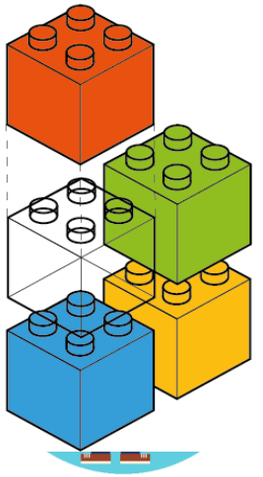
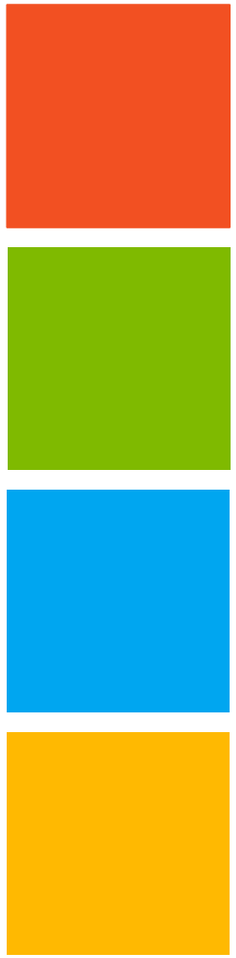


Containerisation

Roadmap

@dotjson



Microservices Architecture

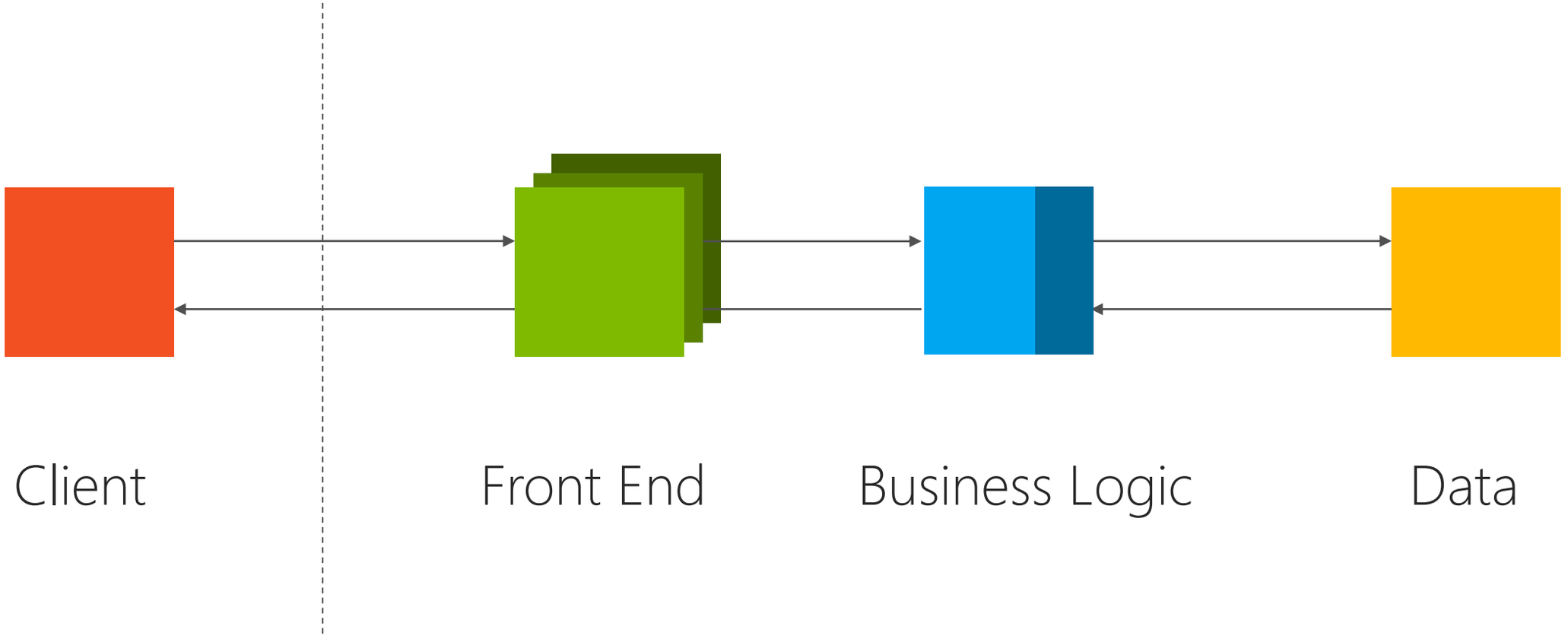
