

# LOW CODE DEVELOPMENT

## The Low Code Revolution and PDF

What does Low Code mean for PDF Developers and PDF Technology Companies?

Neil Pitman - Aquaforest Limited, an ORPALIS Company

**PDF**

**PDF Days Online 2021**

Gartner predicts that by 2025 :

70% of new applications developed by enterprises will use low-code or no-code technologies.



LOW CODE  
DEVELOPMENT

What is Low Code Development .... ?

...and what are the implications for  
PDF Developers and PDF Technology  
Companies?



LOW CODE  
DEVELOPMENT

- **Background :**
  - What is Low Code / No Code?
  - Low Code Platforms and Common Use Cases
  - Examples of PDF in Low Code Platforms
- **Technical Implementation :**
  - Building PDF Technologies into Low Code Platforms
- **The Future of Low Code and PDF**



# Where are we today?

Surging digital  
demand

**500m**  
more apps

Not enough  
developers

**1M**  
developer shortfall

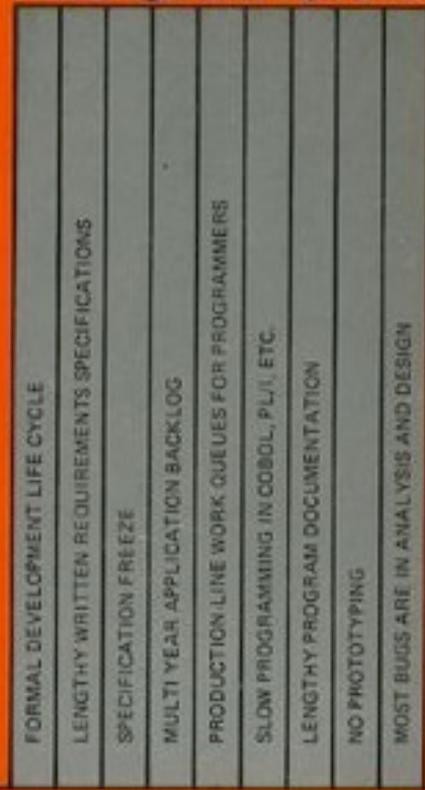
# What is the solution?

~~Teach everyone~~  
~~to code~~

Turn everyone  
into a developer  
with low code

# Have we been here before?

## APPLICATION DEVELOPMENT WITHOUT PROGRAMMERS



JAMES MARTIN

410

New Scientist 13 August 1981

## T E C H N O L O G Y

### A terminal case for programmers?

A COMPUTER program designed to create other programs finally emerged last week after months of the sort of promotional brouhaha usually reserved for cars or film stars.

The program, grandly titled The Last One, can generate computer code in BASIC from English language instructions and its developers describe it as being able to produce "all the programs you'll ever need for £260" (Technology, 22 January, p 214).

In fact for the moment The Last One is really confined to producing programs concerned with handling files—the commonest job for computers. Selecting actions from menus displayed on a screen, computer operators can create programs that will set up files, perform simple calculations and display the results.

The Last One also helps to modify programs that have been produced in this way. The Last One's owner—DJ AI Systems—claims that it can cut the time taken to program a microcomputer from weeks to a matter of hours by doing away with the need to write and "debug" computer code manually.

Although The Last One, which will run on Tandy, Apple, Pet, Ohio Scientific and Sharp computers, is supposed to be for people with little knowledge of programming, it seems likely that dealers in microcomputers will adopt it to produce cheap business programs tailored to professional users' needs.

Seven years in the making, The Last One has suffered a series of delays and even now will not be available for another

De Havilland



three weeks. Its creator is David James, a bankrupt, former millionaire with only a week's formal training in computers. In partnership with Scotty Bambury, a Somerset tyre dealer, James and a team of programmers have been wrestling with The Last One for 18 months.

One of DJ AI's frustrated customers meanwhile announced a spoof product called PT double O (Pull The Other One), which would not only do away with programming, but systems analysis too. To date, DJ AI Systems has spent over \$1 million on advertising. This has generated \$6 million worth of advance orders, and some less than friendly interest from the Advertising Standards Authority.

The Last One is certainly not the only program generator around. Products like Genasys, Pearl and Filetab do similar things and as long ago as 1969, a program generator called Dataflow was supposed to do the same job for main-

frame computers. Its importance is that it has shown the need to make programming accessible to people with little skills. Program generators are systems analysts, who have been driven out of a job but they are now making the business of coding much easier. System analysts accounts for 40 per cent of the time spent on programming and correcting mistakes of the time.

The Last One, however unproven. Not a single person has tried it yet, but it runs the National Institute of Microsystems centre demonstrations of the program commented: "I'm a bit sceptical, but I would rather see The Last One than any other program of different machine architecture."

```

A:A1: 'EMP
Worksheet Range Copy Move File Print Graph Data System Quit
Global Insert Delete Column Erase Titles Window Status Page Hide
A A B C D E F G
1 EMP EMP NAME DEPTNO JOB YEARS SALARY BONUS
2 1777 Azibad 4000 Sales 2 4000 10000
3 81964 Brown 6000 Sales 3 45000 10000
4 40370 Burns 6000 Mgr 4 75000 25000
5 50706 Caesar 7000 Mgr 3 65000 25000
6 49692 Curly 3000 Mgr 5 65000 20000
7 34791 Dabarett 7000 Sales 2 45000 10000
8 84984 Daniels 1000 President 8 150000 100000
9 50937 Dempsey 3000 Sales 3 40000 10000
10 51515 Donovan 3000 Sales 2 30000 5000
DATA.WK3
    
```

```

C11 (L) TOTAL
ITEM NO. UNIT COST
BUCK RAKE 4 1 4.00 4.00
BUZZ CUT 25 1 4.00 100.00
TOP TONER 1 12 12.00 12.00
EYE SNUFF 4 4.00 16.00
SUBTOTAL 131.00
9.75% TAX 12.72
TOTAL 144.38
    
```

```

HOME BUDGET, 1979
MONTH NOV DEC TOTAL
SALARY 2500.00 2500.00 30000.00
OTHER
INCOME 2500.00 2500.00 30000.00
FOOD 400.00 400.00 4800.00
RENT 350.00 350.00 4200.00
HEAT 110.00 120.00 575.00
REC 100.00 100.00 1200.00
TAXES 1000.00 1000.00 12000.00
ENTERTAIN 100.00 100.00 1200.00
MISC 100.00 100.00 1200.00
CAR 300.00 300.00 3600.00
EXPENSES 2460.00 2470.00 28775.00
REMAINDER 40.00 30.00 1225.00
    
```



LOW CODE  
DEVELOPMENT

- This trend is disrupting traditional patterns of software development
- Shifting development towards cloud-based low-code platforms.
- Adoption of Low-Code application development by IT teams and “Citizen IT”.

# What is Low Code / No Code?

- Low-code development is a way for developers to design applications quickly and with minimum hand-coding.
- With the use of drag-and-drop features, lego-like intuitive components and business process maps, **everyone** can create custom digital solutions for their needs.
- Low Code allows businesses to rapidly address their challenges by coming up with quick digital solutions that require no deep coding knowledge.

# No Code vs Low Code

## ■ No Code

- Citizen developers require little training
- Limited control
- Tactical Apps, Point Solutions
- Shadow IT

## ■ Low Code

- Professional developers or “advanced” Citizen developers
- More control and flexibility
- Part of core systems
- Extension of IT team’s capabilities

# “Citizen Developers”



- Pros
  - Less IT Investment
  - Speed
  - Tap into staff knowledge
  - Customize
- Cons
  - Training
  - Governance
  - IT Sprawl
  - Security Issues

# Low Code Platforms & Use Cases

- Web Applications
- Process Automation
- Document Processing
  - PDF Generation
  - PDF Data Extraction
  - PDF Manipulation and Conversion



# LCNC Extensions and PDF



## Microsoft Power Automate

The screenshot shows the Microsoft Power Automate interface with a search for 'pdf' in the Connectors tab. The results are as follows:

Connector Name	Icon
Adobe PDF Services	Adobe PDF Services icon
Encodian	Encodian icon
SproketPowerActions	SproketPowerActions icon
WorkPoint	WorkPoint icon
CivicPlus Transform	CivicPlus Transform icon
CQC Data (Independent...)	CQC Data icon
Integrable PDF	Integrable PDF icon
Muhimbi PDF	Muhimbi PDF icon
PDF Blocks	PDF Blocks icon
Cloudmersive PDF	Cloudmersive PDF icon
Aquaforest PDF	Aquaforest PDF icon
Harness PDFx	Harness PDFx icon
Dokobit Portal	Dokobit Portal icon
PDF4me Connect	PDF4me Connect icon
Xbridger Document Manager	Xbridger Document Manager icon
PDF4me	PDF4me icon

