Microsoft Dynamics 365

Introduction to Dataverse Business Events

Dynamics 365 FastTrack
Architecture Insights

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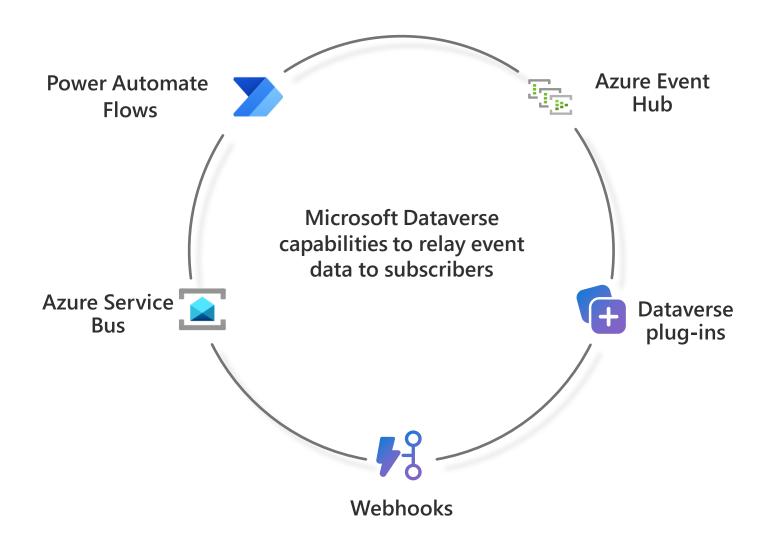Senior Solution Architect
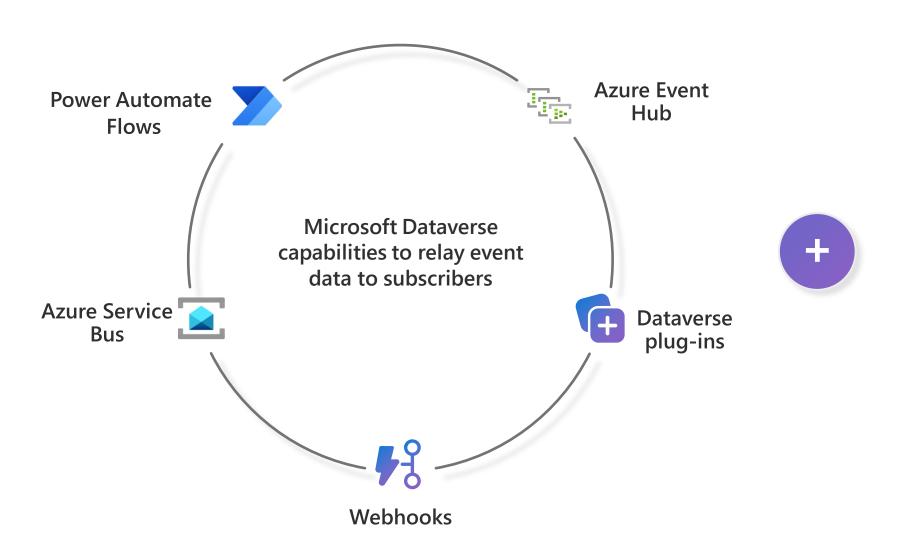Dec 2022

Agenda

- What are Dataverse Business Events ?

- Design principles

- How does it work ?

- Demo

What are Dataverse Business Events ?

Overview

Power Automate Flows

Azure Event Hub

Microsoft Dataverse capabilities to relay event data to subscribers

Azure Service Bus

Dataverse plug-ins

Webhooks

Overview

Power Automate Flows

Azure Event Hub

Microsoft Dataverse capabilities to relay event data to subscribers

Azure Service Bus

Dataverse plug-ins

Webhooks

+

Dataverse Business Events

Example

Let's assume you want to apply a logic when a sharing operation is performed on a user-owned record.

