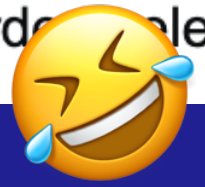
Start building distributed applications with ease using building block APIs

@marcduiker

Deze sessie (met veel code) behandelt de verschillende bouwstenen van Dapr: service-aanroep, pub/sub-berichten, staatswinkels, geheime winkels, bindingen en workflow. Codevoorbeelden en live demo's word leverd in JavaScript en .NET.



https://tweakers.net/partners/devsummit2023/1900/sprekerstracks/

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Sr Dev Advocate

Diagrid

marc@diagrid.io

Azure MVP

Dapr Community Manager

❤️ pixel art

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VS CODE PETS
CODETOUR

What is Dapr?

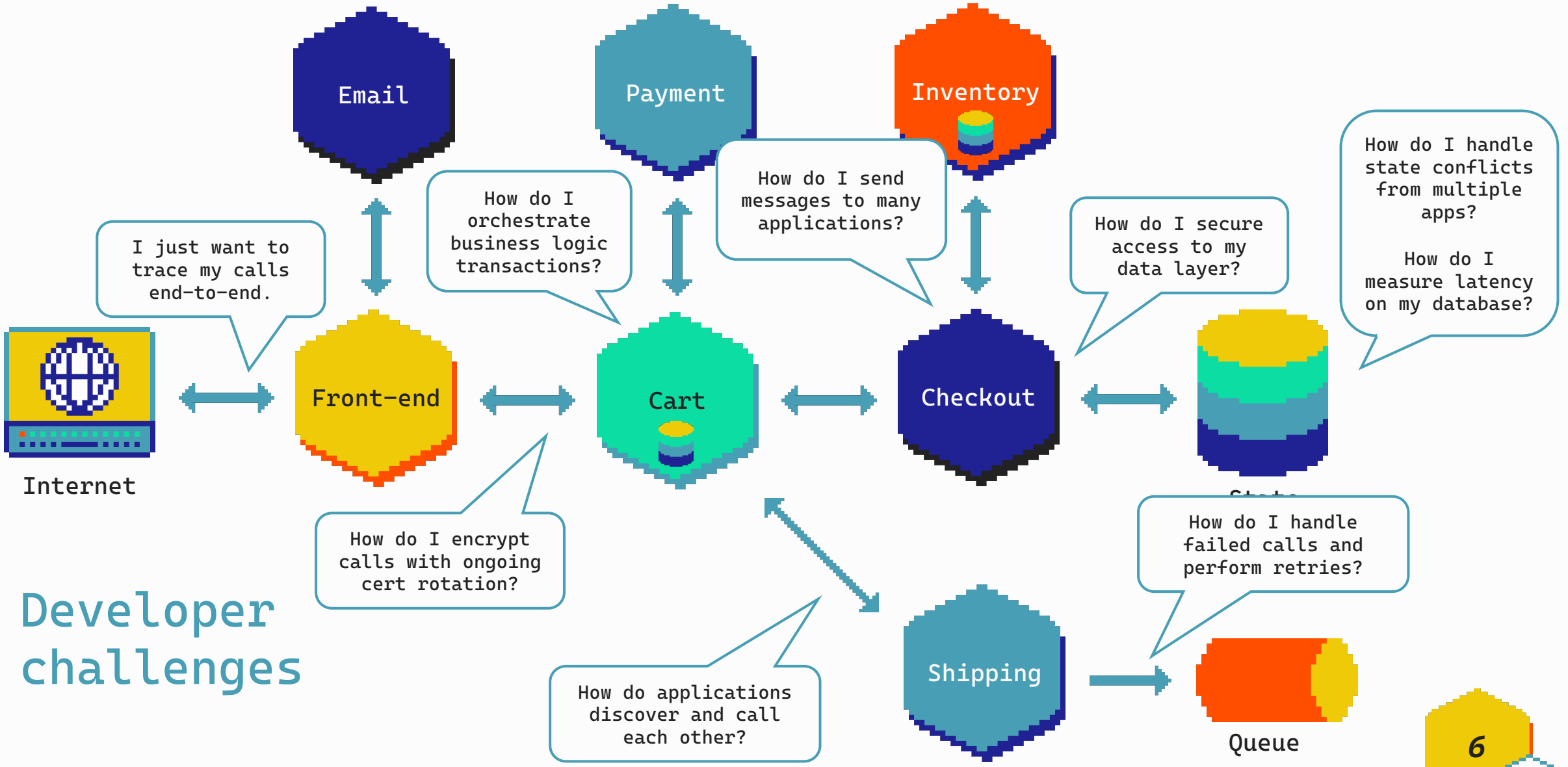
Why use Dapr?

When to use Dapr?

Demos!

Q&A

E-commerce system



Developer challenges

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dapr

Distributed
application
runtime

What is Dapr?

Dapr is a portable, event-driven, runtime for building distributed applications across cloud and edge.

