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SUMMER EDITION

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Azure's Cloud Trinity

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TechNet / MSDN / GitHub

Boat enthusiast

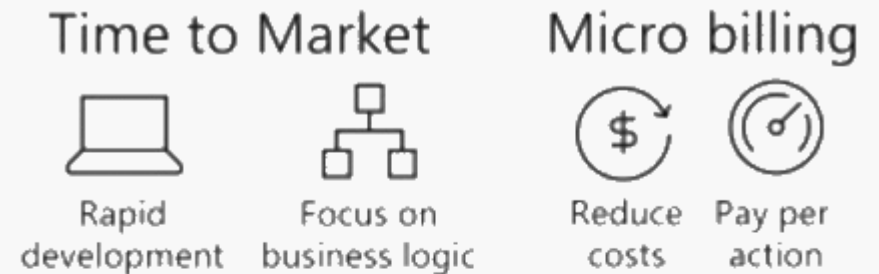


Defining Serverless

*"Serverless computing is a **cloud-computing execution model** in which the cloud provider **dynamically manages** the **allocation of machine resources**. **Pricing** is based on the **actual amount of resources consumed** by an application, rather than on pre-purchased units of capacity. It is a form of utility computing."*

Source (Wikipedia Serverless Computing):

https://en.wikipedia.org/wiki/Serverless_computing



Reduced DevOps



Evolution to Serverless

- What media should I use to keep backup?

- What size of **servers** should I **buy**?

- How can I **scale** my app?

- Do I need secondary network connection?

- How many **servers** do I need?

- Who **monitors** my **Servers**?

- It takes how long to **provision** a new **server**?

- What is the right **size** of **servers** for my business needs?

- Which packages should be on my **server**?

- How do I **deploy** new **code** to my **server**?

- What happens in case of **server hardware** failure?

- How often should I backup my **server**?

- How can I increase **server** utilization?

- Are my **server** in a secure location?

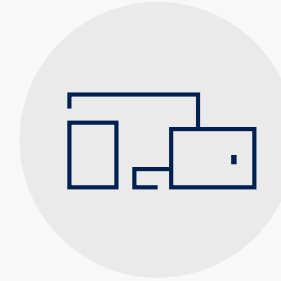
- What storage I need to use?

- How can I dynamically configure my app?

- Which OS should I use?

- What happens if the power goes out?

- How often should I **patch** my **servers**?



On-Premises

What is the right **size** of **servers** for my business needs?

How can I increase **server** utilization?

How many **servers** do I need?

How can I **scale** my app?



How often should I **patch** my **servers**?

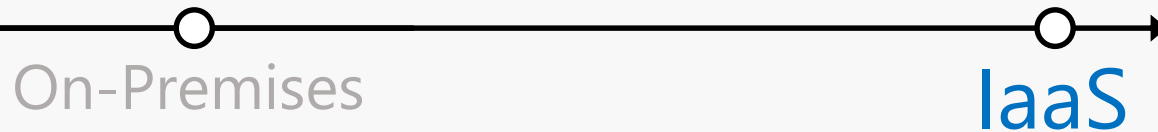
How often should I backup my **server**?

Which packages should be on my **server**?

How do I **deploy** new **code** to my **server**?

Which OS should I use?

Who **monitors** my App?



What is the right **size** of “**servers**” for my business needs?

How can I increase “**server**” utilization?

How many “**servers**” do I need?

How can I **scale** my app?

