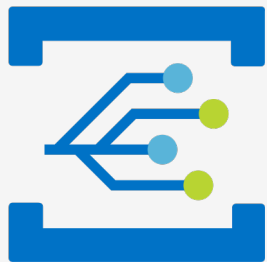


# Azure Event Grid & Azure CLI

# What is Azure Event Grid?



Reliable, serverless event delivery at massive scale

Fully-managed event routing for a publisher-subscriber model

Handles routing of events from many sources and subscribers

It works with any language and platform

# Azure Event Grid: Concepts



**Events** - What happened



**Event sources/publishers** - Where the event took place



**Topics** - The endpoint where publishers send events



**Event subscriptions** - The endpoint or built-in mechanism to route events

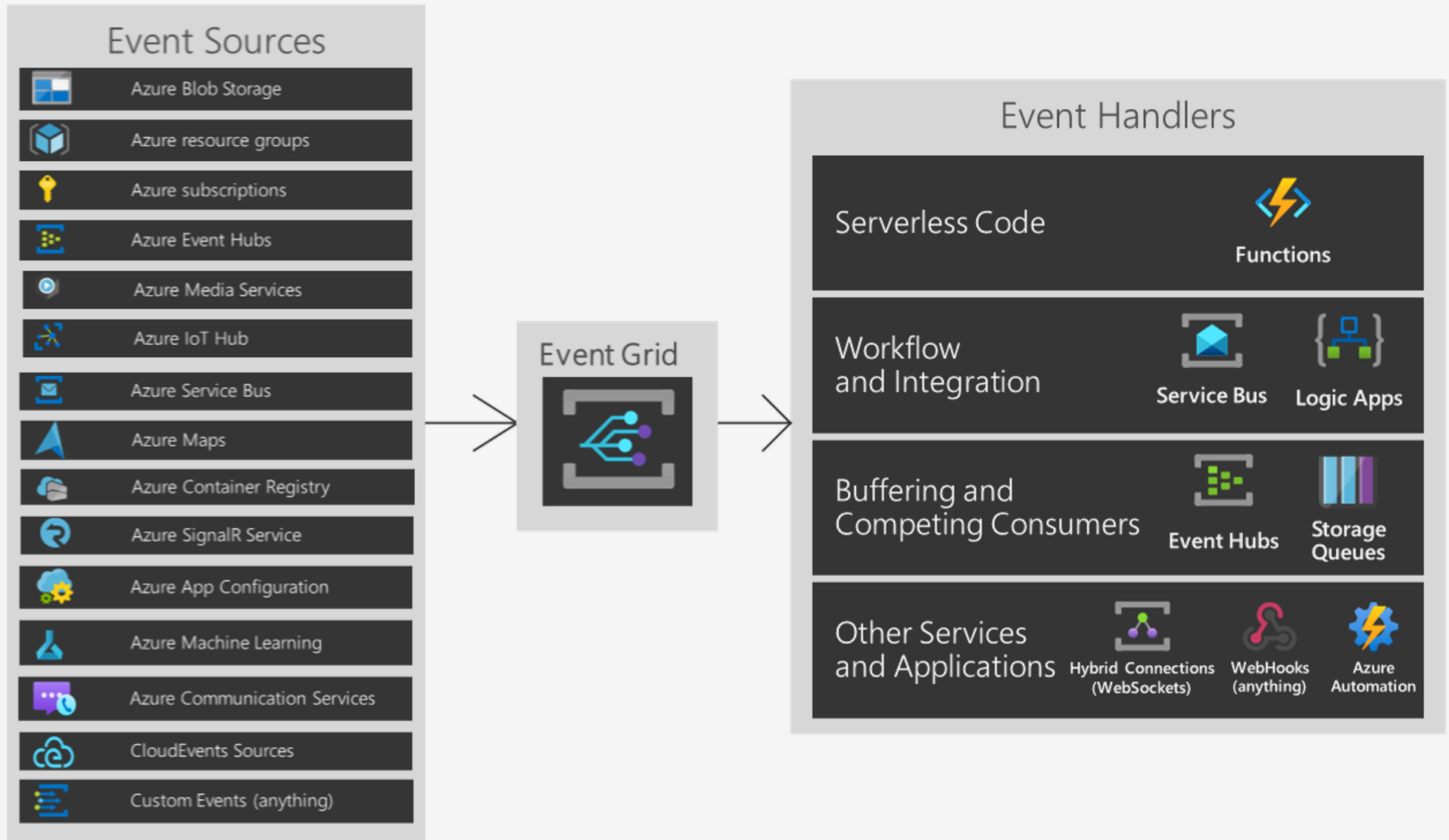


**Event handlers** - The app or service reacting to the event



**Filters** - Can be applied to event types or event subjects

# Azure Event Grid: Event Sources & Handlers




# Event Grid: Characteristics



- Always available
- Near real-time event delivery
- At least once delivery
- Dynamic scale
- Platform agnostic (WebHook)
- Language agnostic (HTTP protocol)

# Azure Function - Event Grid Trigger

 **EventGridTrigger1 | Integration**  
Function

[Overview](#)


**Developer**

[Code + Test](#)

**Integration**


[Monitor](#)


[Function Keys](#)

 Refresh




### Integration

Edit the trigger and choose from a selection of inputs and Storage, Cosmos DB and others.