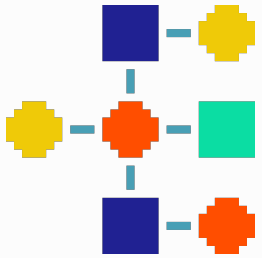
kubernetes

virtual or
physical machines

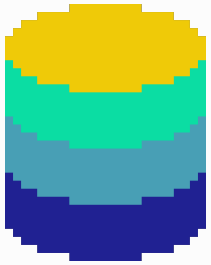
Why use Dapr?

Speeds up microservice development by providing a common set of building block APIs.

Building block APIs

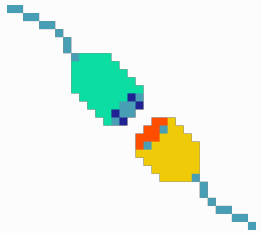


Service invocation

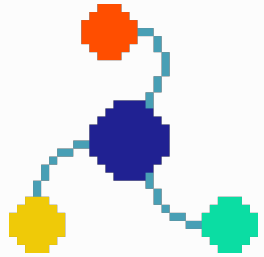


State Management

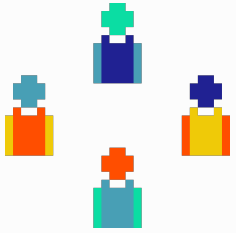
Publish & subscribe



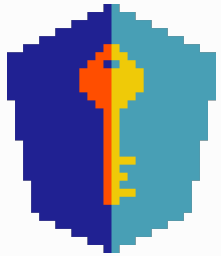
Bindings (input & output)