## Zapier

The screenshot shows the Zapier interface with a search for 'pdf'. The results are as follows:

App Name	Label
pdfFiller	
PDFMonkey	
PDF.co	
PDF4me	
Doclift PDF	BETA
PDF Blocks	BETA
Datalogics PDF Utility	BETA

## Salesforce

The screenshot shows the Salesforce AppExchange interface with a search for 'pdf'. The results are as follows:

App Name	Description
Easy PDF	
Native Document Generation & E-Signature: PDF, Word, XLS, Email, Reports: S-D	
PDF Butler - Salesforce Document Generation   PDF, Word, Email & Excel Genera	
GoCloudz CPQ - PDF Generator for Salesforce	
Docs Made Easy - Document Generation & invoices, PDF, Docx, HTML Creation A	
customate - customized and automated PDF creation from Salesforce	
TS Documents - Easy Automated Document Generation App to Generate Pdf   V	
Knowledge Article PDF	

# Examples: PDF in Low Code Platforms

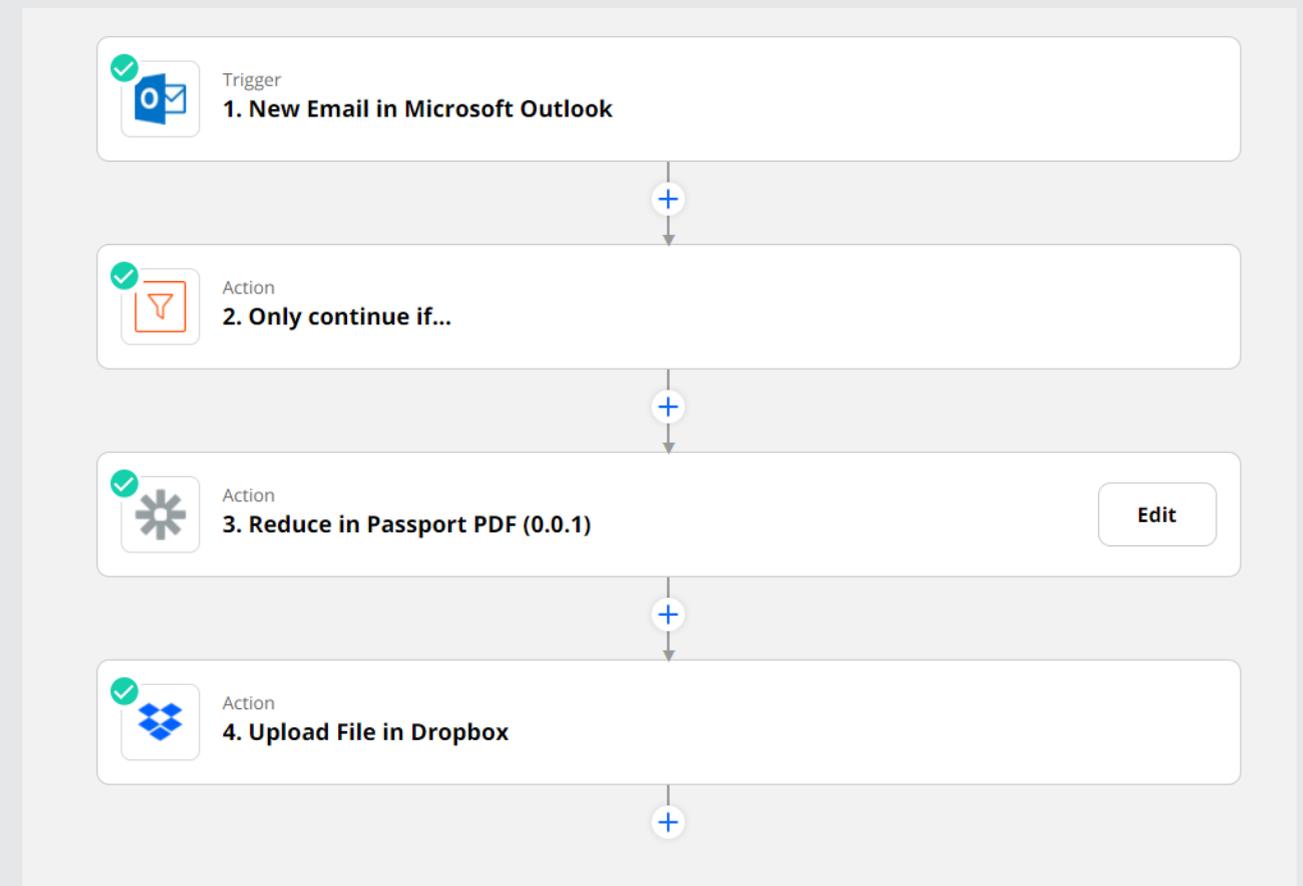


- Zapier Example :
  - PDF Compression
- Salesforce Example :
  - PDF Generation
- Power Automate Example :
  - PDF Data Extraction

# Zapier and PDF Example

When a new email is received :

If it has a PDF attachment,  
compress the PDF and upload  
it to Dropbox



# Zapier and PDF Example (Video)

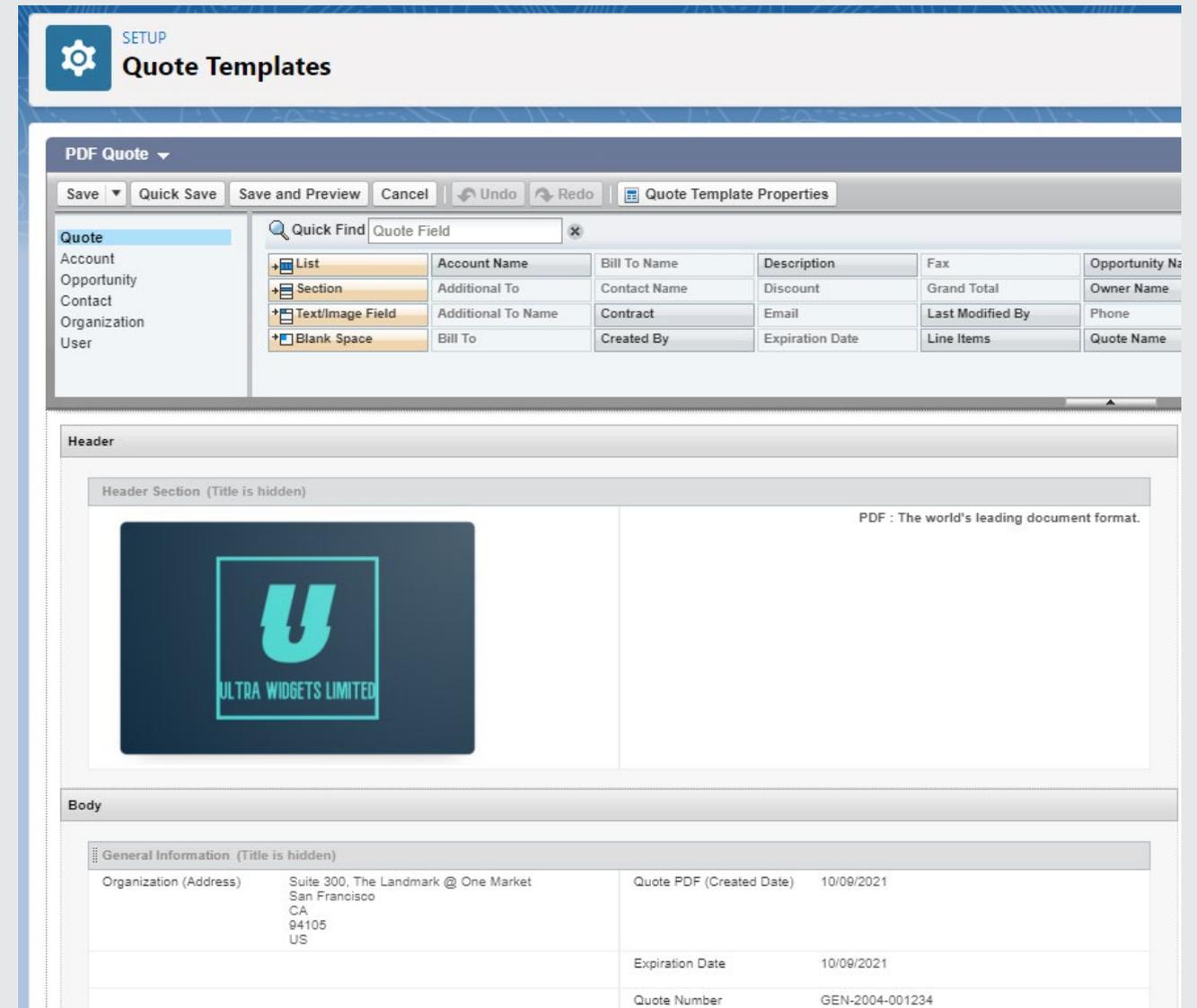
The image shows the Microsoft Word ribbon with the 'Insert' tab selected. The ribbon includes groups for 'Include' (Attach File, Outlook Item, Poll, Business Card, Calendar, Signature), 'Tables' (Table, Reuse Files), 'Illustrations' (Pictures, Shapes, Icons, 3D Models, SmartArt, Chart, Screenshot), 'Links' (Link, Bookmark), 'Text' (Text Box, Quick Parts, WordArt, Drop Cap, Date & Time, Object), and 'Symbols' (Equation, Symbol, Horizontal Line). Below the ribbon is an email composition window with a 'Send' button on the left. The email fields are: 'From' (neil.pitman@aquaforest.com), 'To' (Neil Onmicrosoft <neil.pitman@Aquaforest.onmicrosoft.com>), 'Cc' (empty), and 'Subject' (Test Zapier and PDF). An attachment is shown as 'The Low Code Revolution and PDF - Draft 6th Sept.pdf' (5 MB). A blue button on the right of the attachment says 'Send as Adobe Document Cloud link' with 'Yes' and 'No' options.

