Microsoft

SAP and Azure
IoT Demo – „Hello World“

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Demo introduction

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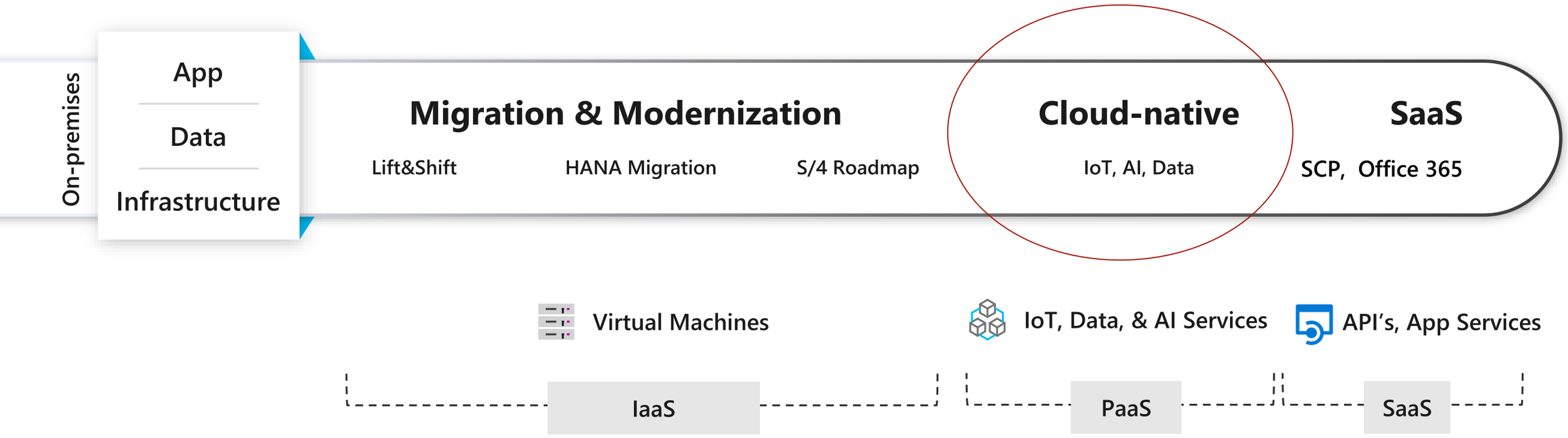
The SAP on Azure customer cloud journey



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Demo motivation and positioning

- Demonstrate Lego-like integration between Azure IoT and SAP ECC based on SAP Gateway

- Public repeatable setup of the demo based on :
  - Public Azure Raspberry emulator
  - Public SAP demo system
  - Azure IoT Hub and Logic App

- Basic modification of existing Azure IoT tutorial to demonstrate SAP connectivity

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Demo scenario and basic storyline

- Imagine the Raspberry Emulator as an IoT device used in shipping of heat-sensitive vaccines
- If the temperature is measured above 30°, the vaccine is damaged and must be replaced
- To replace the vaccine, a sales order is automatically created in SAP ECC in case the measured temperature is above 30°
- For excel users the current sales order SAP ECC will be displayed in Excel