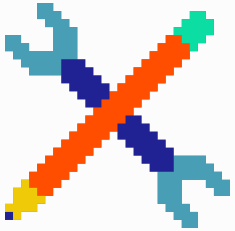
Observability



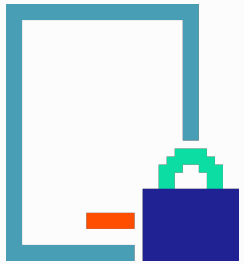
Actors



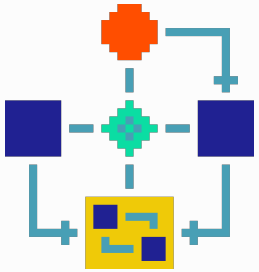
Secret Stores



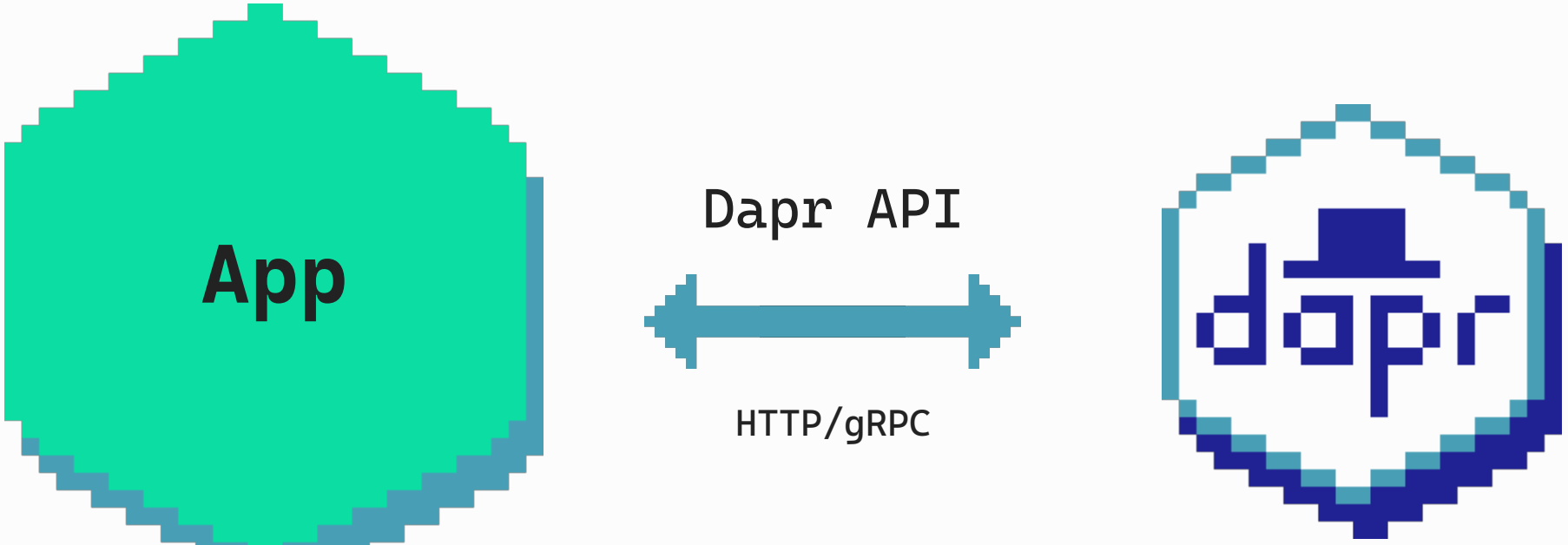
Configuration



Distributed Lock



Workflows



Application

Dapr sidecar

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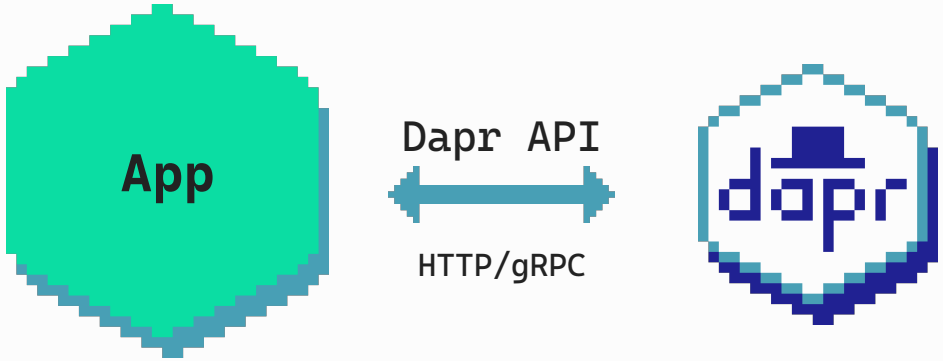


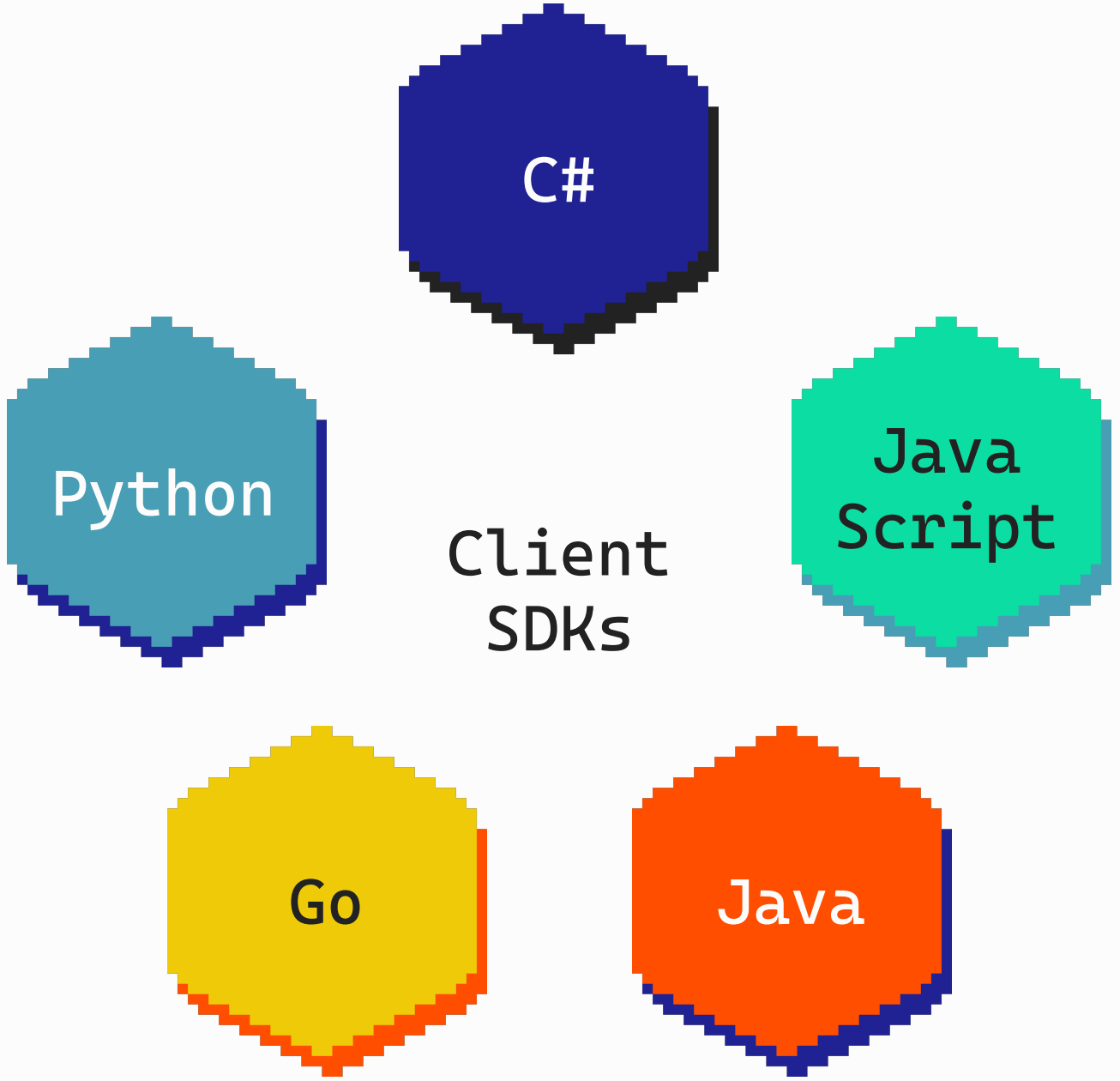

```
POST http://localhost:3500/v1.0/invoke/cart/method/order

GET http://localhost:3500/v1.0/state/inventory/item67

POST http://localhost:3500/v1.0/publish/order

GET http://localhost:3500/v1.0/secrets/vault/password42

POST http://localhost:3500/v1.0-alpha1/workflows/dapr/businessprocess/1234/start
```

