



Power Platform

COMMUNITY CONFERENCE

SEPTEMBER 18–20, 2024 • *Workshops: Sept 16, 17 & 21*
MGM GRAND • *Las Vegas, NV*



Power Platform
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It's Power Automate not Power

Integrate 🤖

Mats Necker



Power Platform COMMUNITY CONFERENCE

Likes all cloud stuff



CTO @ knk Group



Germany



Business Applications MVP



nckr.de




@matzzt



Mats Necker





Mats the
moment he
came up with
this session

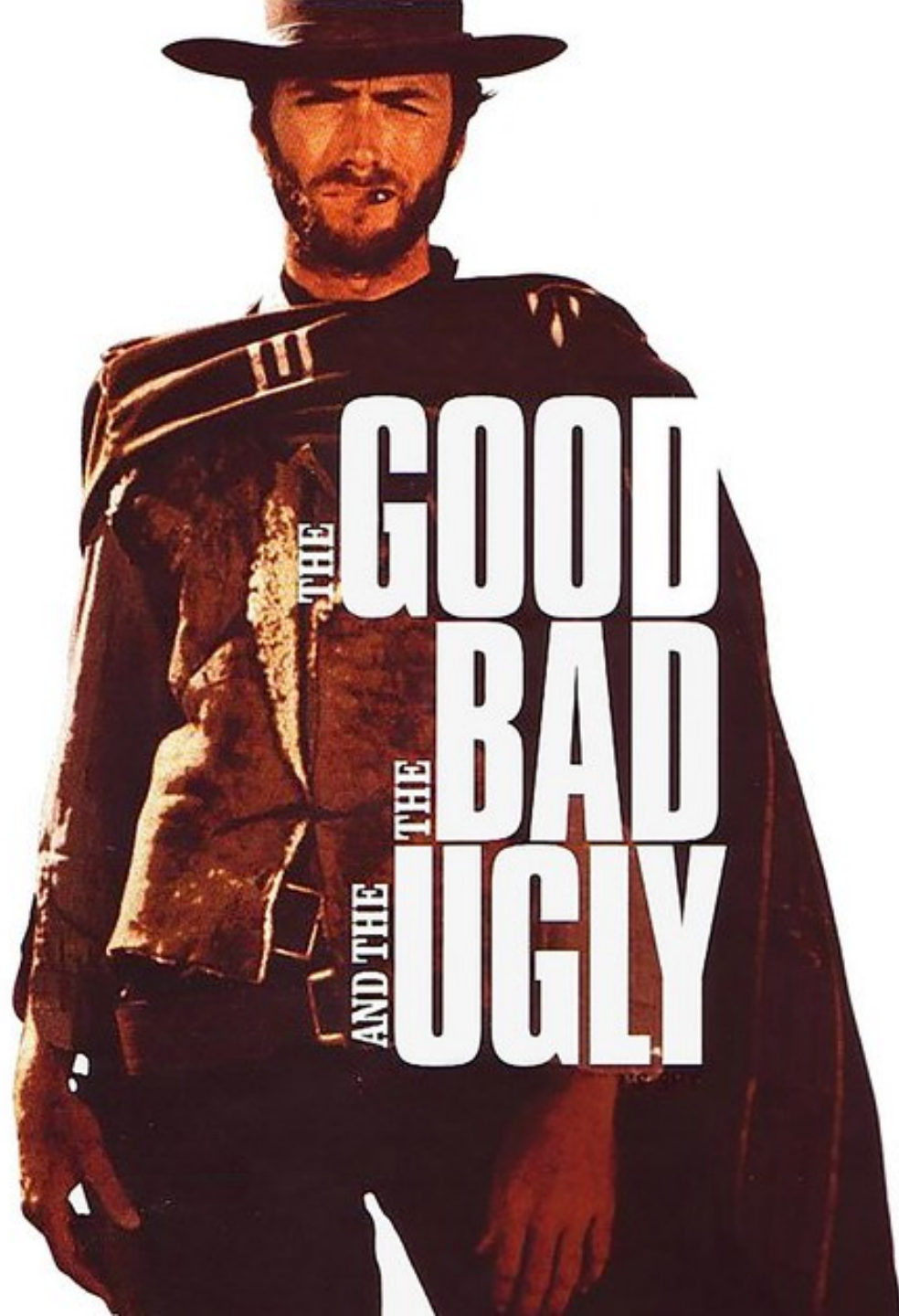




Keith W

“If you look at
your code from
last year and
you are not
horrified – you
didn’t progress”





Our agenda

🤔 Right Tool Right Job

💀 Common pitfalls

🤪 ~~Alternatives~~ Options

👊 Q&A / Your Experiences



Power Platform

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Right Tool Right Job

The world's most complete set of integrated, low-code development tools

Microsoft Power Platform



Power Apps
for
web and mobile
application
development



Power Automate
for
process
or workflow
automation



Power Virtual Agents
for
chatbots and
conversational
agents



Power Pages
for
building secure,
data-centric
business websites



Power BI
for
data exploration,
analytics, and
reporting



**Data
connectors**



AI Builder



**Microsoft
Dataverse**



Power Fx



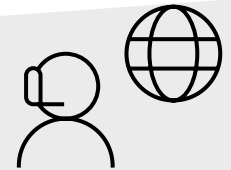
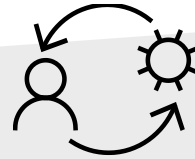
**Managed
Environments**

A platform for every type of maker



Simple

Complex



CITIZEN DEV

PRO DEV

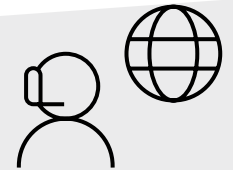
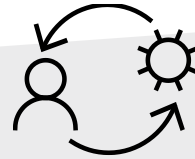


A platform for every type of maker



Simple

Complex



CITIZEN DEV

PRO DEV





In 2021, **Pacific Gas & Electric (PG&E)** embarked on an ambitious Digital Productivity program leveraging automation and citizen development. PG&E engaged long-time partner Cognizant and its Intelligent Process Automation team and decided to deploy Microsoft Power Platform to consolidate their toolkit and expand their capabilities for the future while switching from another vendor.

