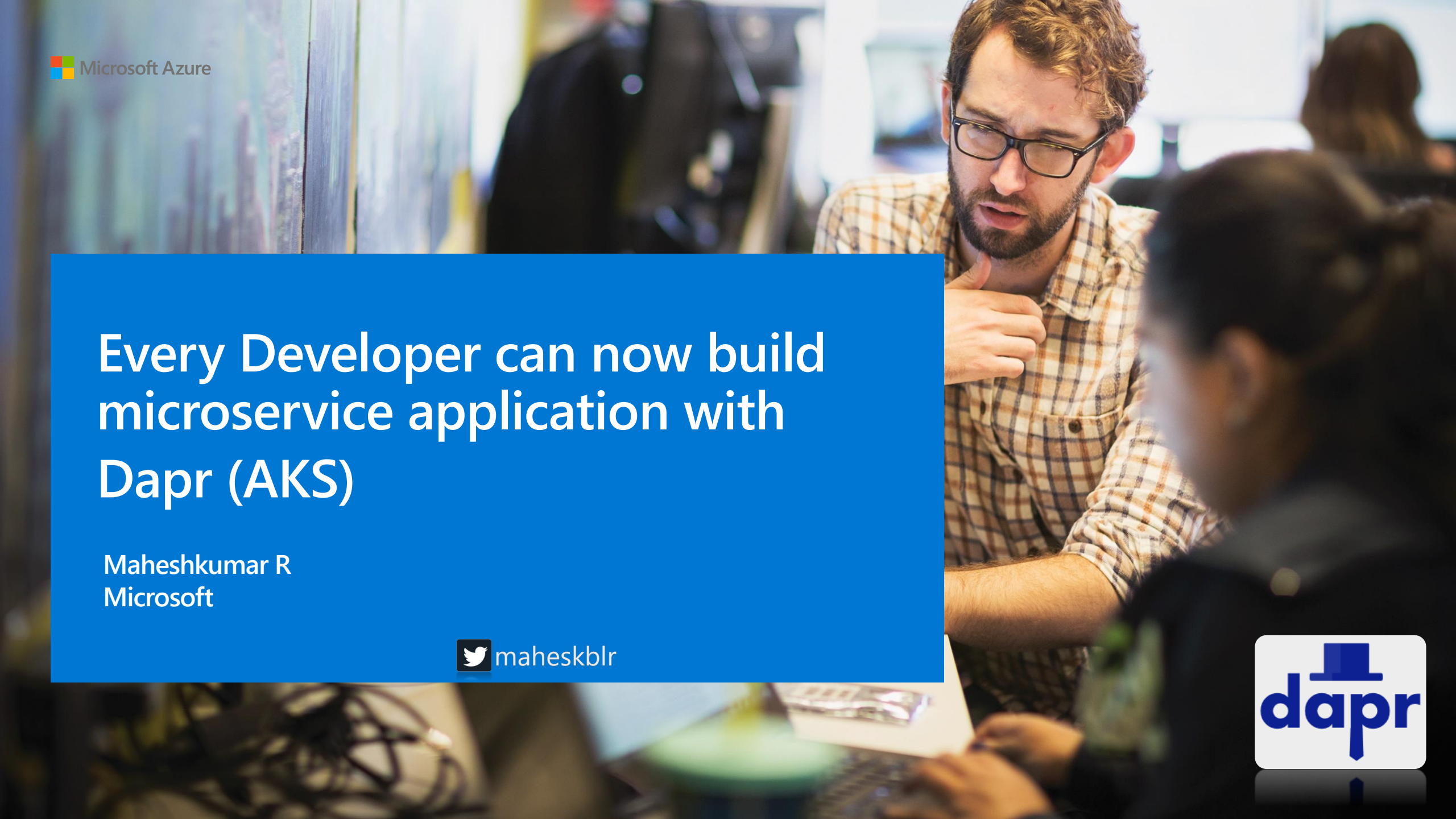

Microsoft Azure
Every Developer can now build microservice application with Dapr (AKS)
Maheshkumar R
Microsoft
maheskblr
dapr

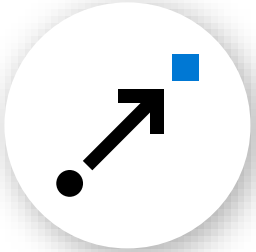
# State of Enterprise Developers

Being asked to develop resilient, scalable, microservice-based apps that interact with services

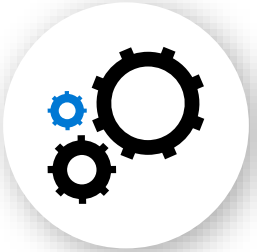
Increasingly polyglot. Write in many languages.

They want to leverage existing code

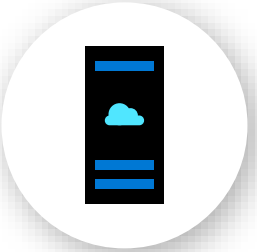
# What is holding microservice development back?



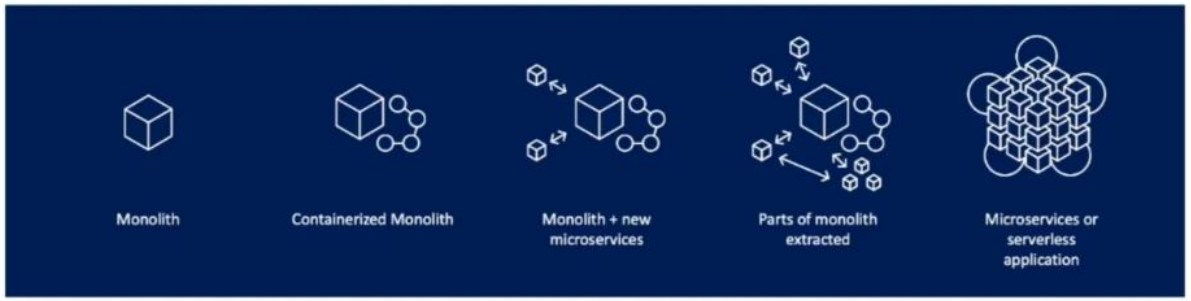
Hard to incrementally migrate from existing code to a microservices architecture



