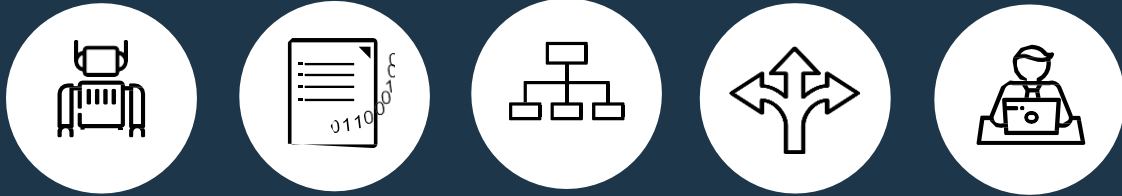


# Integrating RPA with App Connect

Use Case: Customer Refunds



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**outthink** limits

#IBMCloud

# New – RPA in App Connect

[IBM Cloud Paks](#) / [IBM Cloud Pak for Integration](#) / [2021.1](#) /

 [Feedback](#)  [Product list](#)

## What's new in the current release

### New features

IBM Cloud Pak® for Integration version 2021.1.1 adds these enhancements and new capabilities:

#### – [IBM Automation foundation](#)

This new offering enables the creation, deployment, and optimization of enhanced automation and AI features.

- **Deploys robotic process automation (RPA) capabilities**

This integration option enables the deployment of RPA features for screen scraping and metadata inference that extract data from legacy applications.

- **Adds ability to use Process Mining**

In the many integrations deployed in Cloud Pak for Integration, which comprise multiple steps, there may be opportunities for improvement. However, it can be difficult to understand where inefficiencies exist. Process Mining is an additional component that can identify areas where inefficiencies exist and can suggest improvements.

# Why RPA?

App Connect glues systems together.

BUT what about legacy systems?

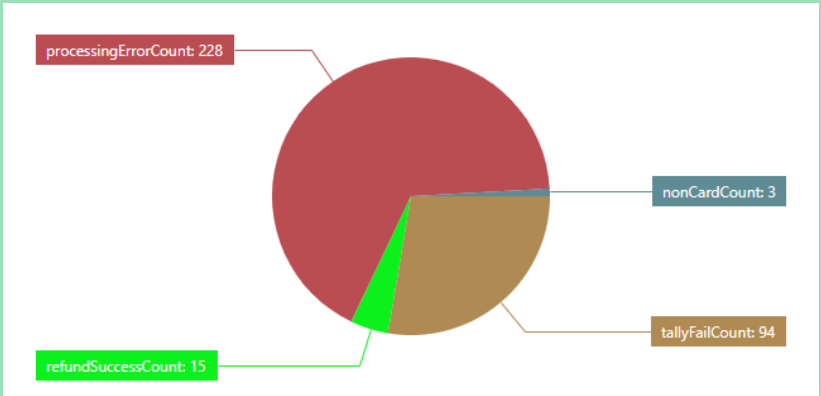
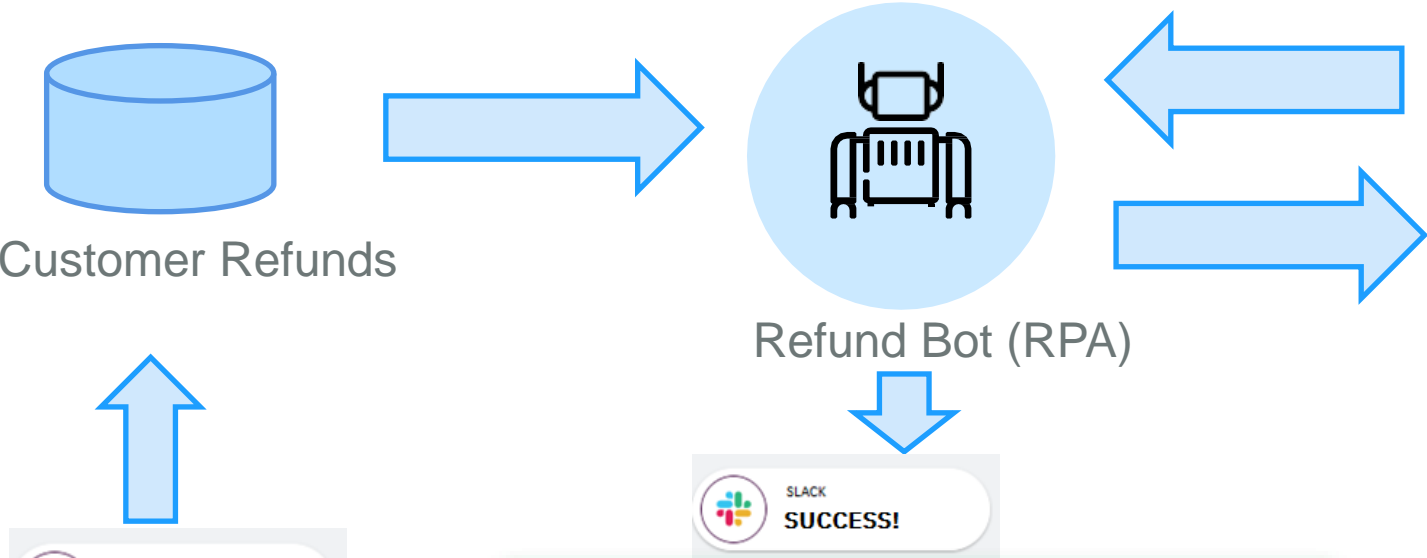
RPA allows App Connect to access legacy systems