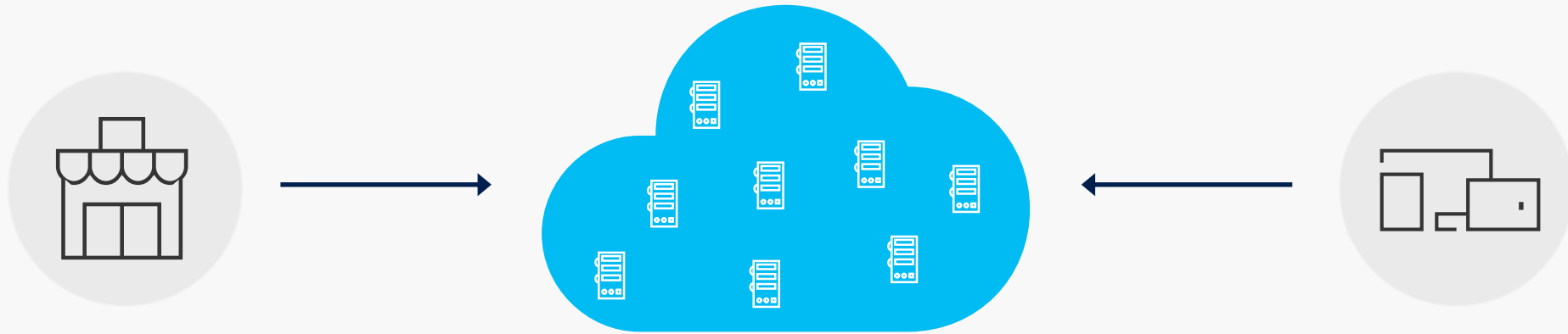


On-Premises

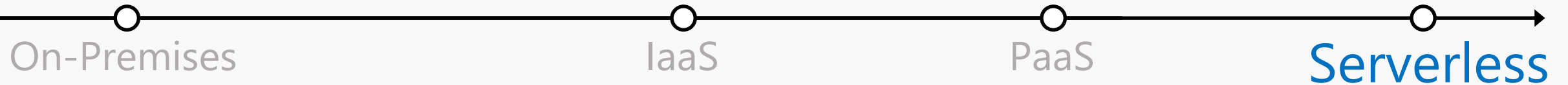
IaaS

PaaS

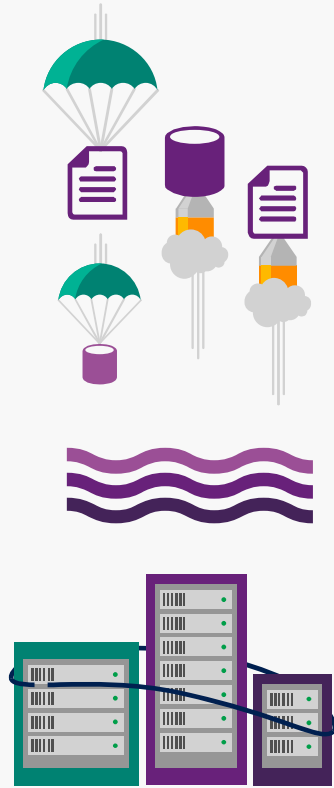
How do I **architect** my app?



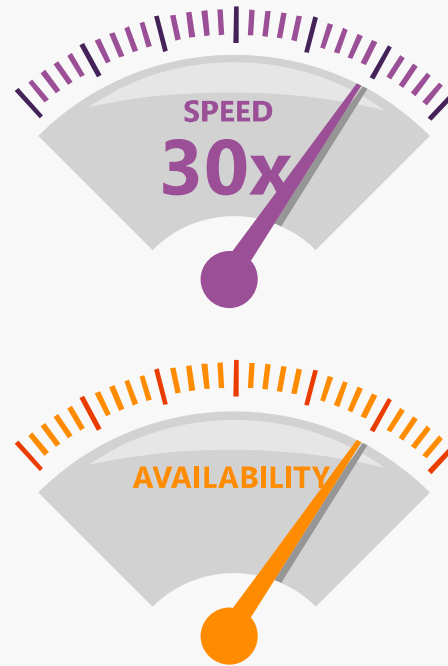
Serverless, the platform for next gen apps



What is "Serverless"