Containerisation

Orchestration

Azure Services

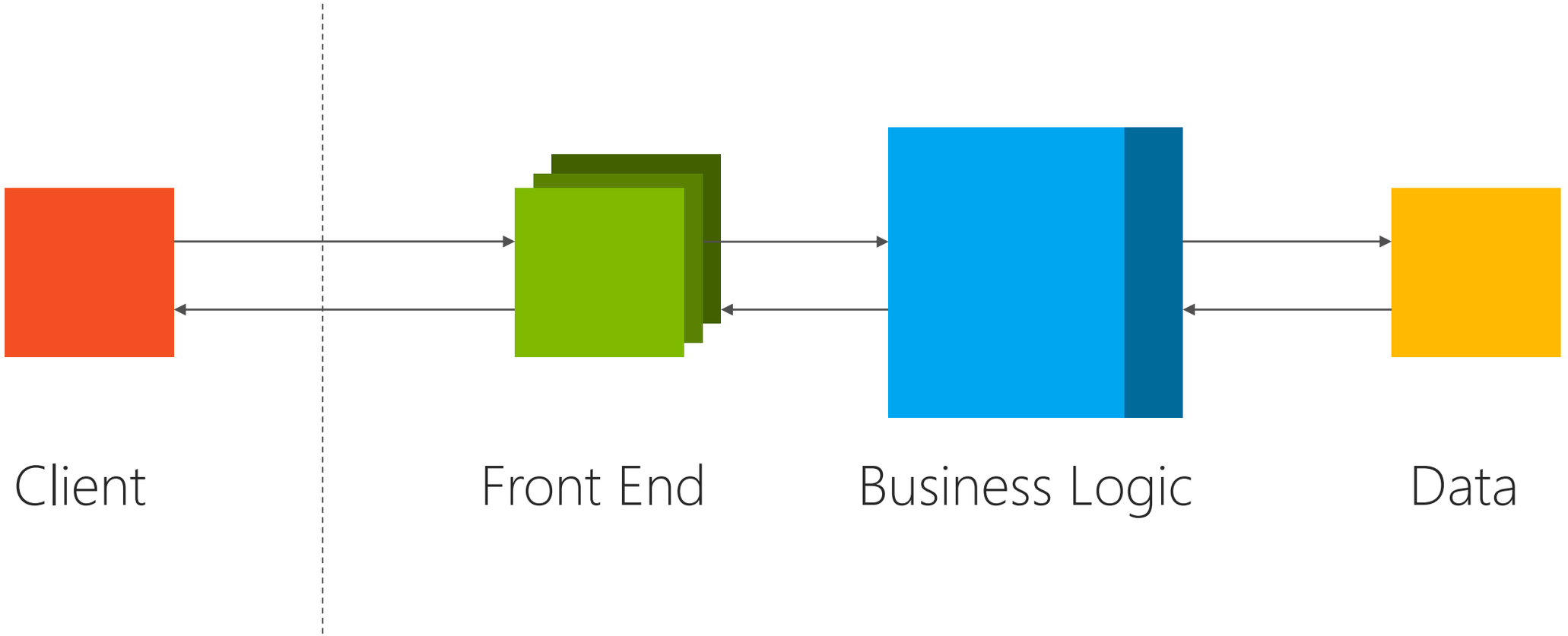