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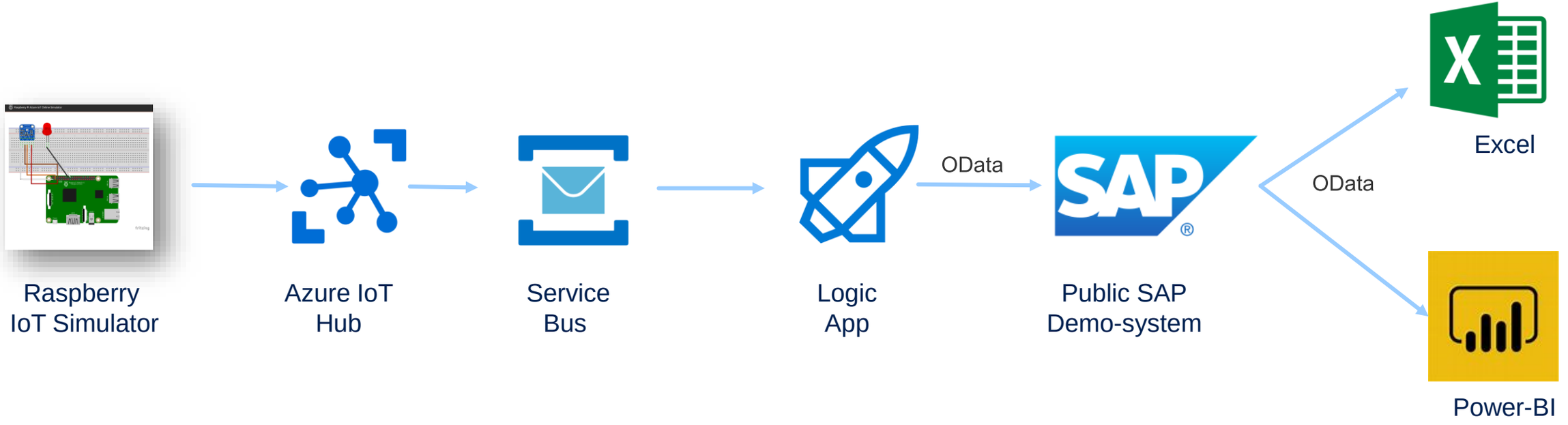
Demo scenario



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Demo implementation

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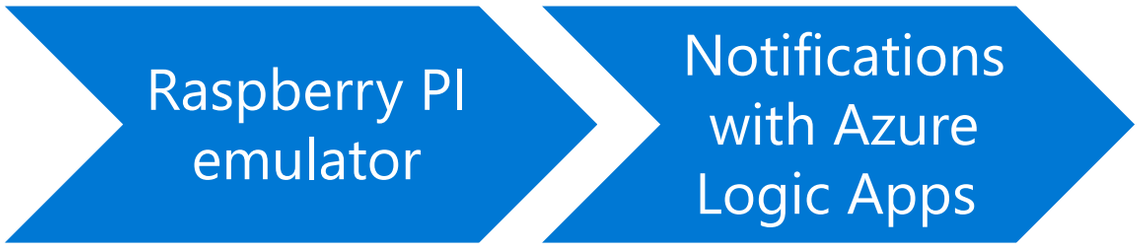
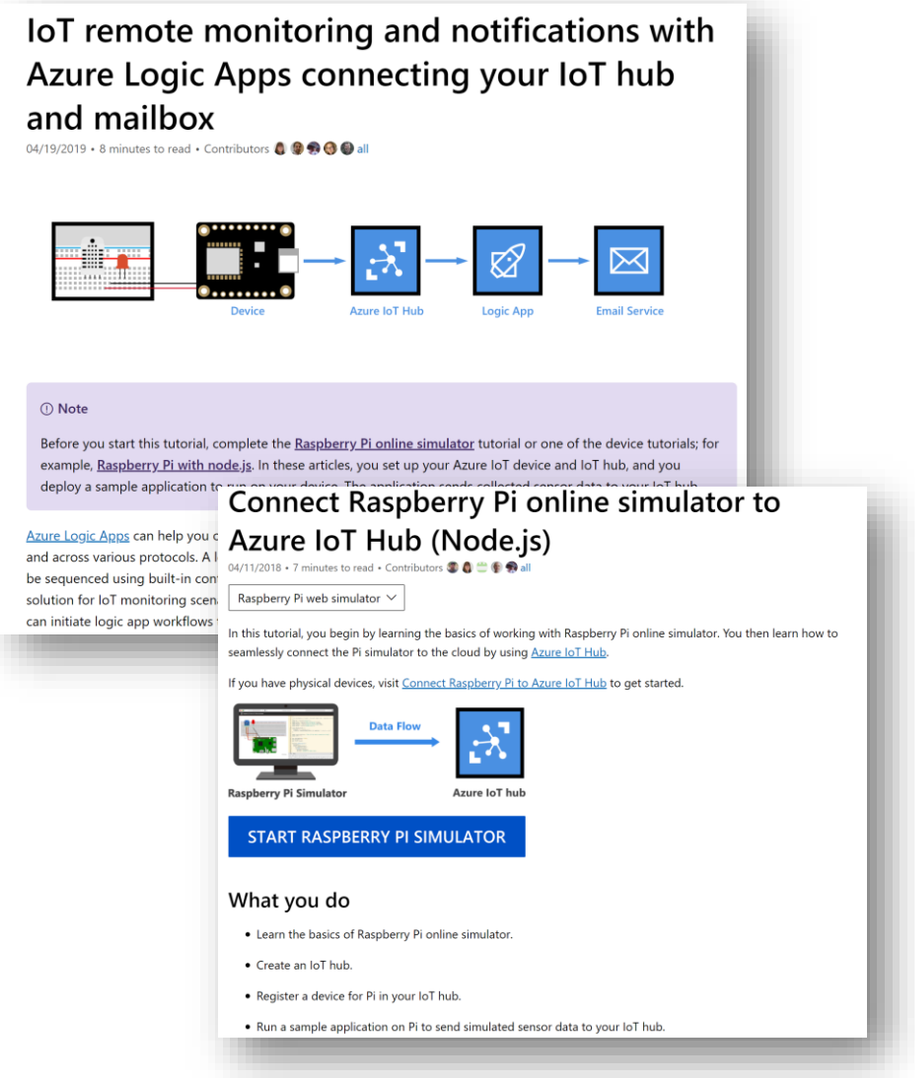
Demo implementation