Abstraction
of servers



Event-driven
scale



Sub-second
billing

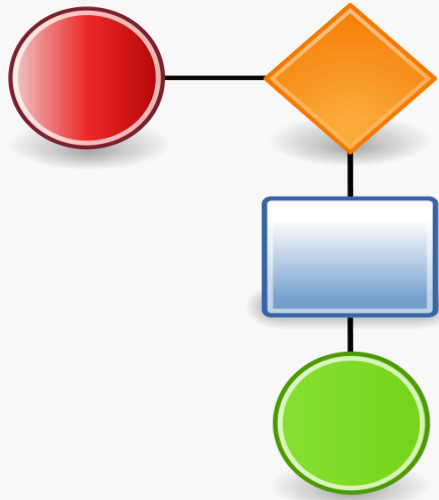
Azure Serverless versus PaaS

Compute
Workflow
Events

Database
Realtime
IoT

Messaging
Analytics

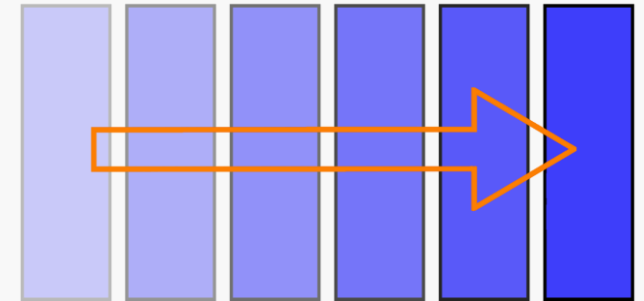
Cloud Trinity



Workflow



Compute

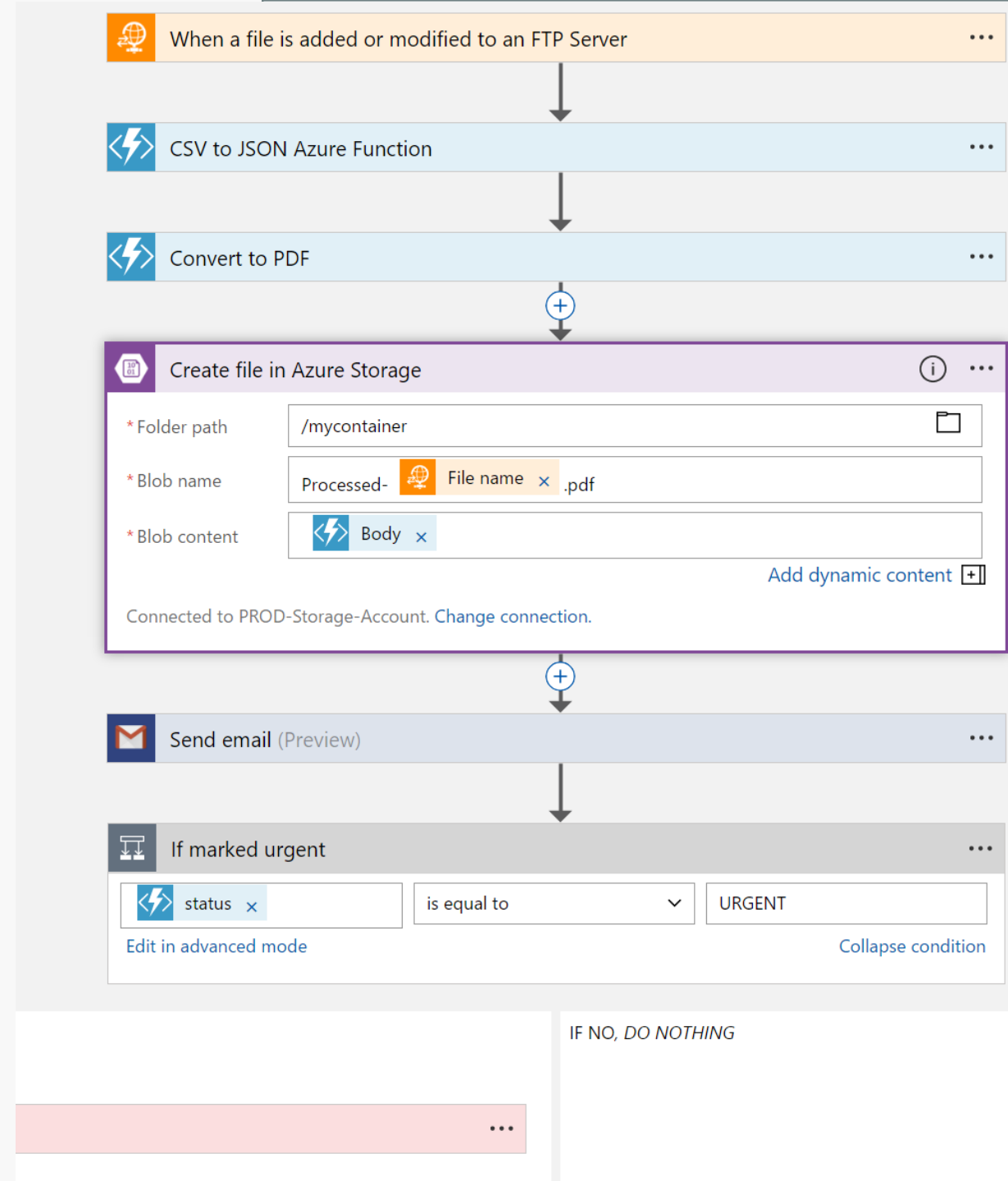


Eventing

Workflow

Logic Apps

- Visual Designer
- Workflow, triggers and actions
- Applications, data and services
- Enterprise Integration
- Create, deploy, manage and monitor



Connected

Cloud APIs and platform functionality

Nearly 200 OOTB connectors

Hosted and managed

Scalable

Rapid development


API connections

Authenticate once and reuse

Simple to deploy

Easily manageable







Custom Connectors



Logic Apps Connector

Microsoft

A custom Logic Apps Connector allows you to register a custom HTTP endpoint with operations that will be exposed within Azure Logic Apps, "description": "Use the Logic Apps Connector and editor to build and deploy custom APIs to be consumed within Logic Apps. These APIs can be any RESTful endpoint, including Azure Web APIs, API Management APIs, Azure Functions, and more. Once created, you can open the connector editor to describe the endpoint (via OpenAPI definition or a postman collection), configure how it will display within the Logic Apps designer, and publish the changes.



Custom connectors


Custom connectors are RESTful APIs that can be hosted anywhere, as long as a well-documented Swagger is available and conforms to OpenAPI standards. [Learn more](#)

How do you want to create your connector?

☒ Upload an OpenAPI file

☐ Use an OpenAPI URL


☐ Upload Postman collection V1



General information

Add an icon and short description to your custom connector. Your host and base URL will be automatically generated from the swagger file.

General information



Upload connector icon

Supported file formats are PNG and JPG, (< 1MB)