The image shows a document search interface with a search bar containing the text 'Search Documents'. Below the search bar is a large, empty white area, likely representing search results.

# Salesforce and PDF Example

Generate a PDF :

Using a custom document template and dynamic data



The screenshot shows the Salesforce 'Quote Templates' configuration page. The interface includes a 'SETUP' header, a 'Quote Templates' title, and a 'PDF Quote' dropdown menu. Below the menu is a toolbar with 'Save', 'Quick Save', 'Save and Preview', 'Cancel', 'Undo', and 'Redo' buttons, along with a 'Quote Template Properties' icon. A 'Quick Find' search bar is present. The main area is divided into a left sidebar with a tree view (Quote, Account, Opportunity, Contact, Organization, User) and a main content area. The main content area shows a 'Header' section with a 'Header Section (Title is hidden)' containing a logo for 'ULTRA WIDGETS LIMITED' and the text 'PDF : The world's leading document format.'. Below the header is a 'Body' section with a 'General Information (Title is hidden)' table.

Quote Field	Account Name	Bill To Name	Description	Fax	Opportunity Name
List	Account Name	Bill To Name	Description	Fax	Opportunity Name
Section	Additional To	Contact Name	Discount	Grand Total	Owner Name
Text/Image Field	Additional To Name	Contract	Email	Last Modified By	Phone
Blank Space	Bill To	Created By	Expiration Date	Line Items	Quote Name

Header Section (Title is hidden)	
	PDF : The world's leading document format.

General Information (Title is hidden)	
Organization (Address)	Suite 300, The Landmark @ One Market San Francisco CA 94105 US
Quote PDF (Created Date)	10/09/2021
Expiration Date	10/09/2021
Quote Number	GEN-2004-001234

# Salesforce and PDF Example (Video)

The screenshot displays the Salesforce Setup interface for configuring a PDF Quote template. The top navigation bar includes the Salesforce logo, a search bar for Setup, and utility icons. The left sidebar contains navigation options such as Setup Home, Service Setup Assistant, and various tool categories like ADMINISTRATION and PLATFORM TOOLS. The main content area is titled 'Quote Templates' and shows the 'PDF Quote' configuration window. This window includes a toolbar with 'Save', 'Quick Save', 'Save and Preview', 'Cancel', 'Undo', and 'Redo' buttons, along with a 'Quote Template Properties' button. A 'Quick Find' search bar is present above a table of available fields. The table lists fields such as Account Name, Bill To Name, Description, Fax, Opportunity Name, Quote Number, Shipping and Hand..., and Subtotal. Below the field table, the configuration is organized into sections: Header, Body, General Information, Contact Information, and Address Information. Each section contains a grid of fields with their respective values or sample text.

**Quote Template Properties**

Quote Field	Quote Field	Quote Field	Quote Field	Quote Field	Quote Field	Quote Field	Quote Field	Quote Field	Quote Field
List	Account Name	Bill To Name	Description	Fax	Opportunity Name	Quote Number	Shipping and Hand...	Subtotal	
Section	Additional To	Contact Name	Discount	Grand Total	Owner Name	Quote PDF (Create...	Ship To	Syncing	
Text/Image Field	Additional To Name	Contract	Email	Last Modified By	Phone	Quote To	Ship To Name	Tax	
Blank Space	Bill To	Created By	Expiration Date	Line Items	Quote Name	Quote To Name	Status	Total Price	

**Header**

Header Section (Title is hidden)	
----------------------------------	--

**Body**

**General Information (Title is hidden)**

Organization (Address)	Suite 300, The Landmark @ One Market San Francisco CA 94105 US	Quote PDF (Created Date)	10/09/2021
		Expiration Date	10/09/2021
		Quote Number	GEN-2004-001234

**Contact Information (Title is hidden)**

Prepared By (Name)	Sarah Sample	Contact Name	Sample Text
Prepared By (Phone)	1-415-555-1212	Phone	1-415-555-1212
Prepared By (Email)	sarah.sample@company.com	Email	sarah.sample@company.com
Prepared By (Fax)	1-415-555-1212	Fax	1-415-555-1212

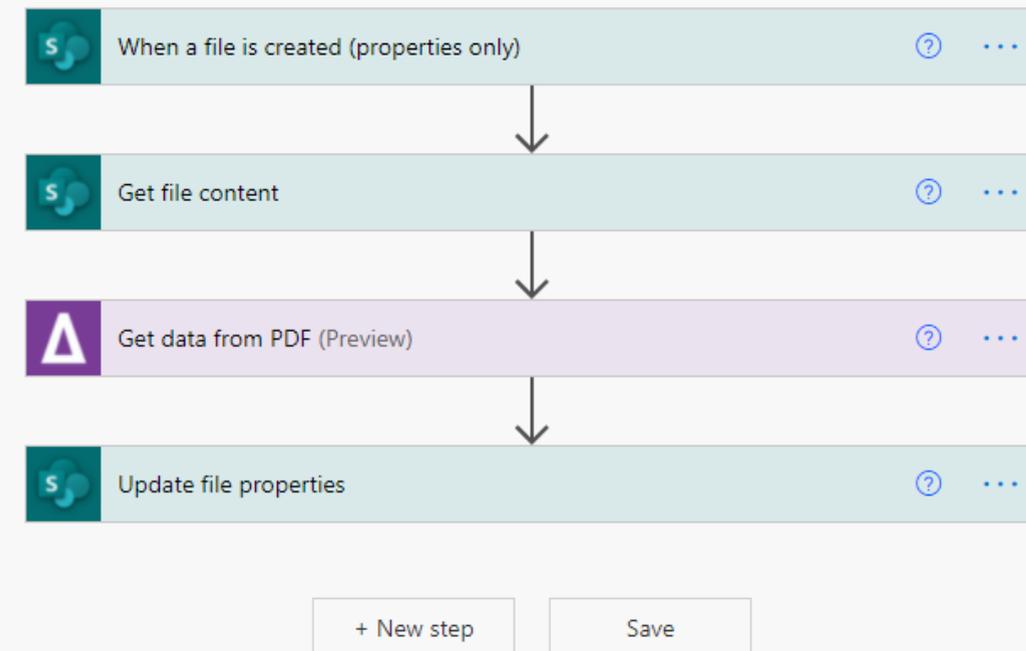
**Address Information (Title is hidden)**

Bill To Name	Sample Text	Ship To Name	Sample Text
--------------	-------------	--------------	-------------

# Power Automate and PDF Example

When a new invoice PDF is added to a SharePoint library :

Extract the invoice number and amount from the PDF to update the SharePoint metadata



# Power Automate and PDF Example (Video)

panes | Layout | Current view | Show/hide | Items

← → ↕ ↑ > Invoices 🔍 Search Invoices

**Quick access**

- Aquaforest Limited
- Creative Cloud Files
- Dropbox
- OneDrive - Aquaforest Limited
- OneDrive - Personal
- This PC
- Network