Monolith

@dotjson



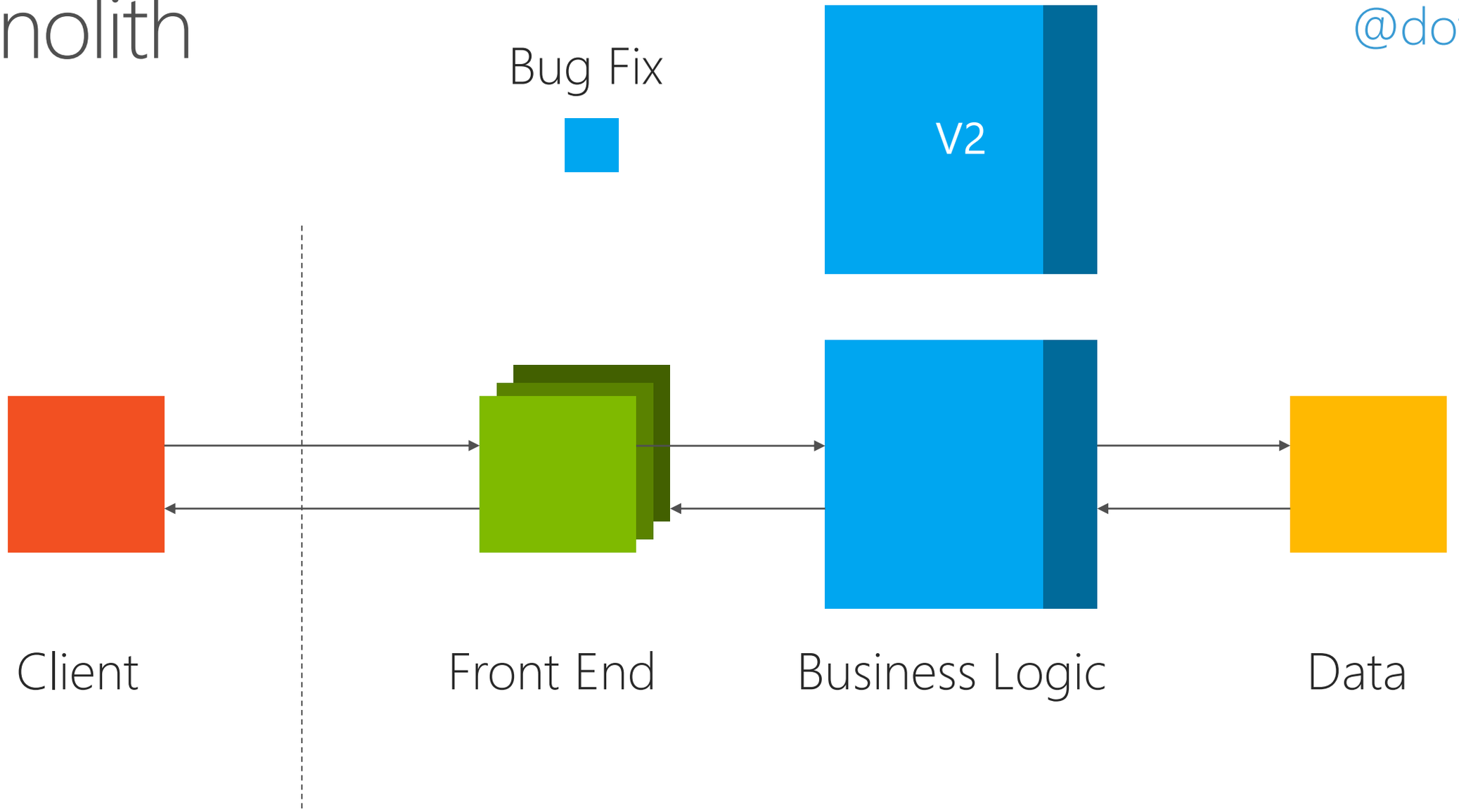
Monolith

@dotjson