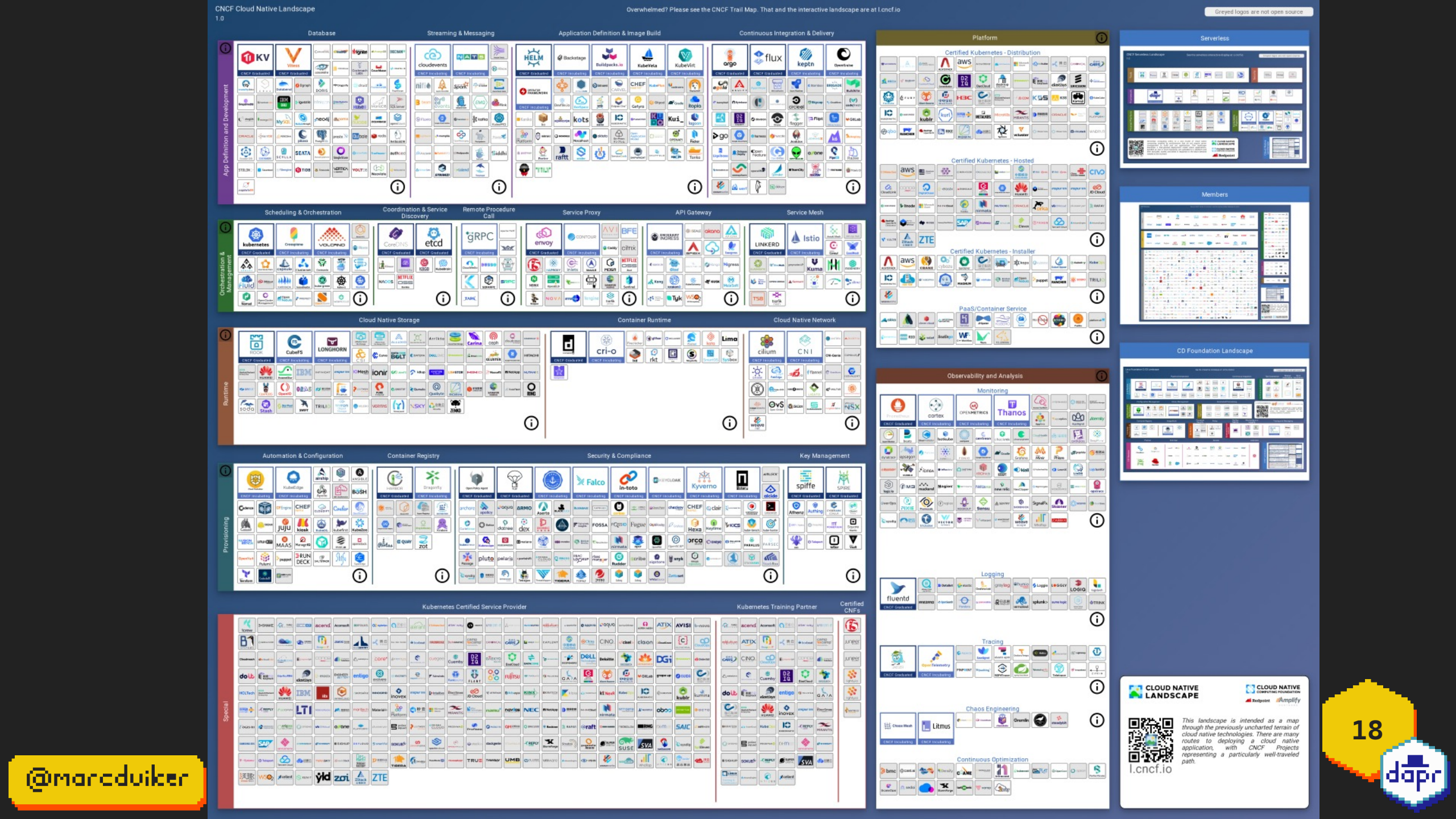

C#
Python
Java
Script
Client
SDKs
Go
Java

Dapr project

Submitted to CNCF Nov 2021

Incubation maturity level

10th largest CNCF project


CNCF Cloud Native Landscape
1.0
Overwhelmed? Please see the CNCF Trail Map. That and the interactive landscape are at l.cncf.io
Greyed logos are not open source
App Definition and Development
Database
Streaming & Messaging
Application Definition & Image Build
Continuous Integration & Delivery
Orchestration & Management
Scheduling & Orchestration
Coordination & Service Discovery
Remote Procedure Call
Service Proxy
API Gateway
Service Mesh
Runtime
Cloud Native Storage
Container Runtime
Cloud Native Network
Provisioning
Automation & Configuration
Container Registry
Security & Compliance
Key Management
Special
Kubernetes Certified Service Provider
Kubernetes Training Partner
Certified CNFs
Platform
Certified Kubernetes - Distribution
Certified Kubernetes - Hosted
Certified Kubernetes - Installer
PaaS/Container Service
Observability and Analysis
Monitoring
Logging
Tracing
Chaos Engineering
Continuous Optimization
Serverless
Members
CD Foundation Landscape
CLOUD NATIVE LANDSCAPE
CLOUD NATIVE COMPUTING FOUNDATION
Redpoint
Amplify
This landscape is intended as a map through the previously uncharted terrain of cloud native technologies. There are many routes to deploying a cloud native application, with CNCF Projects representing a particularly well-traveled path.
l.cncf.io
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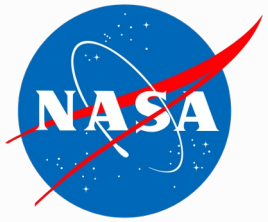
18
dapr