3 items

**INVOICE**

879128718927

**INVOICE**

DOC910192X

**Invoice**

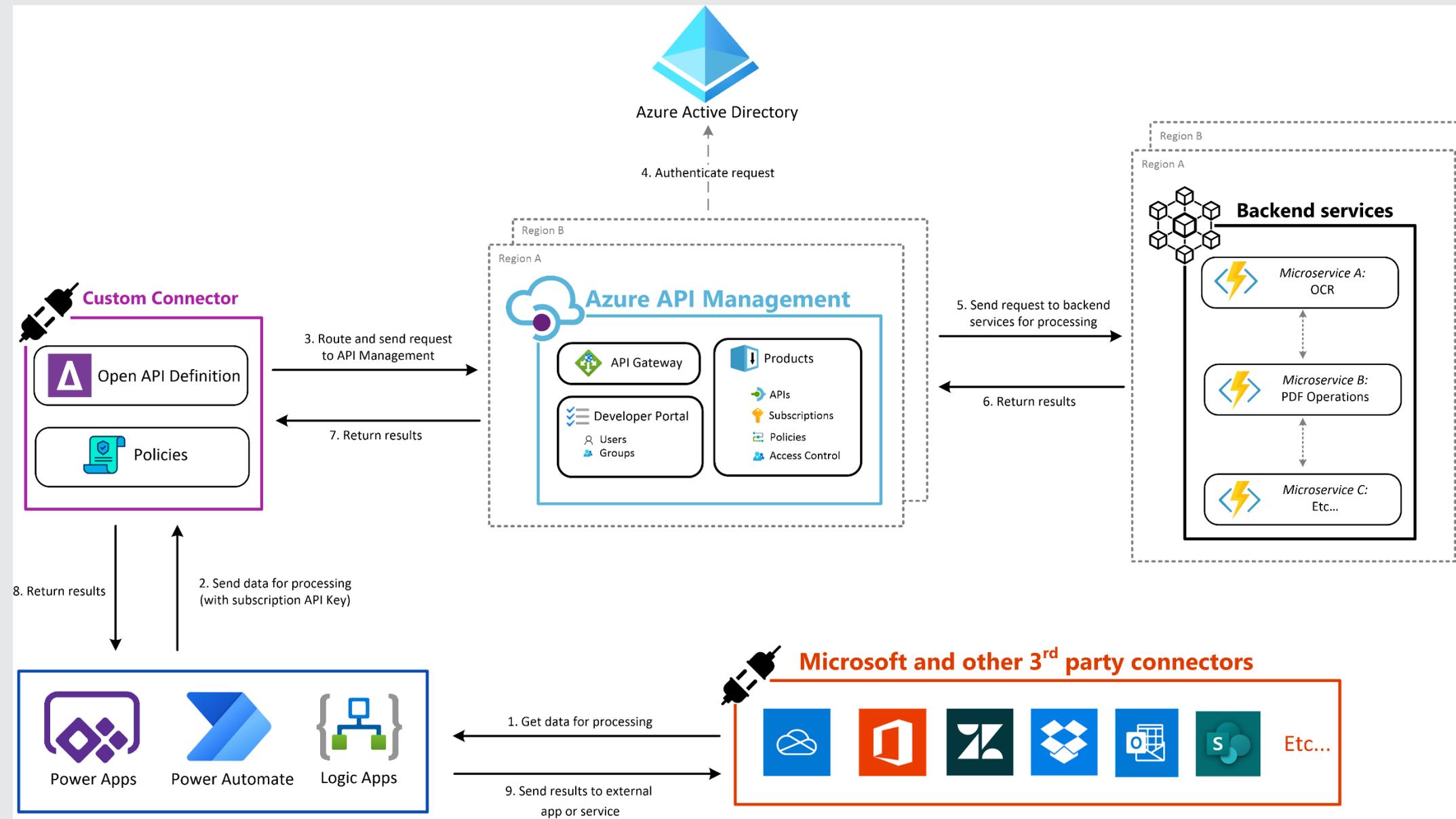
JS29010

# Technical Implementation

- Building PDF Technologies into Low Code Platforms
  - Example implementation in Microsoft Power Automate
- What does this involve?
  - Cloud Service Architecture
  - API and Backend
  - Interface
  - Scale Up/Out
  - Geography