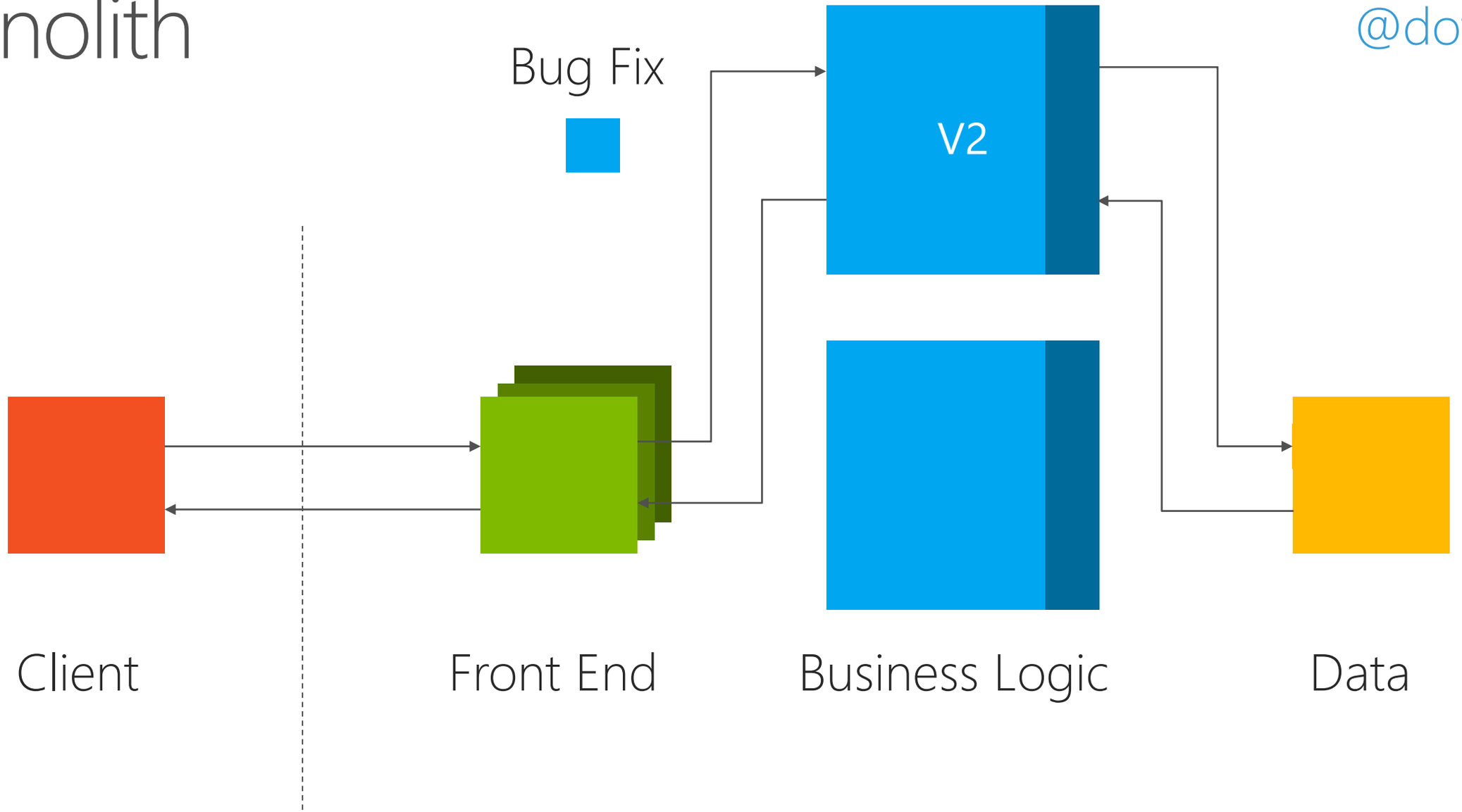
Monolith

@dotjson



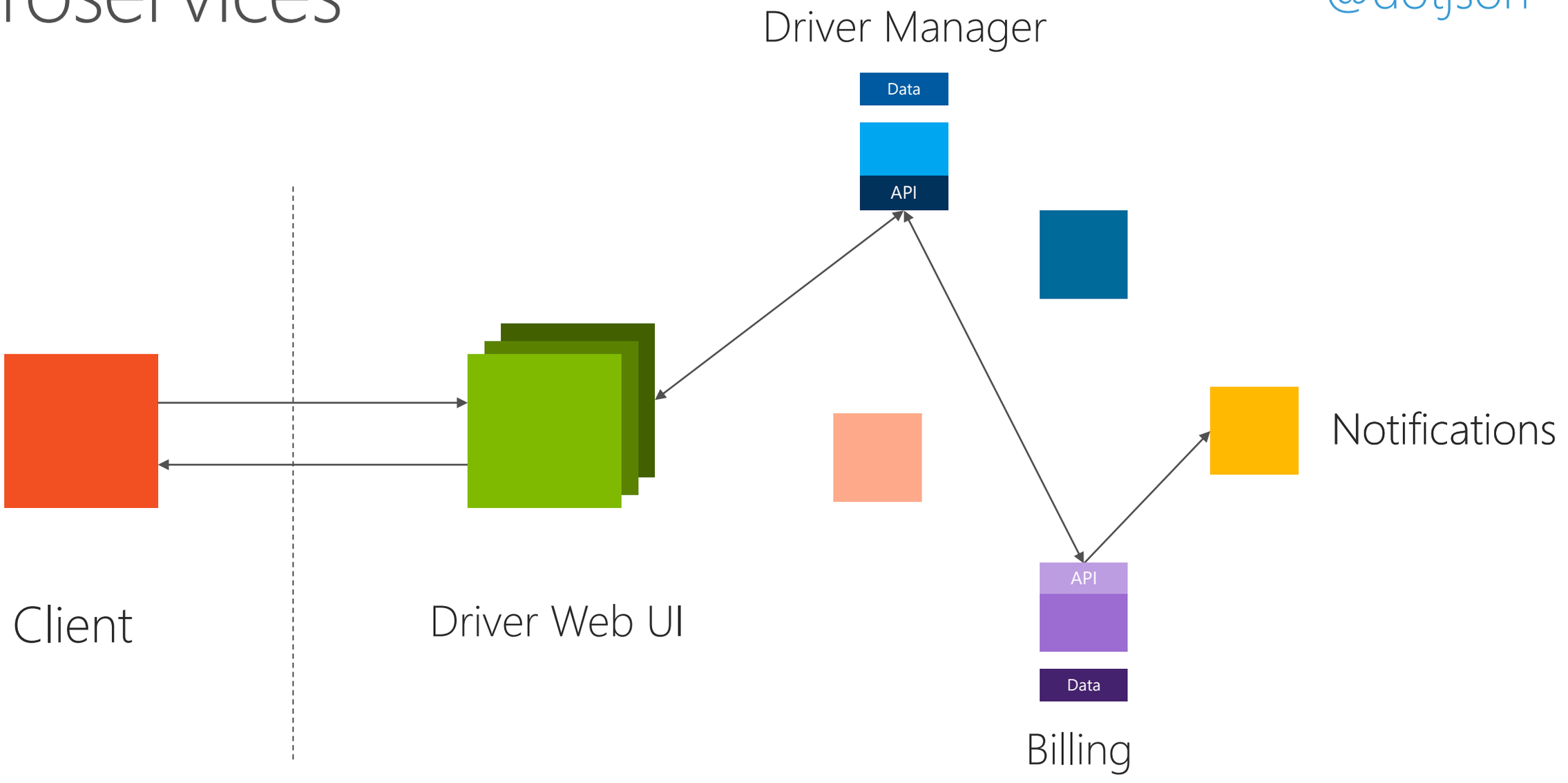