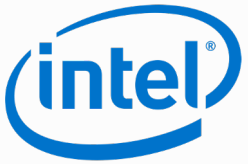
Contributing organizations

Dapr users

IBM

ZEISS


NASA


intel

zscaler

Alibaba Cloud

BOSCH

Microsoft

FUJITSU
FUJITSU CLOUD TECHNOLOGIES LIMITED

Dotmatics

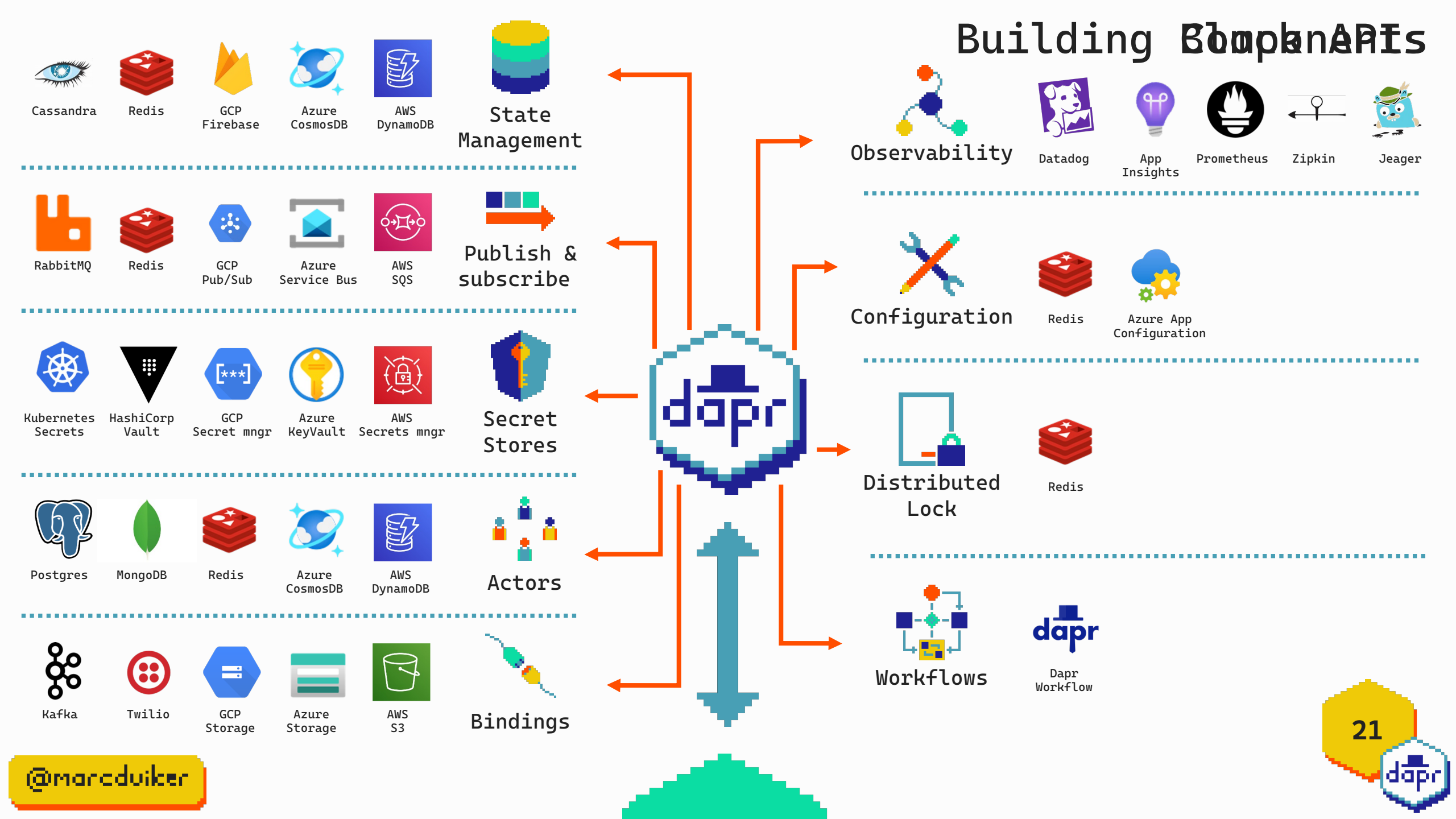
at
bay

VONAGE

wortell

IGNITION
GROUP

Building Blocks APIs