800

Citizen devs creating and running flows

132

Solutions delivered in first year

75K

Hours saved

60%

Implementation effort reduction

100%

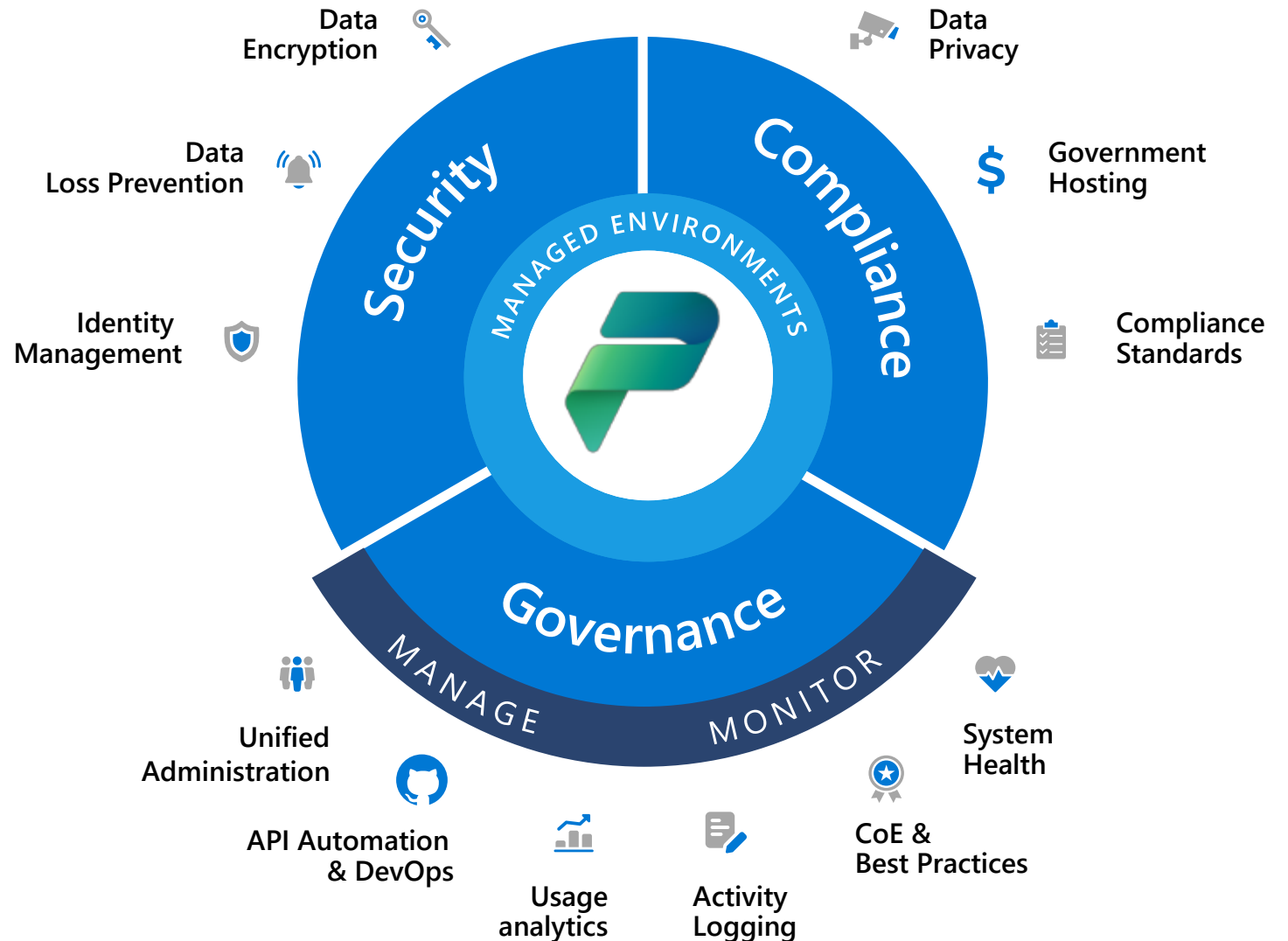
Replacement of existing RPA systems

Sources: [Case study: Latest innovations to scale automation with Microsoft Power Automate](#)

Sources: [Case study: Pacific Gas and Electric partners with Cognizant for innovative digital productivity solutions strategy](#)

Power Platform
offers unmatched
governance and
security controls
at scale today

offers \neq enforces





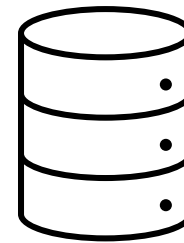
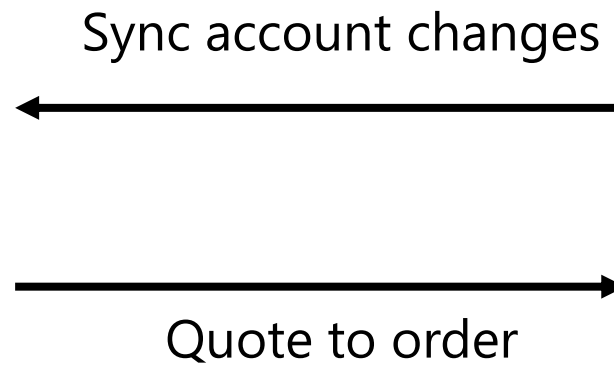
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Common Pitfalls

and how to avoid them

😊 Scenario



External ERP System



Power Platform

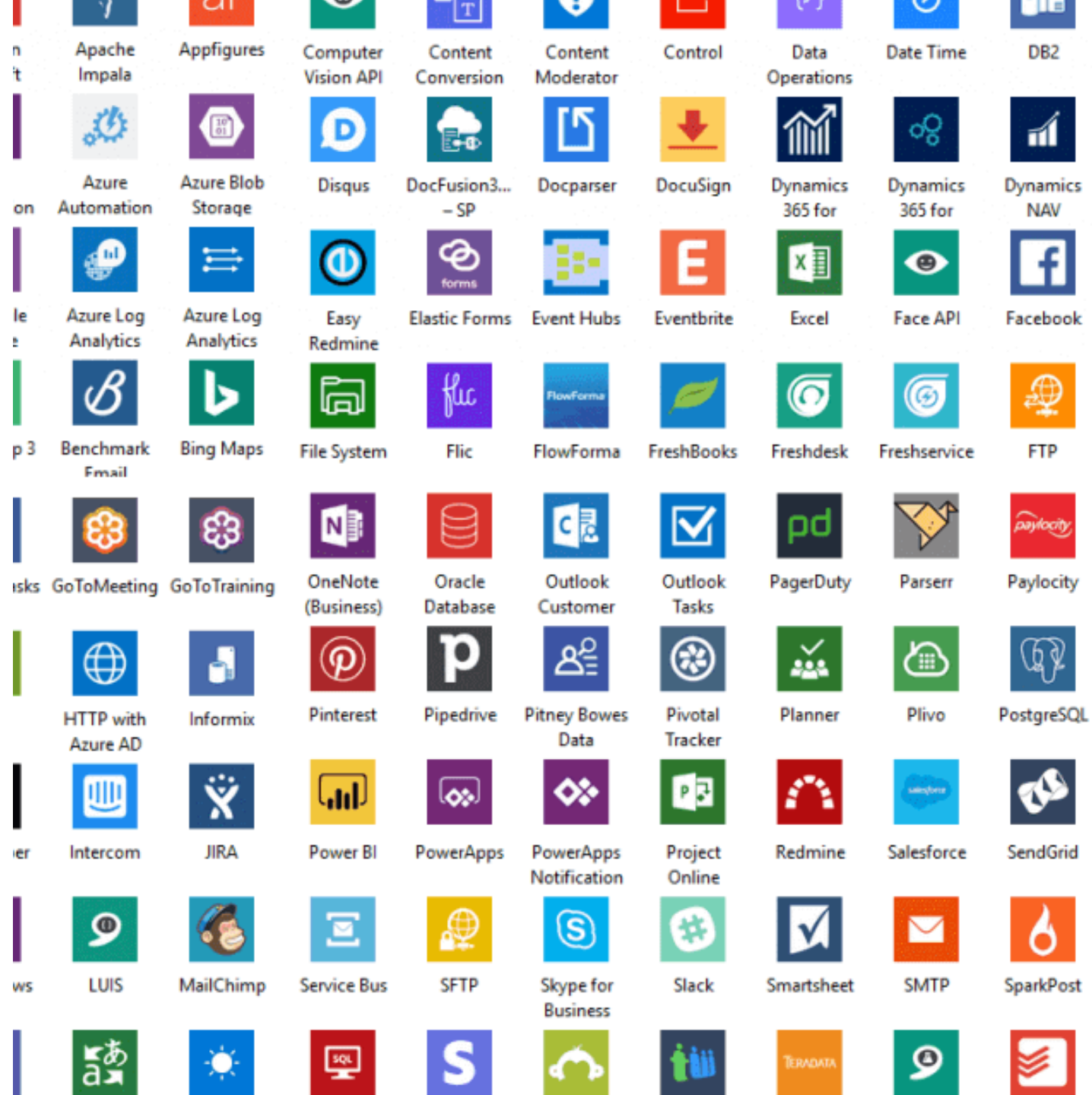
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Connections