Demo preparation: Raspberry PI emulator and IoT Hub

- Implement Raspberry PI emulator tutorial (Link)

- Implement IoT remote monitoring and notifications with Azure Logic Apps connecting your IoT hub and mailbox tutorial (Link)
  → Stop at the paragraph “Configure the logic app trigger”



Demo implementation

Demo preparation: Access to public SAP demo system

- Get access to SAP Gateway demo system(Link)
- Get familiar with GWSampleBasic Odata Service (Visual-Code REST Client)
- Sample code:

REST_CLIENT_SAP_ODATA.txt

```
# sapes5.sapdevcenter.com
# Authorization: Basic [redacted]

# @name login
GET https://sapes5.sapdevcenter.com/sap/opu/odata/iwbep/GWSAMPLE_BASIC/$metadata HTTP/1.1
Authorization: Basic [redacted]
X-CSRF-Token: fetch

@authToken = {{login.response.headers.X-CSRF-Token}}

# @name salesOrder
POST https://sapes5.sapdevcenter.com/sap/opu/odata/iwbep/GWSAMPLE_BASIC/SalesOrderSet HTTP/1.1
Authorization: B[redacted]
X-CSRF-Token: {{authToken}}
Content-Type: application/json
```

Technical Articles

Andre Fischer

December 5, 2017 4 minute read

New SAP Gateway Demo System available

27 Likes 21,802 Views 98 Comments

Updates

- 23.01.2018 – Show how to enter a TCODE
- 29.05.2018 – Added the section ***"What you can't do with the SAP Gateway Demo System"***
- 26.09.2018 – Added links to the $metadata documents of the SAP Fiori Reference Apps
- 10.05.2019 – Added link to reset your password

The beta phase for our new SAP Gateway Demo system that was announced by Former Member in his blog Netweaver Gateway Demo – ES5 now in Beta! is now over and we can thus announce the availability of our new "production system" ES5.

As Jonathan already wrote we look forward to your feedback and encourage you to use our new system since ES4 will be shutdown in the future.