Upload icon

Icon background color

Description

Host

Monitoring & Tracking

Trigger & Run History

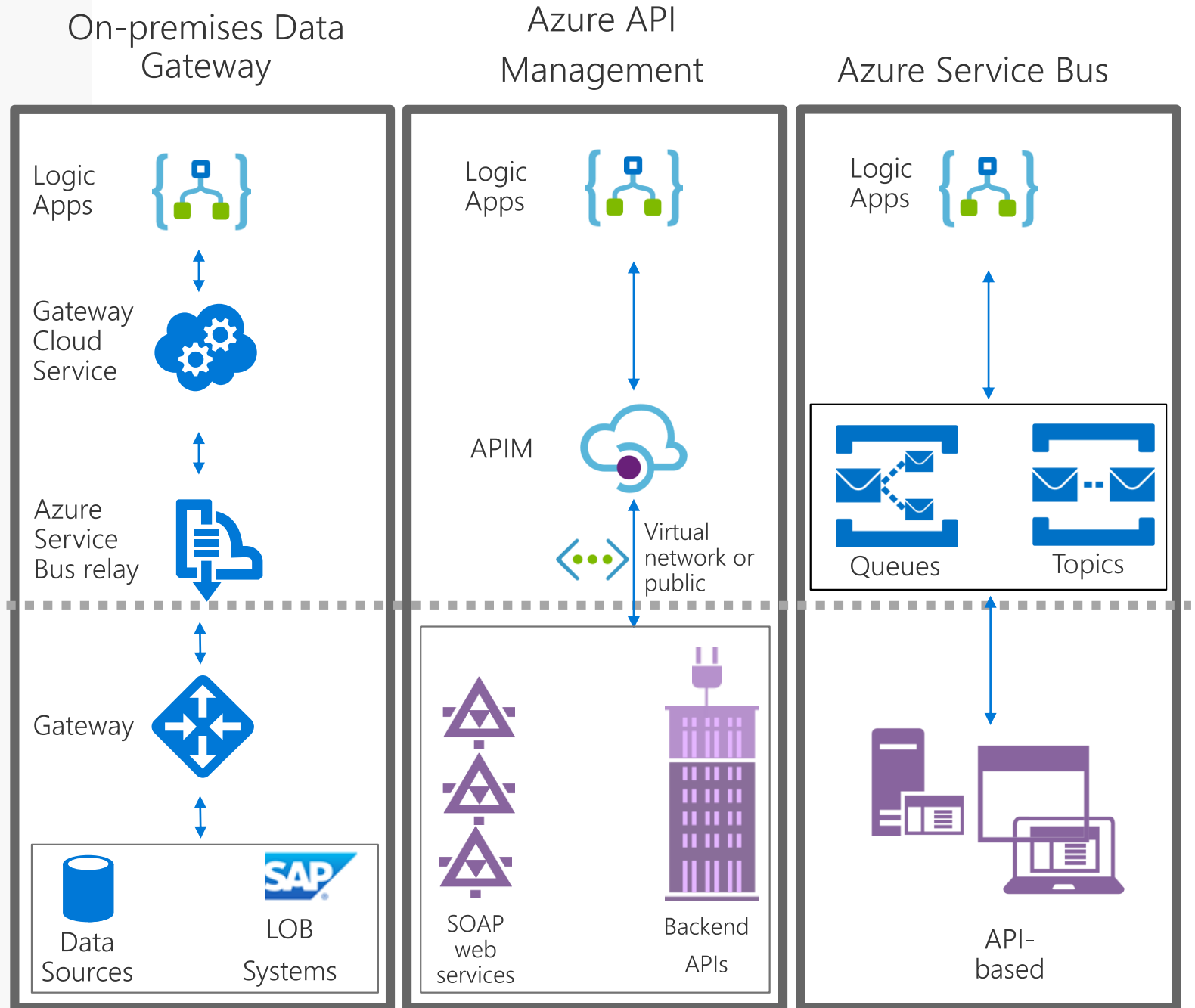
Monitoring view

Diagnostics

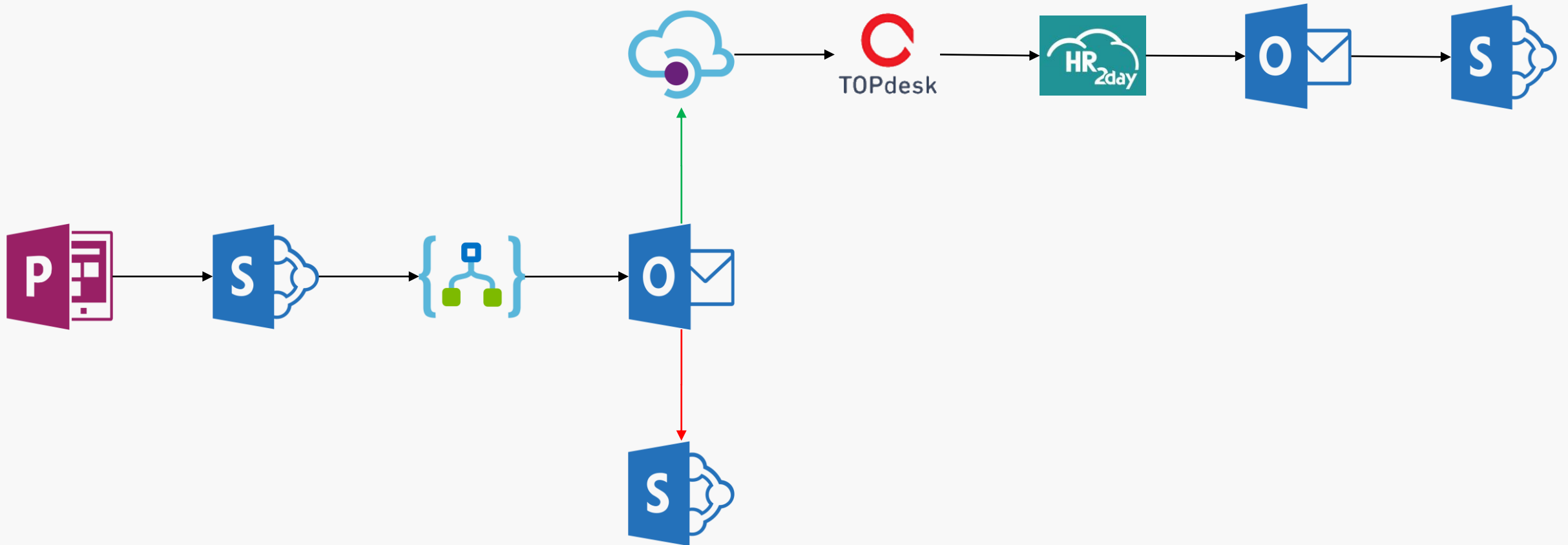
Alerts

Tracked properties

Hybrid Integration



Demo – Onboarding Process

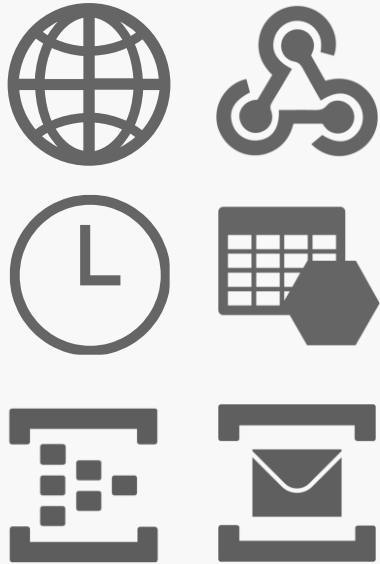


Compute

Compute

Azure Functions

Events



React to timers, HTTP, or events from your favorite Azure services, with more on the way

Code



Author functions in C#, F#, Node.JS, **Java**, and more

Outputs



Send results to an ever-growing collection of services

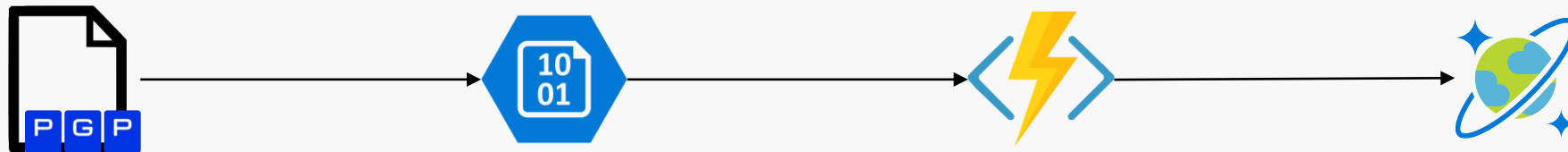
Functions Triggers and Bindings

Type	1.x	2.x	Trigger	Input	Output
Blob Storage	✓	✓ ¹	✓	✓	✓
Cosmos DB	✓	✓	✓	✓	✓
Event Grid	✓	✓	✓		
Event Hubs	✓	✓	✓		✓
External File²	✓			✓	✓
External Table²	✓			✓	✓
HTTP	✓	✓ ¹	✓		✓
Microsoft Graph Excel tables		✓		✓	✓
Microsoft Graph OneDrive files		✓		✓	✓
Microsoft Graph Outlook email		✓			✓
Microsoft Graph Events		✓	✓	✓	✓
Microsoft Graph Auth tokens		✓		✓	
Mobile Apps	✓	✓		✓	✓
Notification Hubs	✓				✓
Queue storage	✓	✓ ¹	✓		✓
SendGrid	✓	✓			✓
Service Bus	✓	✓	✓		✓
Table storage	✓	✓ ¹		✓	✓
Timer	✓	✓	✓		
Twilio	✓	✓			✓
Webhooks	✓		✓		✓

Function bindings

- Provides low-code access to many external sources
- 23 bindings
- Ideal for “data-in, data-out” scenarios