Not all are the same – different kinds of how to connect



Managed Identities

are better than

Service Principals or Application Users

are better than

Service Accounts

are better than

User (or named) Accounts

Less common

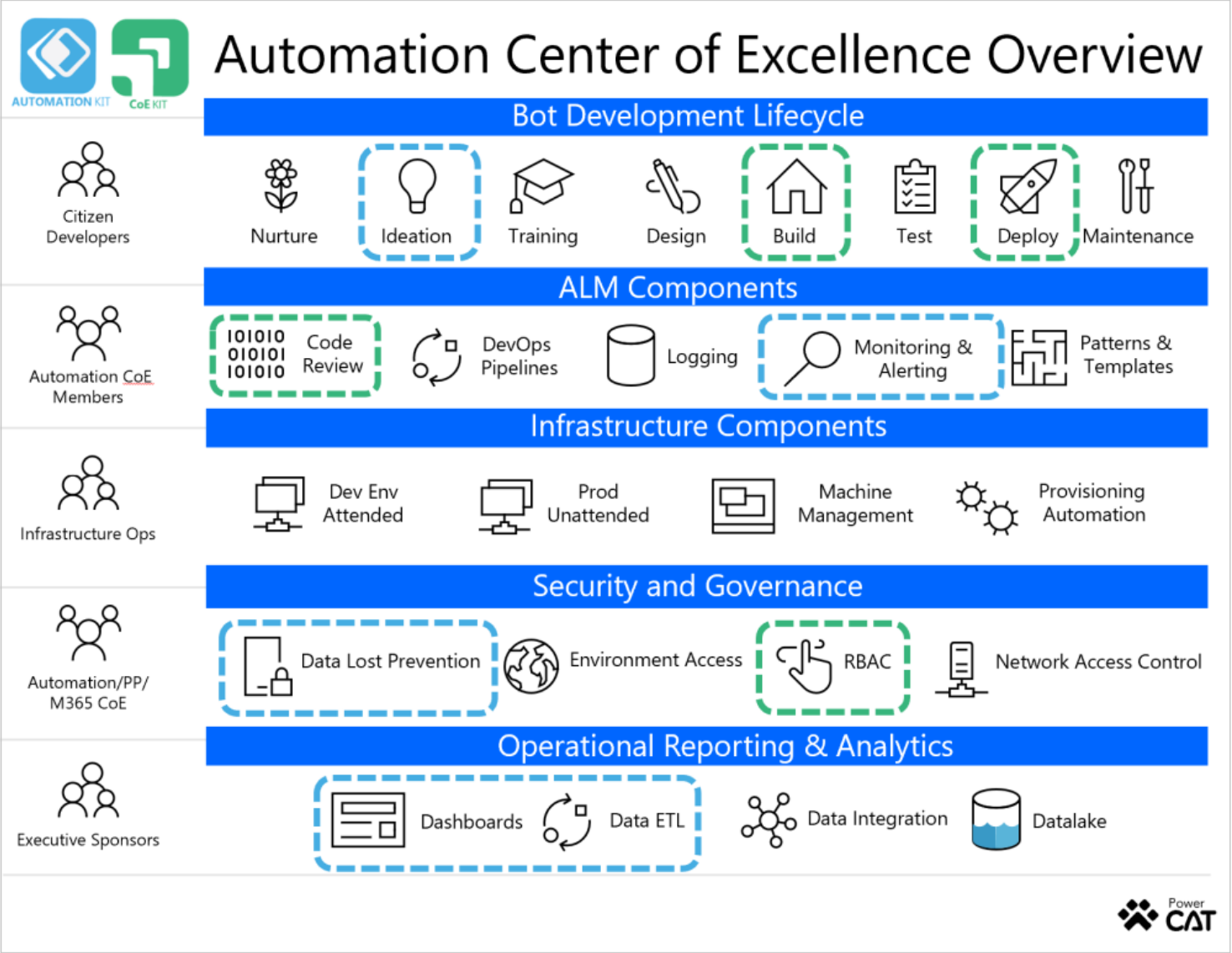


More common

Connections – Common Problems

Premium flows without premium licenses	14 days	Flows that were created with premium features (premium connectors, custom connectors, HTTP connectors, on premises gateway, and business process flows) but don't have a premium Power Automate license will be turned off after 14 days. This situation happens if the original owner leaves the organization, or if they have an expired trial or premium license. The flow owner and co-owners will get an email when the trial or premium license expires, or when the owner isn't found in Microsoft Entra ID (Microsoft Entra ID). The flow will continue to work for 14 days. If a premium license isn't assigned to the flow within 14 days, the flow is automatically turned off, and the owner and co-owners are notified through email. Newly created or edited premium flows without a premium license are saved but turned off. Once a premium Power Automate license is assigned to the owner or flow, you can turn on the flow. Admins can find these flows . Assign a Power Automate Process license or a per user license to the owner to keep the flow running.
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Center of Excellence (CoE) by PowerCAT



<https://learn.microsoft.com/en-us/power-platform/guidance/coe/overview>



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Performance and limits

Limits of the platform

Learn / Power Platform / Power Automate /



Limits of automated, scheduled, and instant flows

Article • 09/04/2024 • 26 contributors

Feedback

In this article

- Performance profiles
- Flow definition limits
- My flows limit
- Duration and retention limits
- Concurrency, looping, and debatching limits
- Throughput limits
- Gateway limits
- Request limits
- Turn off or delete flows
- Custom connector limits
- SharePoint limits
- IP addresses
- Allowlist of namespaces endpoints required for runtime
- Other configuration details
- Flow suspension because of runtime limits