RPA bypasses APIs and goes in via the standard user interface.

# Real Example: Customer Refunds

- Travel company affected by Covid
- Overloaded issuing manual refunds
- Refunds could not be automated through API as it did not exist!
- Solution was to automate using RPA
- This use case combines IBM RPA and App Connect on IBM Cloud

# Real Example: Customer Refunds



RPA Dashboard

The screenshot shows a "Refund Ticket" form. At the top, it says "CANCELLED - XXB00002 - 16/02/21". Below this is a "Manual Overrides" section with a dropdown menu set to "(D) Displaced Passenger" and a text field for "Override description" containing "Covid". A warning message states: "Override of refundable amount is not currently allowed for amended tickets". Below this is a "Select refund type..." section with two radio buttons: "Manual refund" (selected) and "Original payment method". Another warning message states: "Refund across multiple payment types required. All or a portion of this refund must be processed outside of this application". At the bottom is a "Summary of refund" table.

| Summary of refund         |         |
|---------------------------|---------|
| Previously paid           | £25.00  |
| Extras                    | £25.00  |
| Refund to NX Credit Agent | -£25.00 |
| Total Refundable          | -£25.00 |

Web Site

# Demo



FocusCorpRefunds

# App Connect and RPA Opportunities



**Customer has App Connect and systems with no API**

Use RPA with App Connect if you need to connect to systems without APIs

**Customer has RPA and complex integration**

Use App Connect with RPA if you have complex integration requirements

# IBM RPA

## Product

## Capabilities



### Unattended/Attended bots

- Unattended - automate repetitive tasks without human intervention.
- Attended - Enables human workforce to augment work using bots



### AI Capabilities

- Drag and Drop AI Commands for extraction, machine learning implementation, and applied knowledgebase AI
- Train Machine Learning engines in a straightforward native manner within Studio



### Intelligent virtual agent (IVAs) chatbots

- Combine chat and RPA commands to create chatbots through multiple channels that can provide engaging client interactions.



### Concurrent Execution

- Allow for multiple bots to run on the same machine at the exact same time.

