iPaaS Ecosystem in Azure

by Jigar Pathak

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About Me

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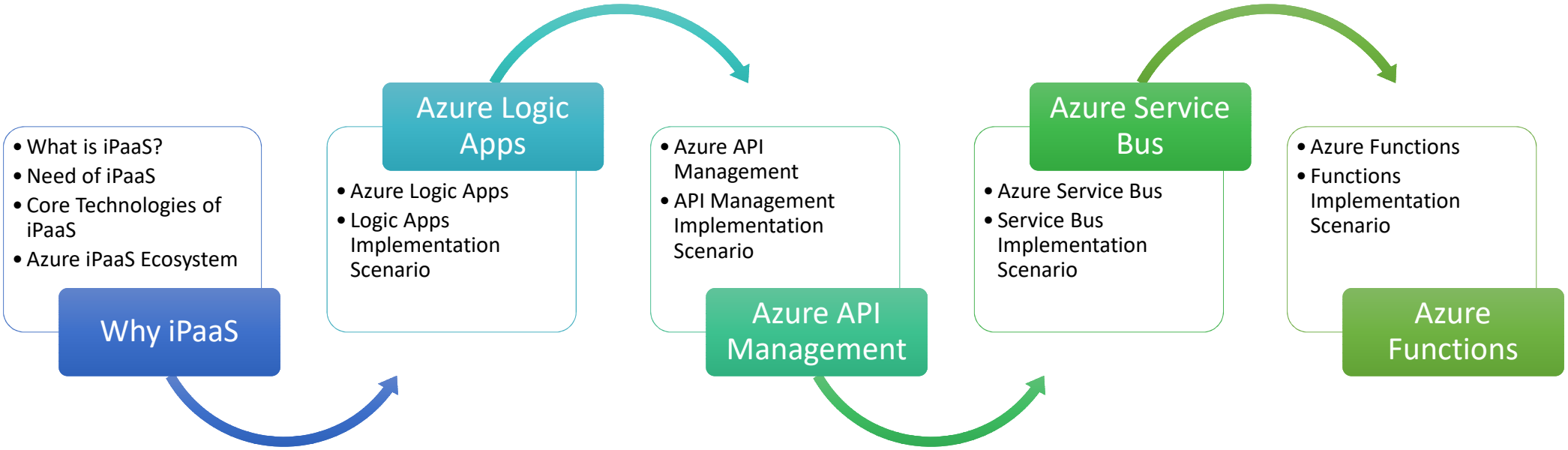
MCSA & MCSE

Agenda



Workshop Connecting APIs and services using iPaaS services

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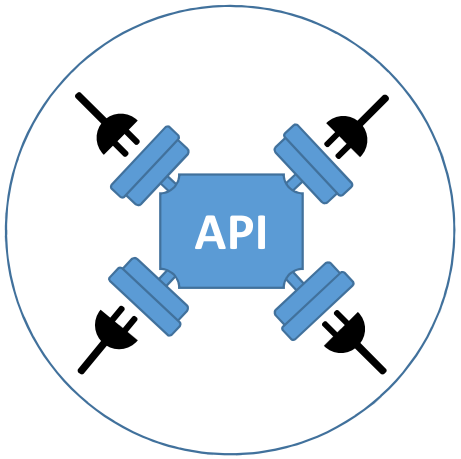
What is iPaaS?

According to Gartner: An integration platform as a service (iPaaS) solution provides capabilities to enable tenants to implement data, application, API and process integration projects involving any combination of cloud-resident and on-premises endpoints

Need of iPaaS

- Services enables communication over different types of protocols like HTTP/HTTPs, Messaging Services, FTP etc.
- Should provide connectors with various SaaS products, on premise and cloud based applications
- Supports different kind of data transformation and format like XML, JASON
- Allow to create Integration workflow lifecycle

Core Technologies of iPaaS

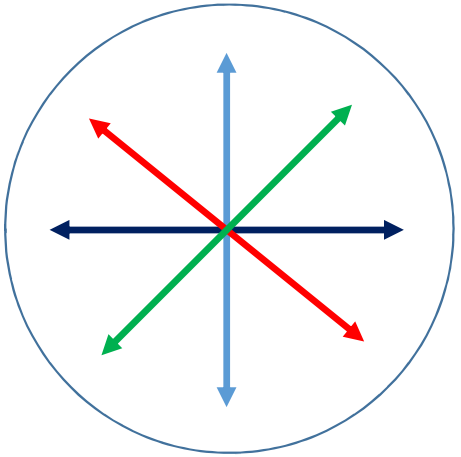


APIs

Publish and manage application programming interfaces (APIs). API service makes software services accessible to other services/applications, whether they are hosted in the cloud or onpremises.