Show less

<https://learn.microsoft.com/en-us/power-automate/limits-and-config>



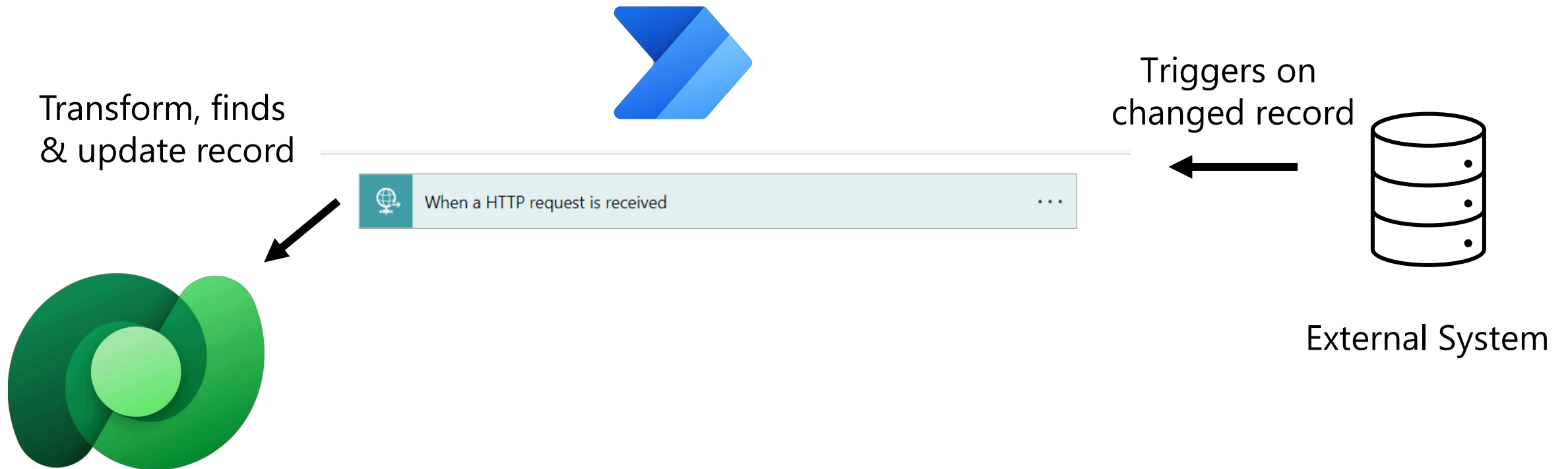
What limits can
feel like..



Limits are protecting YOU



💀 Overload by external source



Performance

Guaranteed performance within limits to protect from „Noisy Neighbors“

Performance (and limits) depending on license(s)

Performance profiles

A flow's *performance profile* determines its Power Platform request limits. The following table describes the plans that are associated with each of the four performance profiles.

To learn more about how Power Automate consumes Power Platform requests, go to [Types of Power Automate licenses - Power Platform requests](#).

 Expand table

Performance profile	Plans
Low	<ul style="list-style-type: none">- Free- Microsoft 365 plans- Power Apps Plan 1, Per App plans- Power Automate Plan 1- All license trials- Dynamics 365 Team Member- Microsoft Power Apps for Developer
Medium	<ul style="list-style-type: none">- Power Apps triggered flows, manual flows, child flows, Power Apps Plan 2, Power Apps per user plan- Power Automate Plan 2, Power Automate Premium (previously Power Automate per user), Power Automate Premium plans (previously Power Automate per user with Attended RPA plans)- Dynamics 365 Enterprise plans, Dynamics 365 Professional plans- Dynamics 365 non-licensed users, application users, users with special free licenses
High	<ul style="list-style-type: none">- Power Automate Process plan, Power Automate per flow plan
Unlimited Extended	<ul style="list-style-type: none">- Pay-as-you-go flows, Dynamics in context flows running under service principal

What is a Microsoft Power Platform request?

Requests in Microsoft Power Platform consist of various actions that a user makes across various products. At a high level, the following list is what constitutes an API request:

- **Power Apps:** All API requests to connectors and Microsoft Dataverse.
- **Power Automate:** All API requests to connectors, process advisor analysis, HTTP actions, and built-in actions from initializing variables to a simple compose action. Both succeeded and failed actions count towards these limits. Additionally, retries and other requests from pagination count as action executions. Learn more in [What counts as Power Platform request?](#)

Request Limits

 Expand table

Products	Requests per paid license per 24 hours
Paid licensed users for Power Platform (excludes Power Apps per App, Power Automate per flow, and Microsoft Copilot Studio) and Dynamics 365 excluding Dynamics 365 Team Member ¹	40,000
Power Apps pay-as-you-go plan ² , and paid licensed users for Power Apps per app, Microsoft 365 apps with Power Platform access, and Dynamics 365 Team Member ²	6,000
Power Automate per flow plan ³ , Microsoft Copilot Studio base offer, and Microsoft Copilot Studio add-on pack ⁴	250,000
Paid Power Apps Portals login	200

Request Limits – Transition period

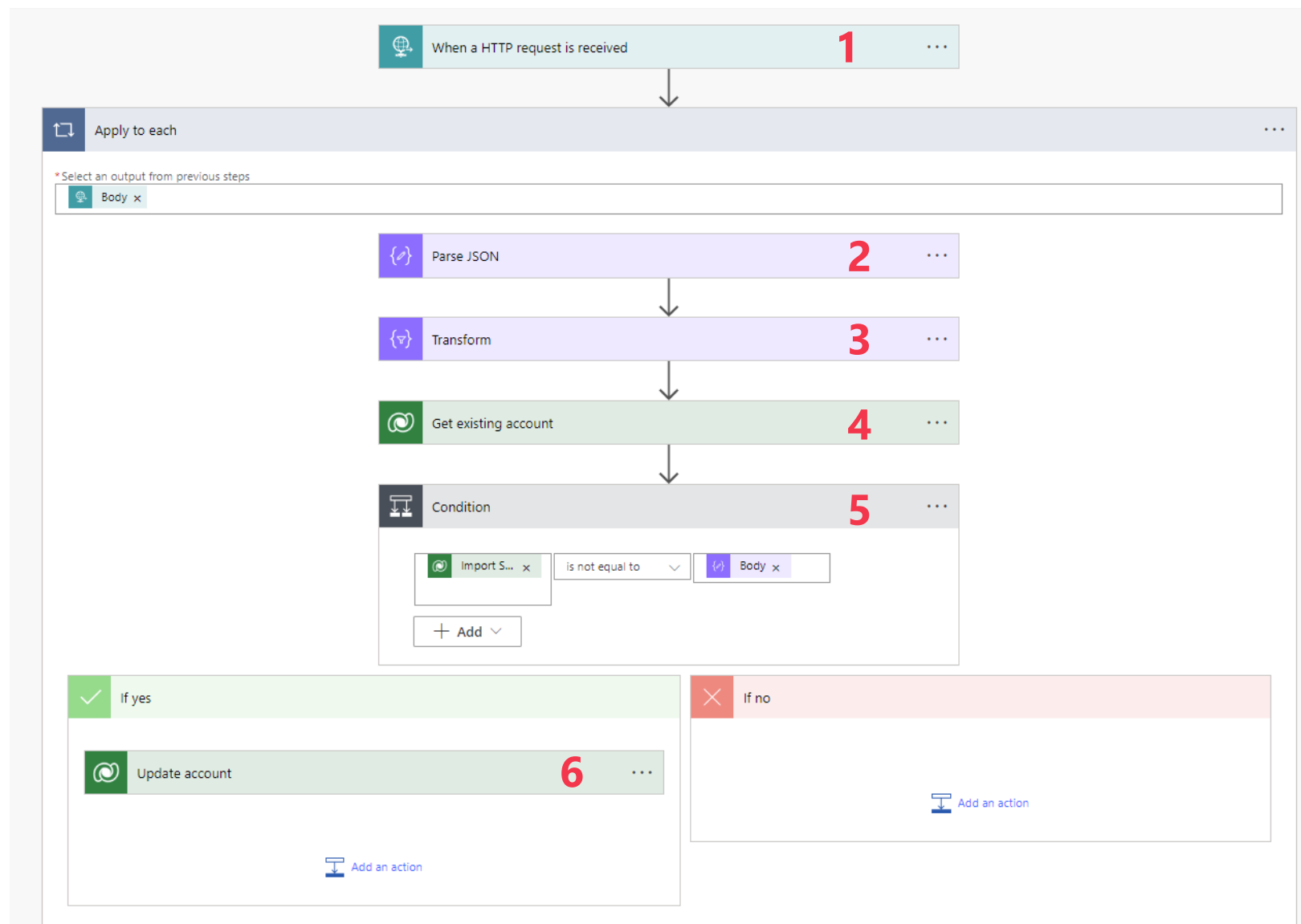
Before fullness of
time!