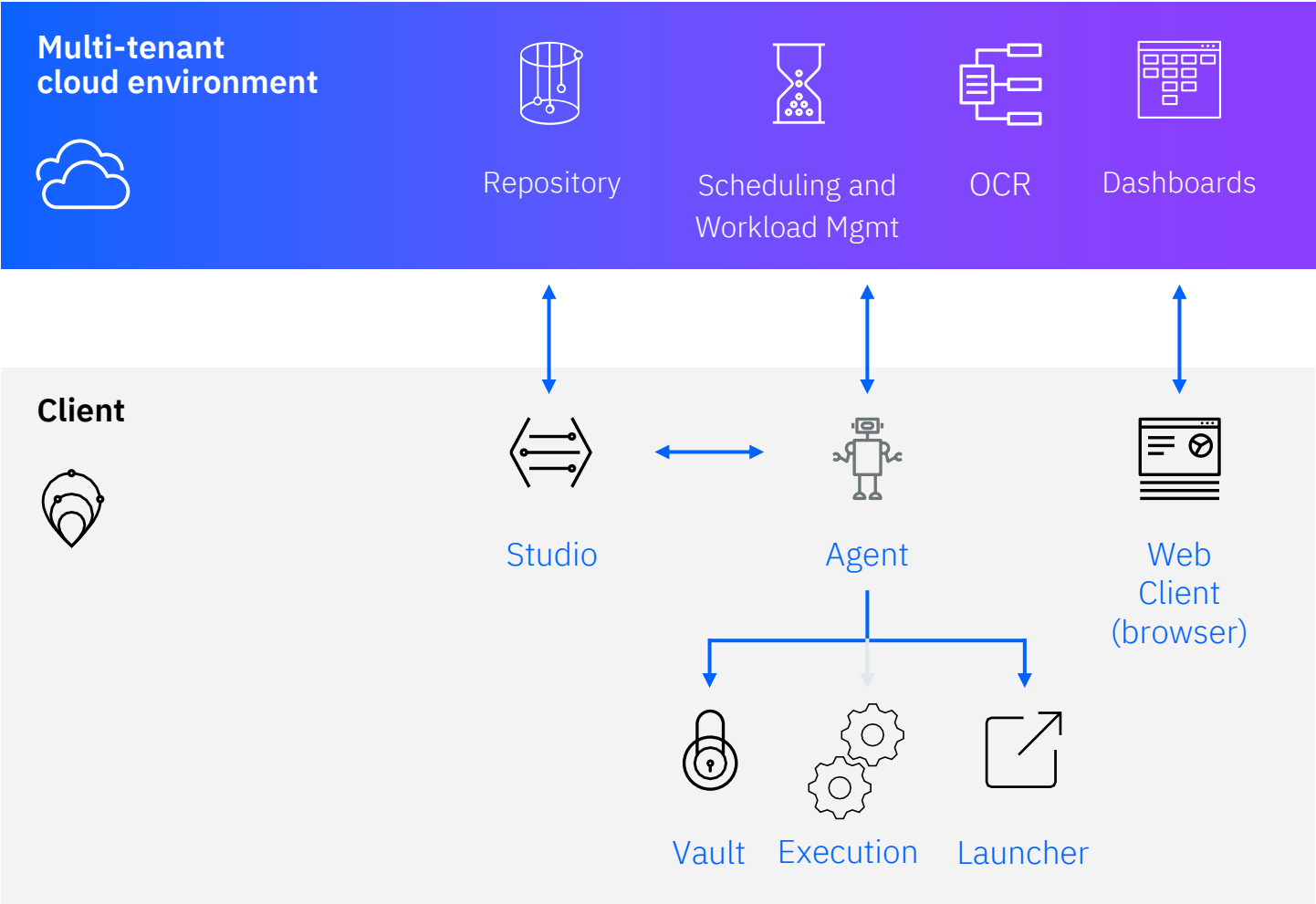


### Dashboards

- Gain business insights into business operations.
- Prebuild the dashboards with included easy-to-use creator



High level architecture:



# IBM RPA Studio

HomeViewToolsHelp

New

OpenSavePublishFile

New variableNew routineNew rule setCreate reportCreate text fileCreate workbookEdit

File

View ScriptRecorder

Variables visibleImports visibleHide description

StartToggle BreakpointDelete All BreakpointsAttach To Schedule...Attach To RuntimeDebugging

TicketRetrievalBot.wal\*

main...

