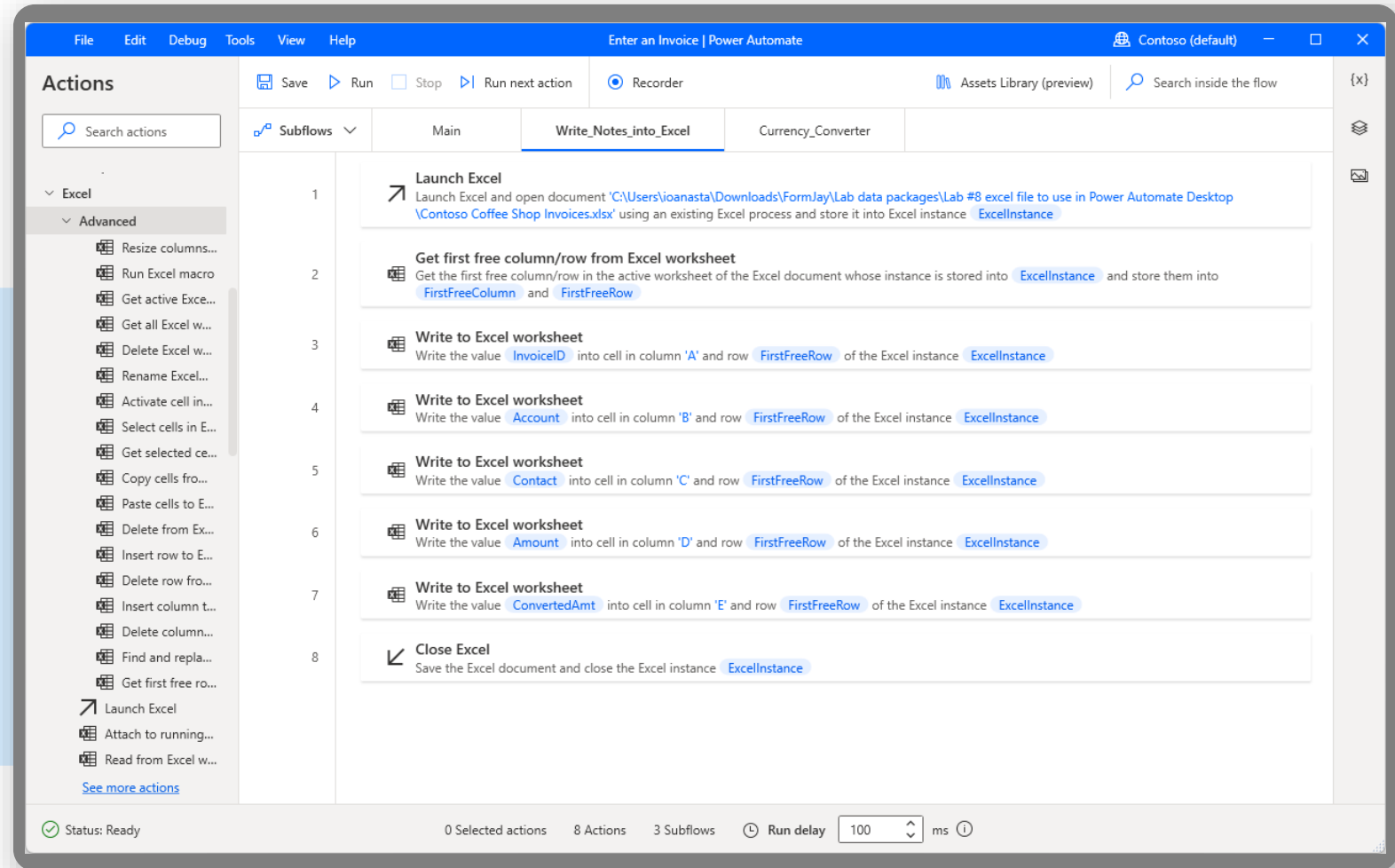
Reusability



Excel Automation



A wide range of excel actions that help automate any excel related task.



Web Automation



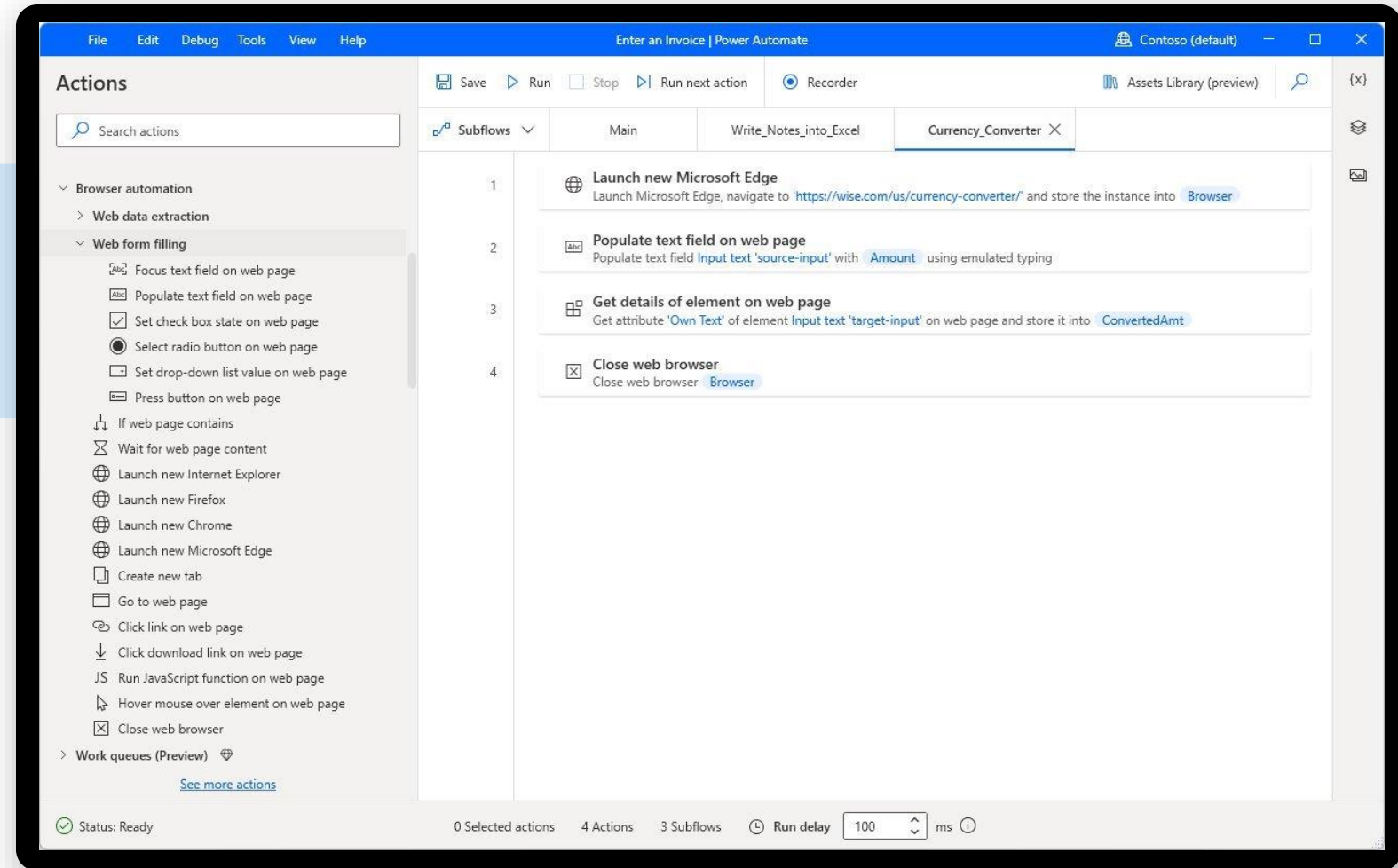
Web Automation supporting:
Edge, Chrome, Firefox browsers



Web data extraction

Web data filling

And any web related activity



AI builder using GPT



Get a response from GPT



Choose a template
or write your own instructions

Create text with GPT (Preview)

Get a response from GPT. [More info](#)

Instructions: Summarize the text below in less than two paragraphs
[Start of text]
Invoice Account: %Account%
Invoice Contact: %Contact%
Invoice Amount: %Amount%
[End of text]

Al-generated content can have mistakes. Make sure it's accurate and appropriate before using it. [Read preview terms](#)