Without Business Events, the only way to initiate logic on this **GrantAccess** message that occurs when a record is shared is via the Dataverse Event framework, typically through a plug-in.

With Business Events, you can catalog the table which will expose the GrantAccess message.

Design principles

Design Principles

Clear Intent
- Why is this business event created ?
- How will it be used by the subscriber ?

Specific
- The subscriber shouldn't filter whether they should respond to it.
- Don't create generic Dataverse Business Events.
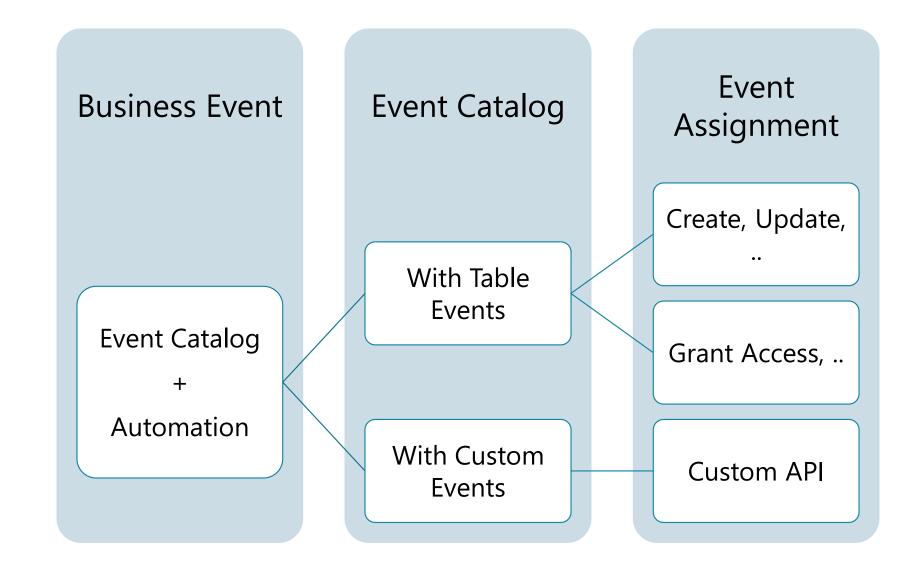
Lightweight
- Only necessary data should be in the event.
- Subscriber to retrieve additional data if needed based on the context.

Not for transferring data
- The use of business events for data transfer scenarios is a misuse of the business events.
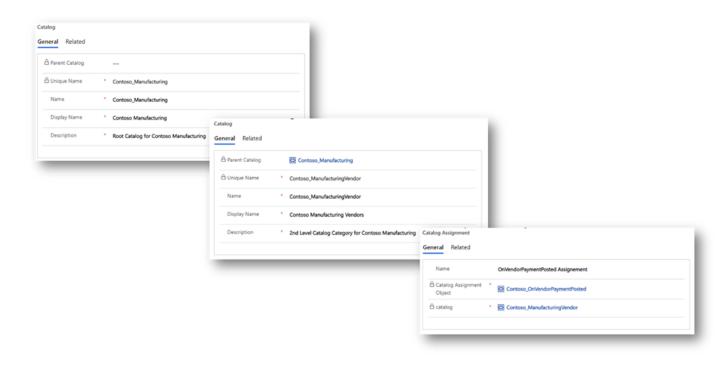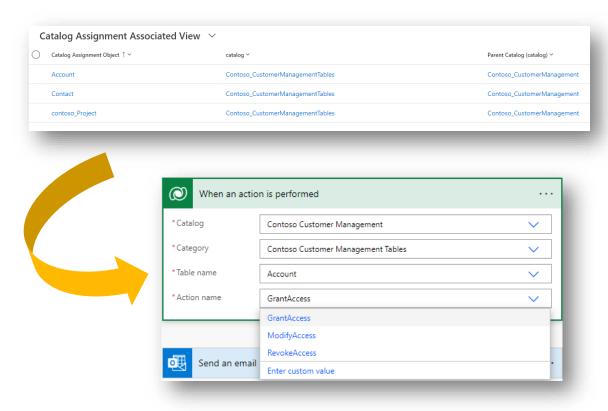
How does it work ?