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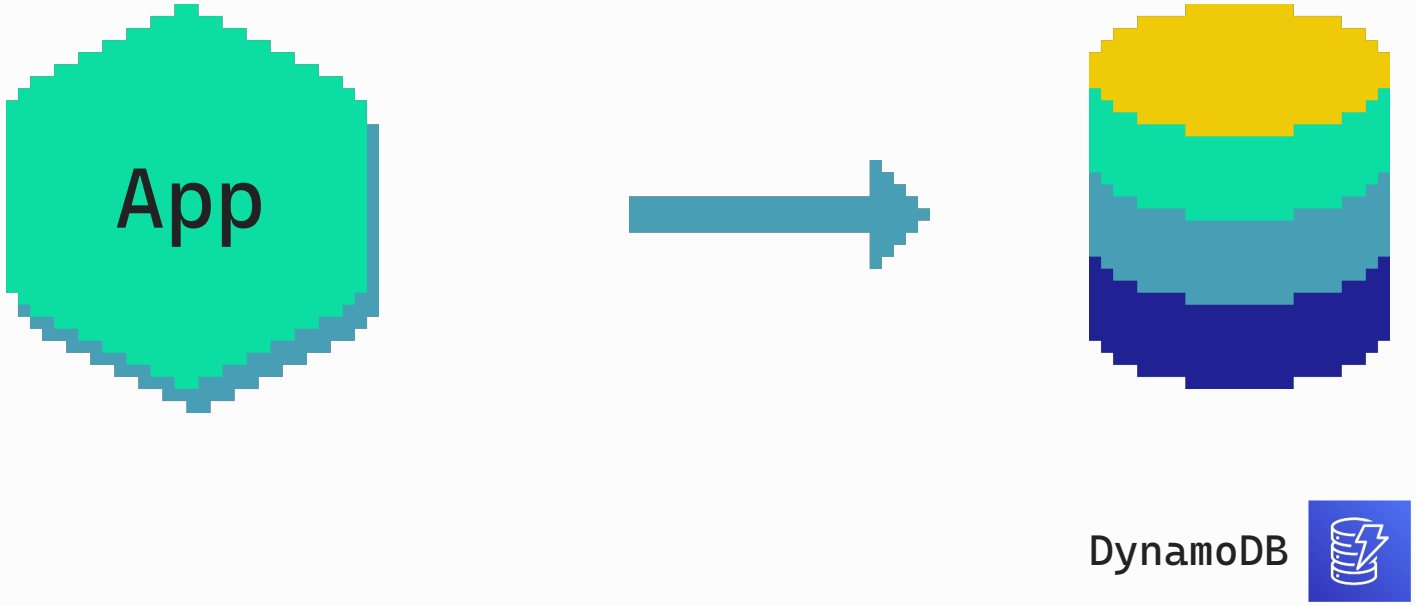
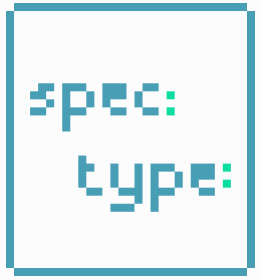
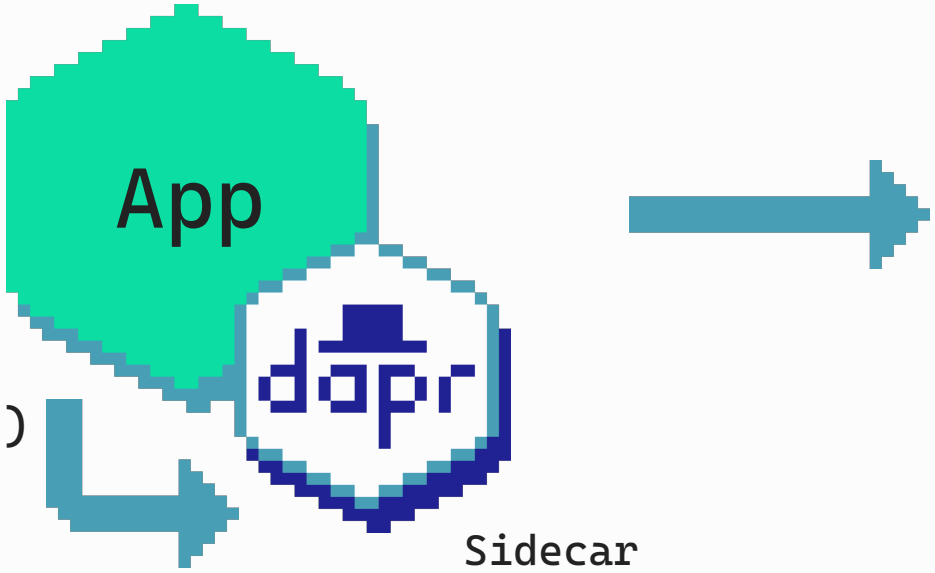

App
DynamoDB



yaml

```
metadata:
  name: mystorage
spec:
  type: state.aws.dynamodb
  metadata:
  - name:
    value:
```