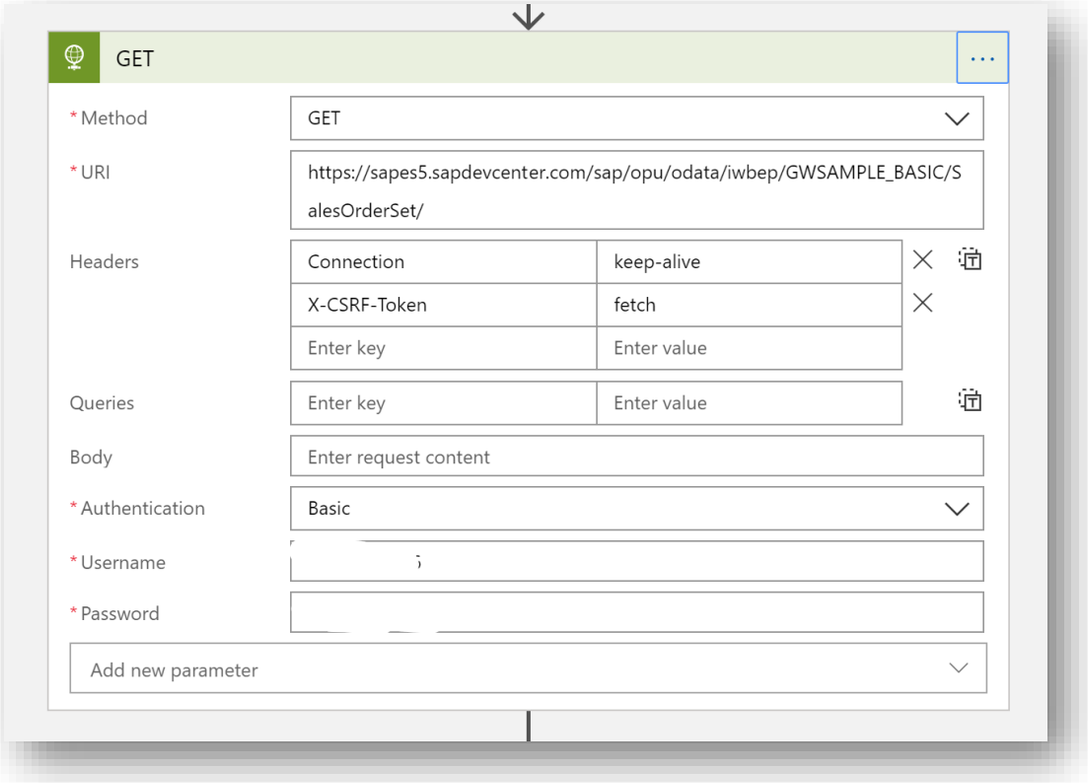
What you can't do with the SAP Gateway Demo System

Demo implementation

Demo implementation: Logic App 1/2

- Finish the tutorial until : Configure the logic app trigger / 5. Create a service bus connection.
- Instead of creating an STMP connection, create a HTTP GET Action

- URI: Link
- Header parameter:
  - Connection: keep-alive
  - X-CSRF-Token: fetch
  - Authentication: Basic
  - User/Pwd: Credentials for SAP demo system