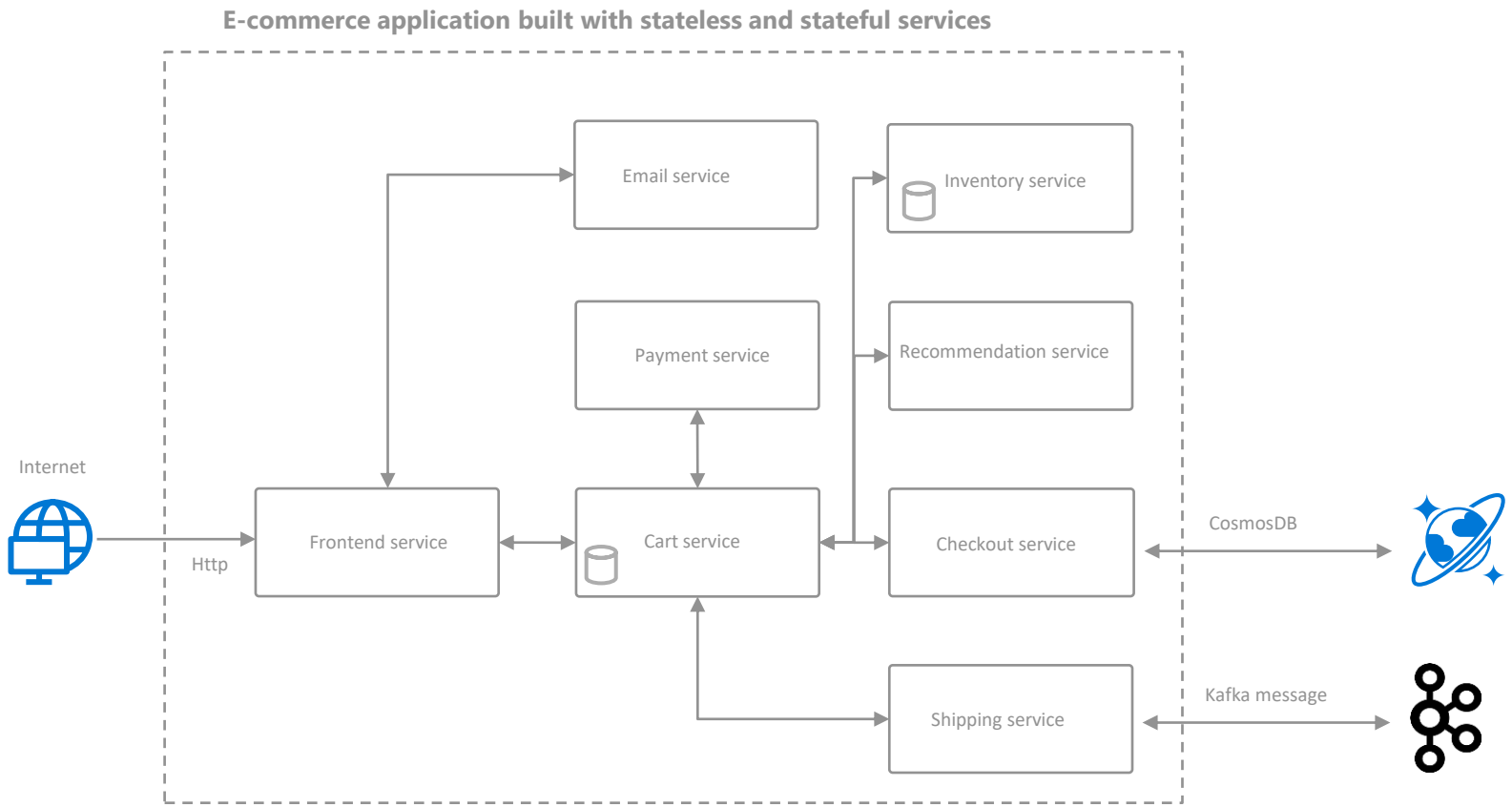
Programming model runtimes have narrow language support and tightly controlled feature sets



Runtimes only target specific infrastructure platforms with limited code portability across clouds and edge



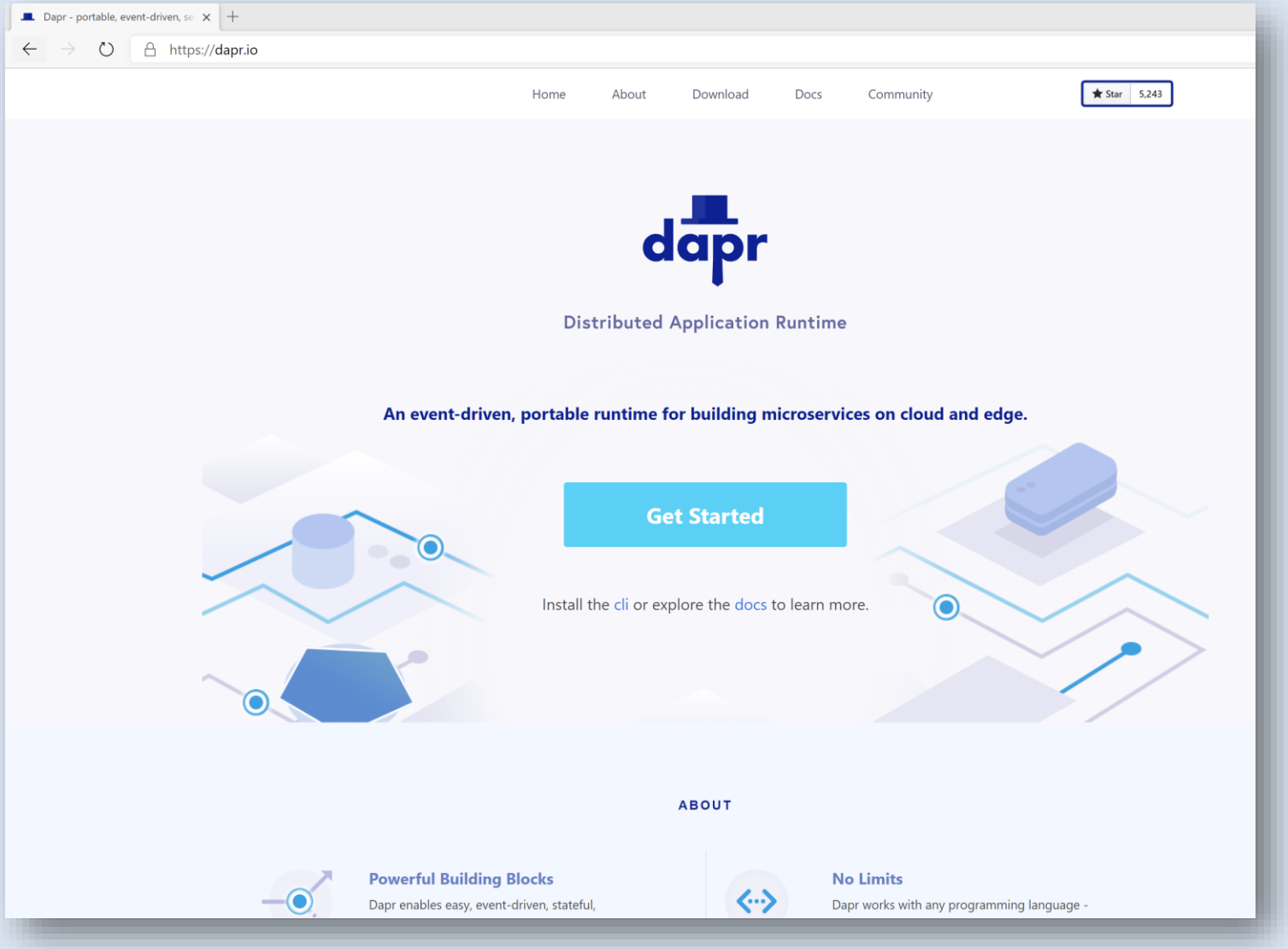
# Distributed app development



## Distributed Application Runtime

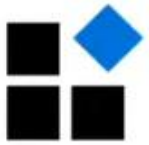
Portable, event-driven, runtime for building distributed applications across cloud and edge

https://dapr.io/



# Introducing Dapr

## A portable, event-driven, serverless runtime for building distributed applications across cloud and edge



### Microservice Building Blocks

Make it easy for developers to create microservice applications without being an expert in distributed syst including migrating existing code

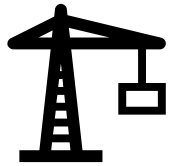

### Sidecar Architecture

Developer first, standard APIs used from any programming language or framework

### Cloud + Edge

Runs on multiple environments for cloud, on-prem, and small-edge including any Kubernetes