Create instructions

Variables produced: PredictV2Response PredictV2TextResponse

On error Save Cancel

Create instructions

Try a template or write your own instructions

Summarize text

Respond to a complaint

Create blog posts

Extract information from text

Classify text

Sentiment analysis of text

Extract action points from a text

Reminder email message about a task

Fact checking Q&A hint

Resources

See documentation

Copilot



Let Copilot create a description

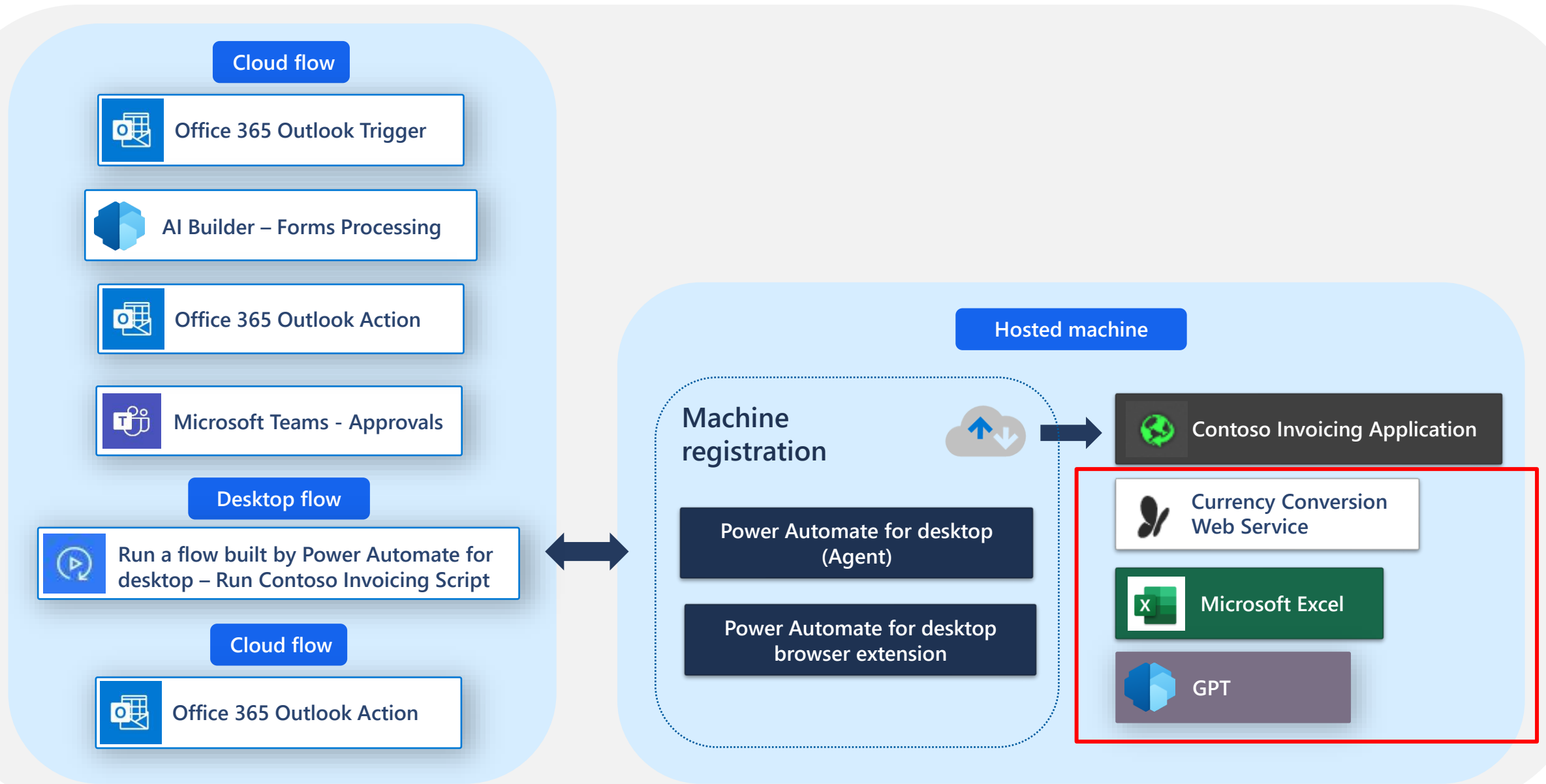


Better collaboration

Easy generation of the
description

A screenshot of the 'Edit desktop flow' dialog box in Microsoft Power Automate. The dialog has a title bar with a close button (X). It contains a 'Name' field with the text 'Enter an invoice' and a red squiggly line under 'invoice'. Below it is a 'Description' field with an information icon (i) and a large text area. At the bottom, there is a button with the Copilot logo and the text 'Let Copilot create a description'. Below the button is a toggle switch for 'On error, add screenshot to logs' which is currently turned 'On'. The background shows a blurred view of the Power Automate interface with sections like 'Shared with' and '7-day completed'.

Where are we in the scenario in this Lab?



Part IV

Hyperautomation

- Cloud Flows and triggers
- Intelligent Automation with AIBuilder
- Integration with Teams for Approvals