Sidecar

DynamoDB

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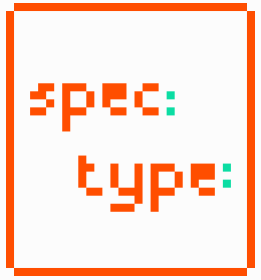
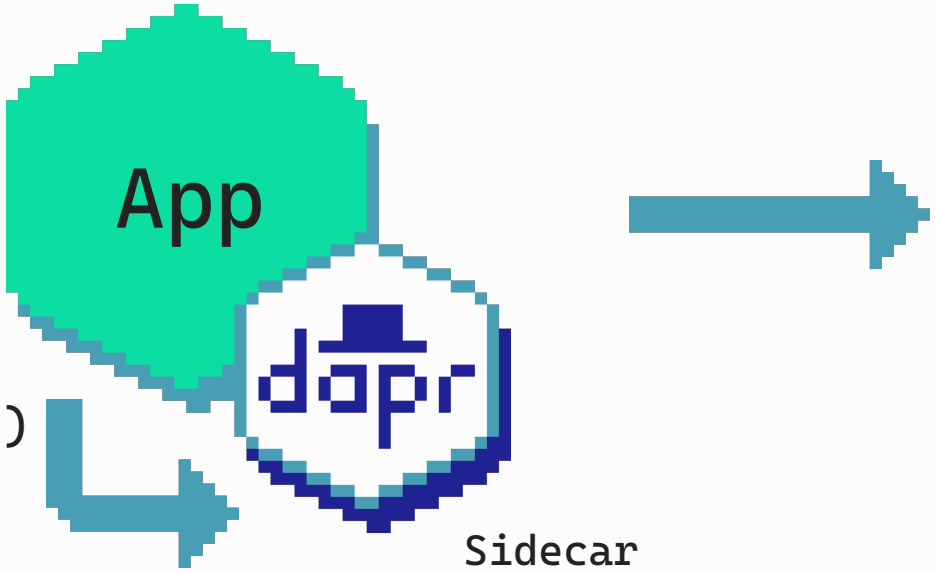


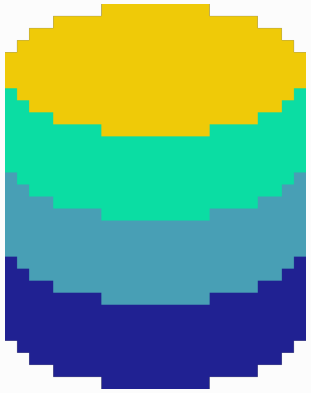
yaml

```
metadata:
  name: mystorage
spec:
  type: state.redis
  metadata:
  - name:
    value:
```



state.save()
state.get()

Sidecar



Redis

When to use Dapr?

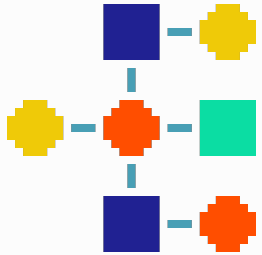
You are in a large organisation with many different teams or tech stacks.

Greenfield projects: postpone your architecture decisions.

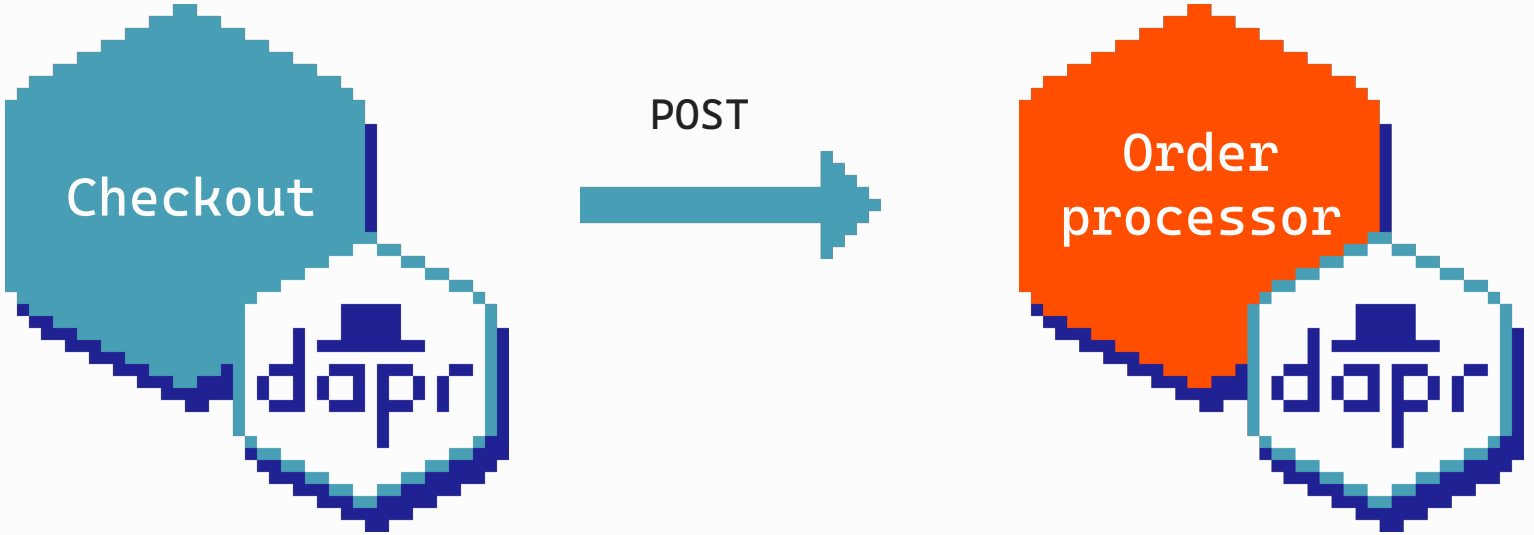
When not to use Dapr?