# Dapr Goals

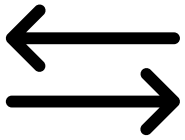


Best-Practices
Building Blocks

Any Language
or Framework

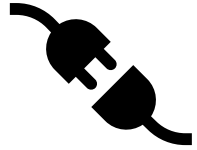
Community Driven
Vendor Neutral

Adopt Standards



Consistent, Portable,
Open APIs

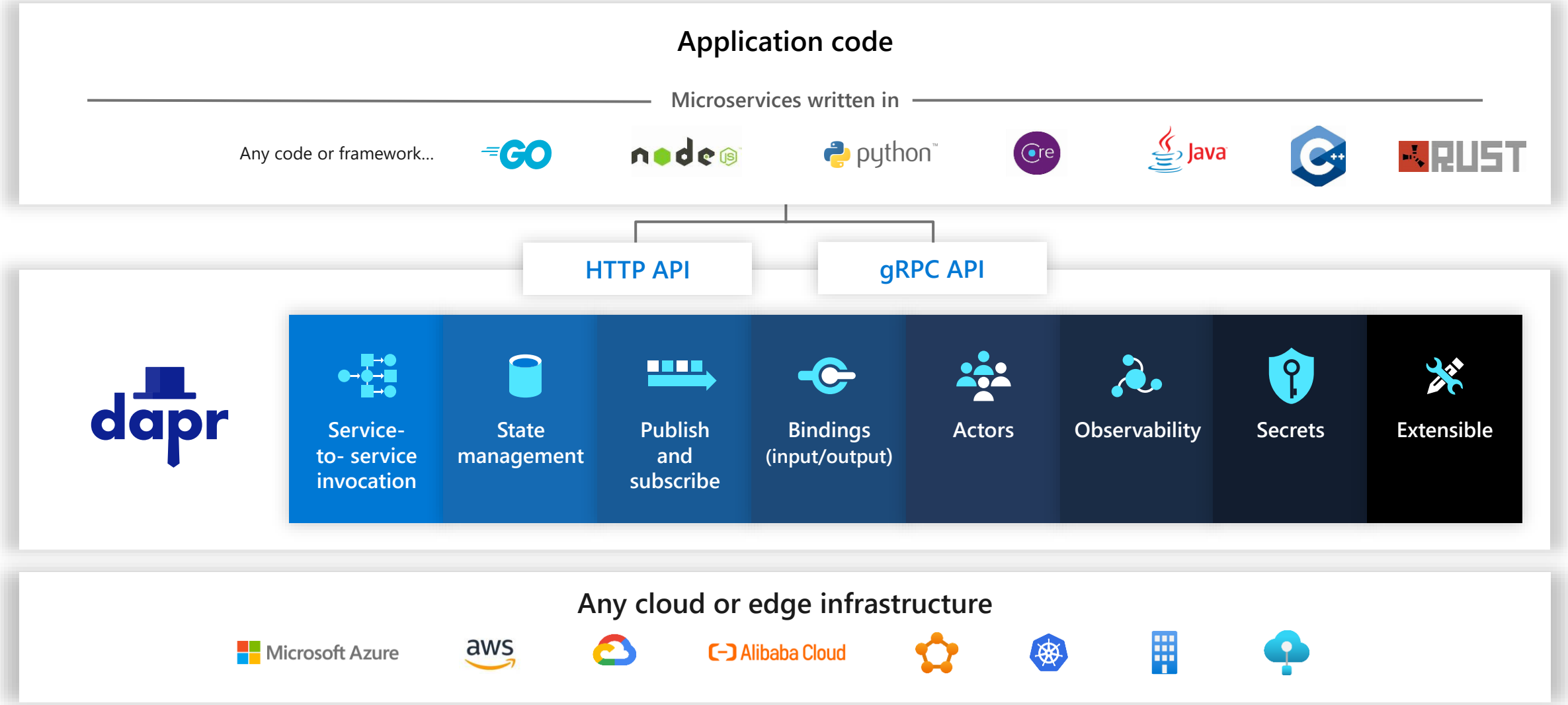
Platform Agnostic
Cloud + Edge



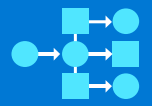
Extensible and
Pluggable Components

# Dapr: Distributed Application Runtime

## Build apps using any language with any framework



# Microservice building blocks



## Service-to-service invocation

Perform direct, secure, service-to-service method calls

## State management

Create long running, stateless and stateful services

## Publish and subscribe

Secure, scalable messaging between services

## Bindings (input/output)

Trigger code through events from a large array of inputs

Input and output bindings to external resources including databases and queues

## Actors

Encapsulate code and data in reusable actor objects as a common microservices design pattern

## Observability

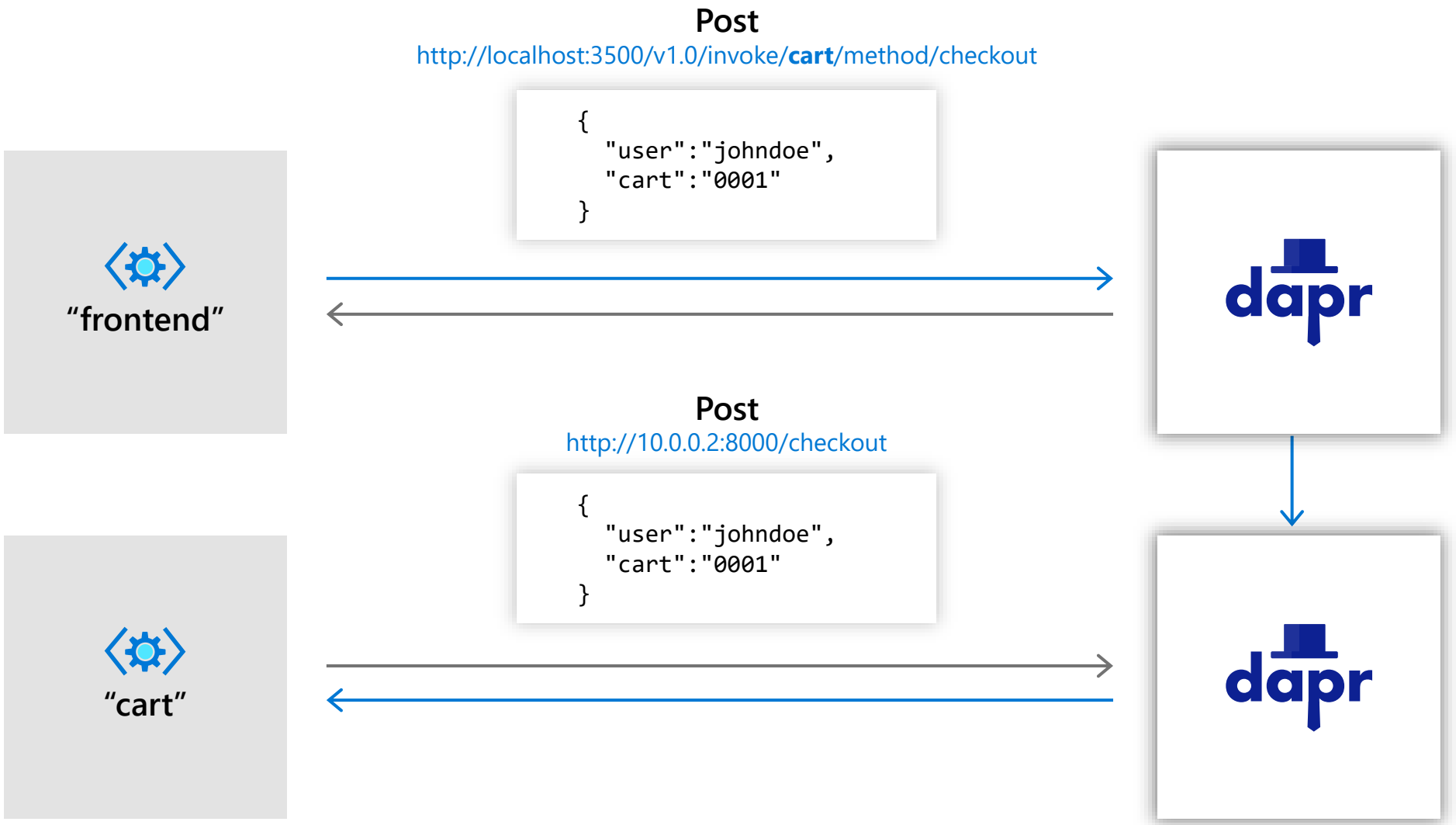
See and measure the message calls across components and networked services