Ken Seong Tan

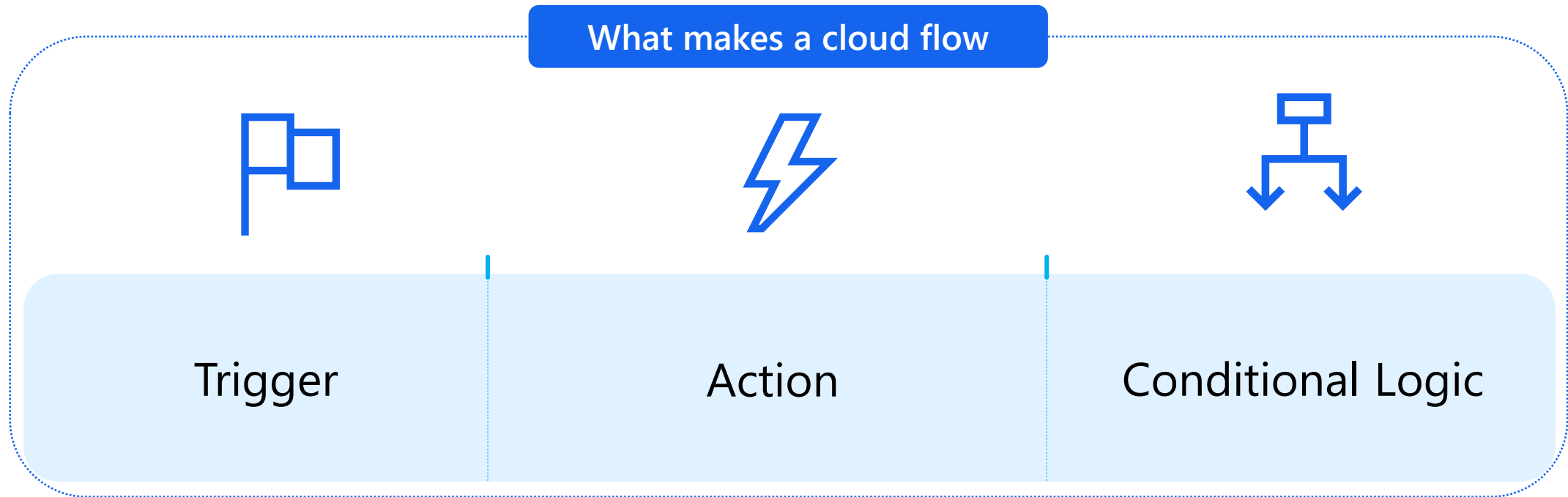
Lab 5

Cloud Integration (Outlook trigger) Machine connection and Attended execution

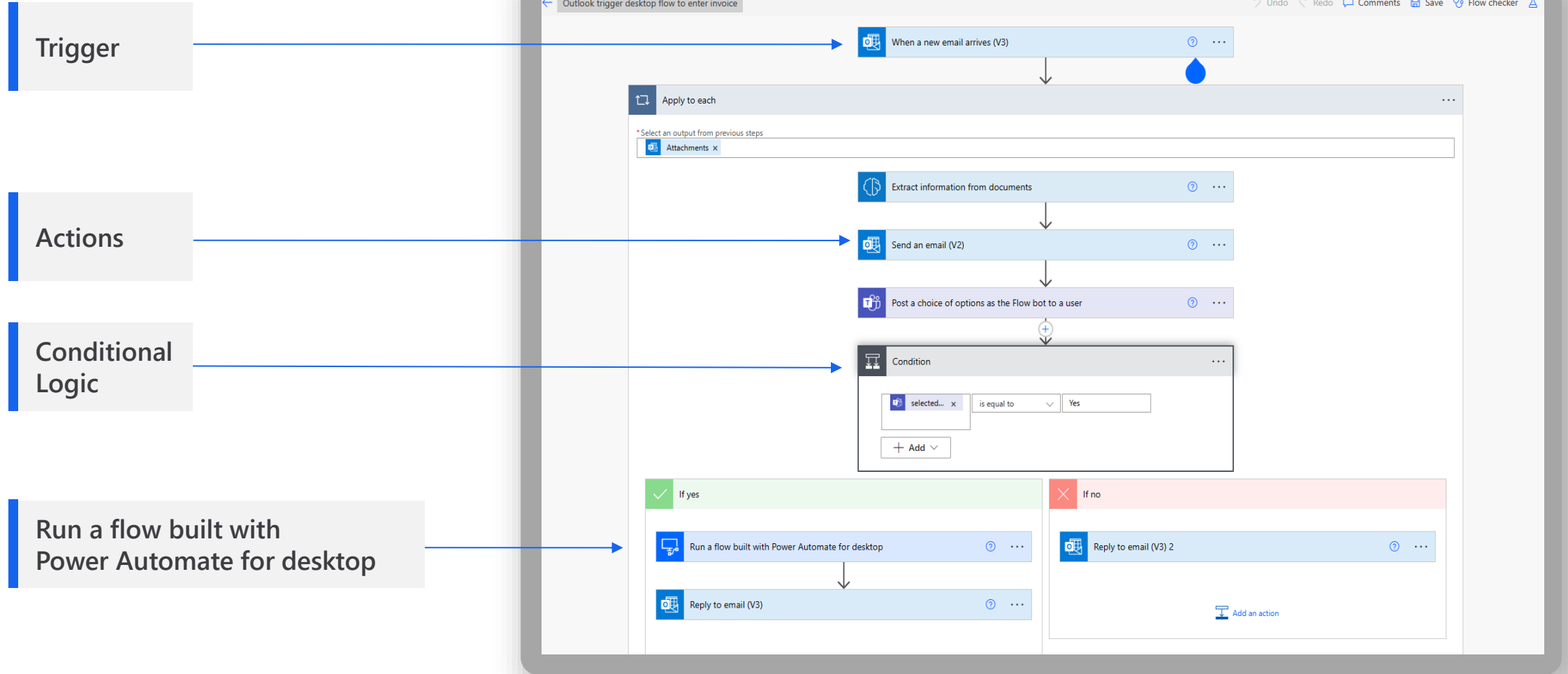
30 minutes

What is a Cloud flow?

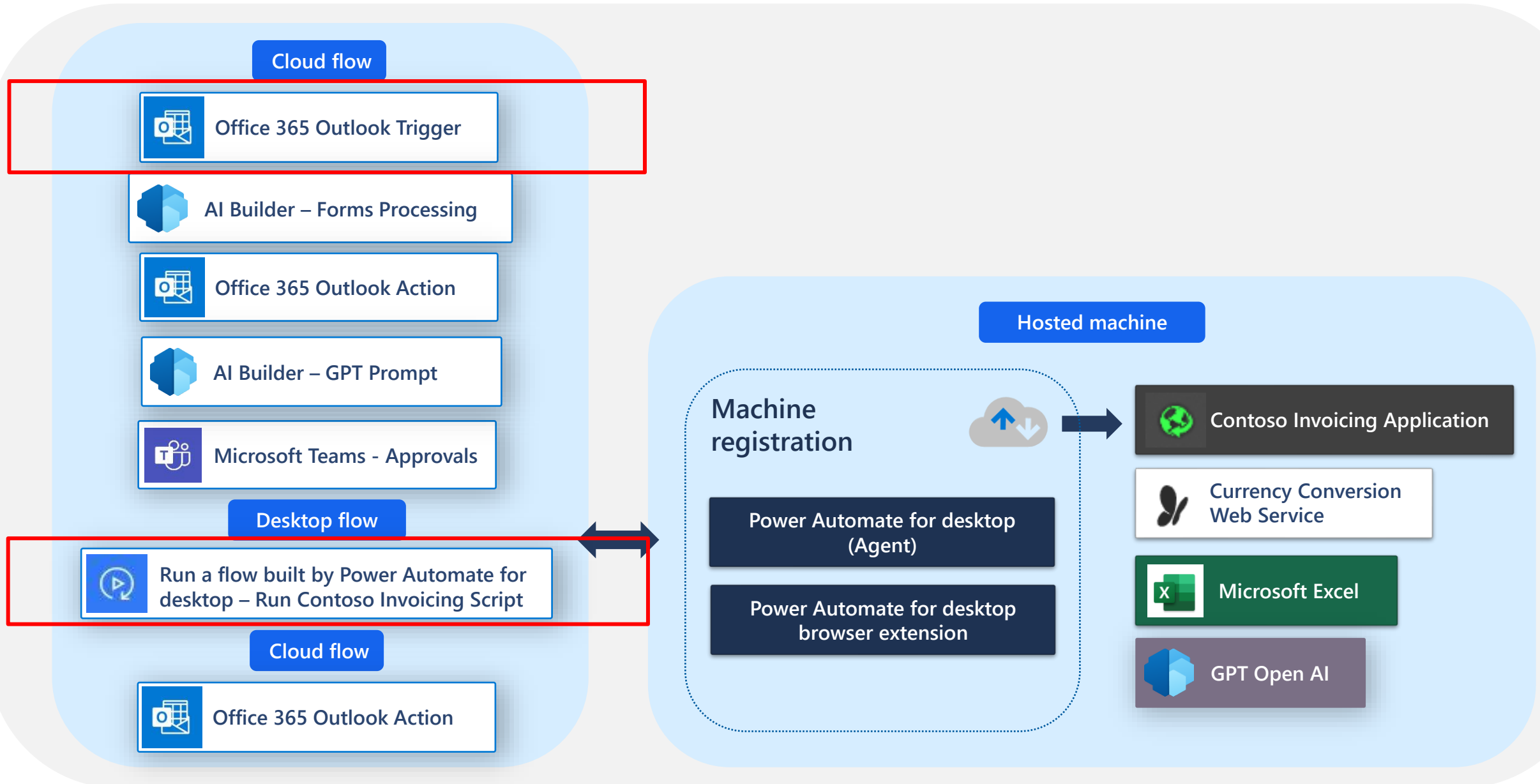
A cloud service that allows you to automate your business process



Cloud flow: Trigger - actions - conditional logic



Where are we in the scenario, in this Lab?



Lab 6

Intelligent Automation: AIBuilder

30 minutes

Tips & Tricks before you started

- ✓ You may need to turn the on AI Builder trial:

AIBuilder in Power Automate



No-code AI



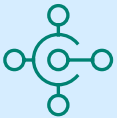
AI for many industry scenarios



AI for multiple industry vertical



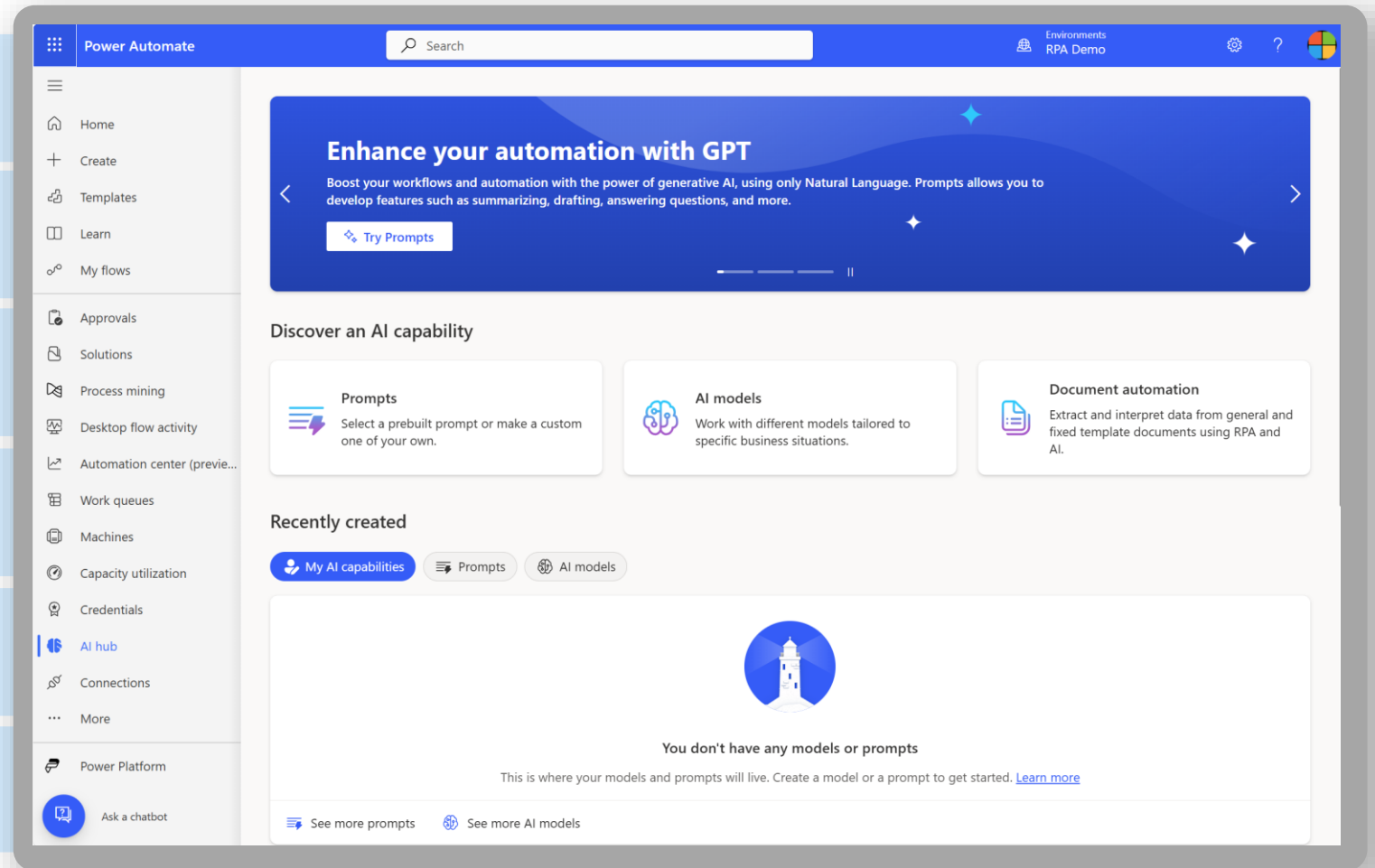
Pre-defined models and prompts



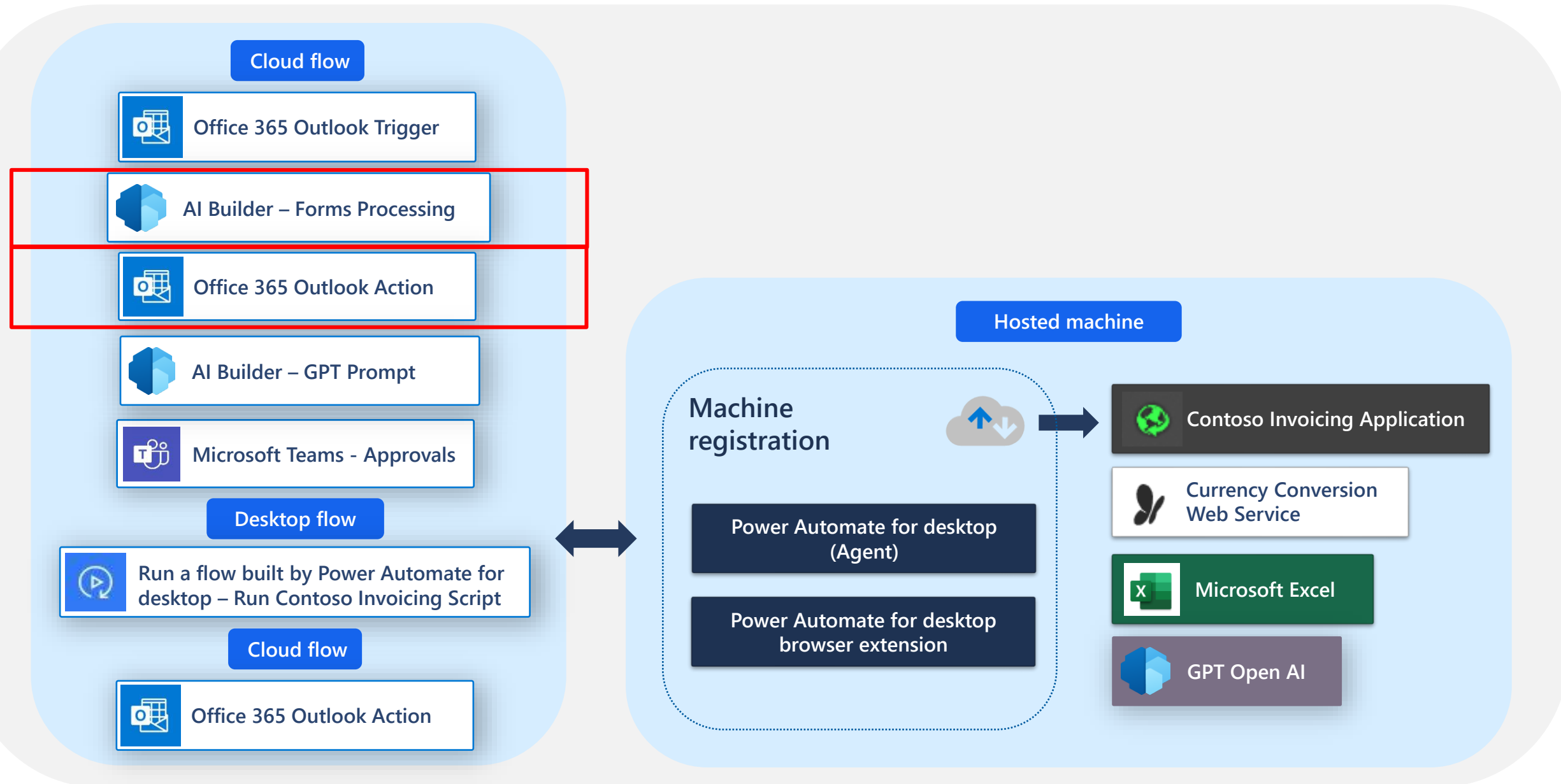
Create custom models and prompts



Integrate to flow and apps



Where are we in the scenario, in this Lab?