11Run

Run C:\Users\fisher\Desktop\AI Processing\TicketRetrievalSystem.exe

12Find Window

Find the first window, matching title Incoming Tickets, class name WindowsForms10.Window.8.app.0.141b42a\_r7\_ad1, process name TicketRetrievalSystem and id Form1, assigning Window to \${vIncomingTicketApp}

13Get Table

Get the range and the value of an UI control, searching by XPath, assigning Table to \${vTable}

14Set Variable

Assigns \${vTable.Rows} to the variable \${vRowSelector}

15For

For \${vIndex} from 1 to \${vTable.Rows} step 1, do:

16Map Table Row

Map the contents of the row \${vIndex} from the data table \${vTable} using the mappings specified

17Answer Question

text\_kb\_version, assigning Answer to \${vTicketClassification} and Score to \${vTicketScore}

18Log Message

Logs \${vTicketScore} : \${vTicketDescription} : \${vTicketClassification} as Information

19If

If \${vTicketScore} is not Less than 25, then

20Run Subroutine If

Executes the routine sExtractAndAddUserToLDAP if \${vTicketClassification} is Equal to LDAP Add

21Click

Single click a control, refreshing the control lookup component, searching by XPath in the attached window simulating human

22End If

23Calculate Mathematical Expression

Evaluate the result of \${vRowSelector}-1, assigning Result to \${vRowSelector}

24Next

Assets

Search Assets

VariablesAssets

Routines

Search Routines

sExtractAndAddUserToLDAP

1 references

ToolboxKnowledge Bases

<> ScriptDesignerCall Graph

Output

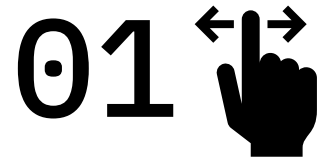
OutputError List

Item(s) removed

Ln 24Col -

2:18 PM3/12/2021

# IBM RPA Differentiators



## Ease of Use

Low-code enables business users to build bots



## Integration Points

Integrates with most IBM Cloud Paks, including CP4I.