More Details

Event Catalog

- A hierarchical structure where the top level represents a **solution**
- The second level is a **Category**
- Relevant **tables** and **events** are then assigned to a Category

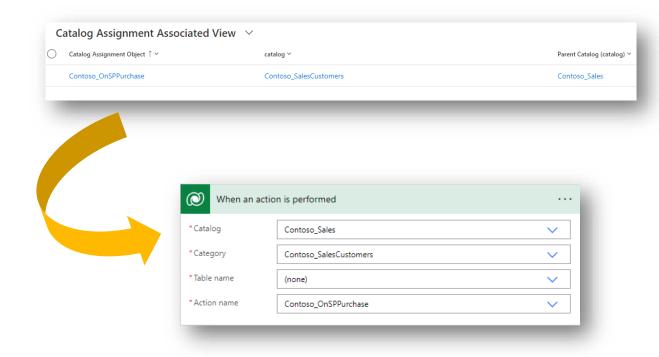| Catalog	Description
Contoso Manufacturing	Root Catalog
Contoso Manufacturing Vendors Catalog	2nd Level Catalog Category
OnVendorPaymentPosted Assignment	Catalog Assignment: Custom API

With Table Events

- The use of operations *CREATE*, *Update* & *Delete* when supported by the table

- Operations are available when the table is assigned to a Category

- The use of additional events is also possible : *GrantAccess*, *ModifyAccess*, *RevokeAccess*

- For Virtual Tables, the events *OnExternalCreated*, *OnExternalUpdated*, *OnExternalDeleted* are included
[Enable Virtual Tables to support Dataverse events (Microsoft Dataverse) - Power Apps | Microsoft Learn](#)

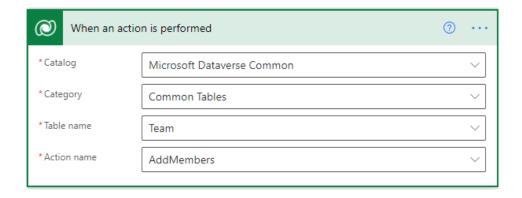[Microsoft Dataverse business events - Power Apps | Microsoft Learn](#)

With Custom Events

- The use of Dataverse Custom API to create custom events

- Each custom API will create a new Dataverse message and provide the web service endpoint to call the custom API

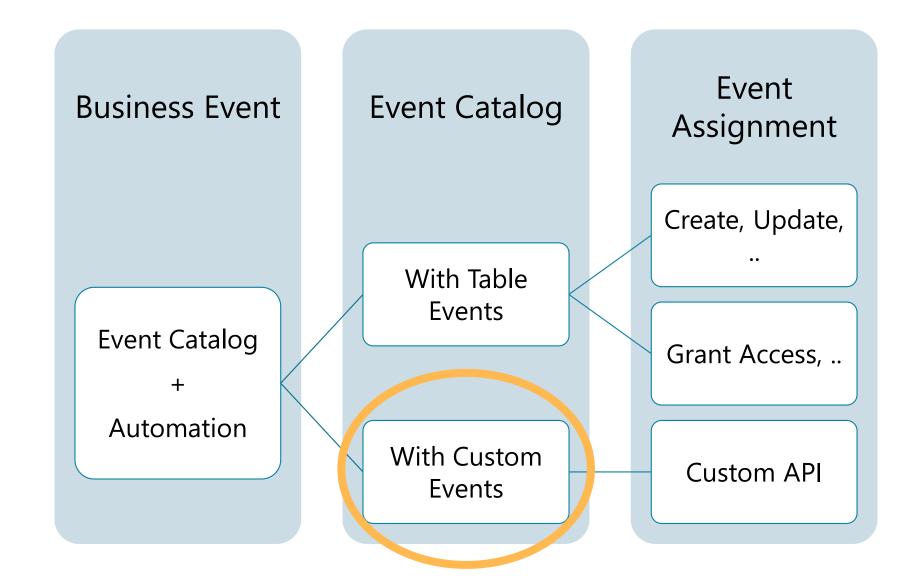- This scenario is detailed in the next slides