1/5 of current
limits!

License name	PPR official limit per 24 hours	PPR transition period limit per 24 hours
Power Automate Premium	40k per user	200k per cloud flow
Power Automate Process	250k per license	500k per license
Power Automate Hosted Process	250k per license	500k per license
Power Automate Per-user plan (legacy)	40k per user	200k per cloud flow
Power Automate Per-flow plan (legacy)	250k per license	500k per license
Power Automate Free	6k per user	10k per cloud flow
Office 365	6k per user	10k per cloud flow
Power Apps Premium	40k per user	200k per cloud flow
Dynamics 365 professional	40k per user	200k per cloud flow
Dynamics 365 Enterprise applications	40k per user	200k per cloud flow
Dynamics 365 Team member	6k per user	10k per cloud flow

💀 Overload by external source

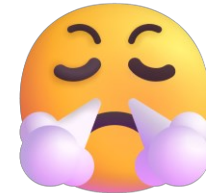
# Records	# Request
1	6
100	501
10.000	50.001
100.000	500.001
1.000.000	5.000.001



💀 ERP updated all 1,5M records in one day..

The outfall

- Flows were heavily throttled
- Lots of Flows „waiting“
- A lot of http request returned an error (which ones!?)
- Took a week to clean up

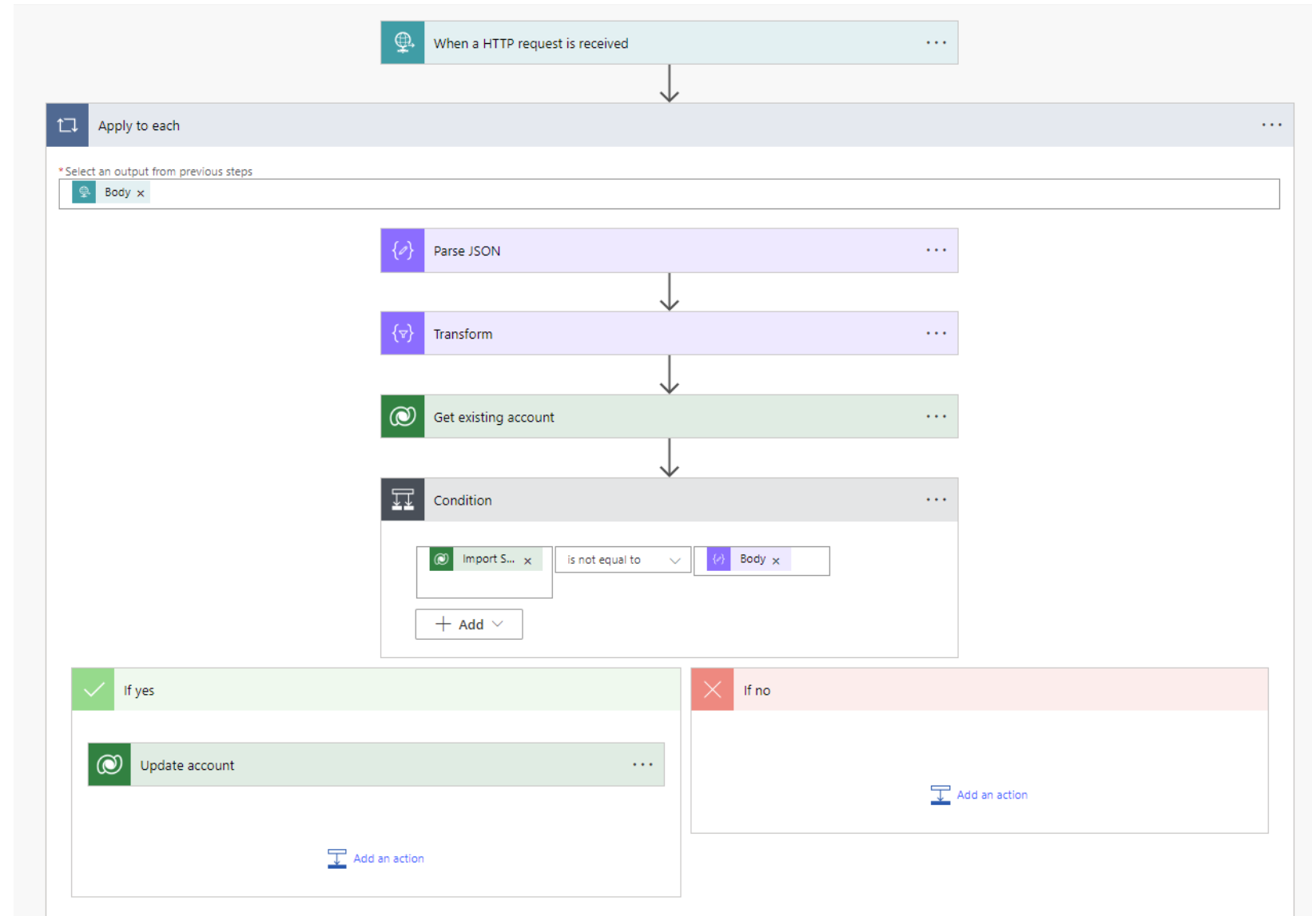




There were
errors..