## AI Processing

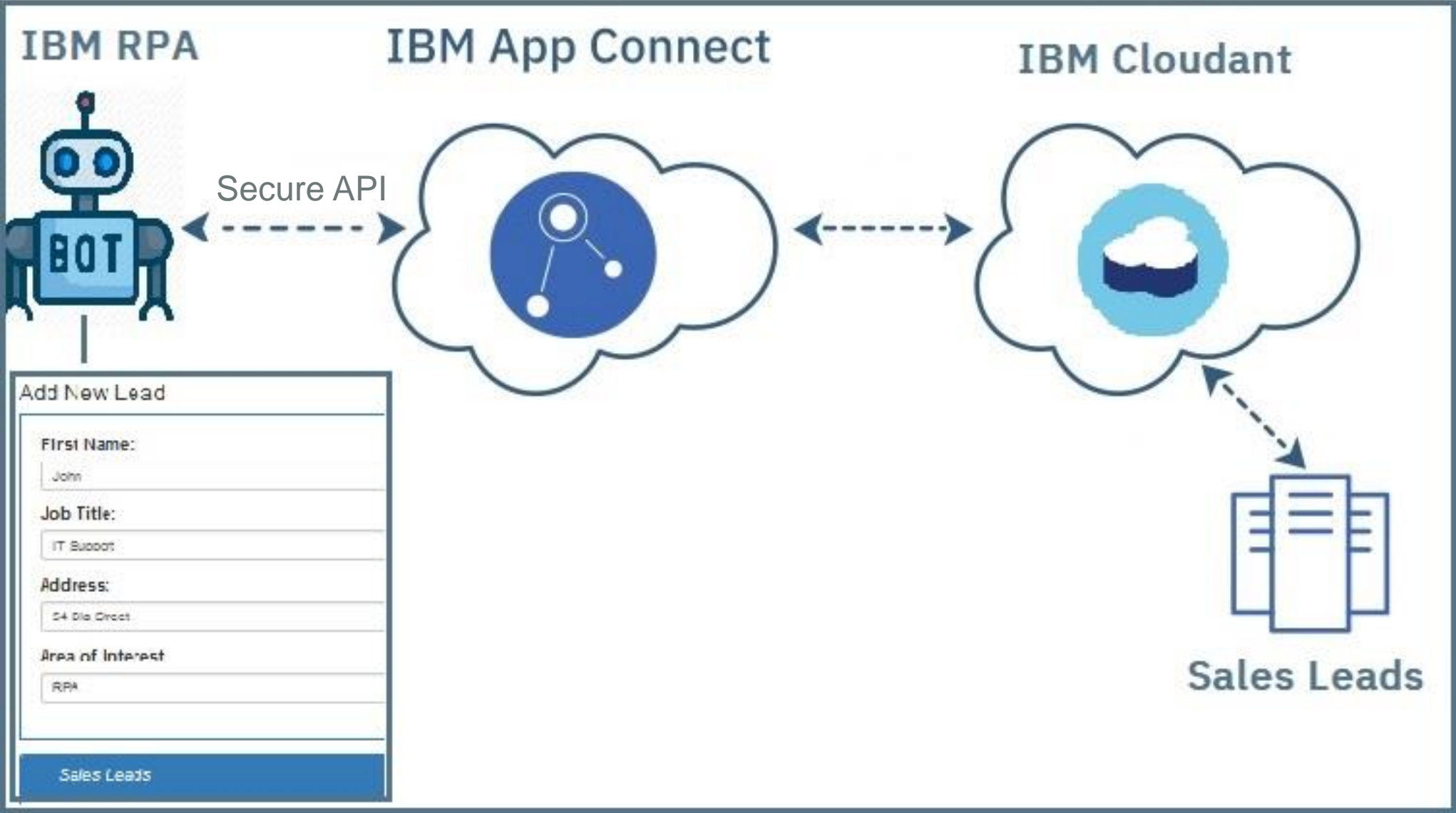
Native NLP and easy to use interface to build an exposable chatbot for both internal and external usage