How to enable automation

The first experience where business events are exposed is in Power Automate Dataverse connector using the <u>When an action is performed</u> trigger.
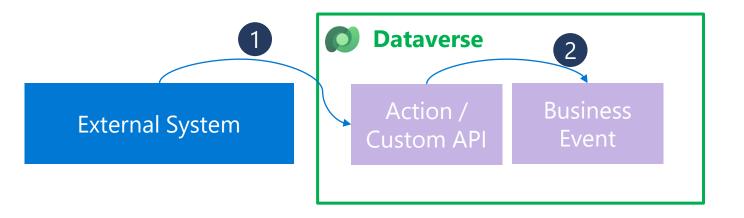

Within this experience Create, Update, and Delete events are not shown for table events. These events are already available using the <u>When a row is added, modified or deleted</u> trigger.
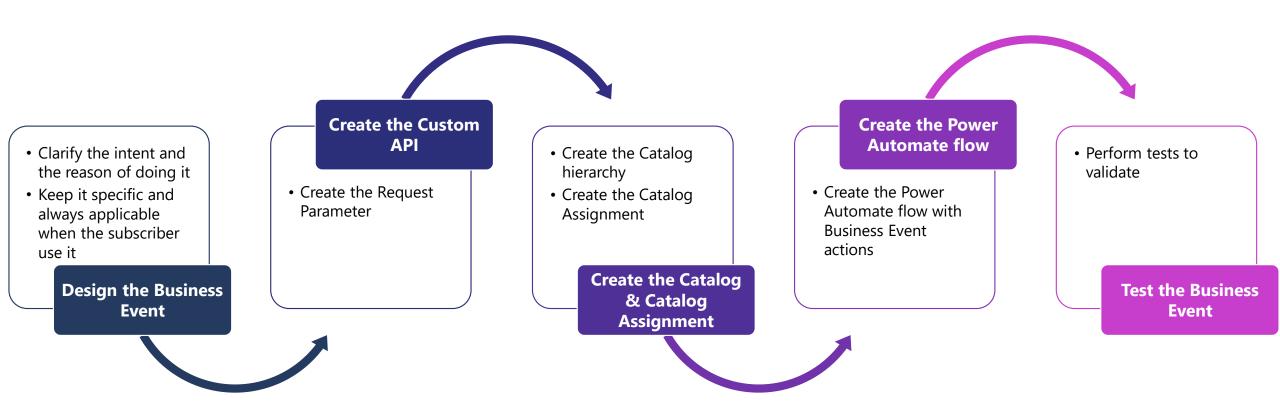
More Details

Used Components

1   An external system calls an Action or Custom API that has been provided to trigger the Business Event.
   - ✓ The Action or Custom API is triggered with the Request Parameters, which contain information about the external event that occurred.

2   The action triggers the Business Event that performs some business logic asynchronously.

Creation Steps

Design the Business Event
- Clarify the intent and the reason of doing it
- Keep it specific and always applicable when the subscriber use it

Create the Custom API
- Create the Request Parameter

Create the Catalog & Catalog Assignment
- Create the Catalog hierarchy
- Create the Catalog Assignment

Create the Power Automate flow
- Create the Power Automate flow with Business Event actions

Test the Business Event
- Perform tests to validate

Design the Dataverse Business Events

Clear Intent
- Why is this business event created?
- How it will be used by the subscriber?

Specific
- The subscriber shouldn't filter whether they should respond to it.
- Don't create generic Dataverse Business Events.