Demo – PGP Decryption



Eventing

Service Bus Services



Azure Service Bus

Messaging

Transactions

Control

Pull



Azure Event Hub

Series

Events

Telemetry

Streaming



Azure Event Grid

Discrete

Events

Event Handling

Reactive

Push

Azure Event Grid



Fully-managed
event routing



Near real-time event
delivery at scale



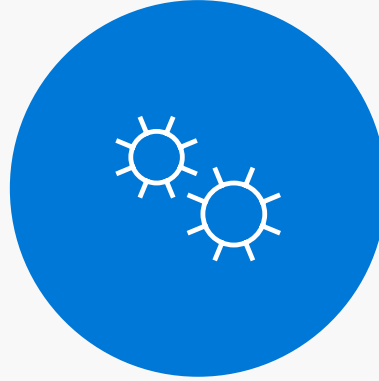
Broad coverage within
Azure and beyond

Backbone of event-driven computing

Benefits



Focus on innovation
and pay per event



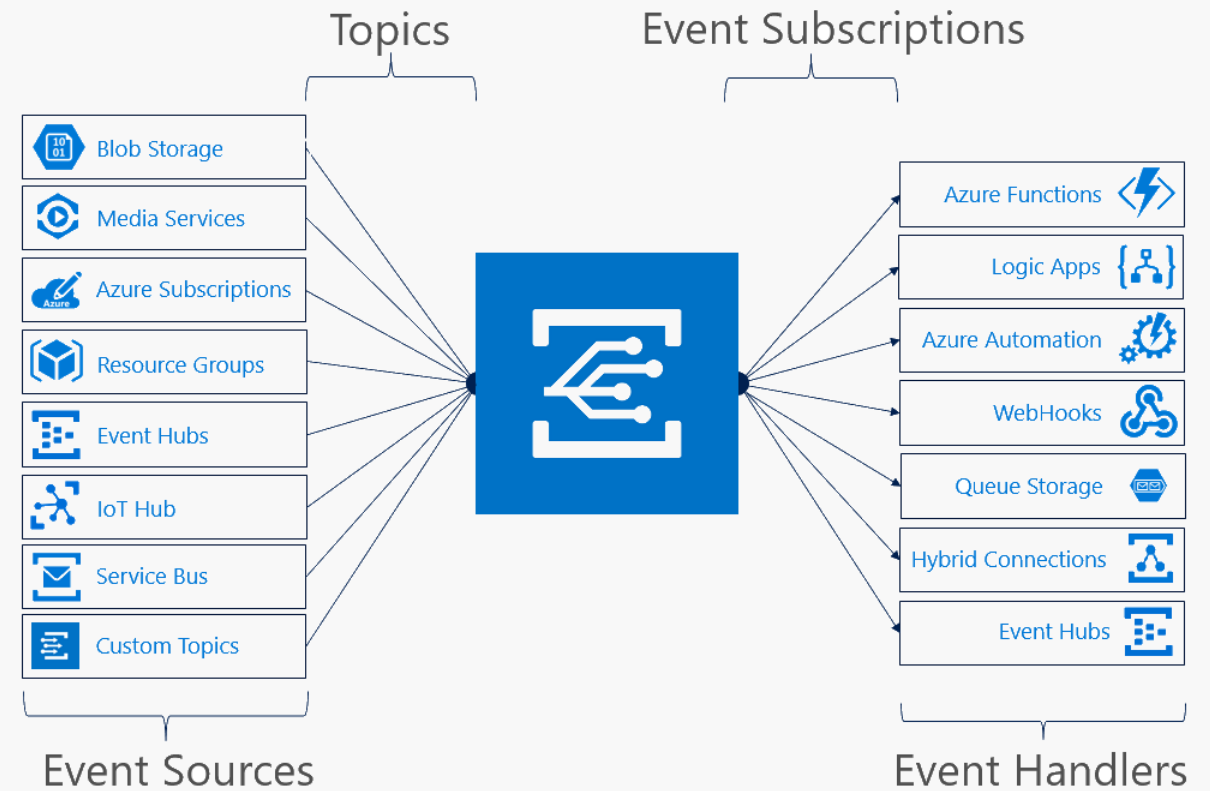
Ensure reliability and
performance for your apps