Error Handling



Error Handling

28-day run history ⓘ			Edit columns	↺ All runs
Start	Duration	Status		
Sep 19, 06:51 AM (1 h ago)	00:00:08	Succeeded		
Sep 19, 06:11 AM (1 h ago)	00:00:09	Succeeded		
Sep 19, 06:08 AM (1 h ago)	00:00:09	Succeeded		
Sep 19, 06:07 AM (1 h ago)	00:00:09	Succeeded		
Sep 19, 06:06 AM (2 h ago)	00:00:11	Succeeded		
Sep 19, 06:06 AM (2 h ago)	00:00:11	Succeeded		
Sep 19, 05:20 AM (2 h ago)	00:00:10	Succeeded		
Sep 19, 03:47 AM (4 h ago)	00:00:10	Succeeded		
Sep 19, 03:46 AM (4 h ago)	00:00:59	Succeeded		

Error Handling

28-day run history ⓘ

Edit columns

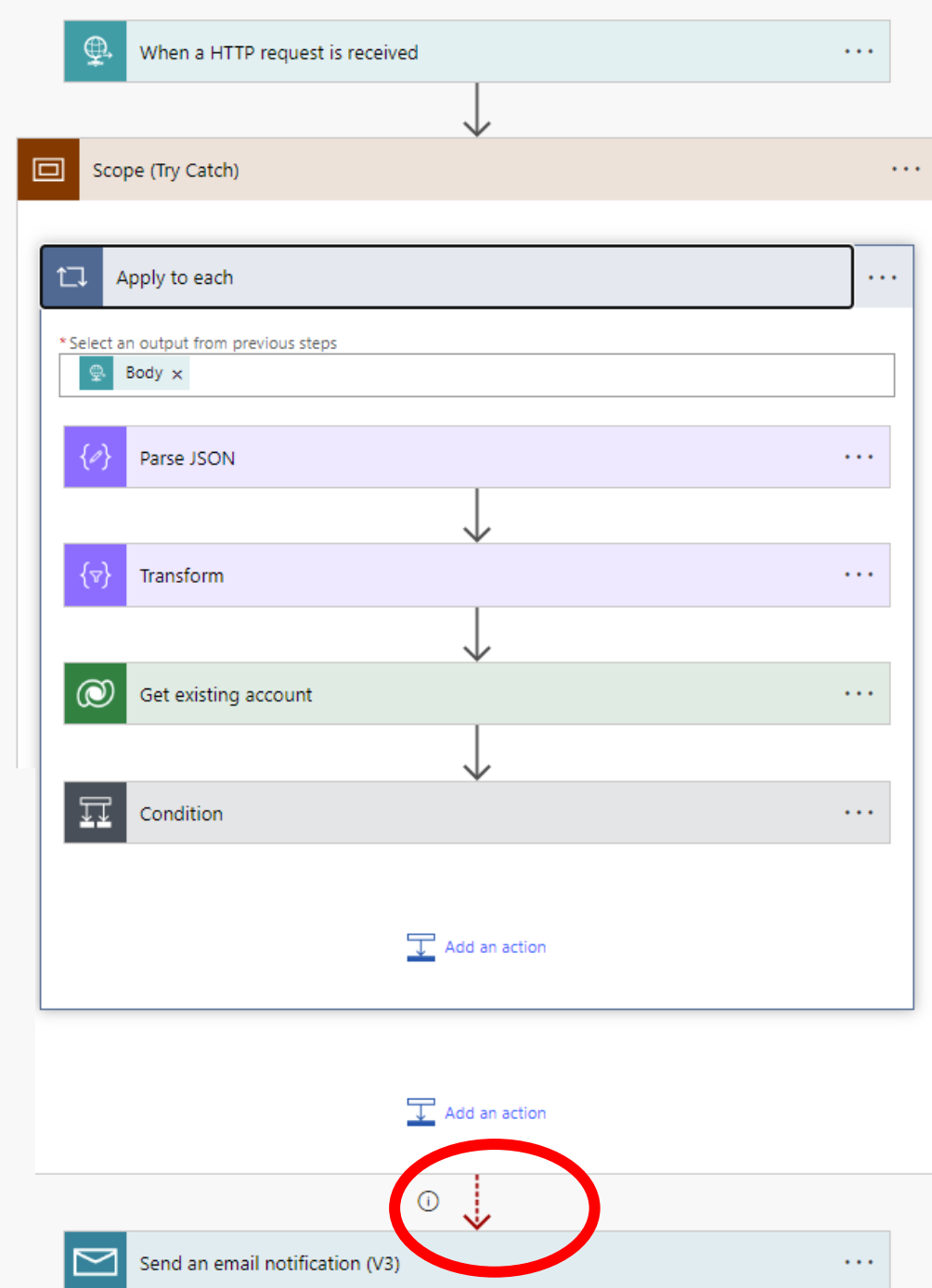
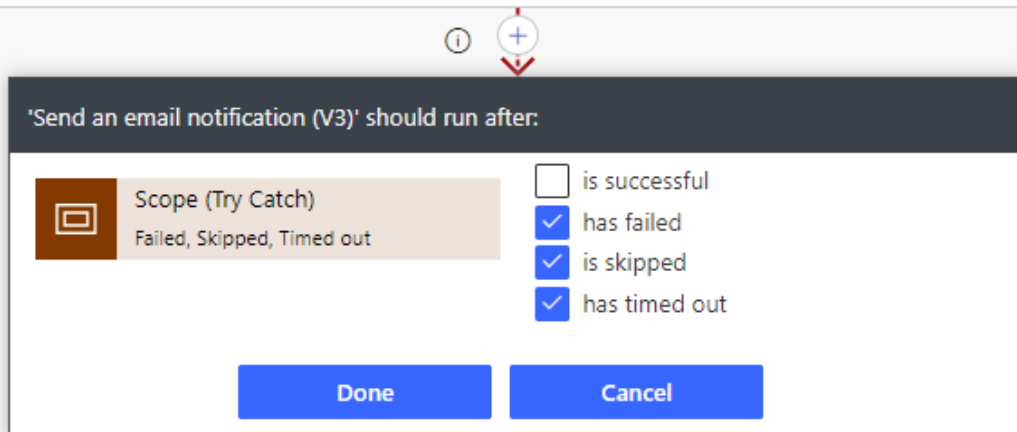
↻ All runs

Name	Limit	Notes
Flows with errors	14 days	A cloud flow that has a trigger or actions that fail continuously will be turned off. Fix your trigger or actions and turn on the flow. These flows will have FlowSuspensionReason=AlwaysFailingDetected.