 **Trigger**  
[Event Grid Trigger \(eventGridEvent\)](#)

 **Inputs**

### Edit Trigger

 Save  Discard  Delete

Binding Type  

Event Grid Trigger

Event Trigger parameter name\* ⓘ  

eventGridEvent

[Create Event Grid subscription](#)

# Event Grid - Azure Function Endpoint



## Create Event Subscription

Event Grid

Basic

Filters

Additional Features

Event Subscriptions listen for events emitted by the topic resource and send them to the endpoint resource. [Learn more](#)

### EVENT SUBSCRIPTION DETAILS

Name

Event Schema

Event Grid Schema



### TOPIC DETAILS

Pick a topic resource for which events should be pushed to your destination. [Learn more](#)

Topic Types

Event Hubs Namespaces



Subscription



Resource Group



Resource



### EVENT TYPES

Pick which event types get pushed to your destination. [Learn more](#)

Filter to Event Types

Capture File Created



### ENDPOINT DETAILS

Pick an event handler to receive your events. [Learn more](#)

Endpoint Type



Azure Function [\(change\)](#)

Endpoint

EventGridTrigger1 [\(change\)](#)

Create

# Event Grid Schema - Blob storage event

```
[
  {
    "topic": "/subscriptions/{subscription-id}/resourceGroups/Storage/providers/Microsoft.Storage/storageAccounts/xstoretestaccount",
    "subject": "/blobServices/default/containers/oc2d2817345i200097container/blobs/oc2d2817345i20002296blob",
    "eventType": "Microsoft.Storage.BlobCreated",
    "eventTime": "2017-06-26T18:41:00.9584103Z",
    "id": "831e1650-001e-001b-66ab-eeb76e069631",
    "data": {
      "api": "PutBlockList",
      "clientRequestId": "6d79dbfb-0e37-4fc4-981f-442c9ca65760",
      "requestId": "831e1650-001e-001b-66ab-eeb76e000000",
      "eTag": "0x8D4BCC2E4835CD0",
      "contentType": "application/octet-stream",
      "contentLength": 524288,
      "blobType": "BlockBlob",
      "url": "https://oc2d2817345i60006.blob.core.windows.net/oc2d2817345i200097container/oc2d2817345i20002296blob",
      "sequencer": "00000000000004420000000000028963",
      "storageDiagnostics": {
        "batchId": "b68529f3-68cd-4744-baa4-3c0498ec19f0"
      }
    },
    "dataVersion": "",
    "metadataVersion": "1"
  }
]
```



# Event Grid vs Event Hub



Event Grid

**Distribution:**

Sends data to subscriber

**Durability:**

None (except retry)

**Ordering:**

Not guarantee



Event Hub

**Distribution:**

Subscriber needs to pull

**Durability:**

Up to seven days

**Ordering:**

guarantee (within a partition)

# Azure Event Grid: What it costs



Price per million operations: € 0.506

Free usage per month: 100,000 operations

Operations include:

- ingress of events,
- delivery attempts
- advanced matches

# Demo: Azure Event Grid



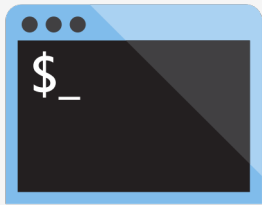
Create an Azure Event Grid Topic

Create a Pipedream Webhook

Create an Azure Event Grid Subscription

Send / Receive Test events

# What is Azure CLI?



Set of commands used to create and manage Azure resources

Is available to install in Windows, macOS, and Linux environments.

Can also be run in Docker and Azure Cloud Shell.

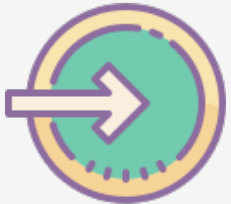
# Azure CLI: Login



Sign in **interactively**

*az login*

## Azure CLI: Login



Sign in with **credentials** on the command line

```
az login -u username -p password
```

# Azure CLI: Login



Sign in with a **service principal**

```
az login --service-principal \  
-u <app-url> -p <password> --tenant <tenant>
```

## Demo: Azure CLI

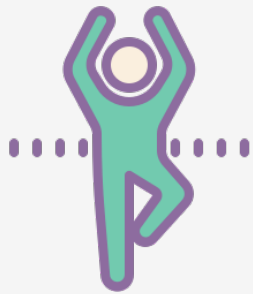


Create a resource group

Create a storage account



# Exercise



## Create a Timer Function and send events to an EventGrid

The Netatmo Weather Station exposes an endpoint to query weather data but it isn't able to push the data to an endpoint.

In this challenge, you will upgrade the solution and periodically query the station and distribute the data using Azure Event Grid.

Link: [\[INSERT GITHUB LINK HERE\]](#)