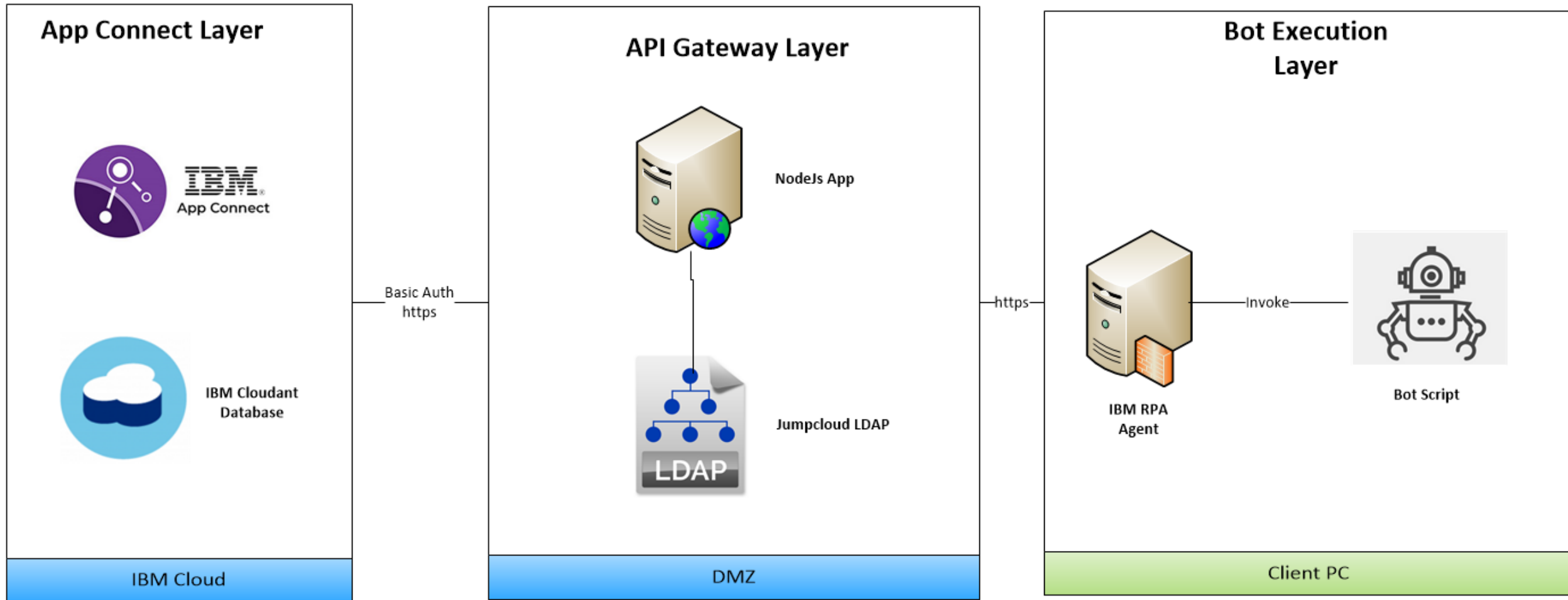
## Cost Savings & Scalability

Concurrent Execution allows for "doing more with less". Grow without infrastructure.