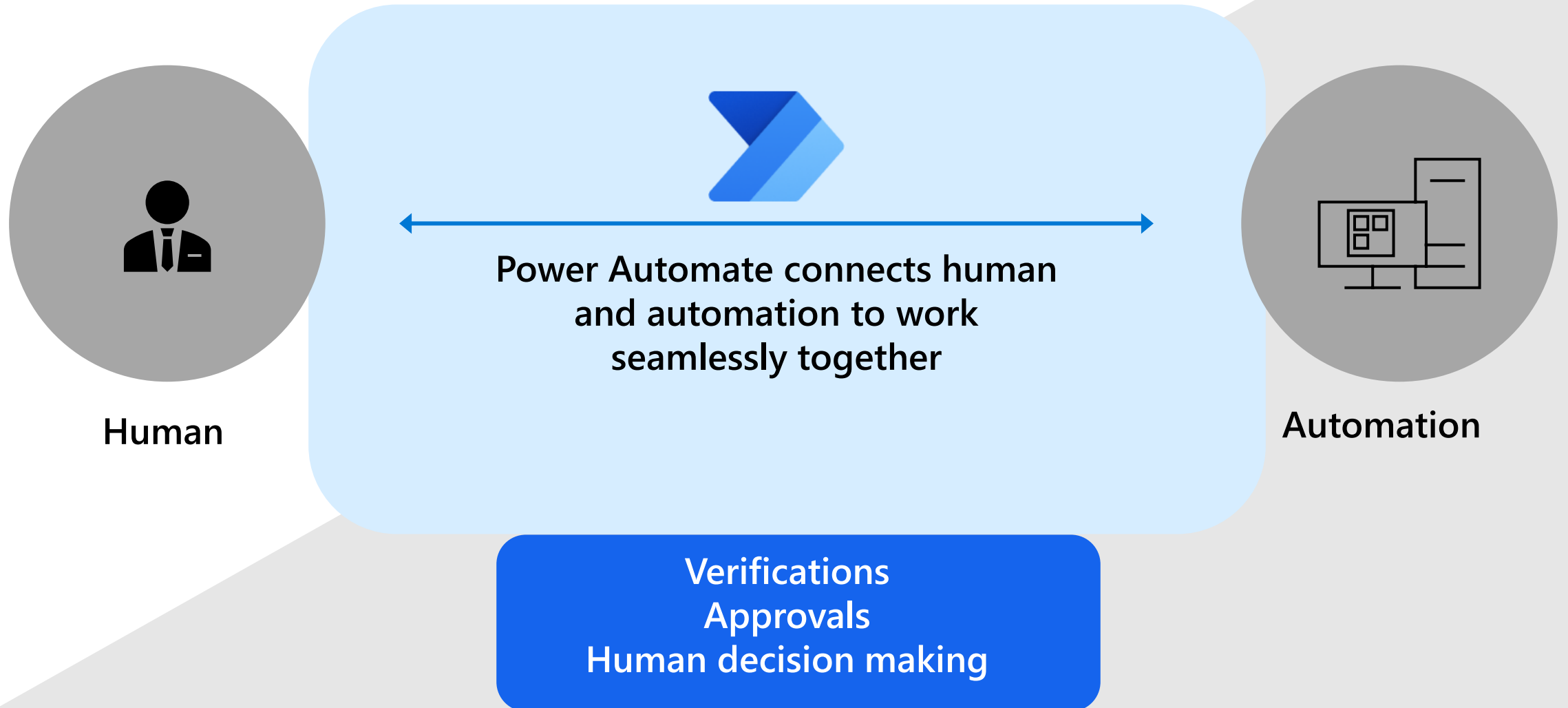


Lab 7

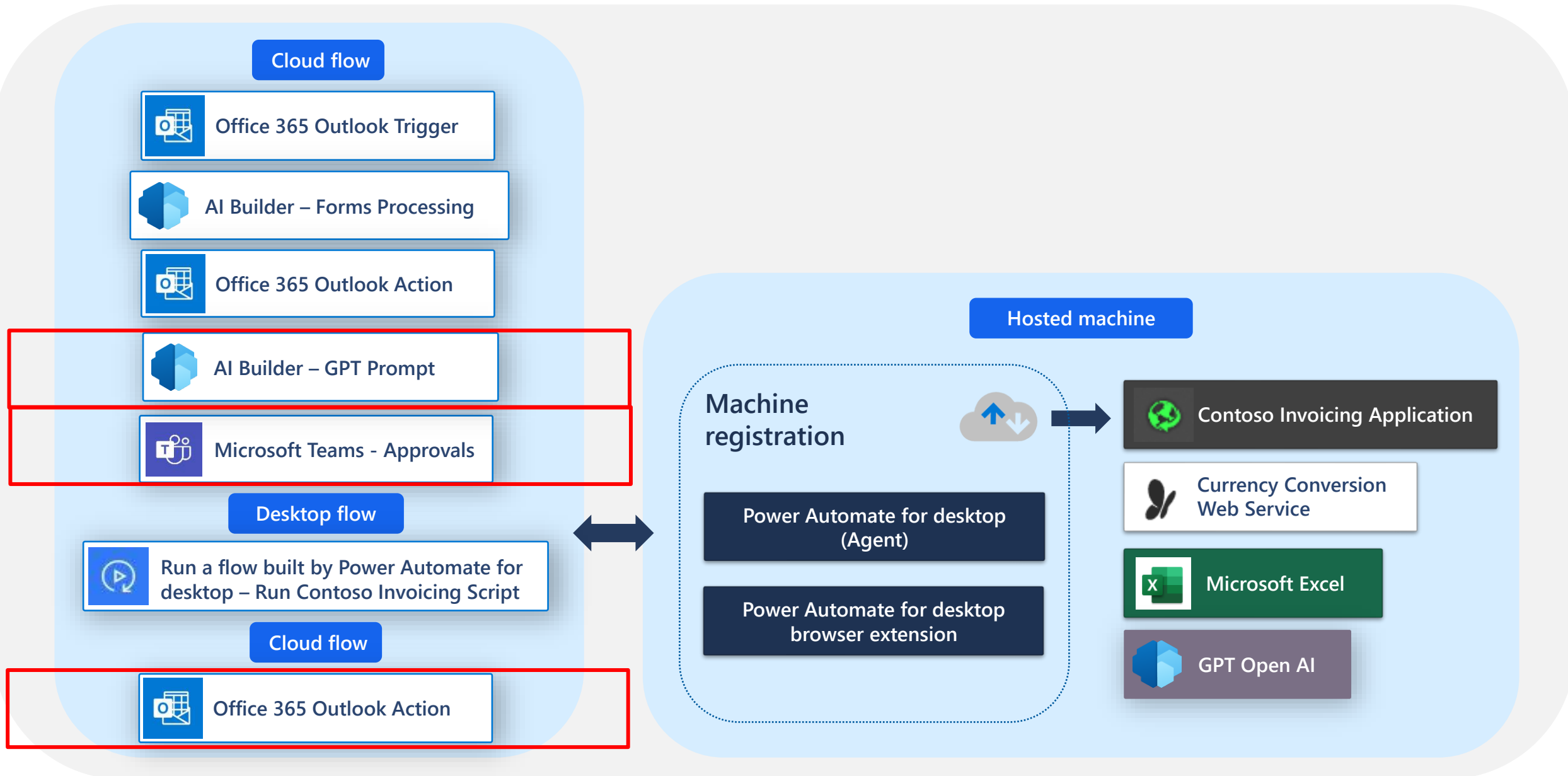
Integration with Teams for Approvals

30 minutes

Why we need to invite Human into the automation process



Where are we in the scenario, in this Lab?



Part V

Scale your automations and infrastructure

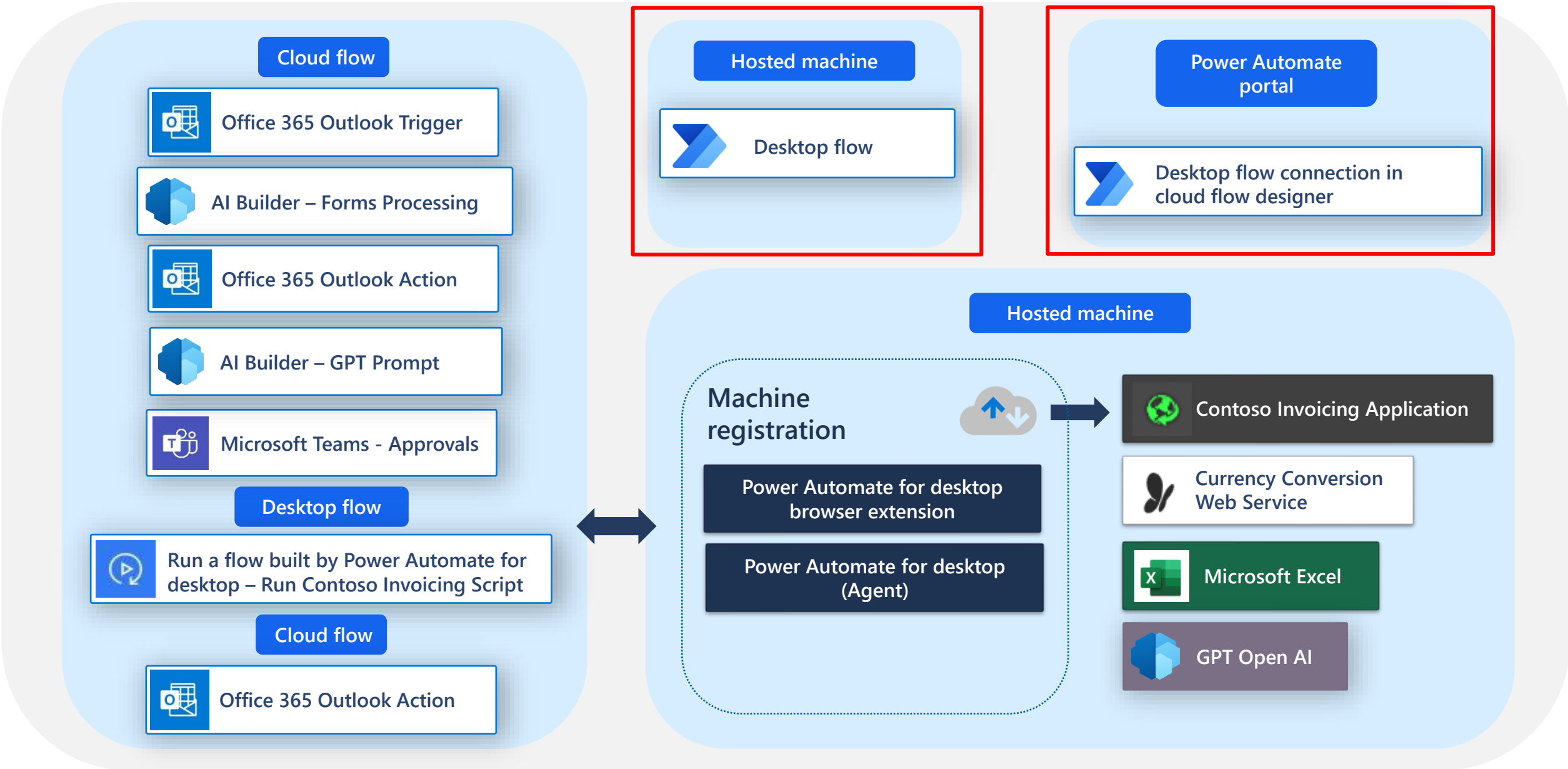
Ken Seong Tan

Lab 8

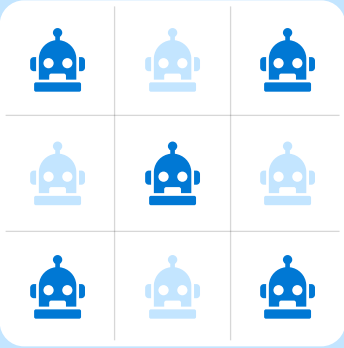
Unattended Automation and Work Queues introduction