Orchestration

Provides direct way to create and run integration logic. If business is looking for connecting several different applications, all accessed via APIs. To create such workflows, an iPaaS provides orchestration layer.



Events

Publish and manage application programming interfaces (APIs). API service makes software services accessible to other services/applications, whether they are hosted in the cloud or onpremises.

Messaging

Applications and integration technologies needs to communicate in a loosely coupled way. A Messaging service provides queues that hold messages until they can be picked up by the receiver and complete the process. Provides communication asynchronously.

Market Leaders in iPaaS Service Offerings

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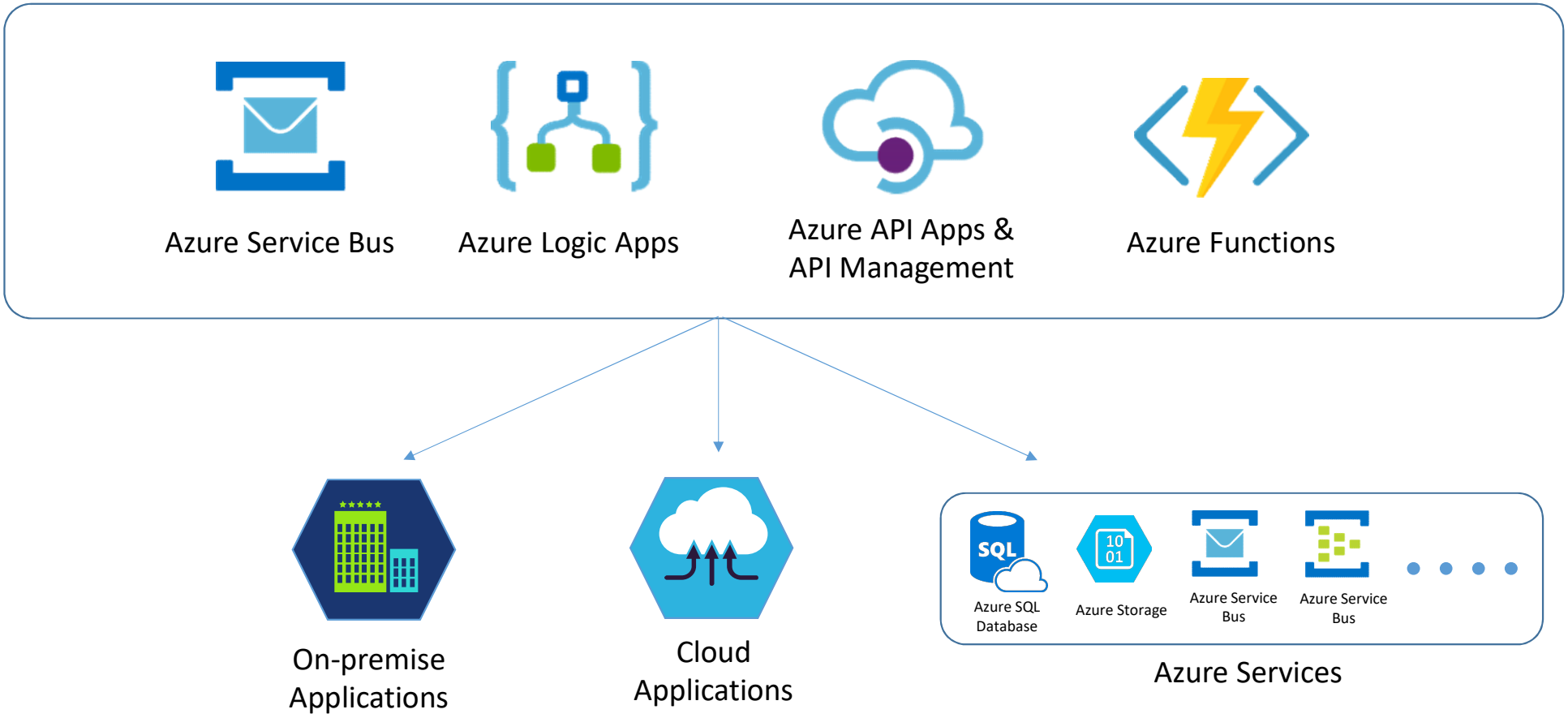
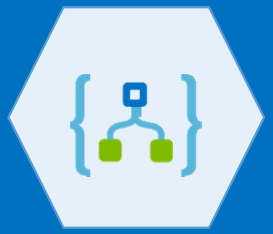
Azure iPaaS Ecosystem