# Lab Solution Architecture



# RPA Enhanced Security Architecture



# RPA API



## RPA API

POST

/run script

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🔒

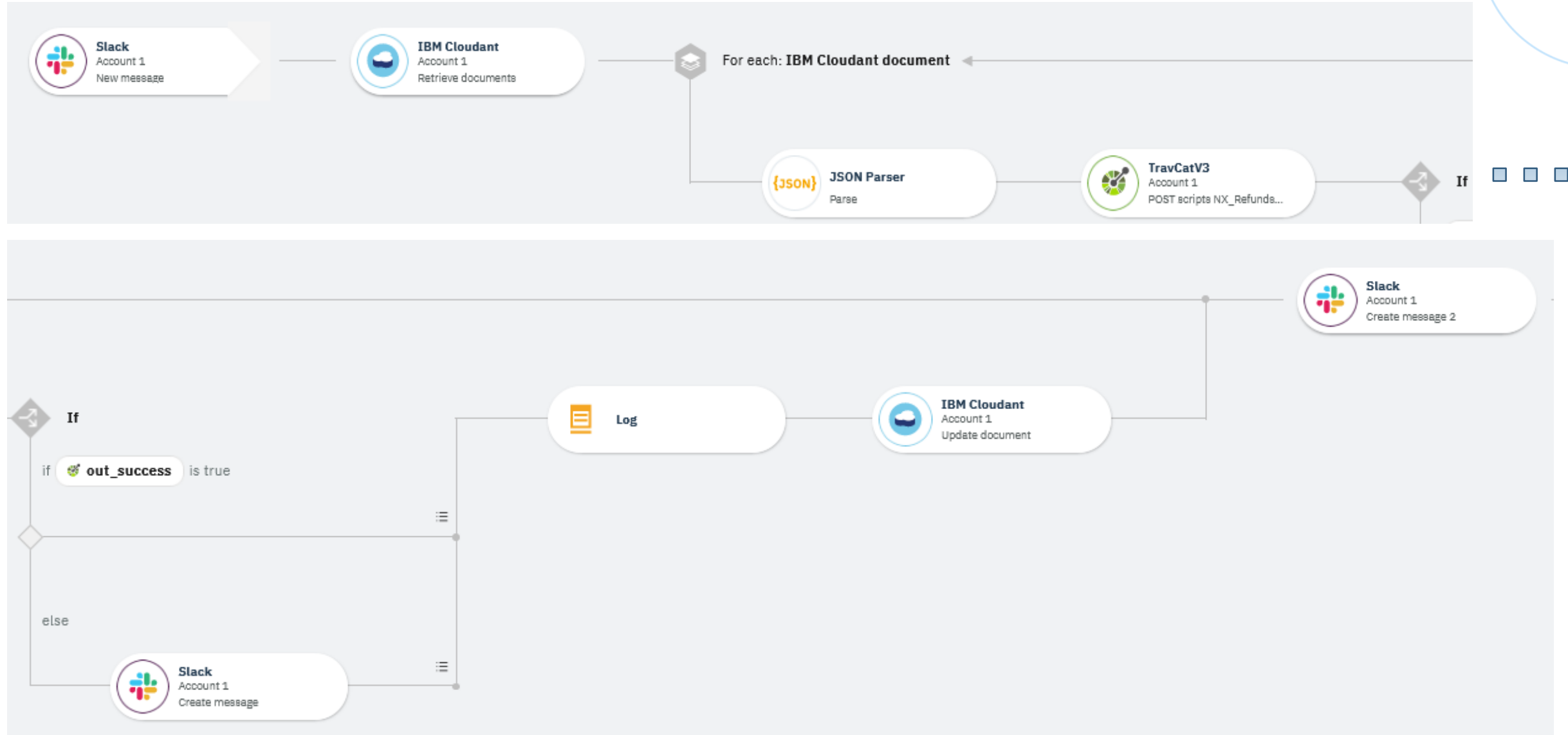
Runs a script on a RPA agent specified in the URL. All requests are authenticated using Basic Auth. These credentials are validated against an LDAP server

Parameters

Try it out

| Name  | Description   |
|---|---|
| <div><b>script</b> * required</div> <div>string</div> <div>(query)</div>        | <p>Bot script name to run. This script must be published on the tenant belonging to the host</p> <div>script - Bot script name to run. This script must be publish</div>  |
| <div><b>host</b> * required</div> <div>string</div> <div>(query)</div>          | <p>URL of the RPA agent. If host is LOOPBACK then 202 always returned to simulate a succesful bot run. If host is a URL, it must point to an RPA agent. It can point to either port 8099 (Direct) or 8096 (Broker). Script parameters are passed in the request body. See documentation <a href="https://www.ibm.com/docs/en/rpa/20.12?topic=bot-starting-bots-by-api-ca">https://www.ibm.com/docs/en/rpa/20.12?topic=bot-starting-bots-by-api-ca</a> for more details</p> <div>host - URL of the RPA agent. If host is LOOPBACK then 20:</div> |
| <div><b>unlockMachine</b> * required</div> <div>string</div> <div>(query)</div> | <p>True if unlock False otherwise</p> <div>unlockMachine - True if unlock False otherwise</div>   |
| <div><b>RequestBody</b> * required</div> <div>object</div> <div>(body)</div>    | <div><div>Default</div><div>Example Value   Model</div><div><pre>{   inputParameterName: inputParameterValue }</pre></div><div>Parameter content type</div><div>application/json</div></div>  |

# Implementation of flow in App Connect



# Summary



## Advantages

- Build App Connect flows to connect to API-less systems via the human interface
- Use RPA for what it does best – automate human actions and not complex orchestration

## Disadvantages

- RPA can already do what App Connect does (but complex)
- Management of the bot is delegated to App Connect
- Two products means two systems to manage, two log files etc.



End of Presentation

# App Connect with RPA Lab