Lightweight
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Not for transferring data
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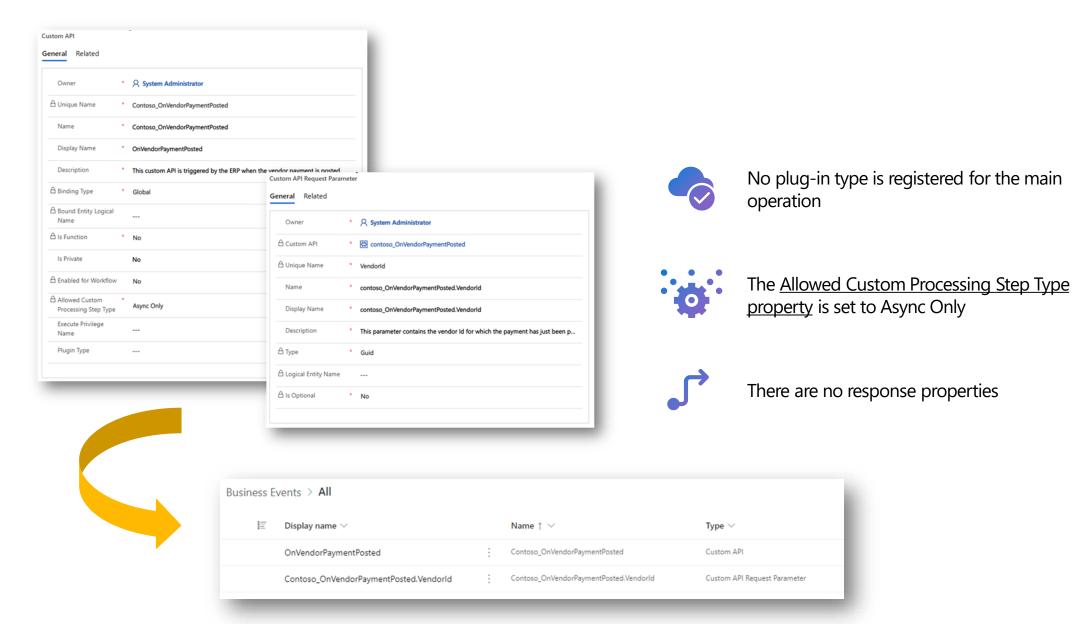
Follow the design principles