## Secrets

Securely access secrets from your application

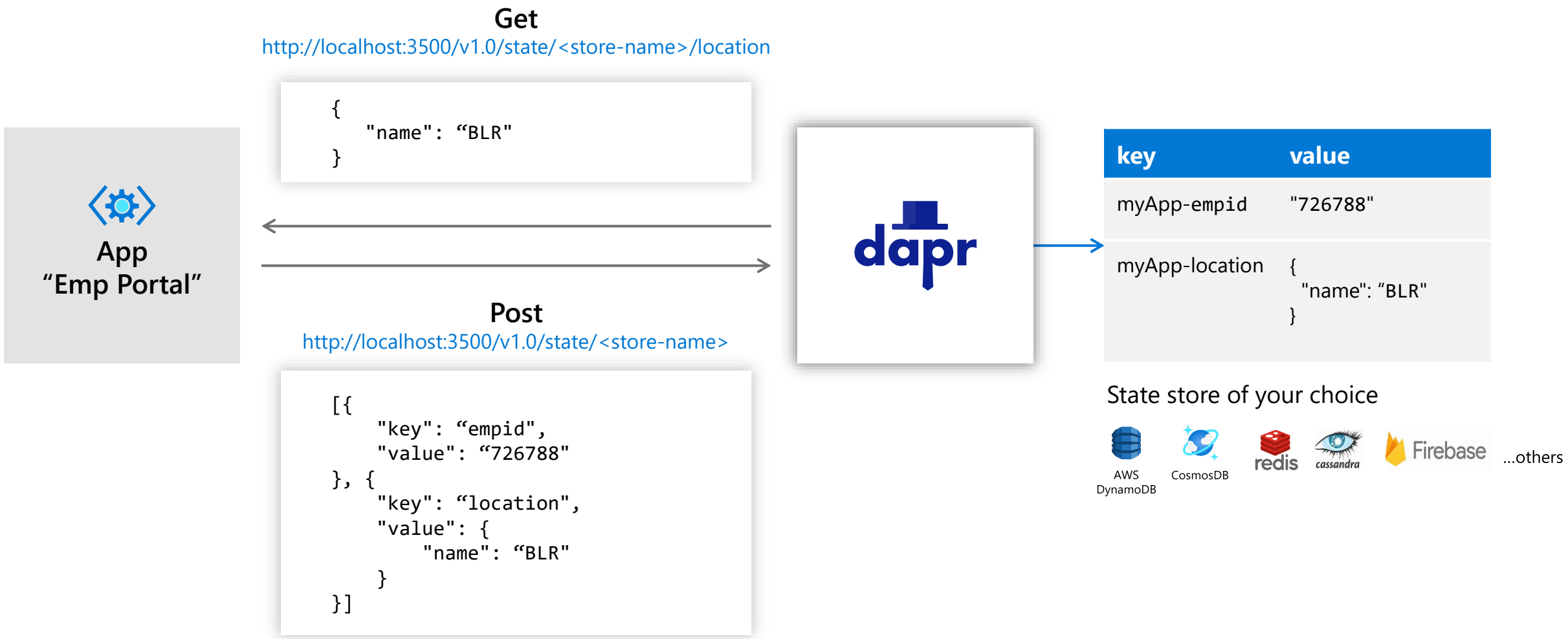
Microservice building blocks

# Service invocation



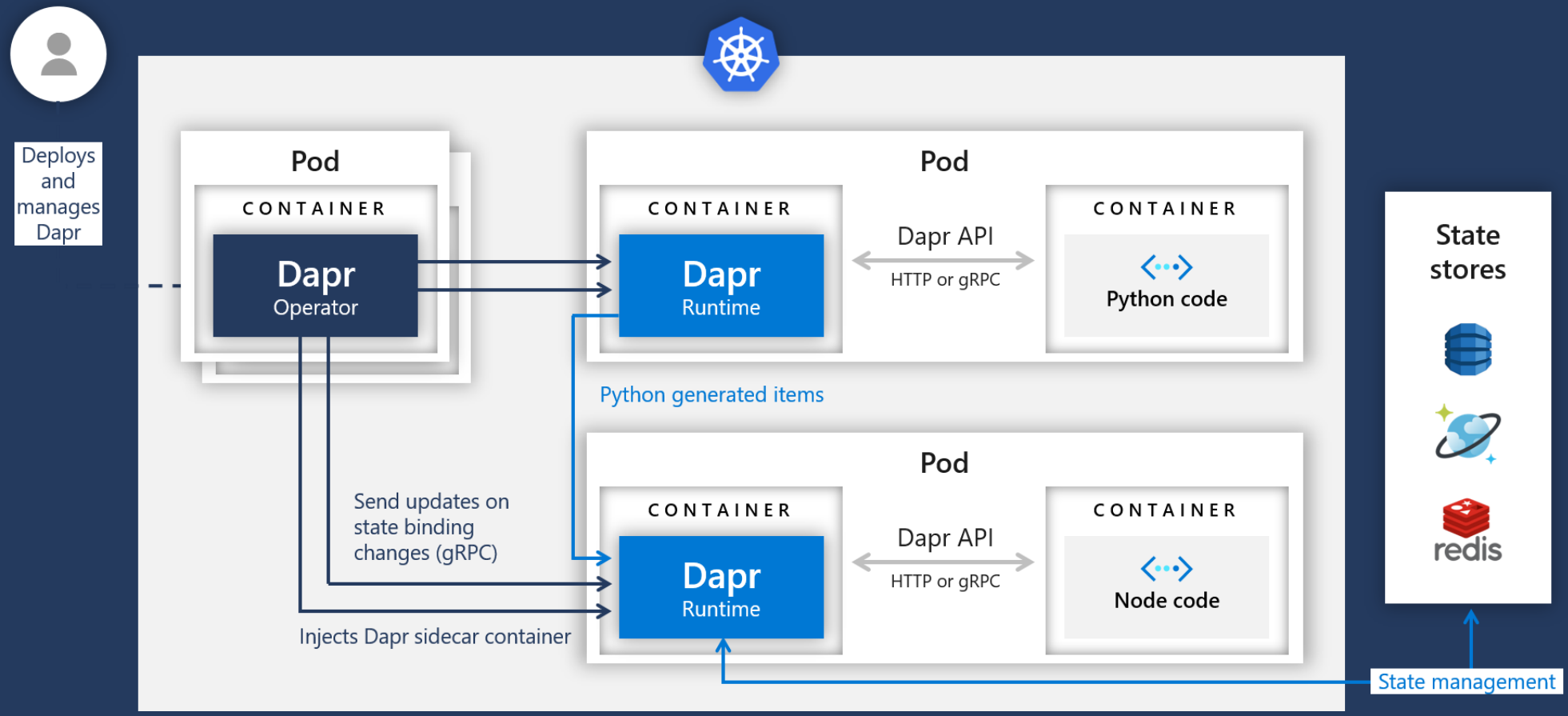
Microservice building blocks

# State management: key/value



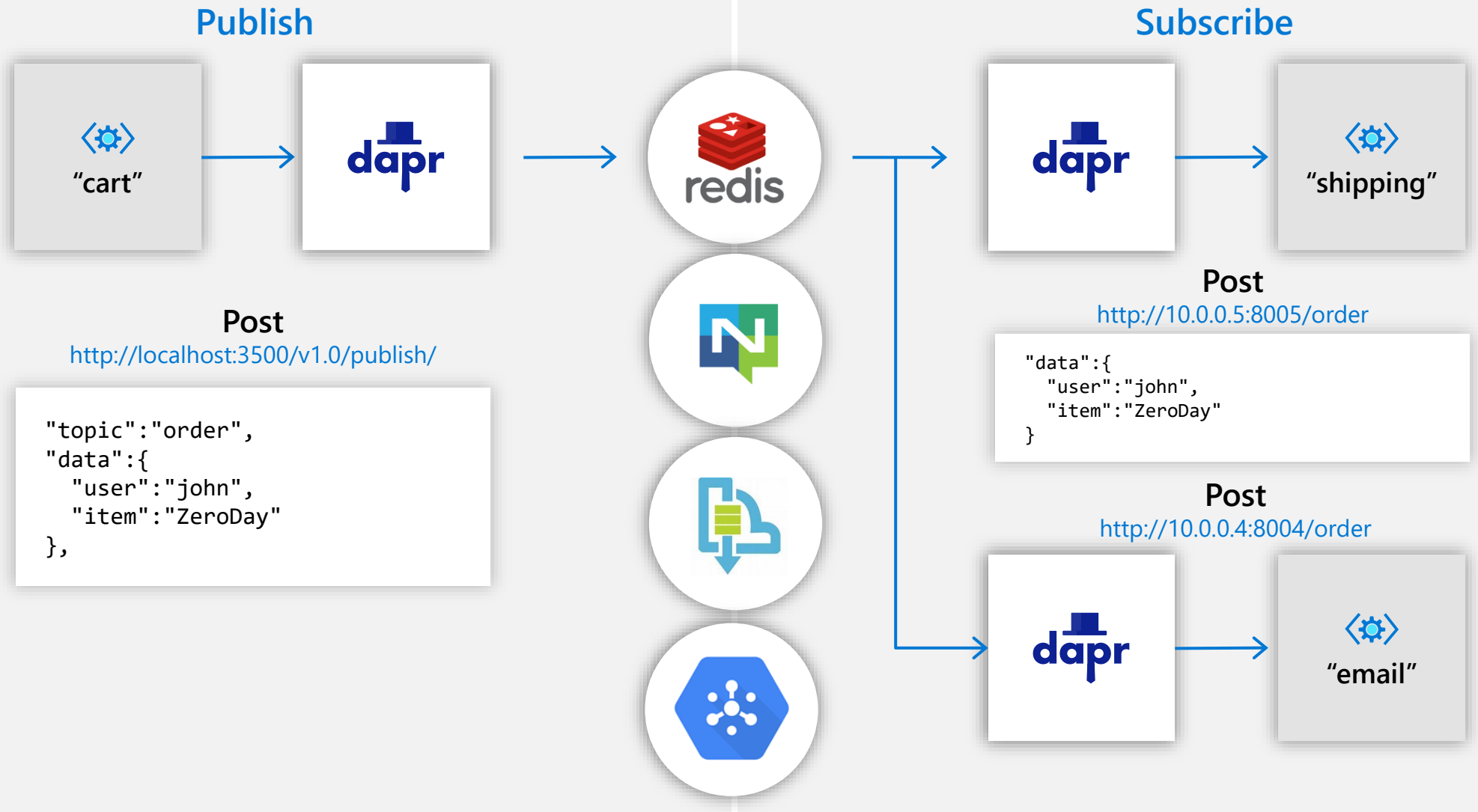
DEMO# 1

# Dapr state management and components



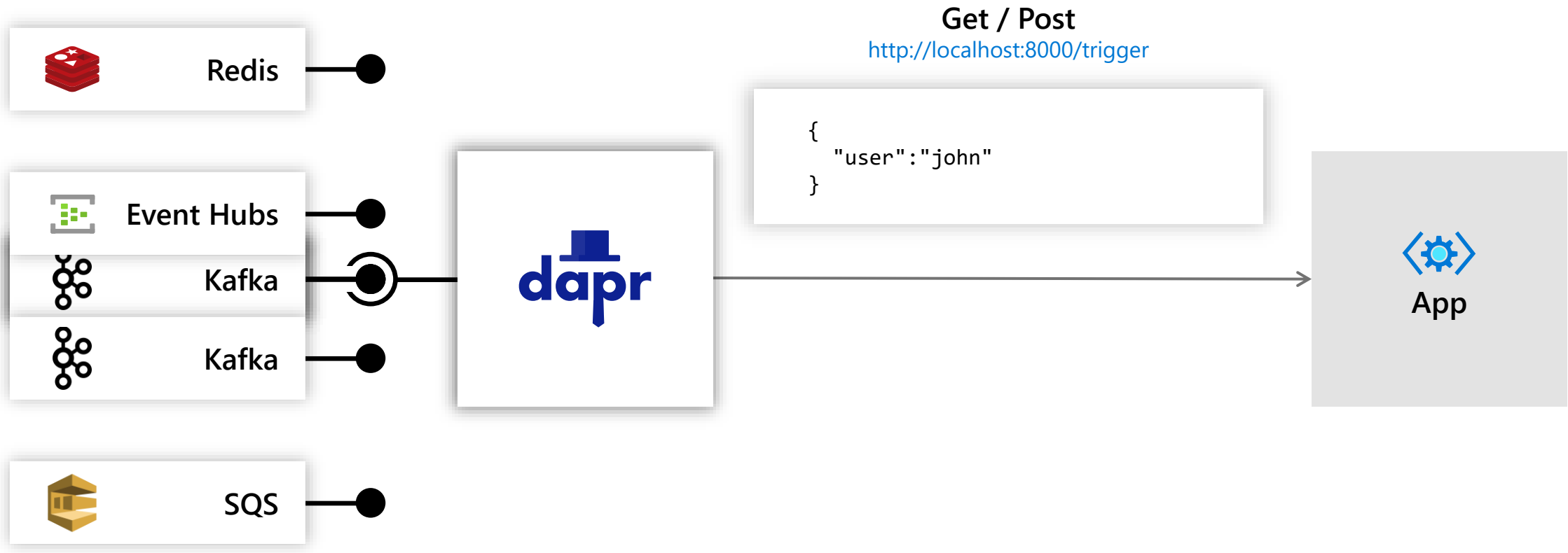