30 minutes

Lab scenario – Invoice processing Solution Architecture



Scale your workloads with hosted RPA



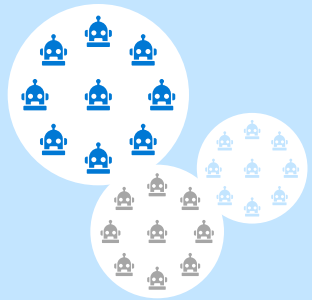
Single hosted machines

For pro and citizen developers

Build or test automation

For business users

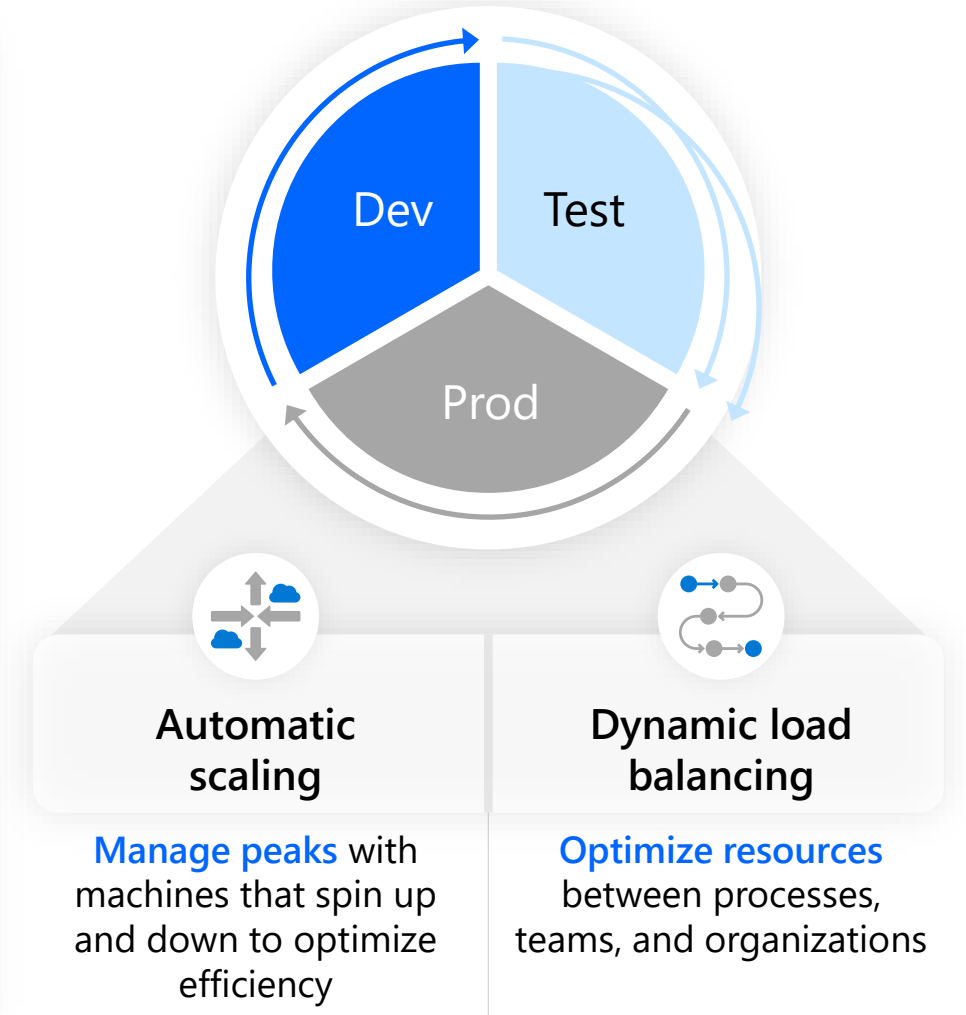
Run automation on dedicated machines



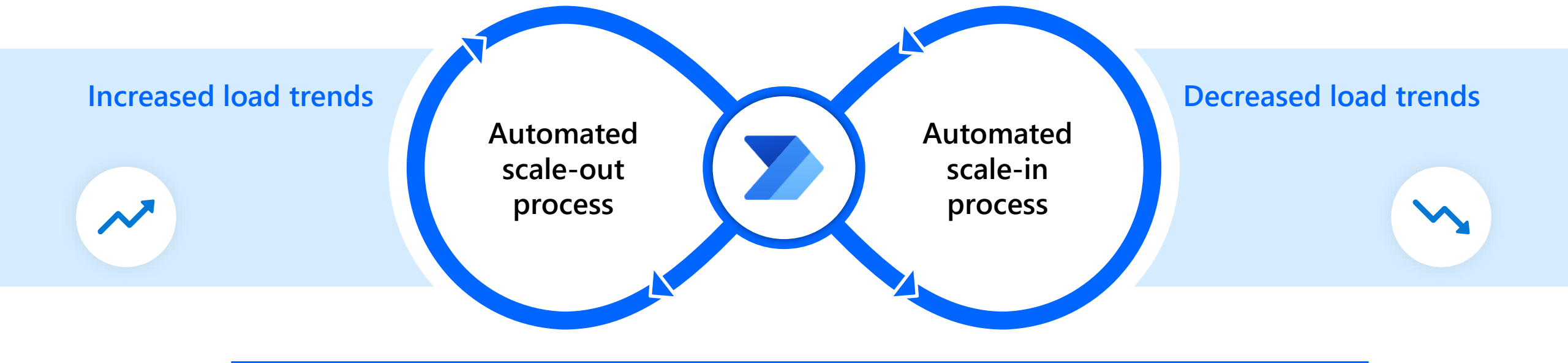
Hosted machine groups

For unattended automation in production

Optimize your resources for higher efficiency and lower cost



Hosted machine group: Unattended load-management



- Hosted machine group are **automatically scaled-out/in based on real-time load**
- The number of allocated capacity in an environment are **dynamically load balanced across the environment** ensuring available machines are efficiently utilized between hosted machine groups

Hosted RPA – Hosted machines

Desktop automation infrastructure
fully hosted by Power Automate

Seamless setup and orchestration

- No need to install or register Power Automate for Desktop
- **Custom VM images** to provision machine with specific applications & configuration
- **BYO VNet** support to connect to your local resources
- **Microsoft Entra hybrid join** support to connect to your AD domain

Now GA

The screenshot shows the 'Create new hosted machine' wizard in the Power Automate interface. The top navigation bar includes the 'Power Automate' logo, a search bar, and links for 'Environments' and 'Desktop flow activity b...'. The main heading is 'Create new hosted machine'. The current step is 'Step 1 of 4', titled 'Set up your new hosted machine'. A sub-heading reads 'Name and describe your hosted machine' with the instruction 'Enter a name for your hosted machine, then optionally add a description.' There are two input fields: 'Hosted machine name *' containing 'Mona Finance Dev box' and 'Description' containing 'Mona's dev machine for finance automation'. A 'Next' button is at the bottom right. A blue decorative wave graphic is on the left side of the form.

Hosted RPA – Hosted machine group

Auto-scaled desktop infrastructure
fully hosted by Power Automate

Seamless setup and orchestration

- No need to install or register Power Automate for Desktop
- **Custom VM images** to provision machine with specific applications & configuration
- **Entra ID Join with VNet** In Preview support to connect to your local resources
- **Bots are automatically load-balanced** based on workloads in environment

Power Automate

Search

Environments
RPA Demo

Create new hosted machine group

Step 3 of 7

Select bots usage

Bots in a group are created when needed. Whenever a desktop flow waits in the queue and no bot is available, a bot is created automatically.

A bot is created as long as the maximum number of bots for this group isn't reached and you have enough hosted process capacity assigned to your environment.

[Read more information about the licensing requirements](#)

Select the committed and maximum number of bots

Define the committed and maximum number of bots you want to assign to this group.

Note

- **Max Bots** allows your hosted machine group to scale beyond the number of Committed Bots, based on the available capacity in your environment. The Max Bots setting offers flexibility to handle increases in workload or unexpected demand surges
- **Committed Bots** (preview) guarantees the number of available bots during auto-scaling. This ensures that the necessary resources will always be available for processing your flows, providing consistent performance for your critical flows.
- Go to the [Capacity Utilization](#) page to view and manage your hosted process capacity utilization within your environment.

Maximum number of bots

20 bots

Committed number of bots

3 bots

Back Next Cancel

Work queues in Power Automate



Deep platform integration, built on Dataverse

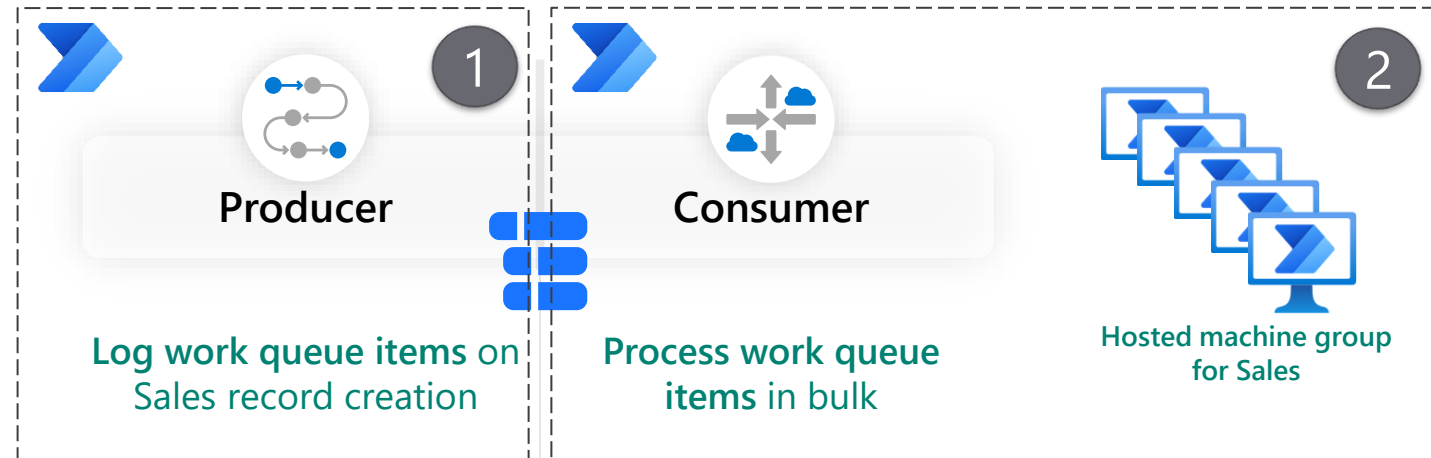
Producing or consuming work queue items can be done from wherever needed

- DPA-ready with Dataverse connector or Web API
- RPA-ready with dedicated PAD actions
- Bulk ingestion through Dataflows



Business team in control

- Sharing and access control via RBAC
- Define expiration dates and manage SLA
- Filtering and bulk status update
- Pause, resume, stop your work queue
- Put items on hold or requeue them



Example:

1. Produce items using a cloud flow
2. Consume them asynchronously from a desktop flow

Unattended automation & work queues

Exercise 1 – Use of hosted machine to run unattended automation

- Edit your desktop flow (and remove the Excel actions)
- Create a new cloud flow that calls your desktop flow to run on a hosted machine in unattended mode
- Test run.