# Architecture

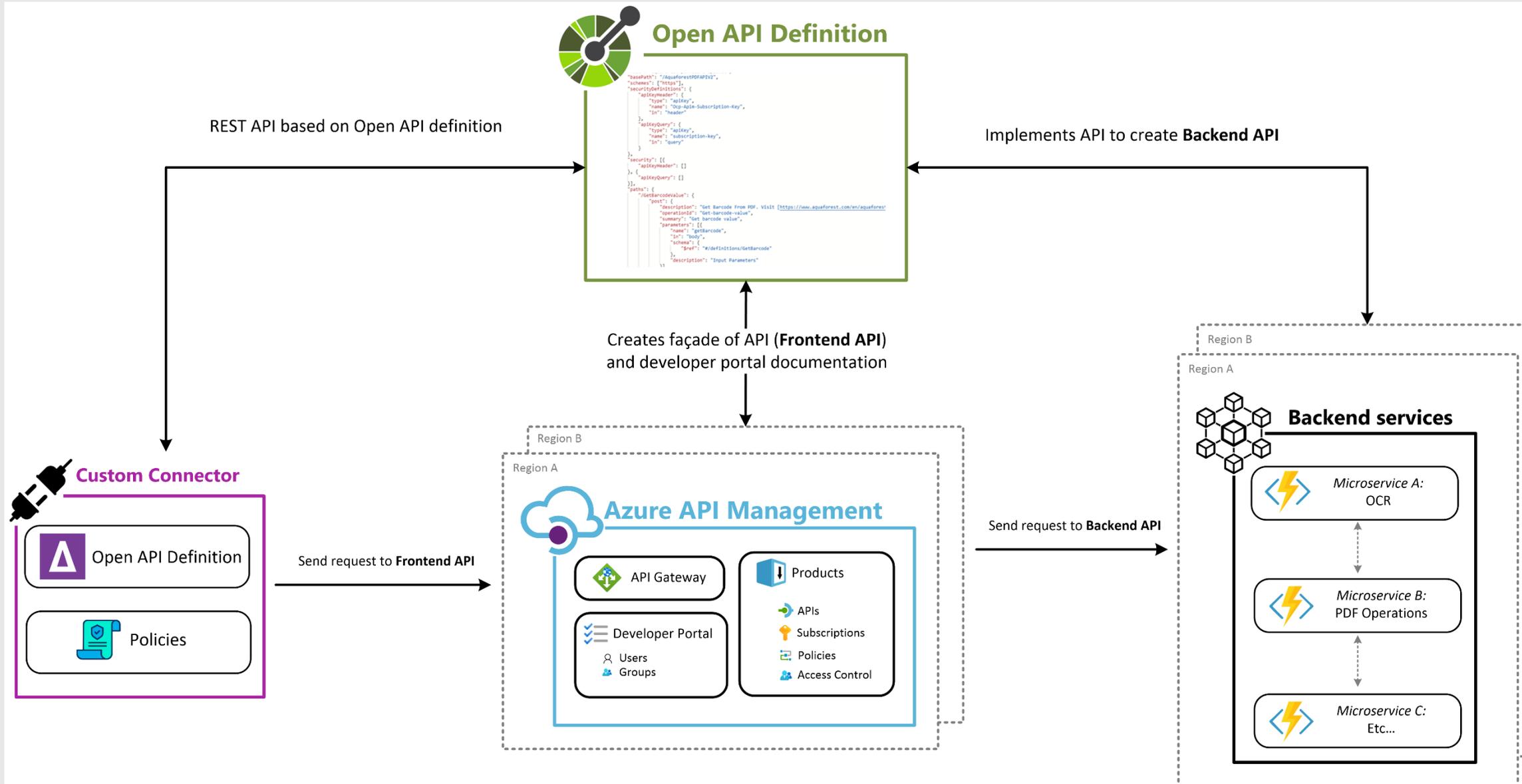


# OpenAPI Definition

A screenshot of the Microsoft Azure portal interface. The browser address bar shows the URL: portal.azure.com/#@aquaforest.co.uk/resource/subscriptions/ce69e913-76b9-4020-87f7-fbc078fccde4/resourceGroups/Aquaforest-Flow-Resources/providers/Microsoft.ApiManagement/service/aquaforest-pdf/apim-apis. The page title is 'aquaforest-pdf | APIs'. On the left, there is a navigation pane with sections for 'Overview', 'Settings', 'APIs', and 'Developer portal'. The main content area displays the 'OpenAPI specification' for 'Aquaforest PDF' in JSON format. The JSON defines the API's metadata, security requirements (apiKeyHeader and apiKeyQuery), and a single endpoint: a POST method for '/GetBarcodeValue' with a description and a parameter reference to a 'GetBarcode' definition. At the bottom of the editor, there are 'Save' and 'Discard' buttons.

```
1 {
2   "swagger": "2.0",
3   "info": {
4     "title": "Aquaforest PDF",
5     "version": "1.0",
6     "description": "Aquaforest PDF connector contains a group of actions that performs different PDF operations like splitting, text extraction, barcode extraction and OCR operations for Office 365 and ..."
7   },
8   "host": "aquaforest-pdf.azure-api.net",
9   "basePath": "/AquaforestPDFAPIV2",
10  "schemes": ["https"],
11  "securityDefinitions": {
12    "apiKeyHeader": {
13      "type": "apiKey",
14      "name": "Ocp-Apim-Subscription-Key",
15      "in": "header"
16    },
17    "apiKeyQuery": {
18      "type": "apiKey",
19      "name": "subscription-key",
20      "in": "query"
21    }
22  },
23  "security": [
24    {
25      "apiKeyHeader": []
26    },
27    {
28      "apiKeyQuery": []
29    }
30  ],
31  "paths": {
32    "/GetBarcodeValue": {
33      "post": {
34        "description": "Get Barcode From PDF. Visit [https://www.aquaforest.com/en/aquaforest-flow-doc.asp] for more information.",
35        "operationId": "Get-barcode-value",
36        "summary": "Get barcode value",
37        "parameters": [
38          {
39            "name": "getBarcode",
40            "in": "body",
41            "schema": {
42              "$ref": "#/definitions/GetBarcode"
43            }
44          }
45        ],
46        "description": "Input Parameters"
47      }
48    }
49  }
50 }
```

# OpenAPI Definition



# Interface

The screenshot displays a workflow configuration interface. At the top, a task named 'Get file content' is connected to a 'Get data from PDF (Preview)' task via a downward arrow. The 'Get data from PDF (Preview)' task is highlighted with a purple border and contains the following configuration fields:

- File Content:** A dropdown menu showing 'File Content x'.
- Expected Keys:** A text input field containing 'invoice no' and 'grand total' on separate lines.
- Page Range:** A text input field with the placeholder text 'A string representation of the page numbers you want to process. E.g 1,3-4'.
- Advanced Settings:** A dashed box containing:
  - Name - 1:** A text input field with the placeholder 'Enter the name of the setting here'.
  - Value - 1:** A text input field with the placeholder 'Enter the value of the setting here.'.
  - + Add new item:** A button to add additional settings.
- Confidence Score:** A text input field with the placeholder 'Set a higher confidence score to filter out values with lower confidence. You can'.
- Date Conversion:** A dropdown menu set to 'ISO conversion (DMY input assumed)'.
- Page Limit:** A text input field with the placeholder 'Maximum number of pages to be processed'.
- Strip Currency Symbol:** A dropdown menu set to 'Yes'.
- Match Synonym:** A dropdown menu set to 'Yes'.
- Synonym Dictionary:** A text input field with the placeholder 'You can provide a JSON array of "entry" objects, where each object contains a l'.
- Trim Symbols:** A dropdown menu set to 'Yes'.

At the bottom of the configuration panel, there is a link 'Hide advanced options ^' and a downward arrow indicating the next step in the workflow.

# Documentation from Open API



- Filter by title
- Appigent PowerTools LITE
  - Aquaforest PDF**
  - AS2
  - Asana
  - Asite
  - Asite (US Gov.)
  - Assently E-Sign
  - AtBot Admin
  - AtBot Logic
  - AvePoint Cloud Governance
  - AWeber
  - AXtension Content Gate
  - Azure AD
  - Azure AD Identity Protection
  - Azure App Service
  - Azure Application Insights
  - Azure Automation
  - Azure Blob Storage
  - Azure Communication Services SMS
  - Azure Container Instance
  - Azure Cosmos DB
  - Azure Data Explorer
  - Azure Data Factory
  - Azure Data Lake
  - Azure DevOps
  - Azure Event Grid

## Get data from PDF

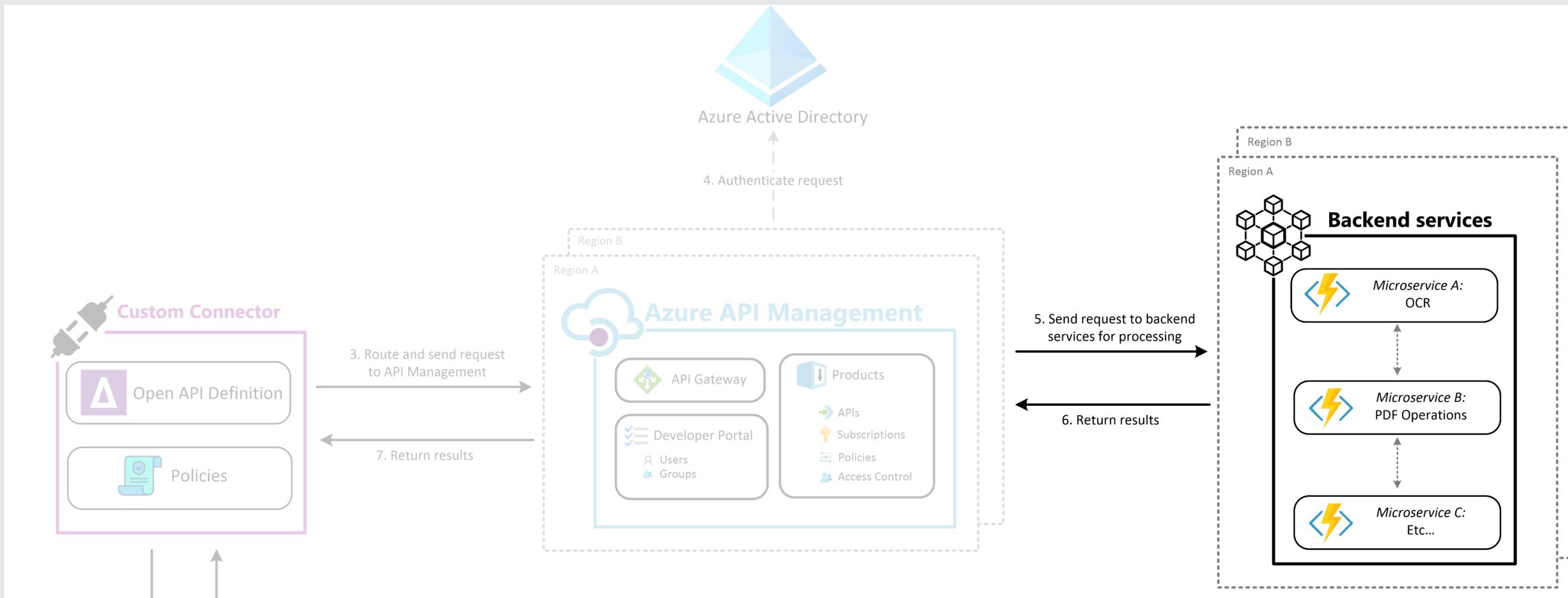
Operation ID: Get-data-from-pdf

This action will extract important data from PDF files in the form of Key/Value pairs.