Microservice building blocks

# Publish and subscribe



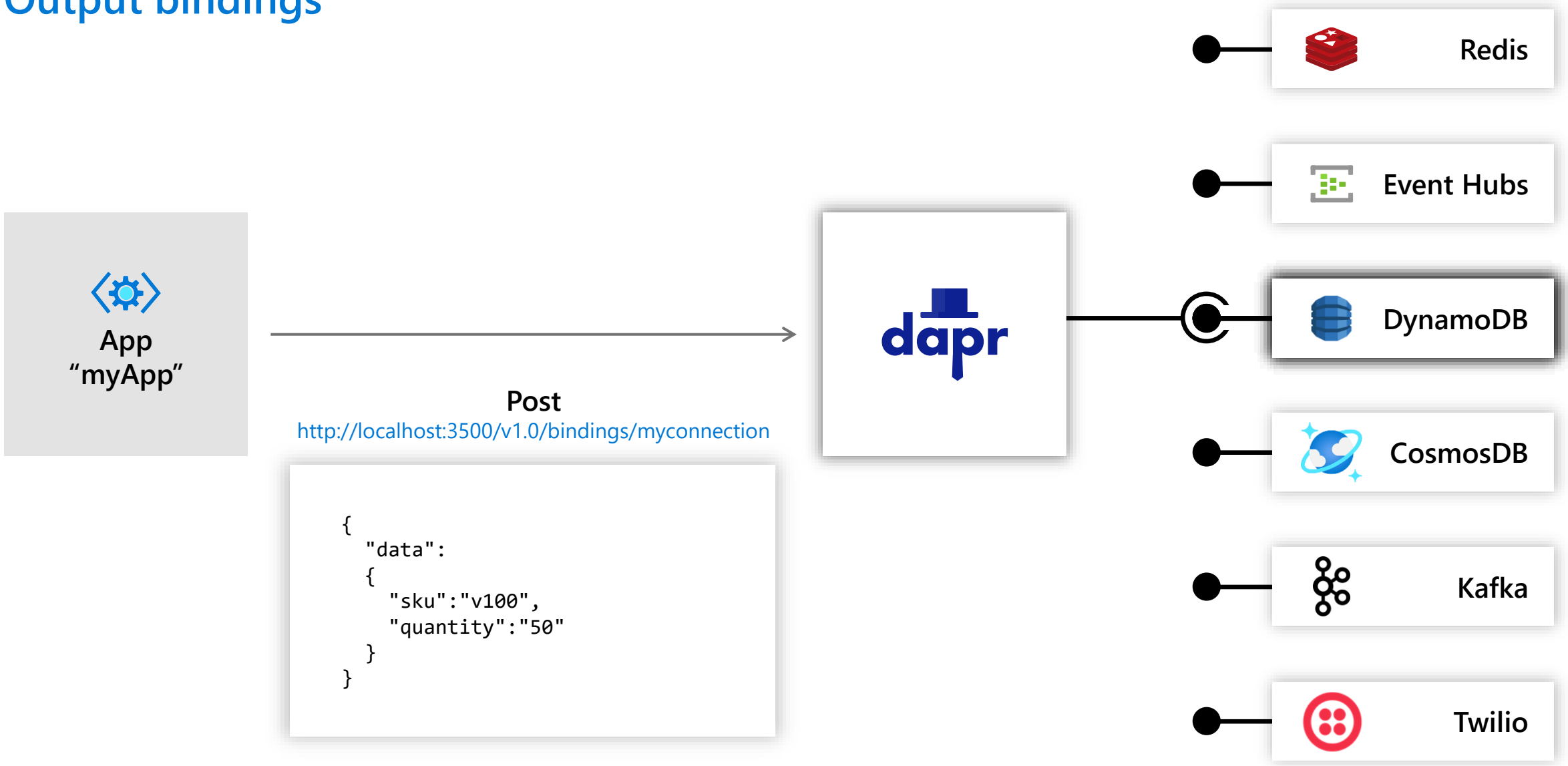
Microservice building blocks

# Input Bindings



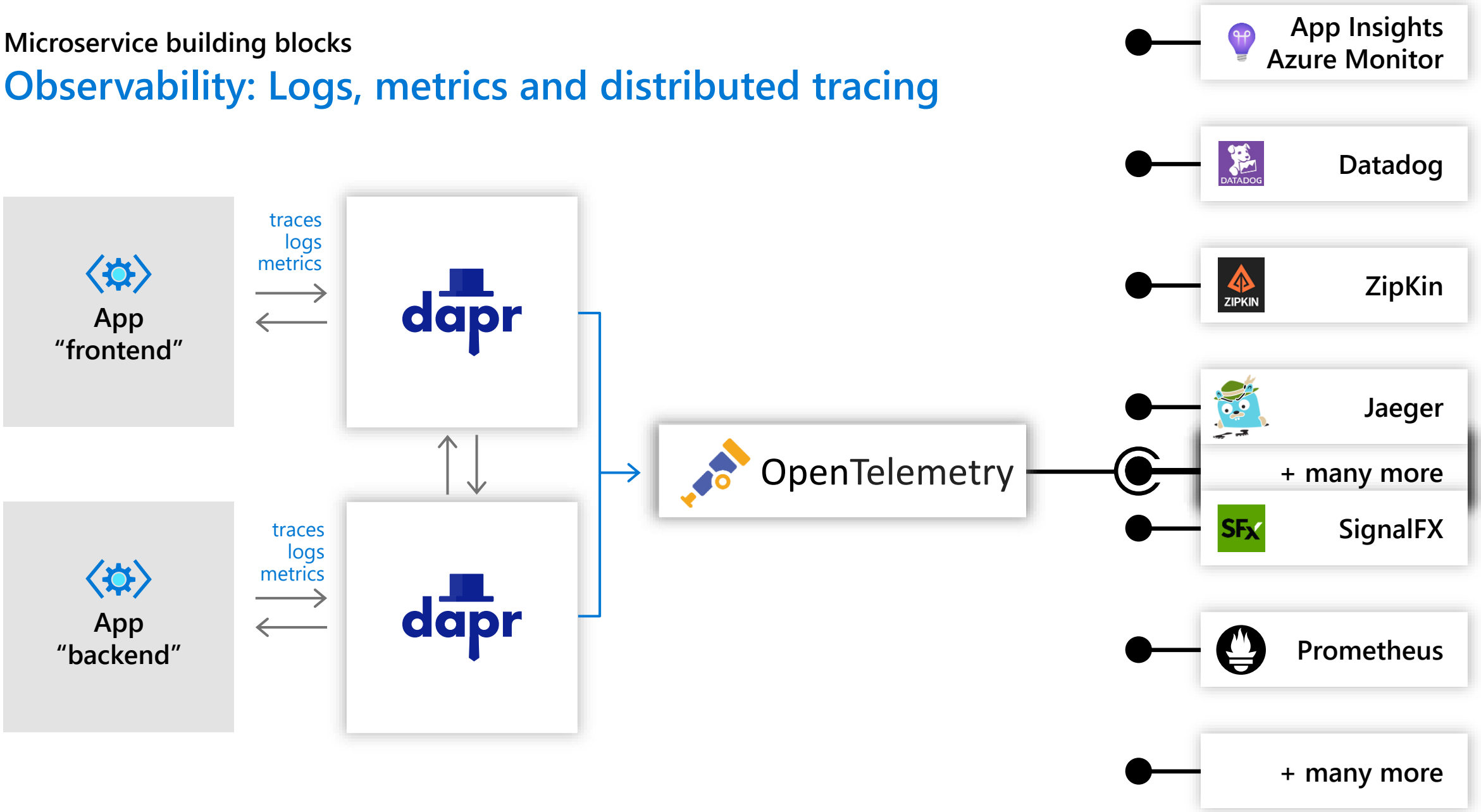
Microservice building blocks

# Output bindings



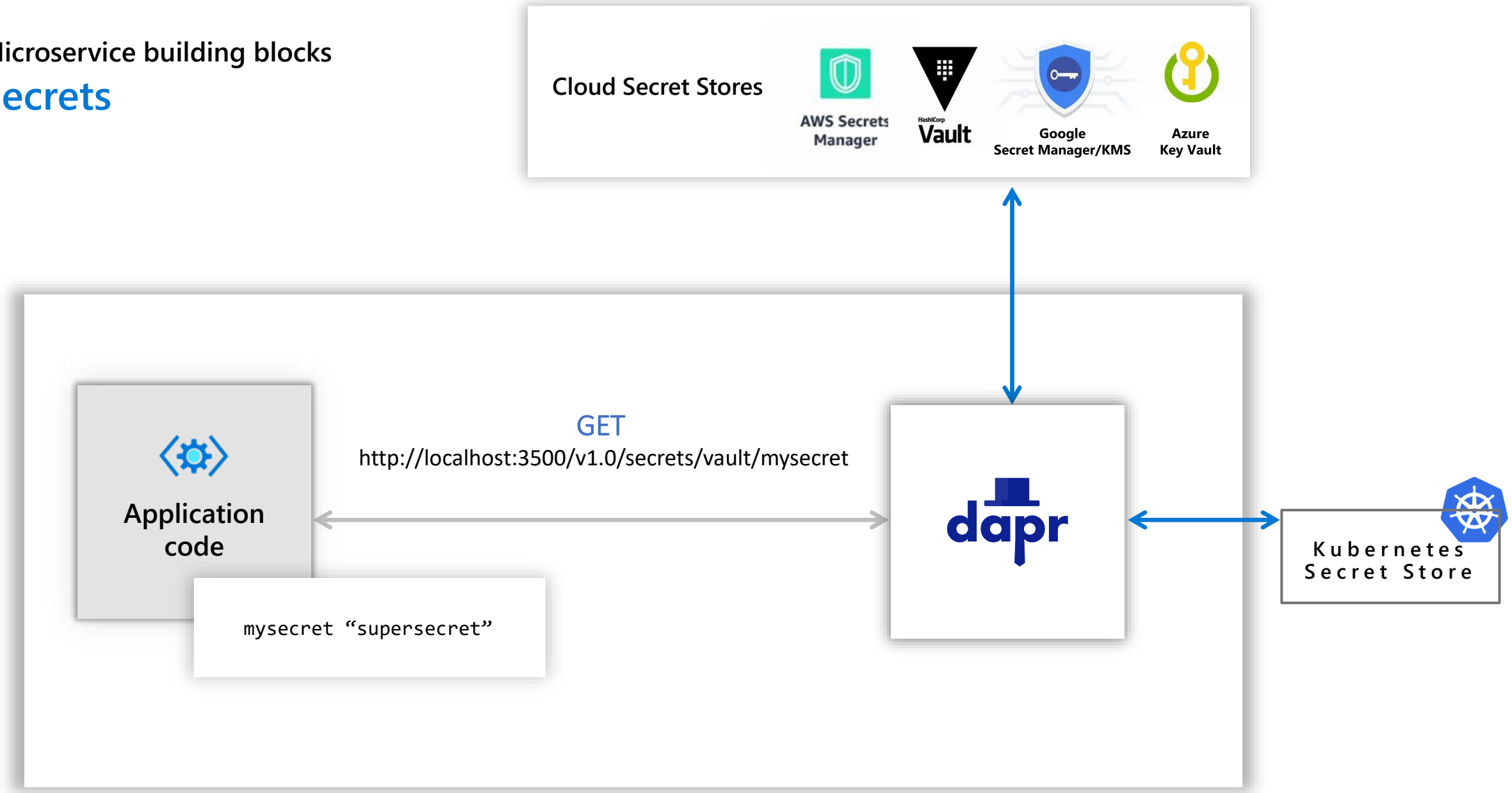
Microservice building blocks