Exercise 2 – Unattended automations at scale

- Create a hosted machine group
- Use this hosted machine group to run your automations at scale
- Test run.

Exercise 3 – Work queues

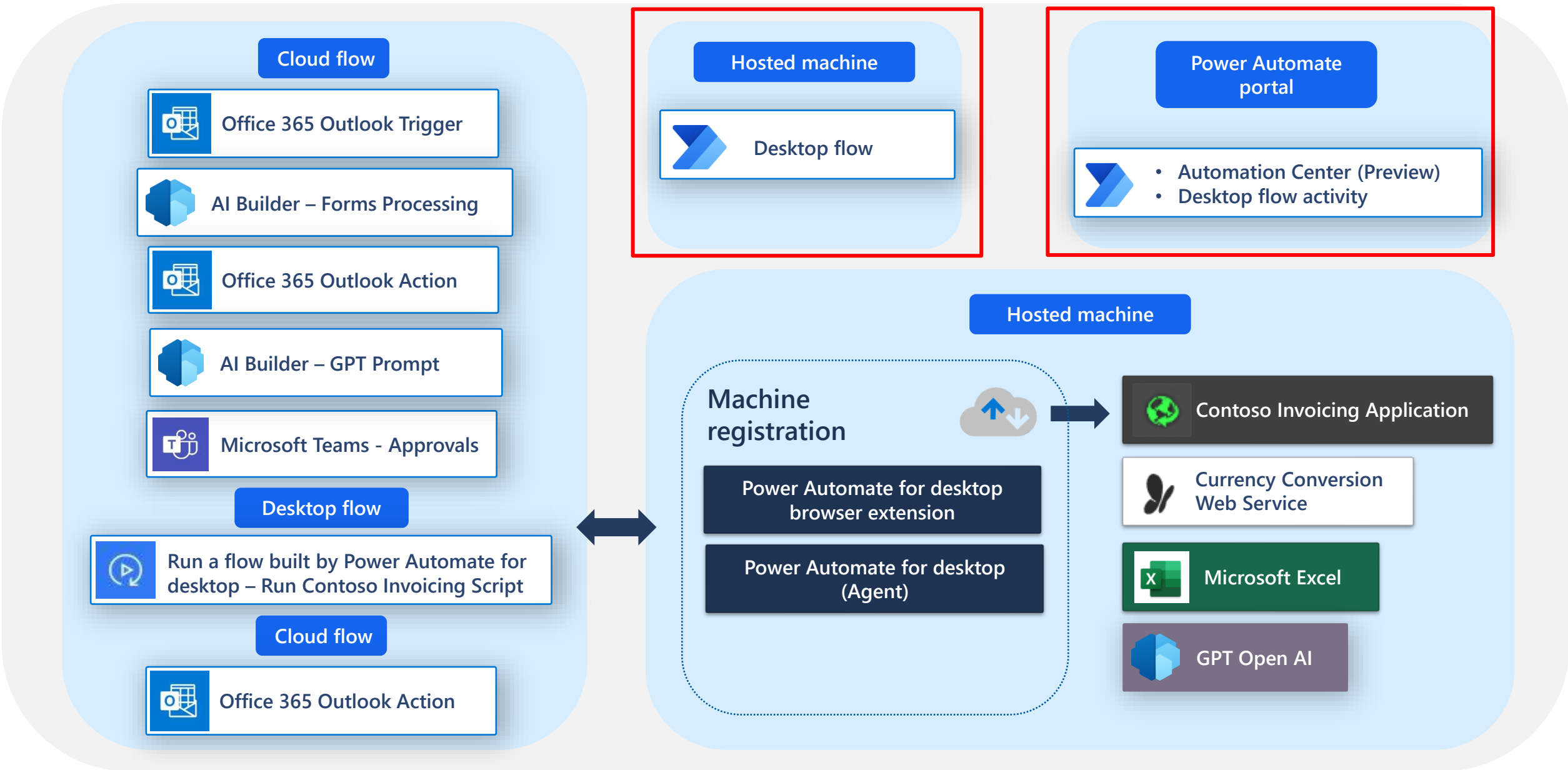
- Send an invoice via email to create a work queue
- Observe that the consumer cloud flow triggers a desktop flow run and marks the work queue item as processed once completed