If your team is allergic to containers & Kubernetes ;)

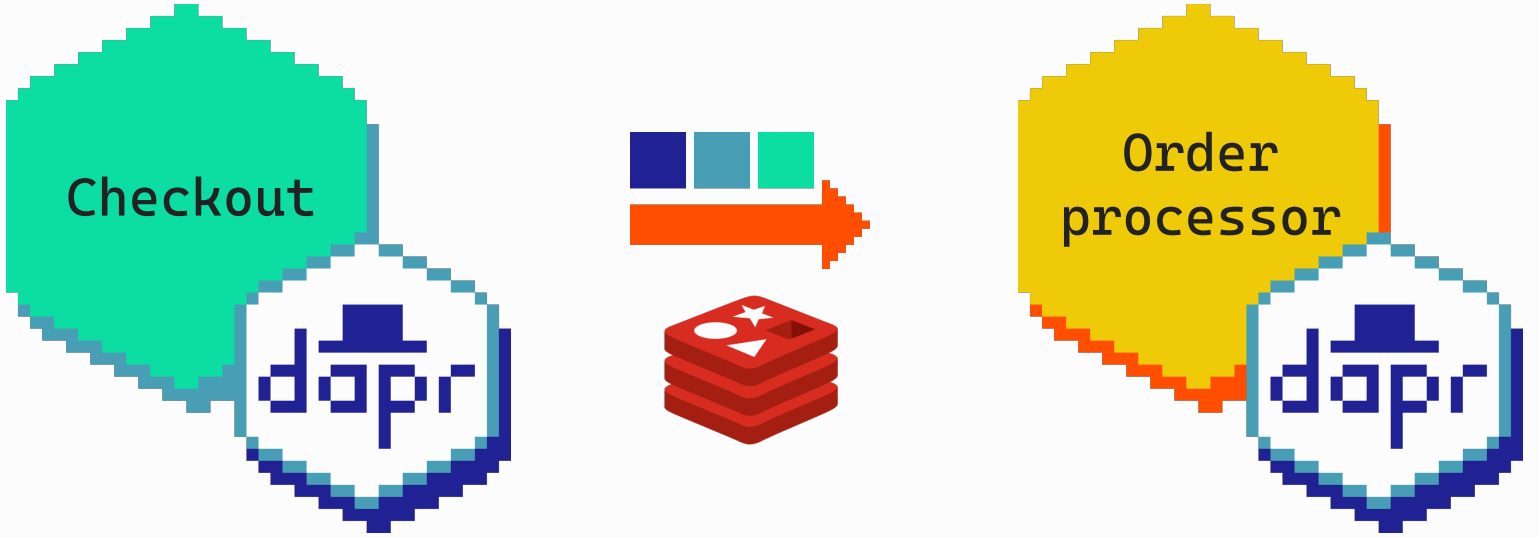
Building block demos

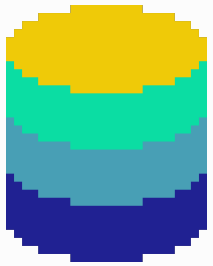


Service invocation

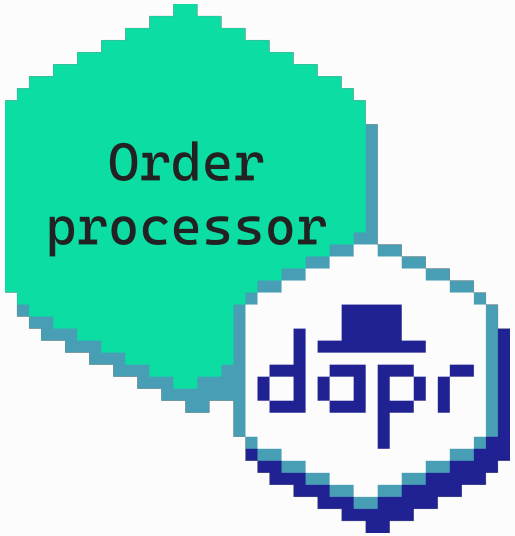


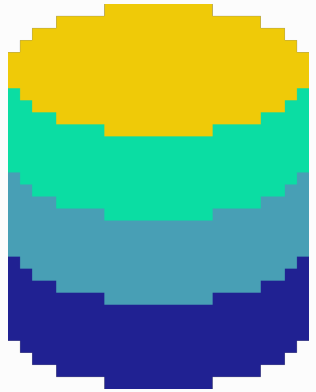
Publish & subscribe





State Management





Redis

Speeds up microservice development by providing a common set of building block APIs.

Join the Dapr Discord!

bit.ly/dapr-discord

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