Azure Logic Apps

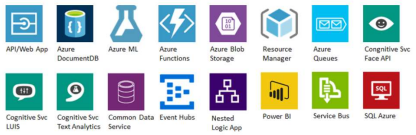
Azure Logic Apps

- Provides orchestration of business processes, workflows and much more
- Logic app consists of series of actions and triggers
- Customize logic conditions in actions
- Access all kinds of applications including cloud, on-premises, also connects with Azure Services

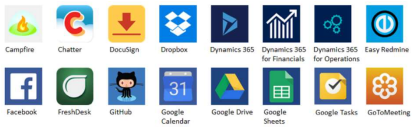
Azure Logic Apps Core Features

Connectors

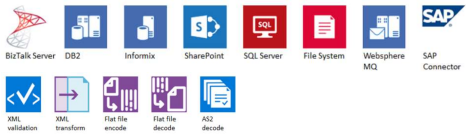
Protocols Connector



Azure Service Connector



SaaS Connector



Hybrid, B2B and XML Connectors

Built-in Actions

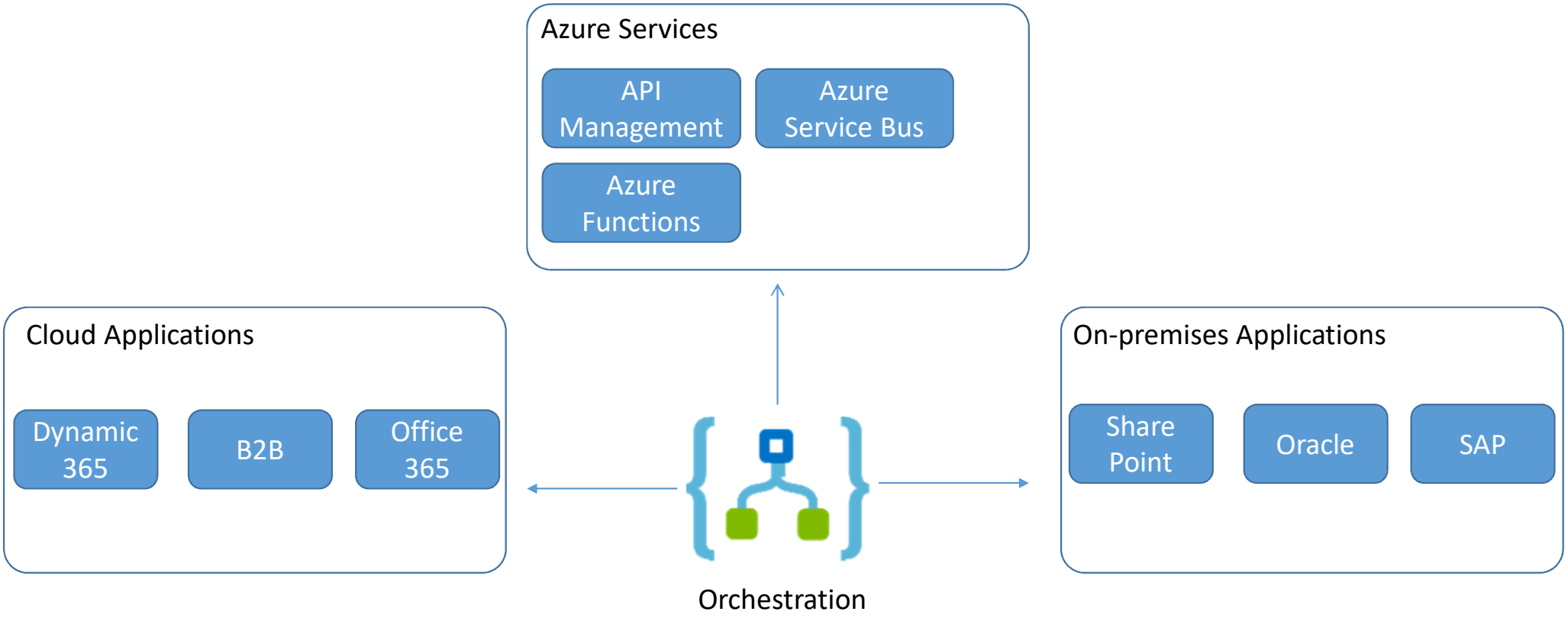
Triggers

Recurrence Trigger

Polling Trigger

Push Trigger

Azure Logic Apps – Implementation Scenario

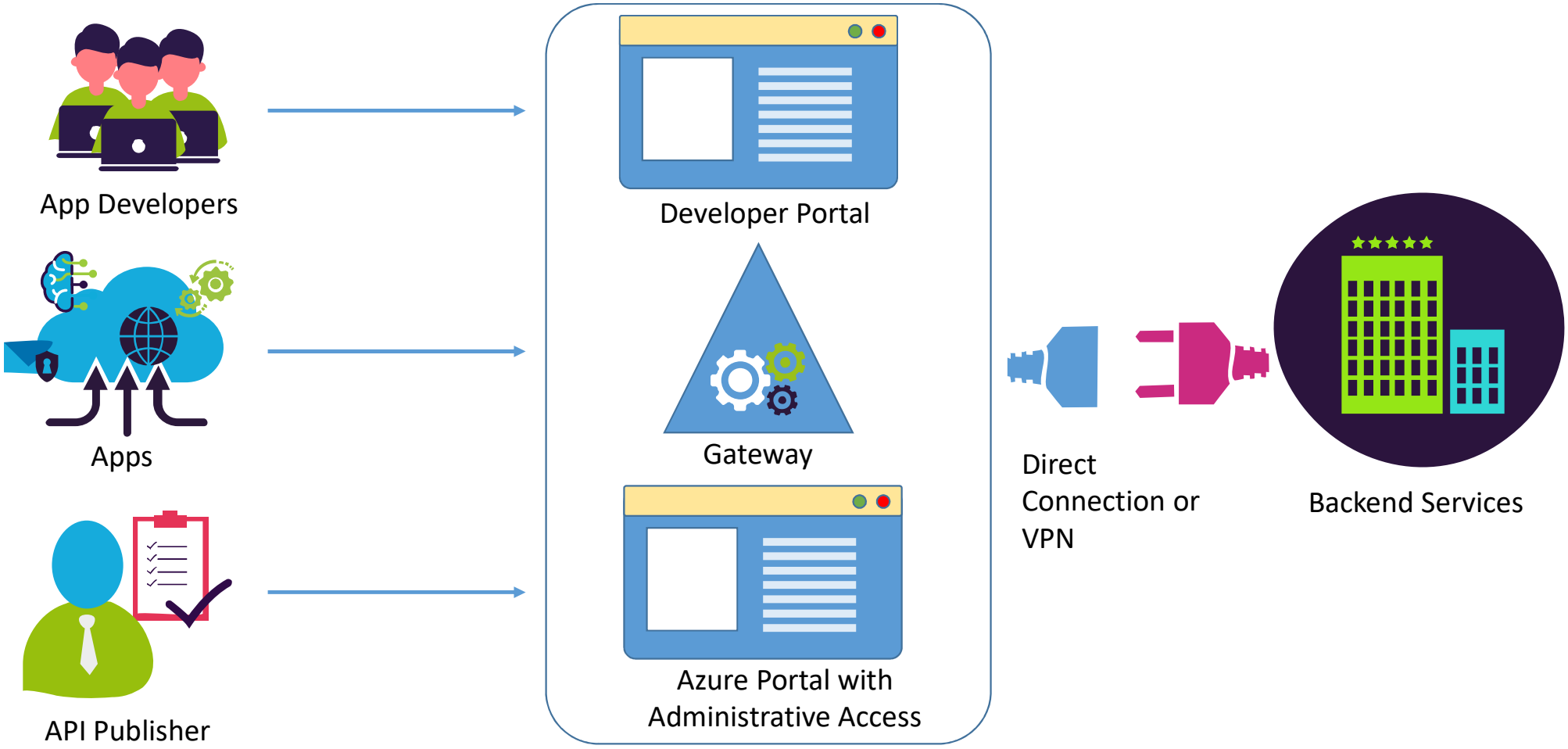


Azure API Management

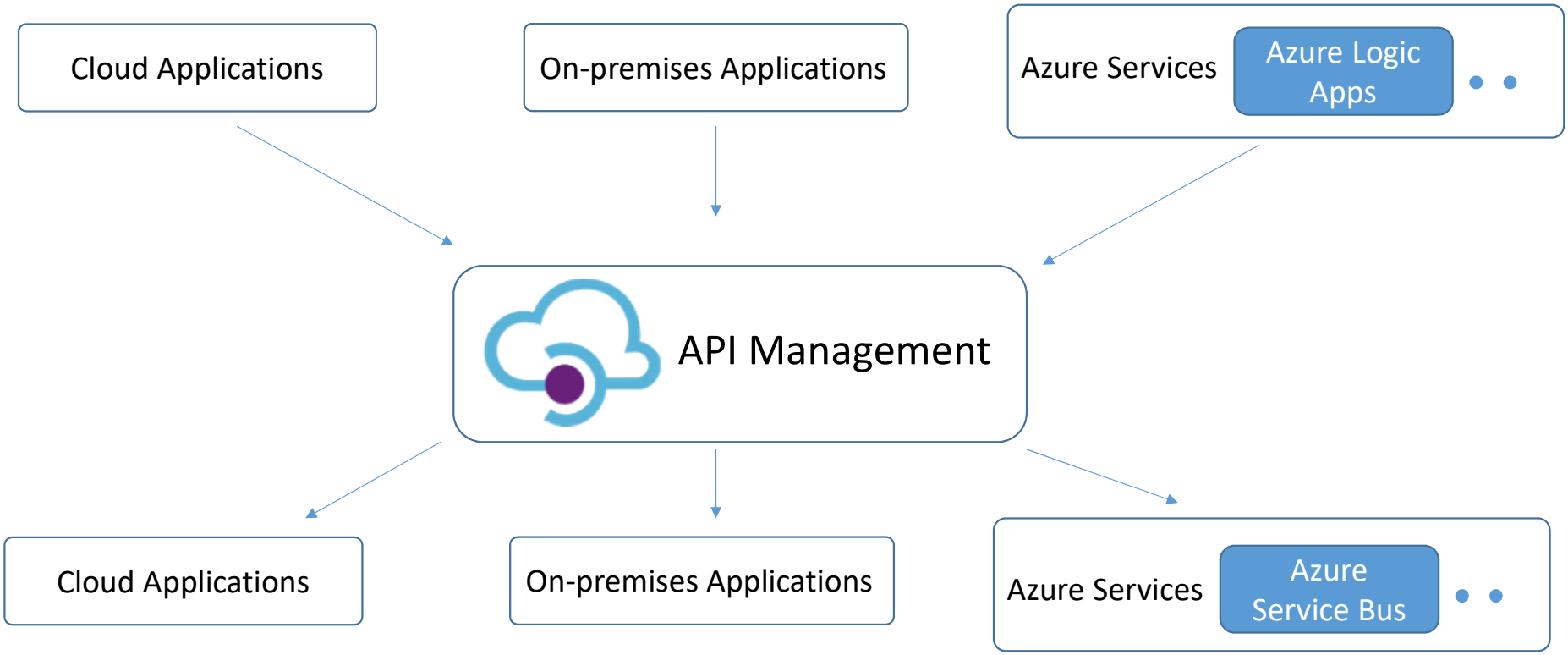
Azure API Management – Need of Service

- Enterprises are going for API first approach for exposing their services
- To provide fine grain control, monitoring and management, configuring security, make existing APIs accessible to developers
- Expose REST and SOAP APIs from all kinds of backend software
- Provides administrative controls to mange APIs
- Provides developer portal to expose APIs