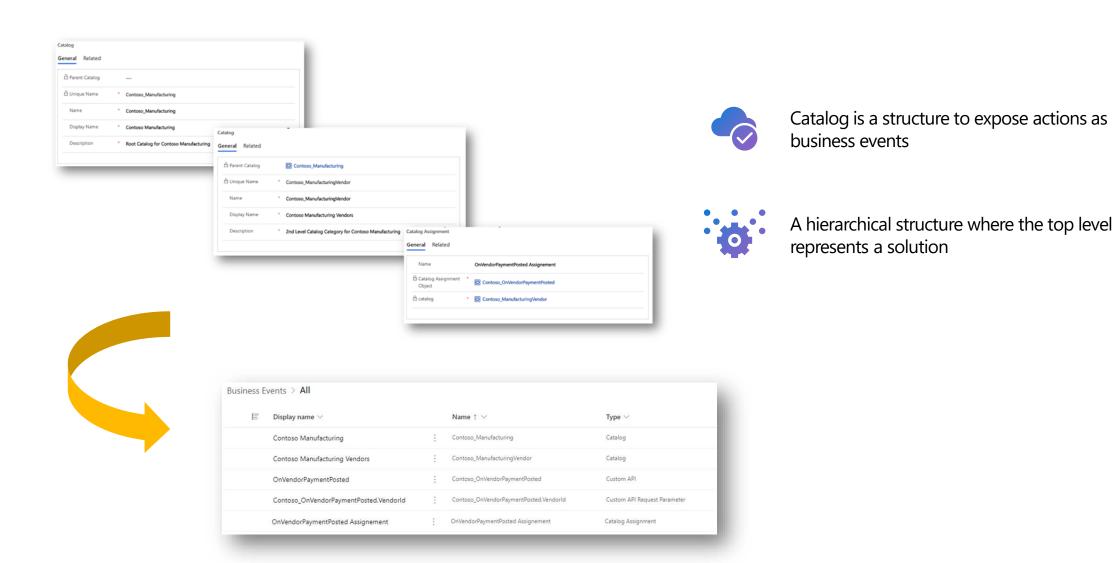Clarify the intent and the reason of doing it & Keep it specific and always applicable when the subscriber use it
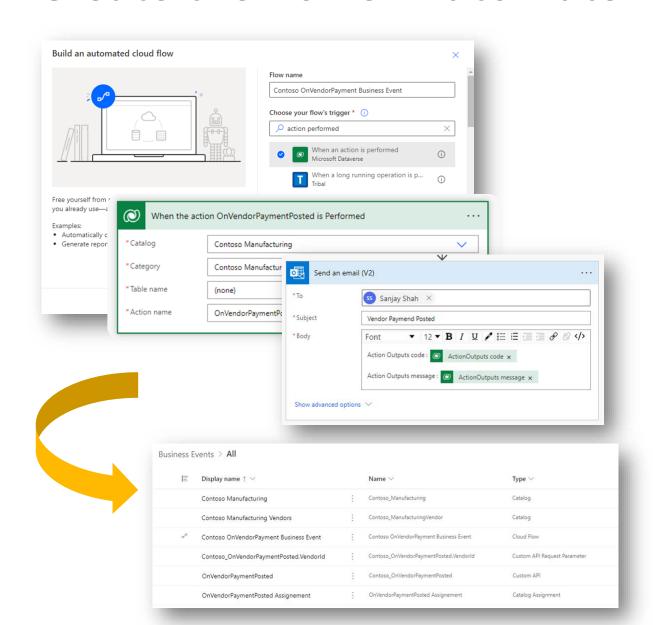
Create the Custom API

No plug-in type is registered for the main operation

The Allowed Custom Processing Step Type property is set to Async Only

There are no response properties

Create the Catalog & the Catalog assignment

Catalog is a structure to expose actions as business events

A hierarchical structure where the top level represents a solution

Create the Power Automate flow

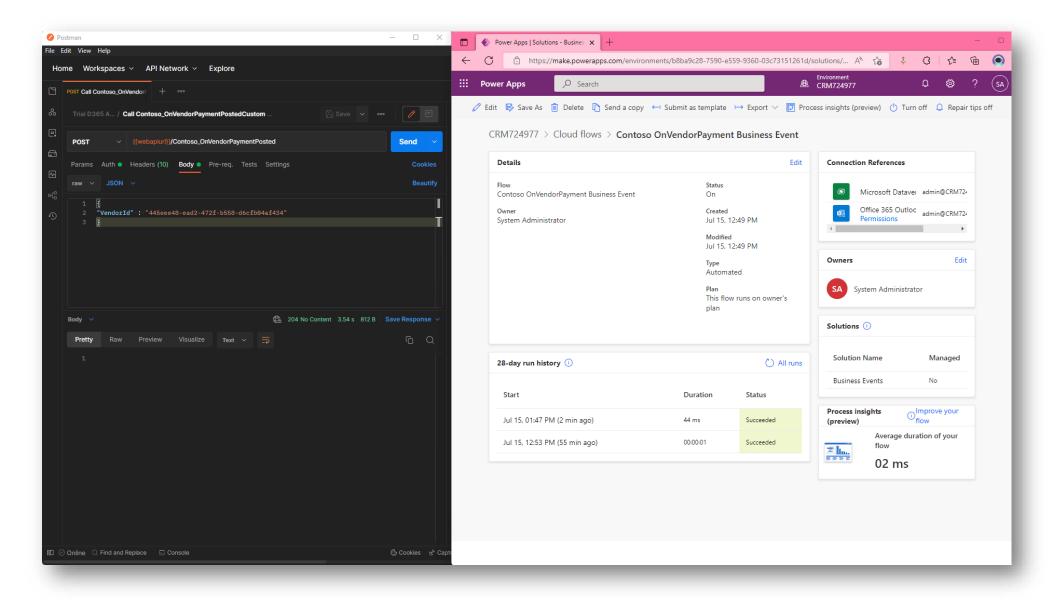Create the cloud flow from the solution you're working on.