Sep 1, 09:05 PM (2 wk ago)	00:00:10	Failed
Sep 1,		
Sep 1,		
Sep 1,		
Sep 1,		
Sep 1, 09:05 PM (2 wk ago)	00:00:20	Failed
Sep 1, 09:04 PM (2 wk ago)	00:00:22	Failed

Active Error Handling

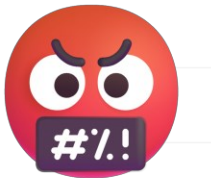
- Use Scope like a „Try Catch“ block
- Configure „Run After“ to handle error/timeout case



Flow Executions / Logging / Debugging


Importflow: Http Redirecter SubData > Run history


Start time	Duration	+ Add column	Status
Sep 19, 08:17 AM (1 h ago)	00:00:02		Succeeded
Sep 19, 07:42 AM (2 h ago)	00:00:02		Failed
Sep 19, 07:15 AM (2 h ago)	00:00:02		Failed
Sep 19, 07:14 AM (2 h ago)	00:00:02		Failed
Sep 19, 07:14 AM (2 h ago)	00:00:01		Failed
Sep 19, 06:51 AM (2 h ago)	00:00:02		Succeeded
Sep 19, 06:45 AM (3 h ago)	00:00:02		Failed
Sep 19, 06:40 AM (3 h ago)	00:00:02		Failed
Sep 19, 06:34 AM (3 h ago)	00:00:02		Failed
Sep 19, 06:28 AM (3 h ago)	00:00:10		Failed
Sep 19, 06:22 AM (3 h ago)	00:00:03		Failed
Sep 19, 06:22 AM (3 h ago)	00:00:02		Failed
Sep 19, 06:17 AM (3 h ago)	00:00:02		Failed





Show more


Flow Executions in Dataverse


 Power Platform admin center

 Home


 Environments

 Environment groups


 Advisor

 Security

Cloud flow run history in Dataverse Preview

With cloud flow run history in Dataverse, you can leverage the extensibility of Dataverse to track the results of your cloud flow executions at scale. [Learn more](#) 

FlowRun entity time to live

Enabled - 28 days retention (default) 

When enabled, every new cloud flow execution will have an entry in the "FlowRun" table to store the cloud flow run metadata. you can adjust the duration of how long the execution



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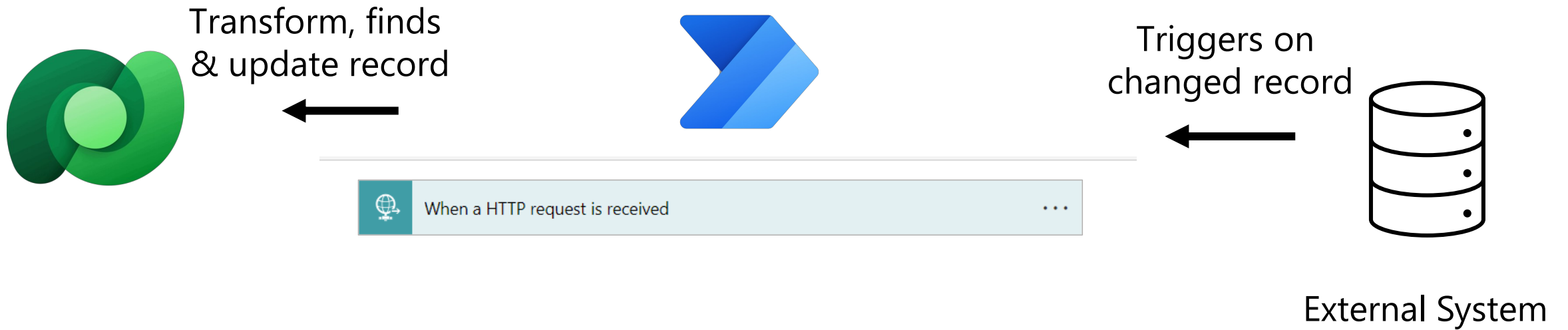
Options



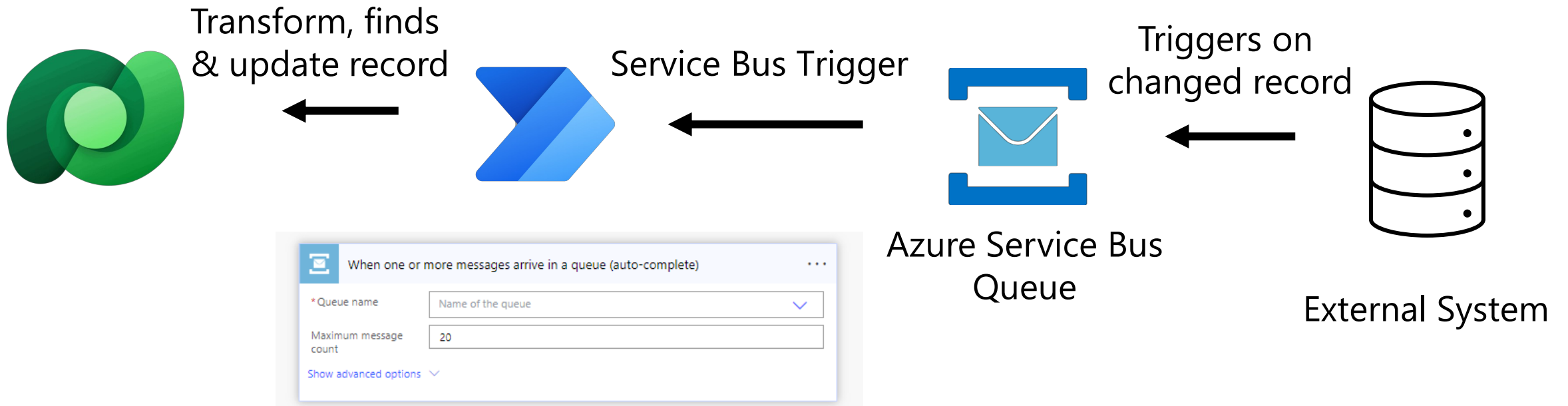
If you only
have a
hammer...



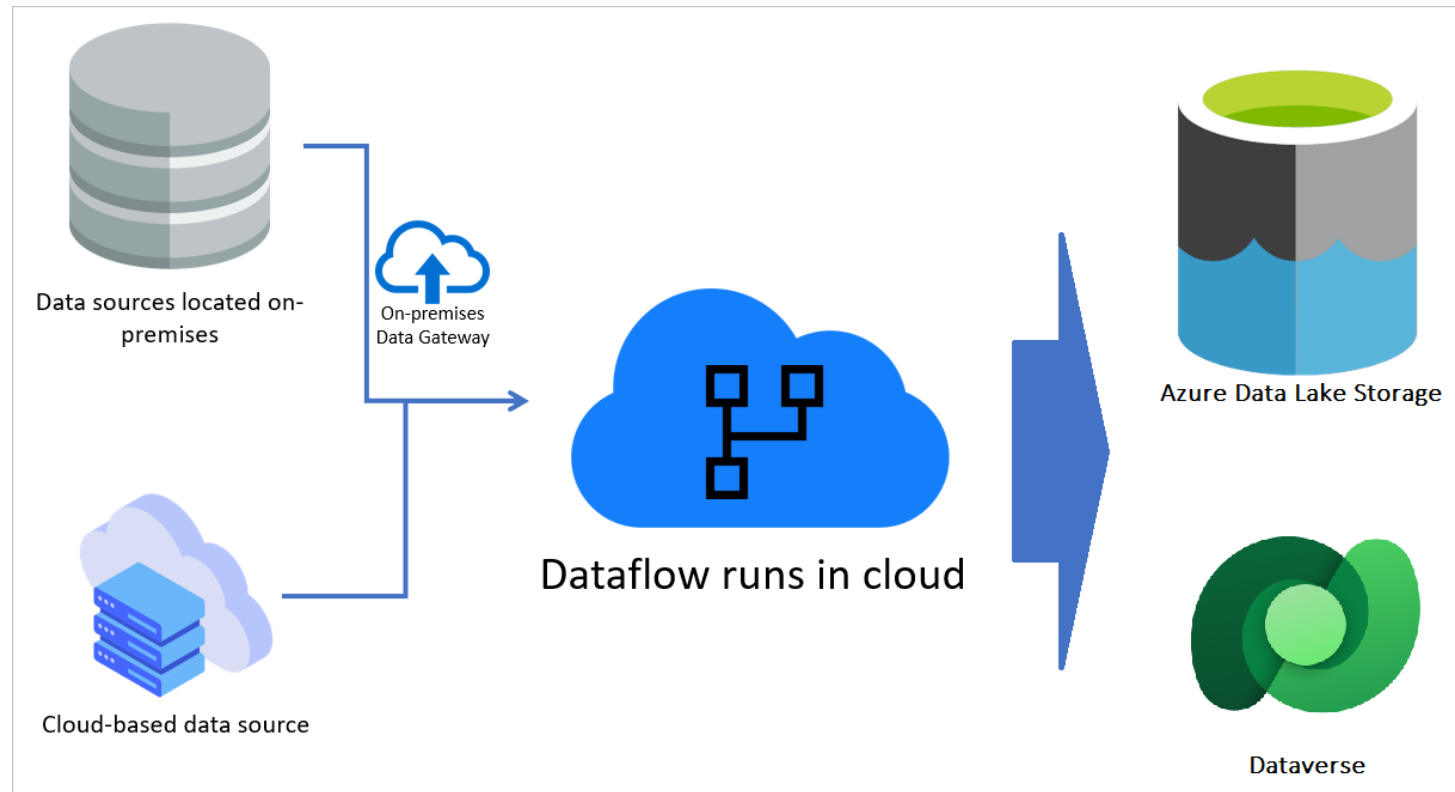
👍 Use Queues (Azure Service Bus)