Unlock new scenarios
for your apps

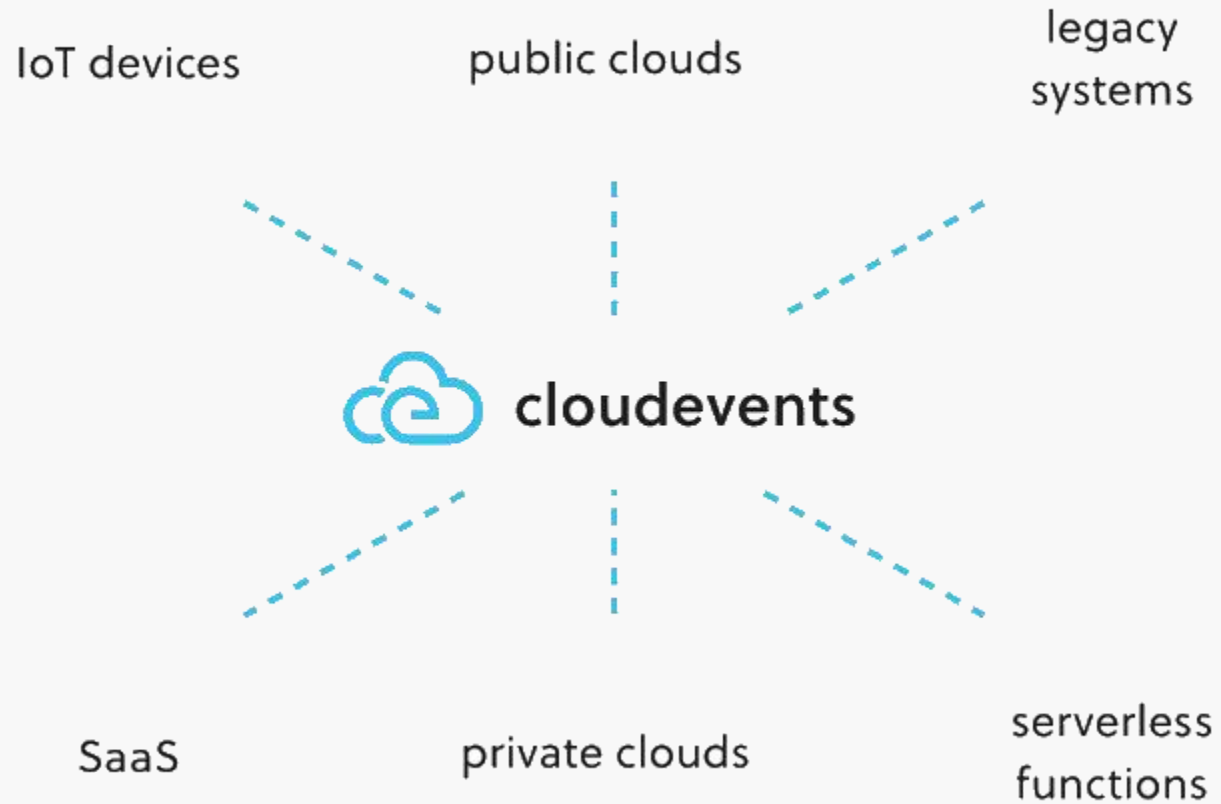
Manage all events in one place

Concepts

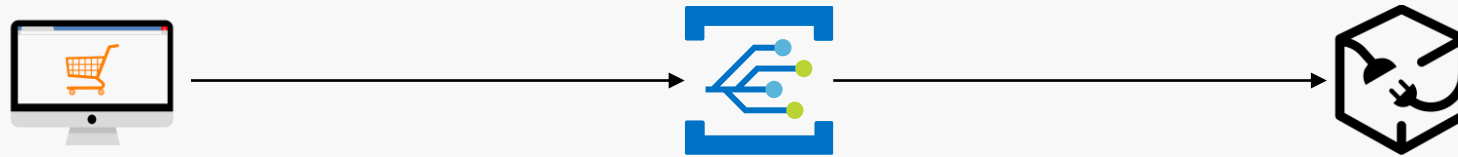


1. Events: what happened
2. Event Publishers: where it took place
3. Topics: where publishers send events
4. Event Subscriptions: how you receive events
5. Event Handlers: the app or service reacting to the event

CloudEvents



Demo – Eventing



Bringing it all Together

Azure Serverless Components



Event Grid

Manage all events that can trigger code or logic



Logic Apps

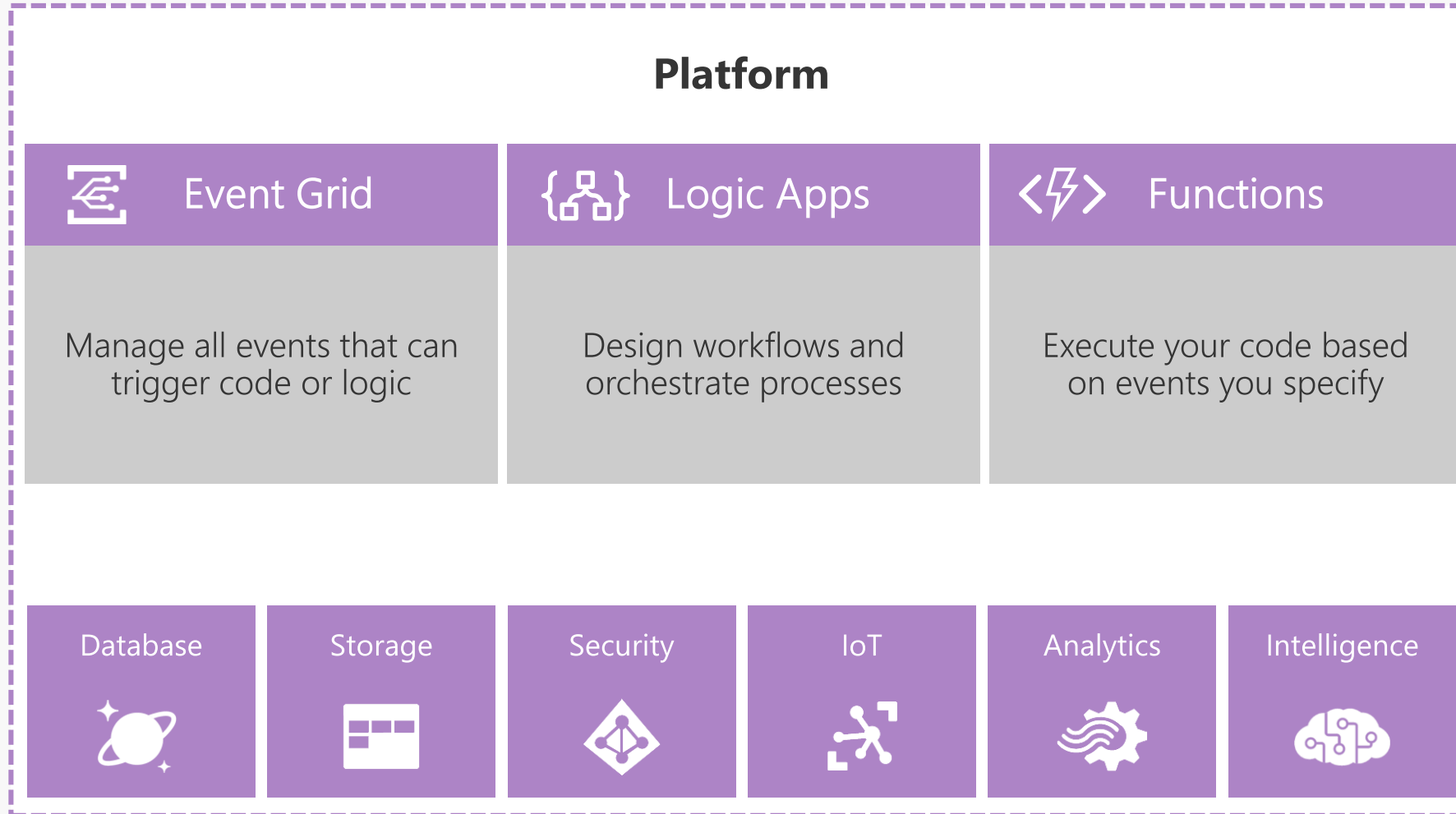
Design workflows and orchestrate processes