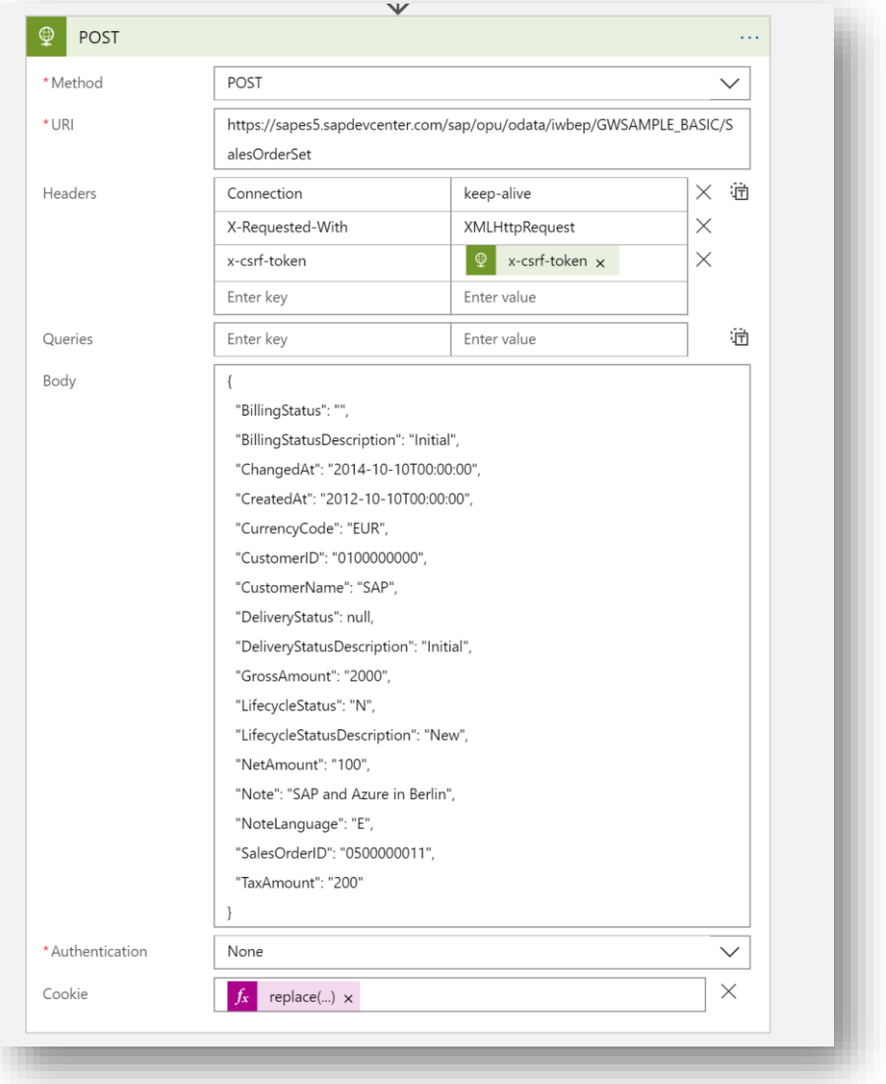


Demo implementation: Logic App 2/2

- Append a HTTP POST Action to the GET-request
- The logic app creates an SAP sales order via the Odata Gateway
- Sample code for Logic App:

LOGIC_APP_SAP_ODATA_POST.txt

- Important parameters:
  - X-csrf-token: @outputs('GET')['headers']['x-csrf-token']
  - Function for cookie: **replace(**outputs**('**GET**')**['headers']['Set-cookie'], ',', ';'**)**
  - Further details in [Bartosz's Blog]