Configure the trigger by setting the Catalog, the Category, and the Action created in the previous steps.
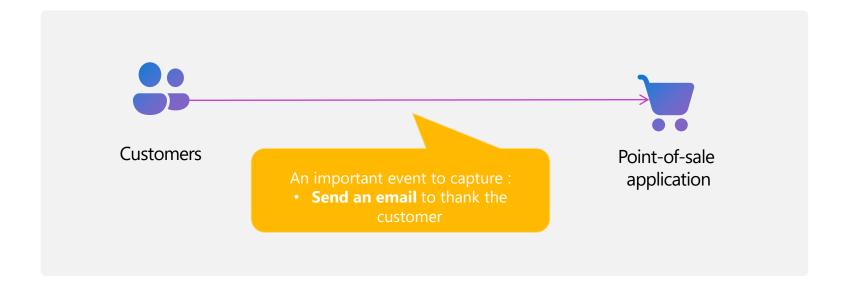
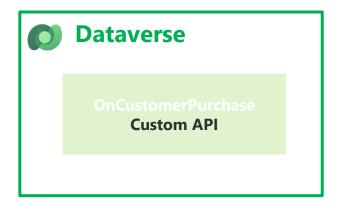Configure the action, for example, by sending an email to an admin.
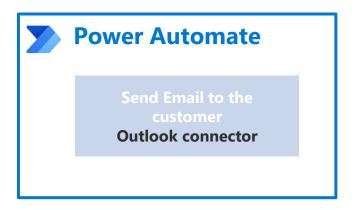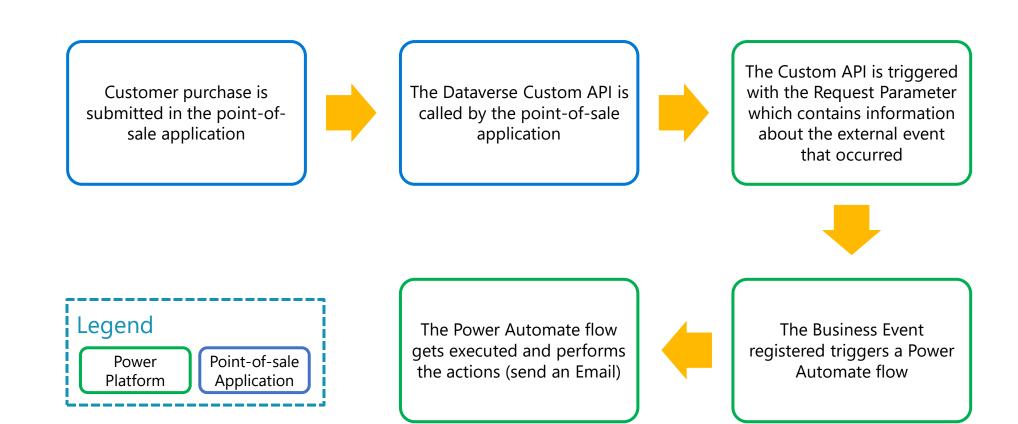
Test the Dataverse Business Event

Demo

Scenario

Creation Steps

Customer purchase is submitted in the point-of-sale application

The Dataverse Custom API is called by the point-of-sale application

The Custom API is triggered with the Request Parameter which contains information about the external event that occurred

The Power Automate flow gets executed and performs the actions (send an Email)

The Business Event registered triggers a Power Automate flow

Legend

Power Platform

Point-of-sale Application

Thank you &
Don't hesitate to ask your questions