### Parameters

Name	Key	Required	Type	Description
<b>Name</b>	settingName	True	string	Enter the name of the setting here
<b>Value</b>	settingValue	True	string	Enter the value of the setting here.
<b>Confidence Score</b>	confidenceScore		number	Set a higher confidence score to filter out values with lower confidence. You can set any value between 0 and 1. We recommend starting from 0.5
<b>Date Conversion</b>	dateAsISO		string	Select which format to return date value as
<b>Expected Keys</b>	expectedKeys		string	Provide one key name per line to make values available to later actions without parsing JSON.
<b>File Content</b>	fileContent	True	byte	The content of the source file
<b>Page Limit</b>	pageLimit		integer	Maximum number of pages to be processed
<b>Page Range</b>	pageRange		string	A string representation of the page numbers you want to process. E.g 1,3-4
<b>Strip Currency Symbol</b>	stripCurrencySymbol		boolean	Set this to true if you want the symbols and strings to be removed before we return currency values

# Architecture – Backend Services



# Backend Services - Azure Functions

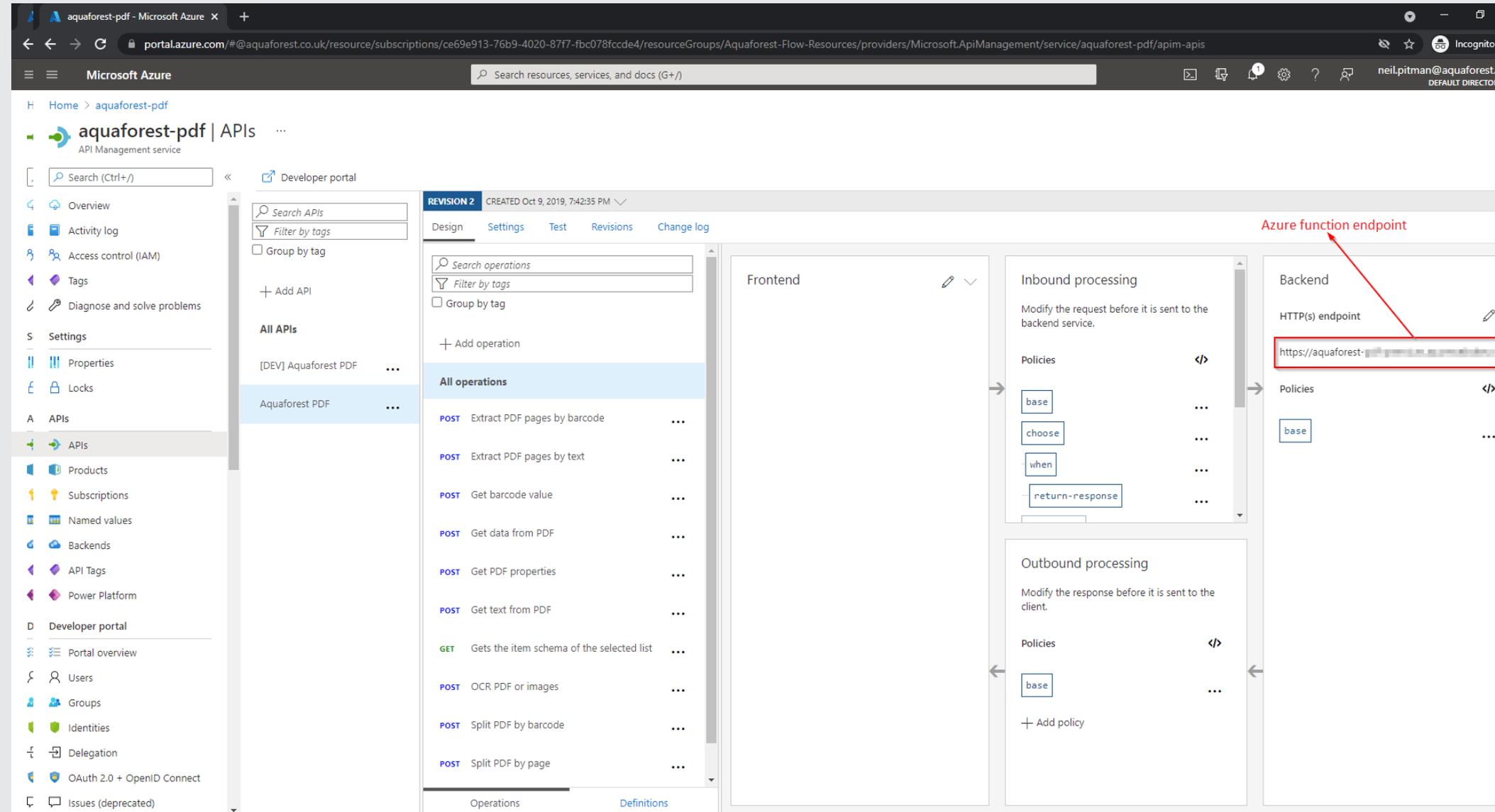


Microsoft Azure portal showing the Functions list for Aquaforest-PDF-Premium. The page includes a navigation sidebar, a search bar, and a table of functions with columns for Name, Trigger, and Status.

Your app is currently in read only mode because it has been manually set to read only.

<input type="checkbox"/>	Name ↑↓	Trigger ↑↓	Status ↑↓	
<input type="checkbox"/>	AquaforestPDFAPI_Orchestrator	Orchestration	Enabled	...
<input type="checkbox"/>	AquaforestPDFAPI_Worker	Activity	Enabled	...
<input type="checkbox"/>	ExtractPageByBarcode	HTTP	Enabled	...
<input type="checkbox"/>	ExtractPageByText	HTTP	Enabled	...
<input type="checkbox"/>	GetBarcodeValue	HTTP	Enabled	...
<input type="checkbox"/>	GetPageData	HTTP	Enabled	...
<input type="checkbox"/>	GetPDFInfo	HTTP	Enabled	...
<input type="checkbox"/>	GetResponseSchema	HTTP	Enabled	...
<input type="checkbox"/>	GetTextValue	HTTP	Enabled	...
<input type="checkbox"/>	Get_HTTPStatus	HTTP	Enabled	...
<input type="checkbox"/>	OcrFile	HTTP	Enabled	...
<input type="checkbox"/>	SplitByBarcode	HTTP	Enabled	...
<input type="checkbox"/>	SplitByText	HTTP	Enabled	...
<input type="checkbox"/>	SplitPdfByPage	HTTP	Enabled	...