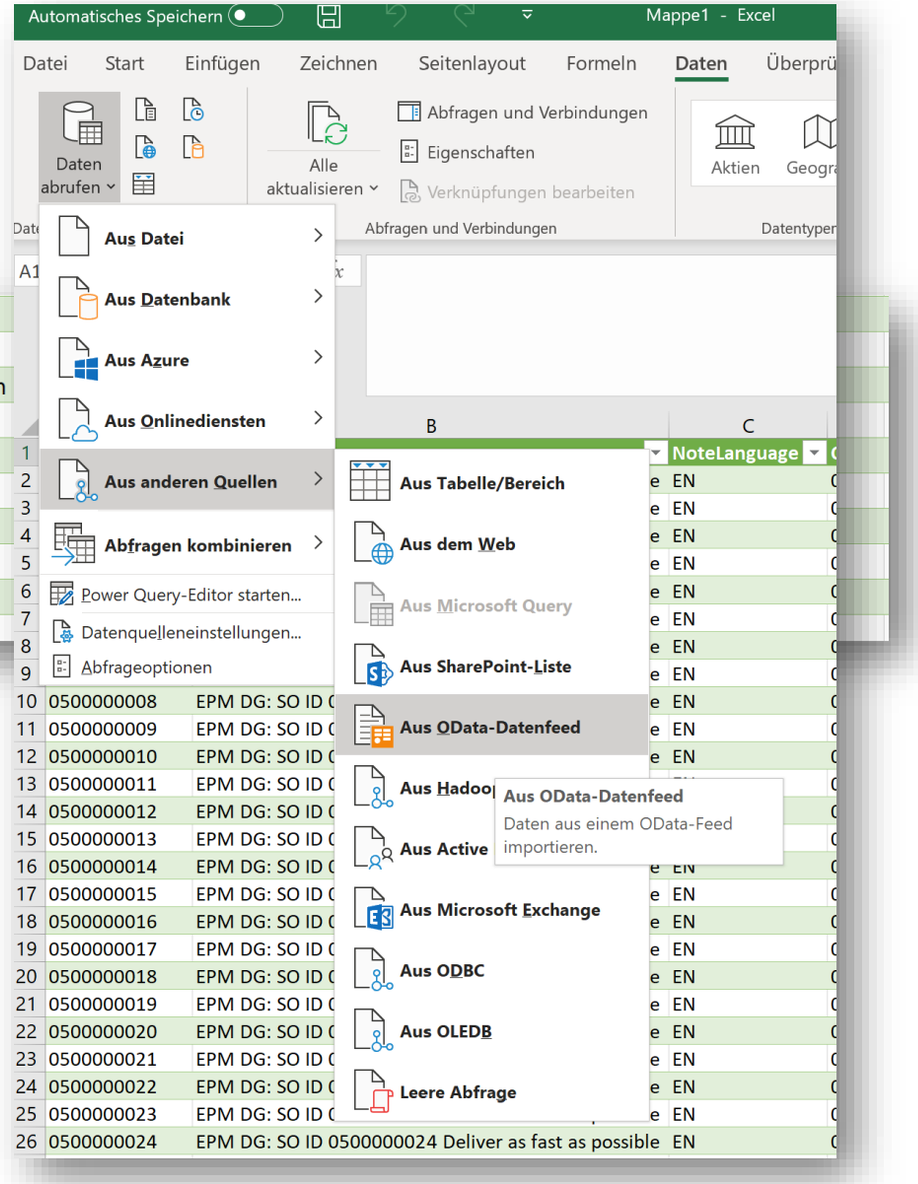


Demo implementation

Demo implementation: Show sales order in Excel

- Connect to Odata datssource
- URL: [Link]
- Display results:

0500000494	EPM DG: SO ID 0500000494 Deliver as fast as possible	EN	0100000043	Danish Fish Trading Company
0500000495	EPM DG: SO ID 0500000495 Deliver as fast as possible	EN	0100000044	Sorali
0500000496	EPM DG: SO ID 0500000496 Deliver as fast as possible	EN	0100000036	African Gold And Diamond Corporation
0500000497	EPM DG: SO ID 0500000497 Deliver as fast as possible	EN	0100000042	Siwusha
0500000498	EPM DG: SO ID 0500000498 Deliver as fast as possible	EN	0100000037	PicoBit
0500000499	EPM DG: SO ID 0500000499 Deliver as fast as possible	EN	0100000038	Bionic Research Lab
0500000500	SAP and Azure in Berlin	EN	0100000000	SAP
0500000501	SAP and Azure in Berlin	EN	0100000000	SAP
0500000502	SAP and Azure in Berlin	EN	0100000000	SAP
0500000503	SAP and Azure in Berlin	EN	0100000000	SAP



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Run the demo

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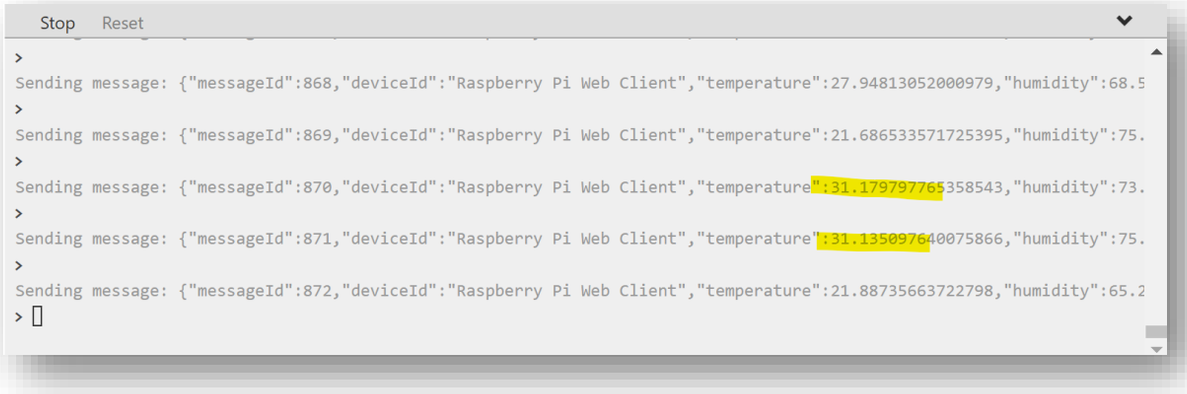
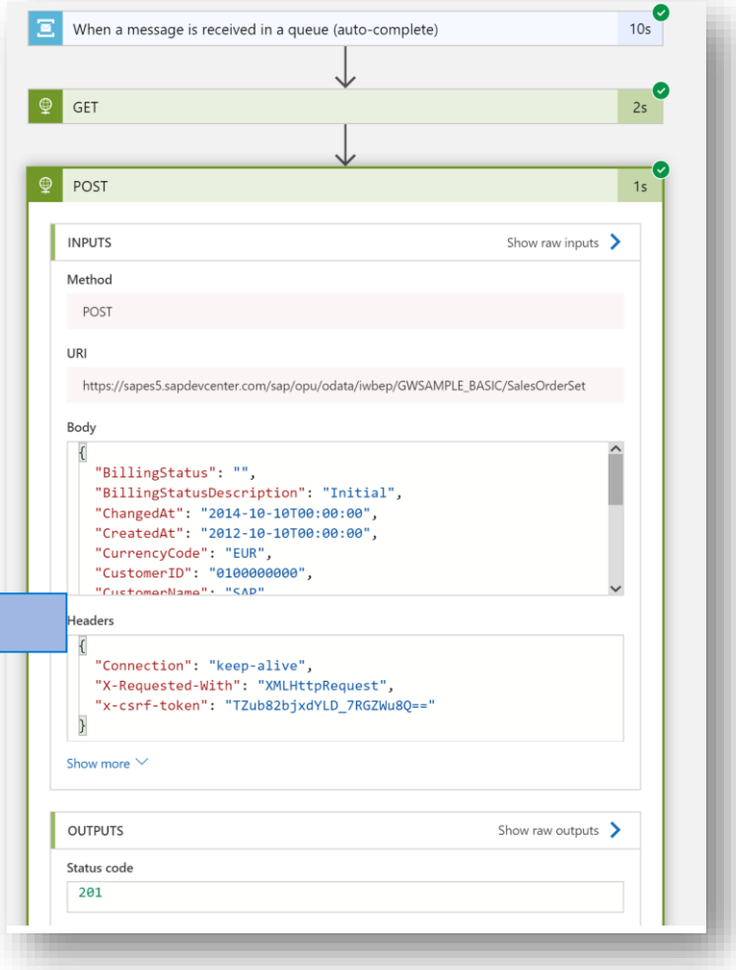
Run the demo