Azure API Management – Core Components



Azure API Managements – Implementation Scenario



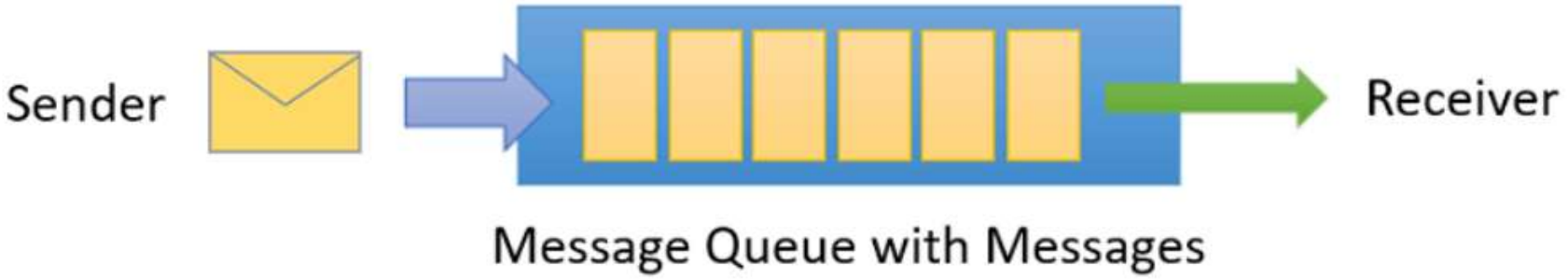
Azure Service Bus

Azure Service Bus – Need of Service

- Fully managed enterprise integration message service
- Provides asynchronies communications between services
- Data is transferred between different applications and services using messages.