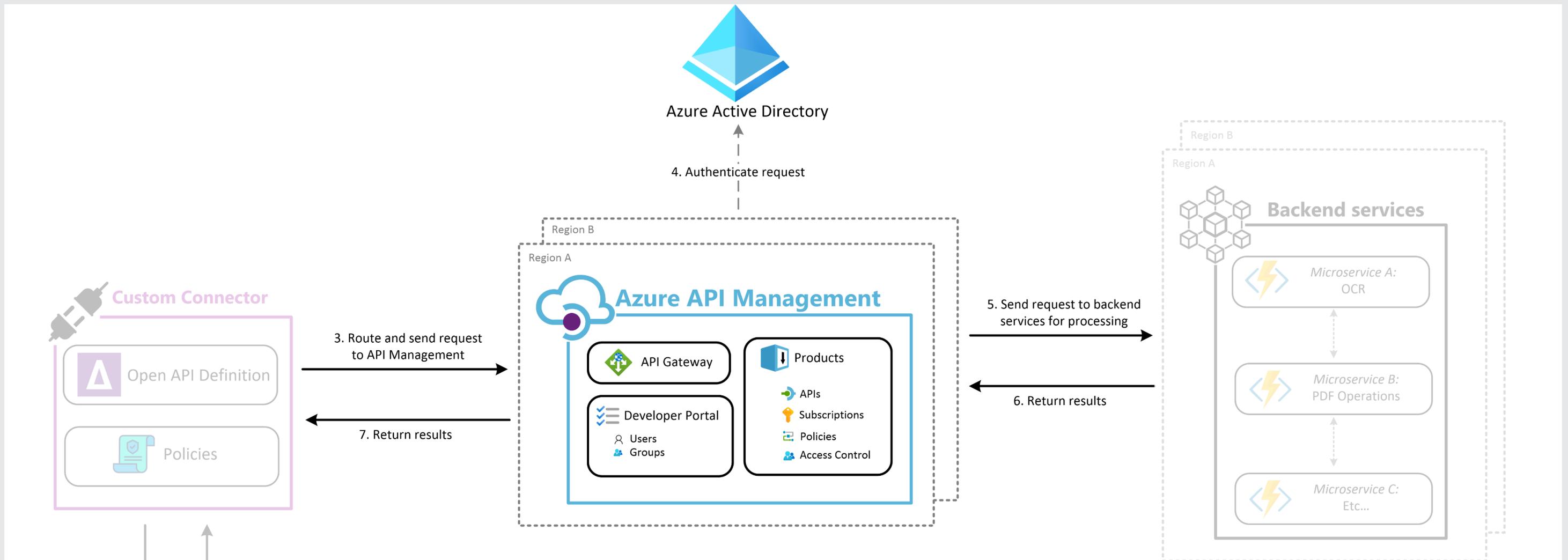
# Backend API endpoint



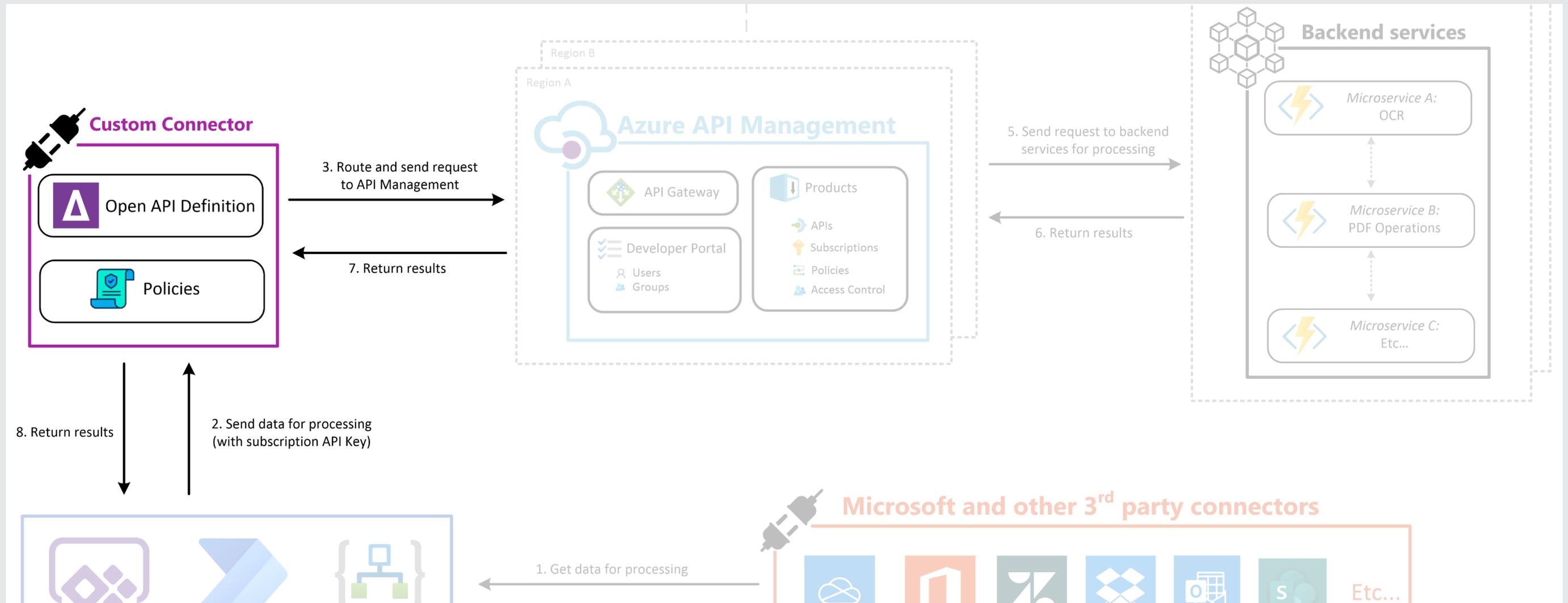
The screenshot displays the Microsoft Azure API Management console for the 'aquaforest-pdf' API. The interface is divided into several sections:

- Left Navigation Panel:** Contains menu items such as Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Properties, Locks, APIs, Products, Subscriptions, Named values, Backends, API Tags, Power Platform, Developer portal, Portal overview, Users, Groups, Identities, Delegation, OAuth 2.0 + OpenID Connect, and Issues (deprecated).
- API List:** Shows a list of APIs under the 'All APIs' section, including '[DEV] Aquaforest PDF' and 'Aquaforest PDF'.
- Operations List:** A table of operations for the selected API, including:
  - POST: Extract PDF pages by barcode
  - POST: Extract PDF pages by text
  - POST: Get barcode value
  - POST: Get data from PDF
  - POST: Get PDF properties
  - POST: Get text from PDF
  - GET: Gets the item schema of the selected list
  - POST: OCR PDF or images
  - POST: Split PDF by barcode
  - POST: Split PDF by page
- Design View:** Shows the configuration for the selected API, including:
  - Frontend:** A section for configuring the frontend.
  - Inbound processing:** A section for modifying the request before it is sent to the backend service. It includes policies like 'base', 'choose', 'when', and 'return-response'.
  - Backend:** A section for configuring the backend service. It includes the 'HTTP(s) endpoint' field, which is highlighted with a red box and labeled 'Azure function endpoint'. The endpoint URL is 'https://aquaforest-pdf.azure.com/...'. It also includes a 'Policies' section with a 'base' policy.
  - Outbound processing:** A section for modifying the response before it is sent to the client. It includes a 'Policies' section with a 'base' policy.

# Architecture – Azure API Management



# Architecture – Custom Connector



# Regions



# Scale Up



Microsoft Azure

Home > Aquaforest-PDF-Premium

### Aquaforest-PDF-Premium | Scale up (App Service plan)

Function App

Search (Ctrl+/)

Deployment

- Deployment slots
- Deployment Center

Settings

- Configuration
- Authentication
- Authentication (classic)
- Application Insights
- Identity
- Backups
- Custom domains
- TLS/SSL settings
- Networking
- Networking (preview)
- Scale up (App Service plan)
- Scale out (App Service plan)
- Push
- Properties
- Locks

App Service plan

- App Service plan
- Quotas
- Change App Service plan

Development Tools

Dev / Test  
For less demanding workloads

Production  
For most production workloads

Isolated  
Advanced networking and scale

#### Recommended pricing tiers

Tier	ACU	Memory	Compute Equivalent
EP1	210 total ACU	3.5 GB memory	Dv2-Series compute equivalent
EP2	420 total ACU	7 GB memory	Dv2-Series compute equivalent
EP3	840 total ACU	14 GB memory	Dv2-Series compute equivalent

#### Included features

Every app hosted on this App Service plan will have access to these features:

- Rapid scale**: Scale out function apps based on event trigger.
- Virtual Network Integration**: Connect to a virtual network.
- High Density**: Efficiently share an App Service plan across multiple function apps.
- Custom domains / SSL**: Configure and purchase custom domains with SNI and IP SSL bindings.
- Traffic manager**: Improve performance and availability by routing traffic between multiple instances of your app.

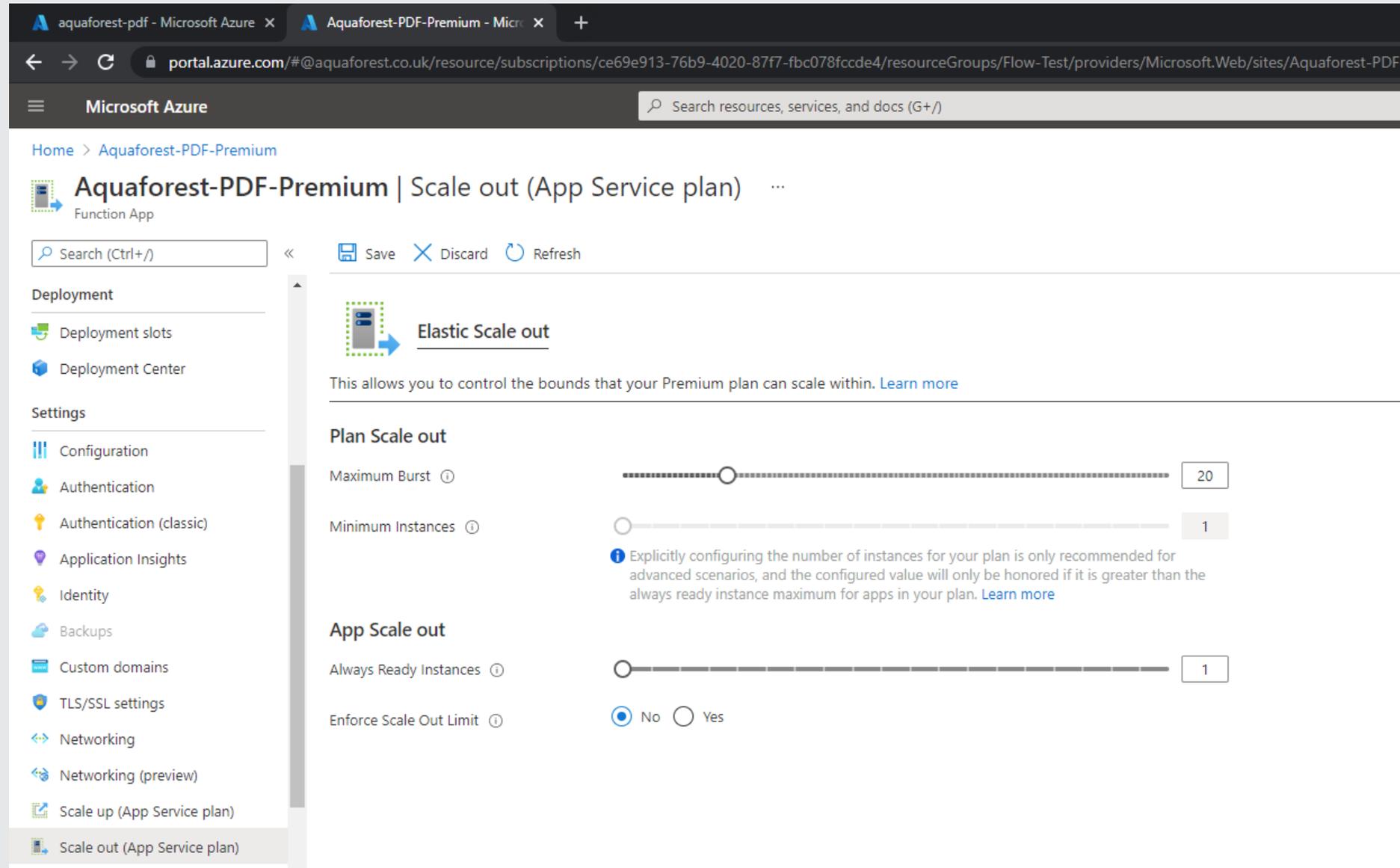
#### Included hardware

Every instance of your App Service plan will include the following hardware configuration:

- Azure Compute Units (ACU)**: Dedicated compute resources used to run applications deployed in the App Service Plan. [Learn more](#)
- Memory**: Memory per instance available to run applications deployed and running in the App Service plan.