Functions

Execute your code based on events you specify

Azure Serverless Components



Azure Serverless Components

Development

 IDE support

 Integrated DevOps

 Local Development

 Monitoring

 Visual Debug History

Platform

 Event Grid

Manage all events that can trigger code or logic

 Logic Apps

Design workflows and orchestrate processes

 Functions

Execute your code based on events you specify

Database



Storage



Security



IoT



Analytics



Intelligence



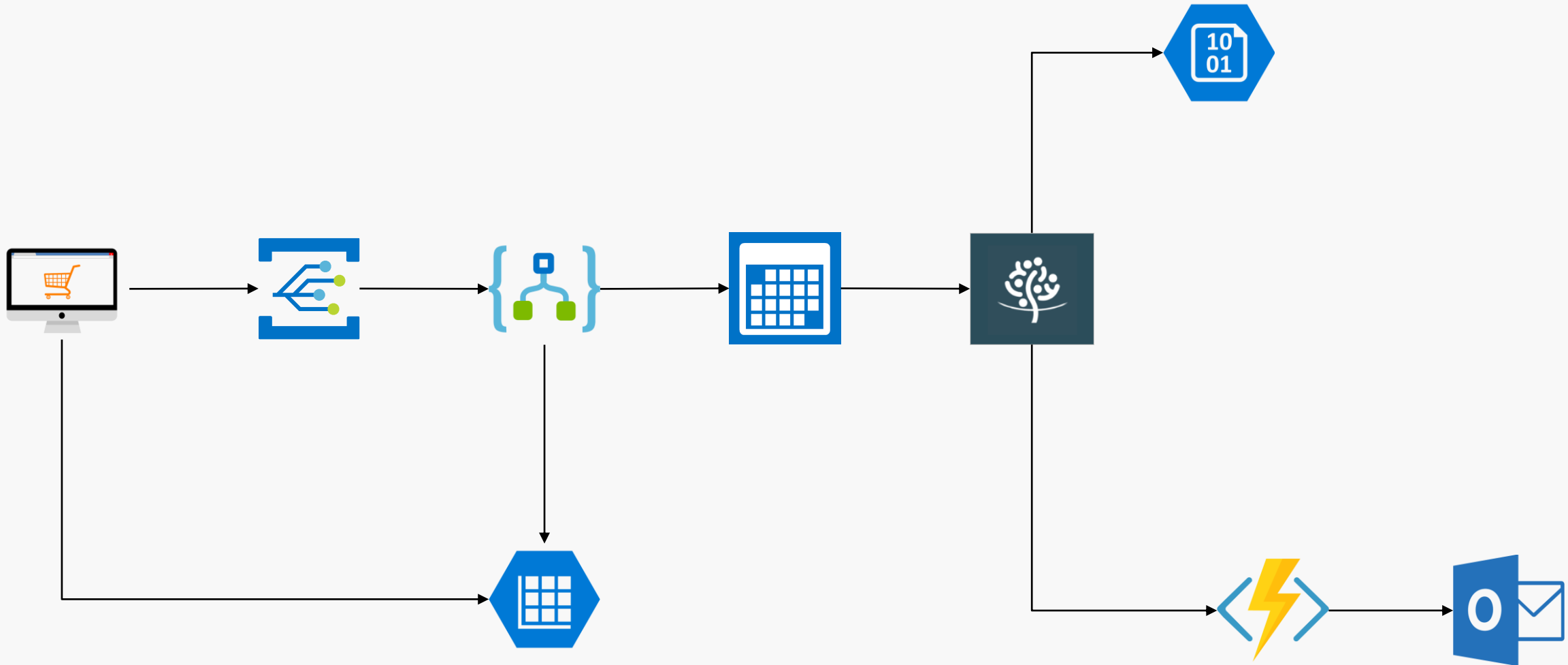
Better Together



=

Limitless Possibilities

Demo – Order System



Almost done...

Key Takeaways

Serverless

Focus on value

Cost Efficient

Only pay for what you use

Better Together

Combine services to create powerful scenarios

Thank You



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<https://blog.eldert.net/>

AT THE ENTRANCE AFTER THE LAST SESSION OF THE DAY



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EVALUATION FORM.

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