👍 Use Queues (Azure Service Bus)



👍 Power Platform Dataflows



👍 Power Platform Dataflows

Power Query

👍 Flow

×

Home

New

Upload

Blank table

Blank query

Azure

Get data

Choose data source

Search

New sources

View more →

Excel workbook
File

SQL Server database
Database

SharePoint folder
File

Text/CSV
File

Dataflows
Power Platform

Dataverse
Power Platform

SharePoint Online list
Online services

Web API
Other

Azure SQL database
Azure

Folder
File

SharePoint list
Other

OData
Other

Upload file

Drag your file here

Browse...

Third Party Vendors

 Integrations are hard

 Very valid to pay experts

 Lot's of great options



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The best integration is no integration
aka only duplicate data when necessary




Virtual Tables


Virtual Table Providers



OData

- Ships and available OOTB
- Updated to support full CRUD operations



Custom

- Ships and available OOTB
- Updated to support full CRUD operations
- Plugin Registration Tool (PRT) updated to support operations mapping for Create, Update and Delete




CosmosDB

- Fixed SDK incompatibility issue

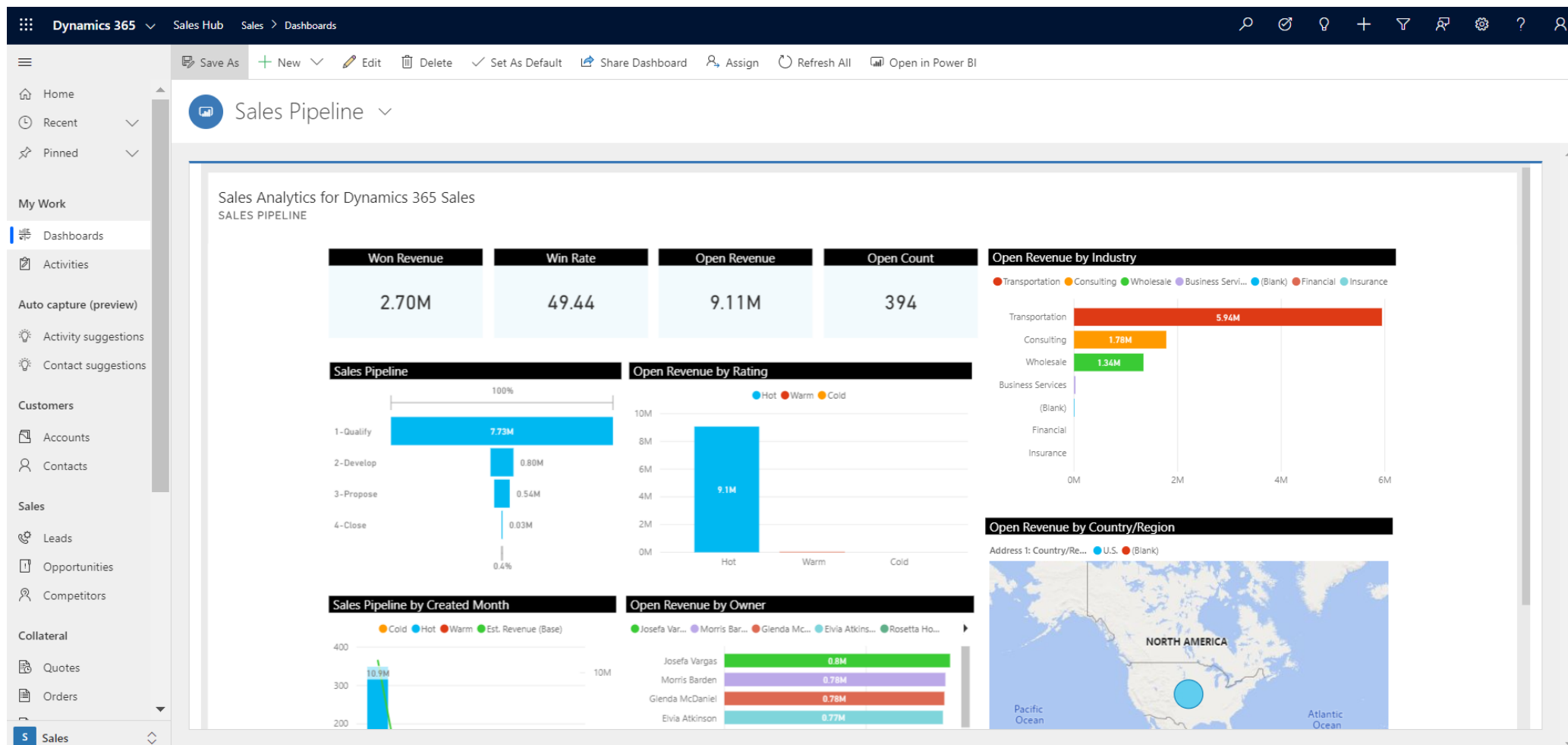

Virtual Connector Provider

- Ability to create virtual tables based on existing connections in Dataverse
- Private Preview with support for SQL Server Connector

Build your own!



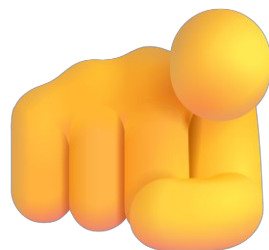
Power BI





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Q&A