Azure Service Bus – Messaging Types

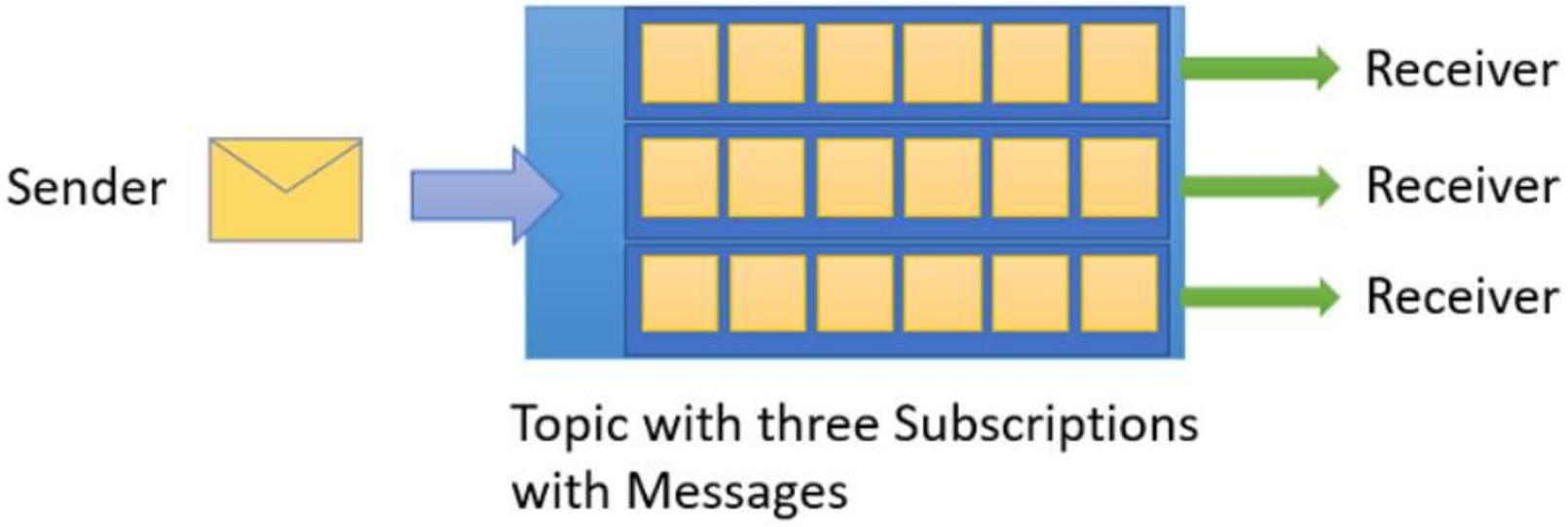
- Service Bus Queue



Source:azure.com

Azure Service Bus – Messaging Types

- Service Bus Topics



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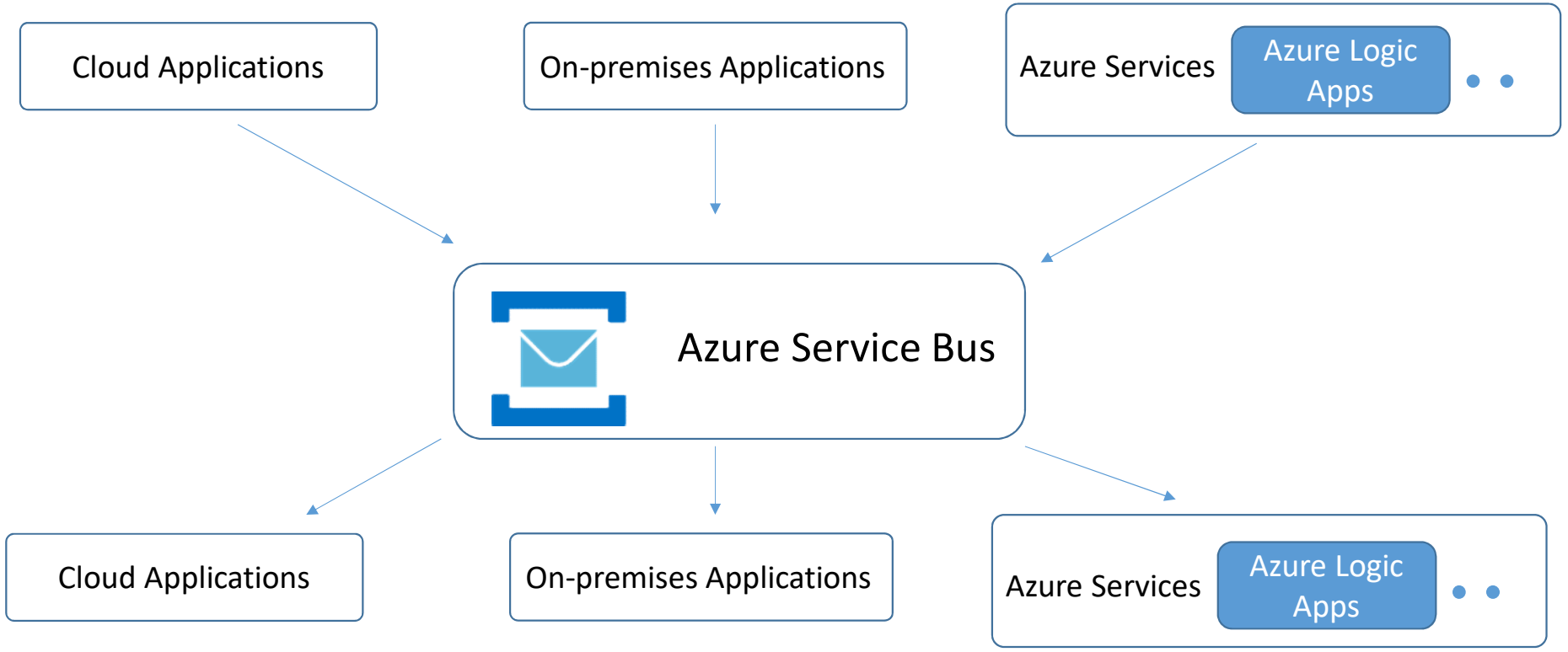
Azure Service Bus – Implementation Scenario