Apply

# Scale Out



The screenshot shows the Microsoft Azure portal interface for configuring the 'Elastic Scale out' settings of an App Service plan. The browser address bar shows the URL: `portal.azure.com/#@aquaforest.co.uk/resource/subscriptions/ce69e913-76b9-4020-87f7-fbc078fccde4/resourceGroups/Flow-Test/providers/Microsoft.Web/sites/Aquaforest-PDF-Premium`. The page title is 'Aquaforest-PDF-Premium | Scale out (App Service plan)'. The left-hand navigation pane includes sections for 'Deployment' (Deployment slots, Deployment Center) and 'Settings' (Configuration, Authentication, Authentication (classic), Application Insights, Identity, Backups, Custom domains, TLS/SSL settings, Networking, Networking (preview), Scale up (App Service plan), and Scale out (App Service plan)). The main content area is titled 'Elastic Scale out' and includes a description: 'This allows you to control the bounds that your Premium plan can scale within. [Learn more](#)'. Below this, there are two main sections: 'Plan Scale out' and 'App Scale out'. The 'Plan Scale out' section has a 'Maximum Burst' slider set to 20 and a 'Minimum Instances' slider set to 1. A note below these sliders states: 'Explicitly configuring the number of instances for your plan is only recommended for advanced scenarios, and the configured value will only be honored if it is greater than the always ready instance maximum for apps in your plan. [Learn more](#)'. The 'App Scale out' section has an 'Always Ready Instances' slider set to 1 and an 'Enforce Scale Out Limit' radio button set to 'No'.

# Support and Management



Microsoft Azure portal screenshot for Aquaforest-PDF-Premium Function App.

**Overview**

Click here to access Application Insights for monitoring and profiling for your app. →

**Essentials** JSON View

Resource group (change)	: Flow-Test	URL	: https://aquafores[REDACTED]
Status	: Running	Health Check	: Not Configured
Location	: UK West	Operating System	: Windows
Subscription (change)	: Microsoft Partner Network	App Service Plan	: ASP-Premium-Aquaforest (EP2: 1)
Subscription ID	: ce69e913-76b9-4020-87f7-fbc078fccde4	Properties	: See More
Tags (change)	: Aquaforest Limited Function Apps : premium connector	Descrip... : This is the azure function that processes our Power Auto...	state : live function

**Metrics** | Features (9) | Notifications (1) | Quickstart

**Memory working set**

Memory working set (Sum) aquaforest-pdf-premium: 1.05 GB

**Function Execution Count**

Function Execution Count (Sum) aquaforest-pdf-premium: 943

# Summary - Technical Implementation

- Building PDF Technologies into Low Code Platforms
  - Example implementation in Microsoft Power Automate
- What does this involve?
  - Cloud Service Architecture
  - API and Backend
  - Interface
  - Scale Up/Out
  - Geography



# The Future of Low Code and PDF



PDF : Built in or Marketplace?

Hyper automation

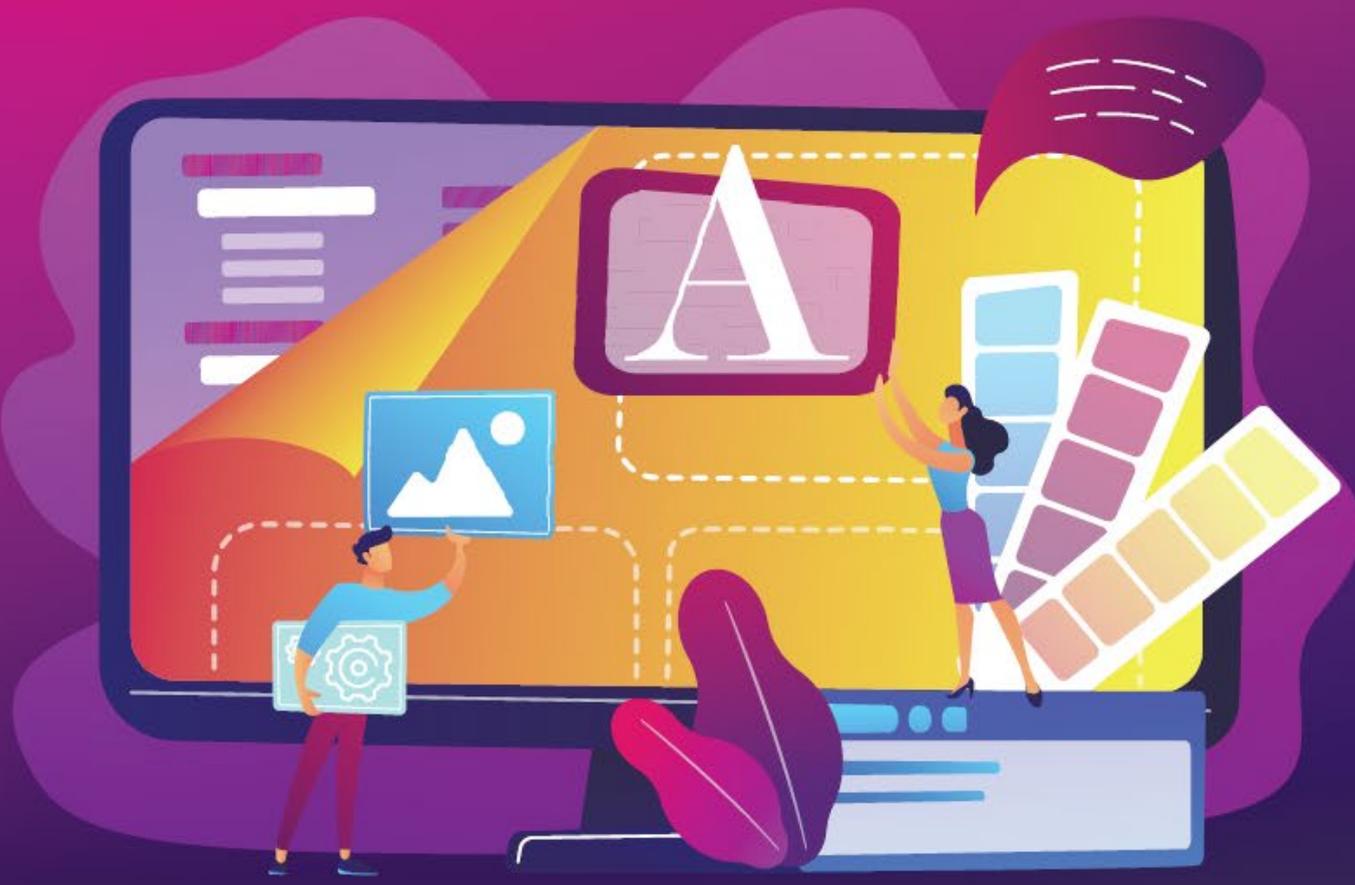
AI everywhere

Enterprise Trust

Fusion Teams

- **Background :**
  - What is Low Code / No Code?
  - Low Code Platforms and Common Use Cases
  - Examples of PDF in Low Code Platforms
- **Technical Implementation :**
  - Building PDF Technologies into Low Code Platforms
- **The Future of Low Code and PDF**





# LOW CODE DEVELOPMENT

## The Low Code Revolution and PDF

What does Low Code mean for PDF Developers and PDF Technology Companies?

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# PDF

PDF Days Online 2021