# Observability: Logs, metrics and distributed tracing

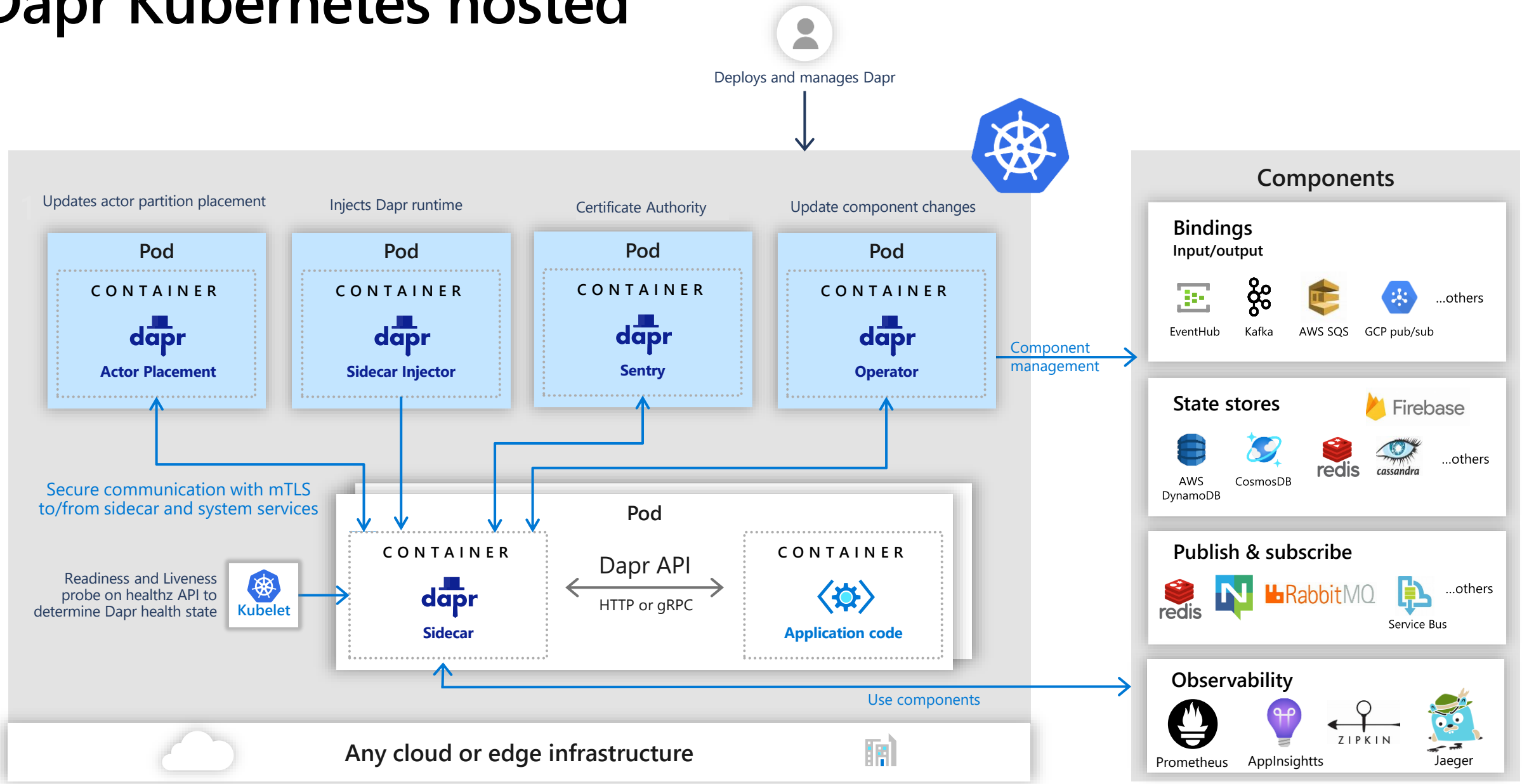


Microservice building blocks

# Secrets

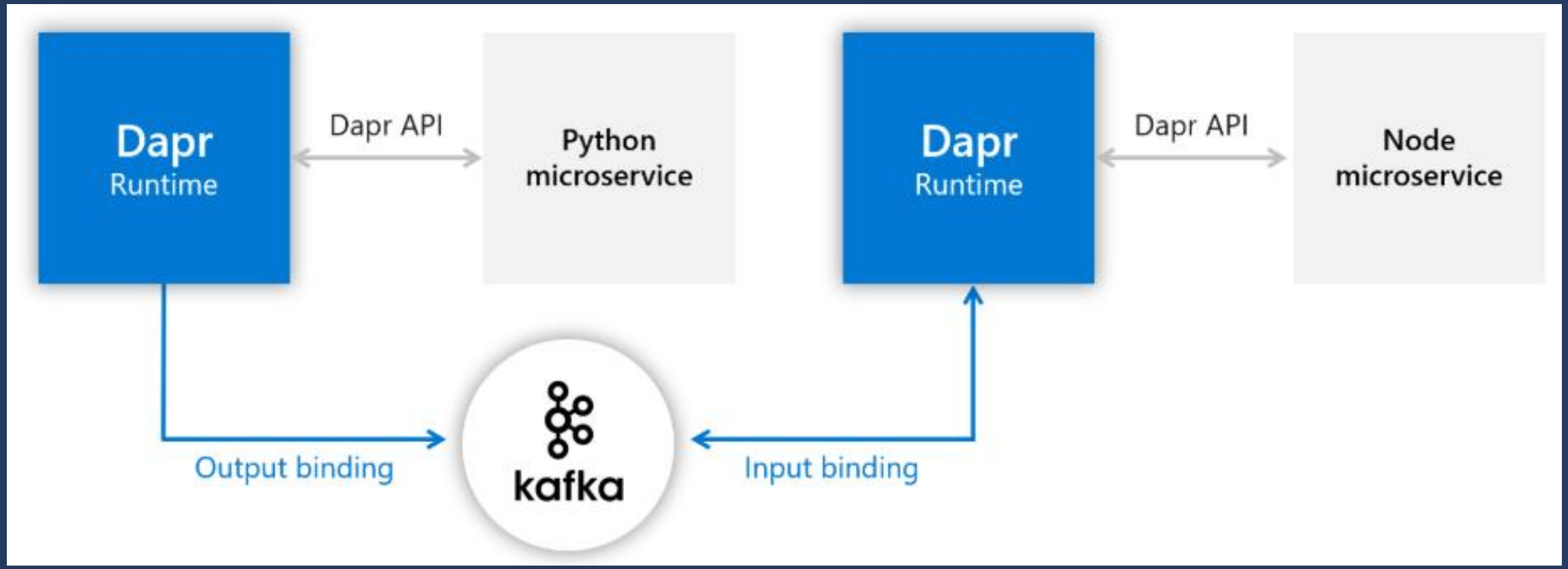


# Dapr Kubernetes hosted

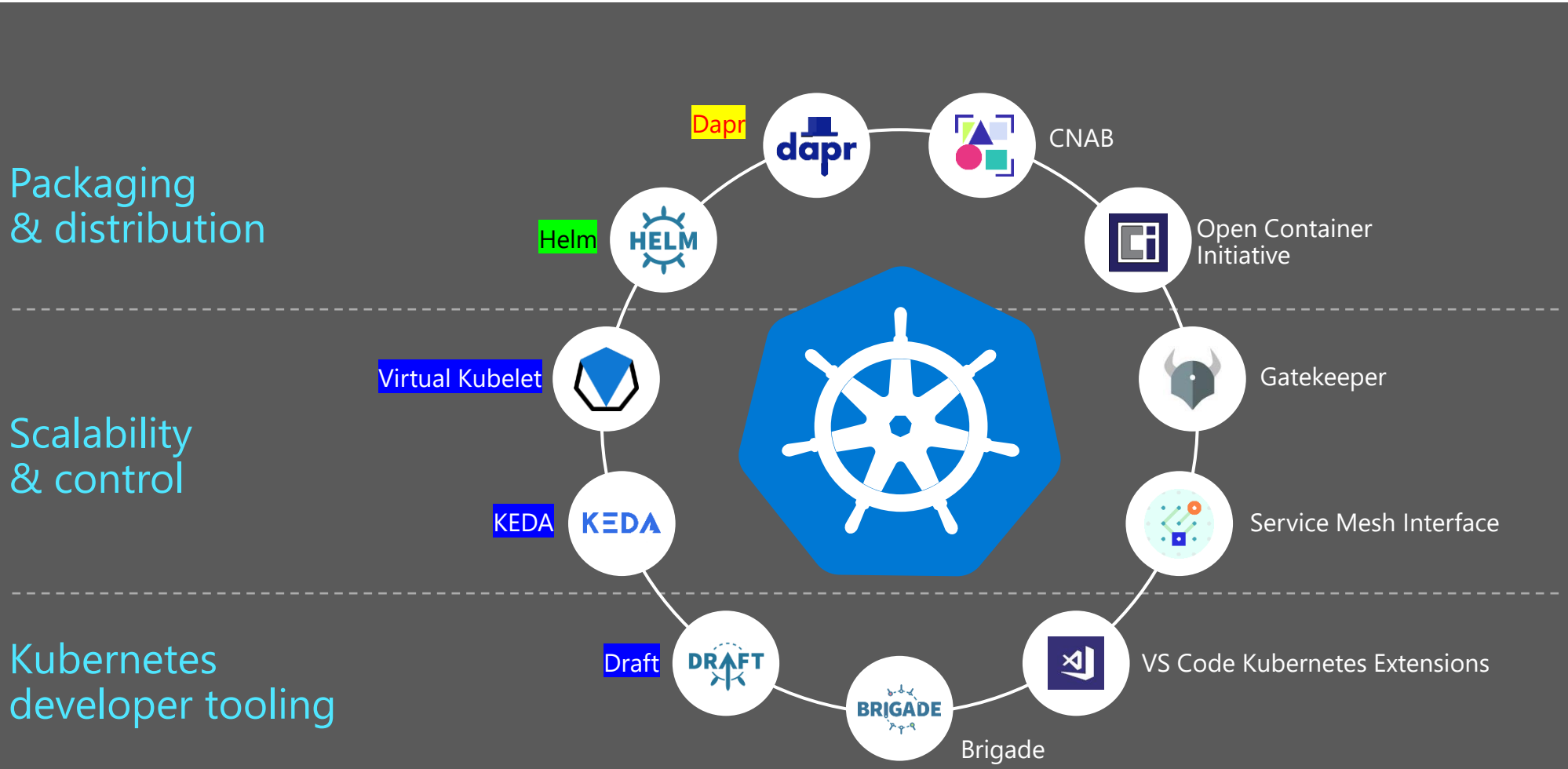


DEMO# 2

# Dapr Bindings and components



# Microsoft's contributions to the community



# Get involved

maheskblr

GitHub | https://github.com/dapr/dapr#community

# Recent Dapr Posts (April 2020)

- Developing the next big thing by streamlining microservices with DAPR
  - Alex Mang - Developing The Next Big Thing By Streamlining Microservices With DAPR
- Kubernetes NGINX ingress controller with Dapr
  - https://carlos.mendible.com/2020/04/05/kubernetes-nginx-ingress-controller-with-dapr/
- An introduction to Dapr (Distributed Application Runtime)
  - https://www.partech.nl/nl/publicaties/2020/04/introduction-to-dapr-distributed-application-runtime#
- Dapr - Creating a user login/register microservice
  - https://xaviergeerinck.com/post/coding/javascript/dapr-creating-account-microservice/

# Start today - https://dapr.io/

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