Azure Functions

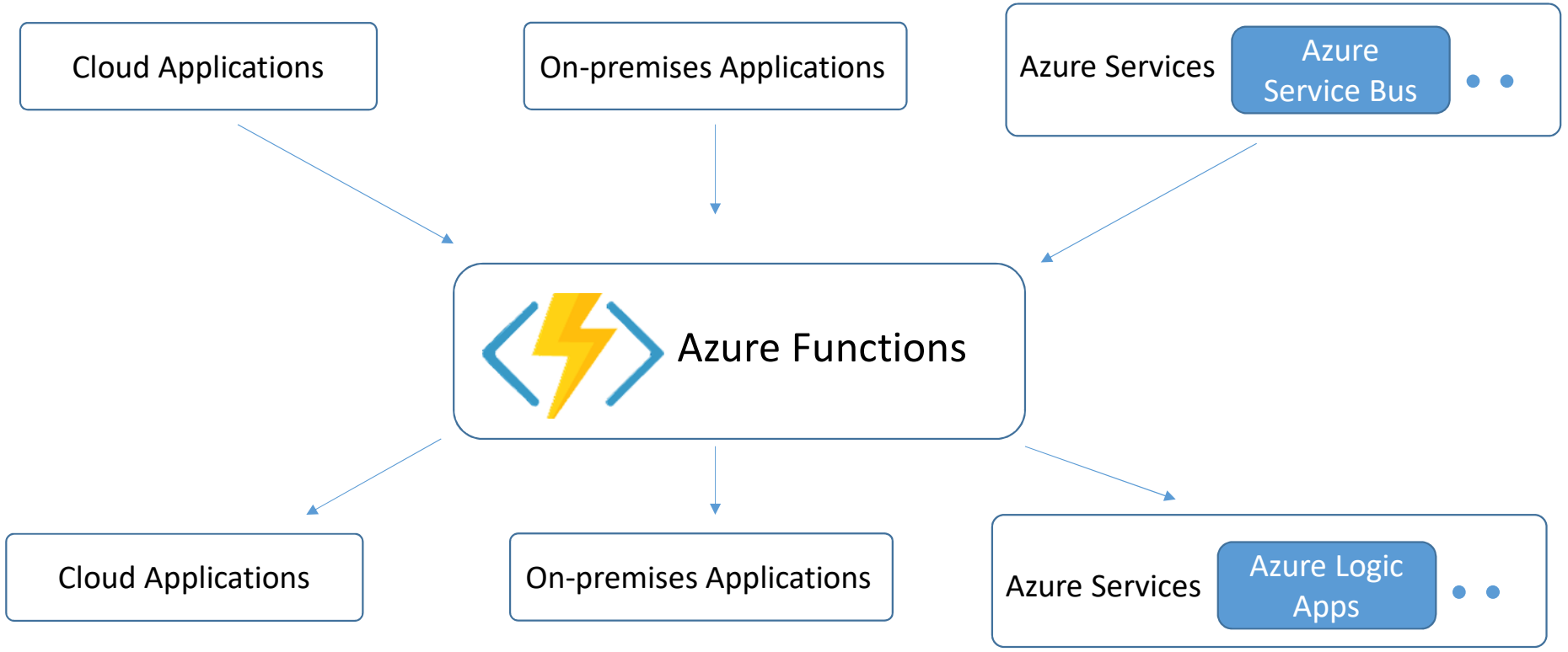
Azure Functions – Need of Service

- Develop serverless applications
- Code that can run synchronously or asynchronously
- Processing data, integrating systems, working with the internet-of-things (IoT), and building simple APIs and microservices

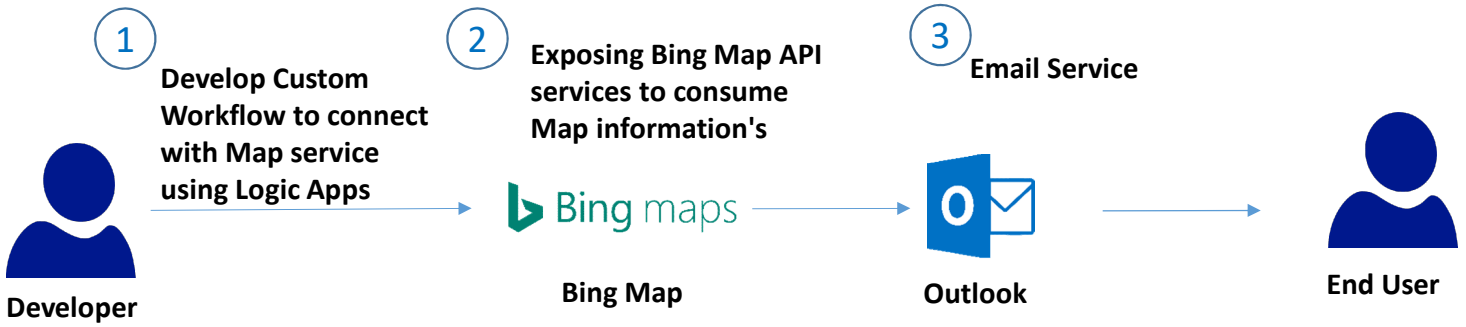
Azure Functions – Core Features

- Write function with choice of your language for example, C#, F#, JavaScript etc.
- Use choice of your libraries like NuGet or NPM
- Built-in security with supported OAuth providers
- Deploy functions via portal or configure CI/CD
- Provides bilt-in trigger templates like Blog Trigger, Queue Trigger, HTTP Trigger etc.
- Integrates with various Azure and 3rd party services

Azure Functions – Implementation Scenario



Demo Time



Creating Recurrence workflow using Azure Logic Apps, integrating multiple services like Bing Map, Outlook and send receive information based on condition matches

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