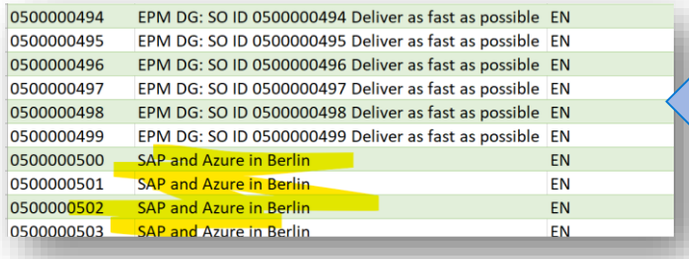
Temperature in IoT simulator is above 30°



Logic app creates new sales order

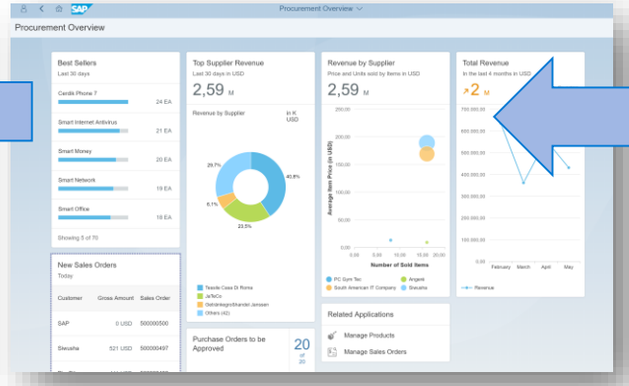


Display created sales order in Excel



0500000494	EPM DG: SO ID 0500000494 Deliver as fast as possible	EN
0500000495	EPM DG: SO ID 0500000495 Deliver as fast as possible	EN
0500000496	EPM DG: SO ID 0500000496 Deliver as fast as possible	EN
0500000497	EPM DG: SO ID 0500000497 Deliver as fast as possible	EN
0500000498	EPM DG: SO ID 0500000498 Deliver as fast as possible	EN
0500000499	EPM DG: SO ID 0500000499 Deliver as fast as possible	EN
0500000500	SAP and Azure in Berlin	EN
0500000501	SAP and Azure in Berlin	EN
0500000502	SAP and Azure in Berlin	EN
0500000503	SAP and Azure in Berlin	EN

Sales order created in SAP



Questions?

Thank You!

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