Lab 9

Monitor or troubleshoot your automations

30 minutes

Lab scenario – Invoice processing Solution Architecture

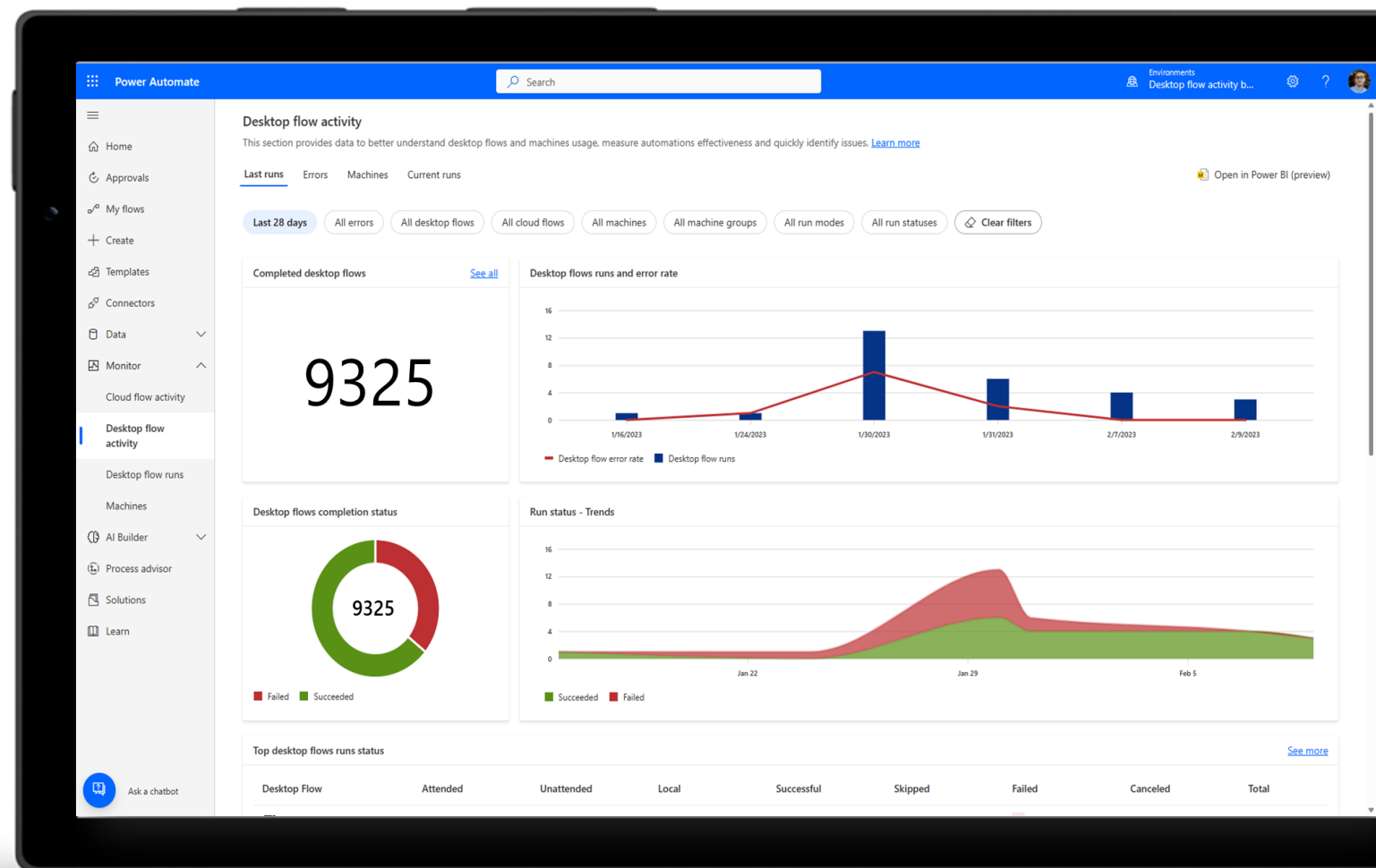


Desktop flow activity

Single pane of glass of all desktop automations in the environment

"Last runs", "current runs", "errors" and "machines" views

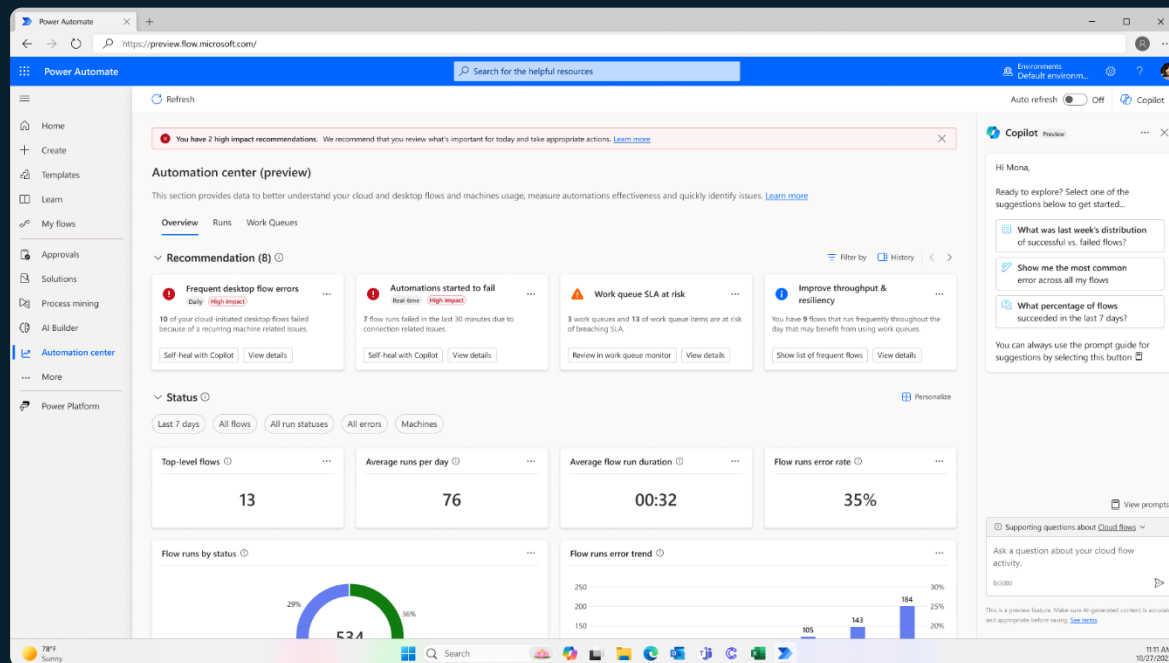
- Developers get support while building their automations
- Automation CoEs can monitor deployed automations
- Automation CoEs can monitor all machines registered in the environment (on-prem or hosted)
- Customizable Power BI template (Preview)



New

Automation Center

Now in public preview



Flow analytics and insights across your automations

Actionable recommendations to more easily prioritize and address critical issues

Integrated copilot to answer the questions you have about your automation health

Part VI

Copilot free lab

Copilot – Free lab (15 minutes)



Build, monitor and govern RPA with Copilot

AI Builder GPT

Easily add content processing and content generation capabilities like email classification or summarization



Help me understand

Ask any question from PAD, Cloud flow Designer or Automation center



Script generation

Copilot can help you generate DOS, VBScript, JavaScript, PowerShell or Python scripts in PAD



Next Best Action

Recommends you the next action to add in your desktop flow script



Flow definition

Generate a clean description of your desktop flow



AI Recorder

Next-generation Desktop automation creation. Show and tell Copilot what you want to automate.



New!

Natural language to Desktop flow

Simply type in what you want to automate, and Copilot will generate it for you with proper commenting



New!

How to write a good prompt

If the initial results aren't what you're looking for, try adjusting your prompt and running it again.

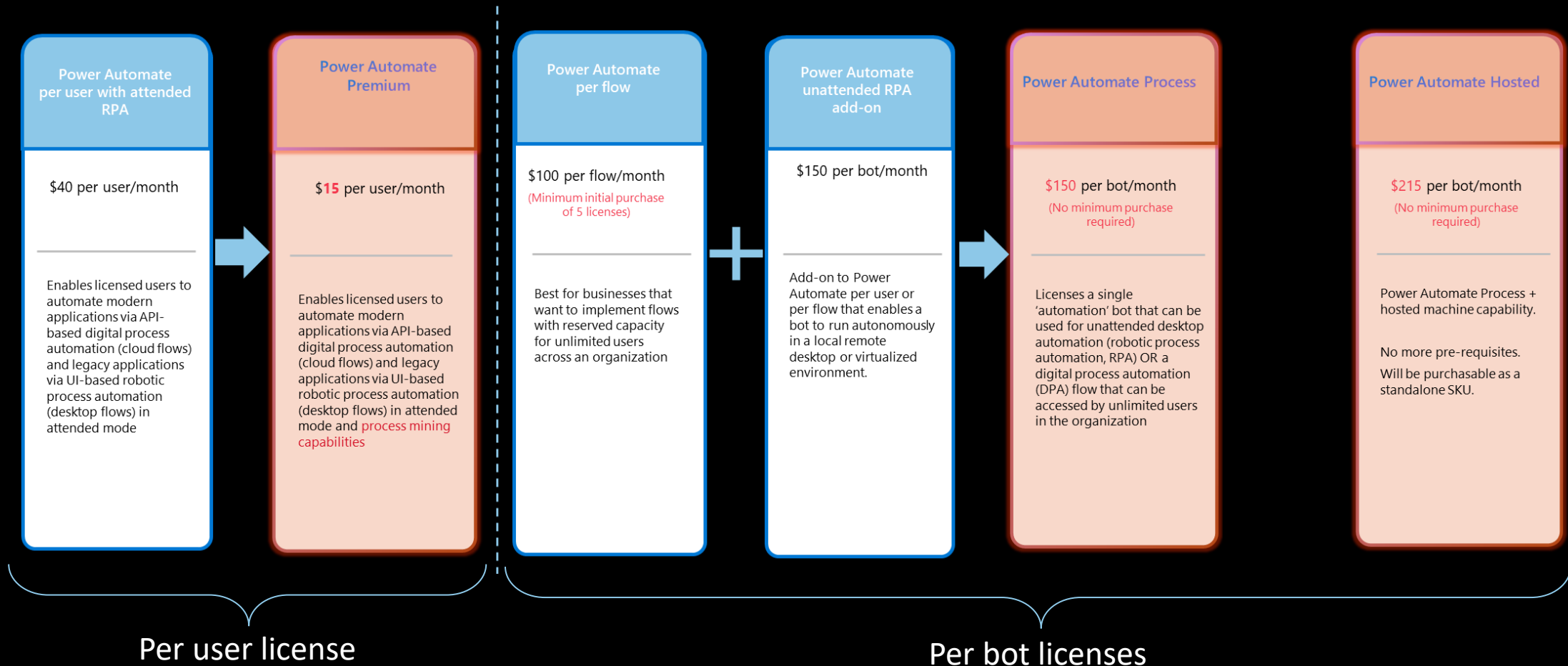
- Be as specific as possible. Instead of a generic prompt like, *Email an Excel file*, try the following prompt instead:
 - Send an email to sales@contoso.com from the account accounting@contoso.com with subject "Contoso sales data" and attach the Excel file in "C:\contoso\contoso.xlsx"
- Try tweaking your prompt to further fine tune.

Part VII

Closing

Licensing simplified

- 1 single per user license.
- 2 bot licenses (with or without a hosted machine).



PPCC 2024 - Power Automate

Thank you!

Help us improve, your feedback is critical.

4 minutes to fill in the survey:

<https://aka.ms/ppcc-pau-survey>



Q&A

Upcoming Intelligent Automations sessions

DAY / TIME	SESSION TITLE
------------	---------------

September 18

2:00pm – 3:00pm	Copilot beside me along my RPA journey
3:45pm - 4:45pm	Revolutionize the way you work with Power Automate and AI

September 19

8:00am – 9:00am	Supercharged organization Adopting Process mining at scale
9:15am – 10:15am	Migrating to Power Automate for desktop
11:15am – 12:15pm	Extend Copilot Studio with intelligent actions, workflows and Power Automate
2:00pm – 3:00pm	Automate Cloud Flows deep dive

September 20

10:15am – 11:15am	The ultimate guide to collaborating with Copilot in Power Automate
1:00pm – 2:00pm	Managing automation estate at scale
2:15pm – 3:15pm	Power Automate architecture deep dive
3:45pm – 4:45pm	Advanced document processing with AI and GPT

Thank you!