Monolith

@dotjson



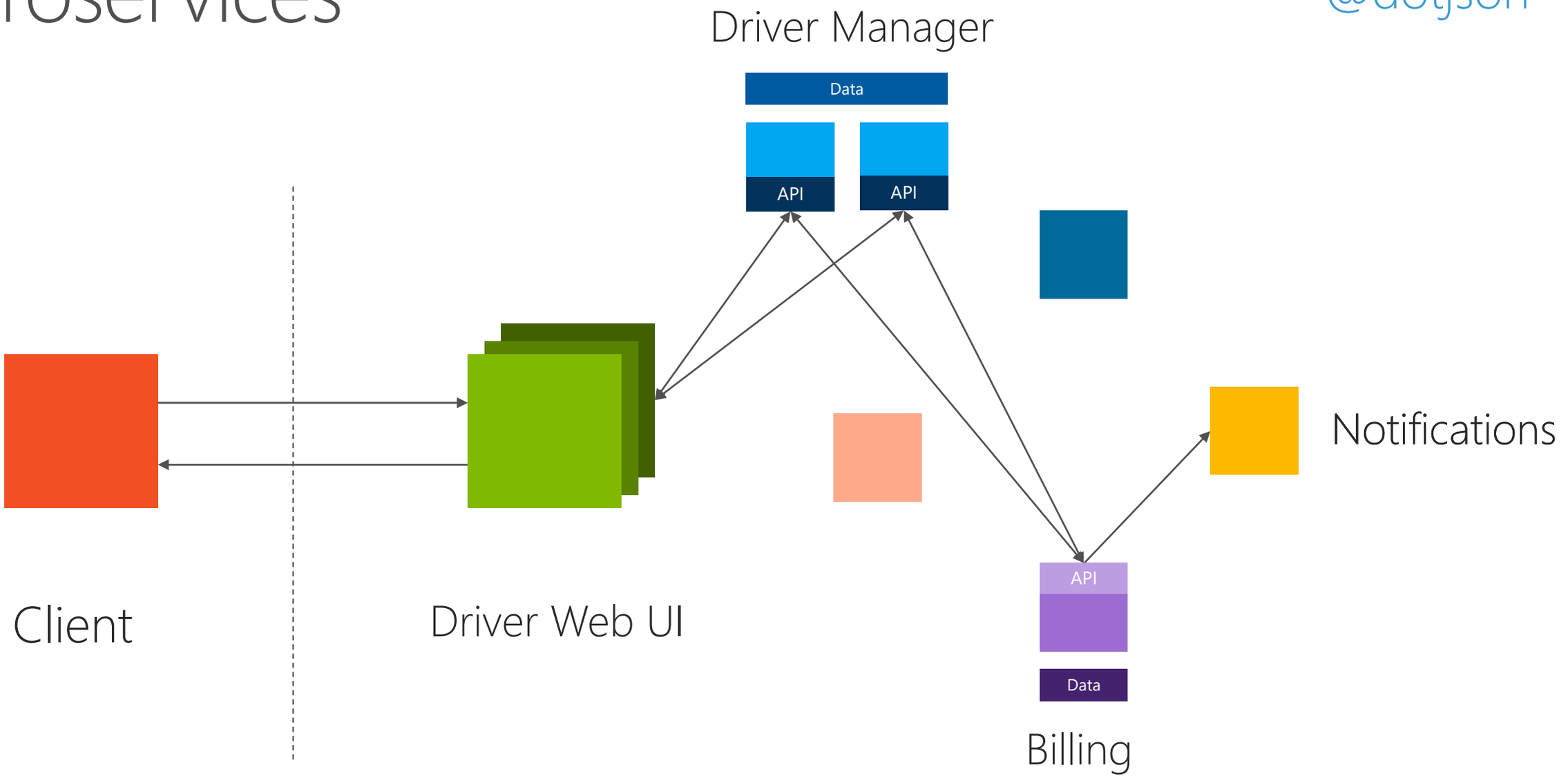
Microservices

@dotjson



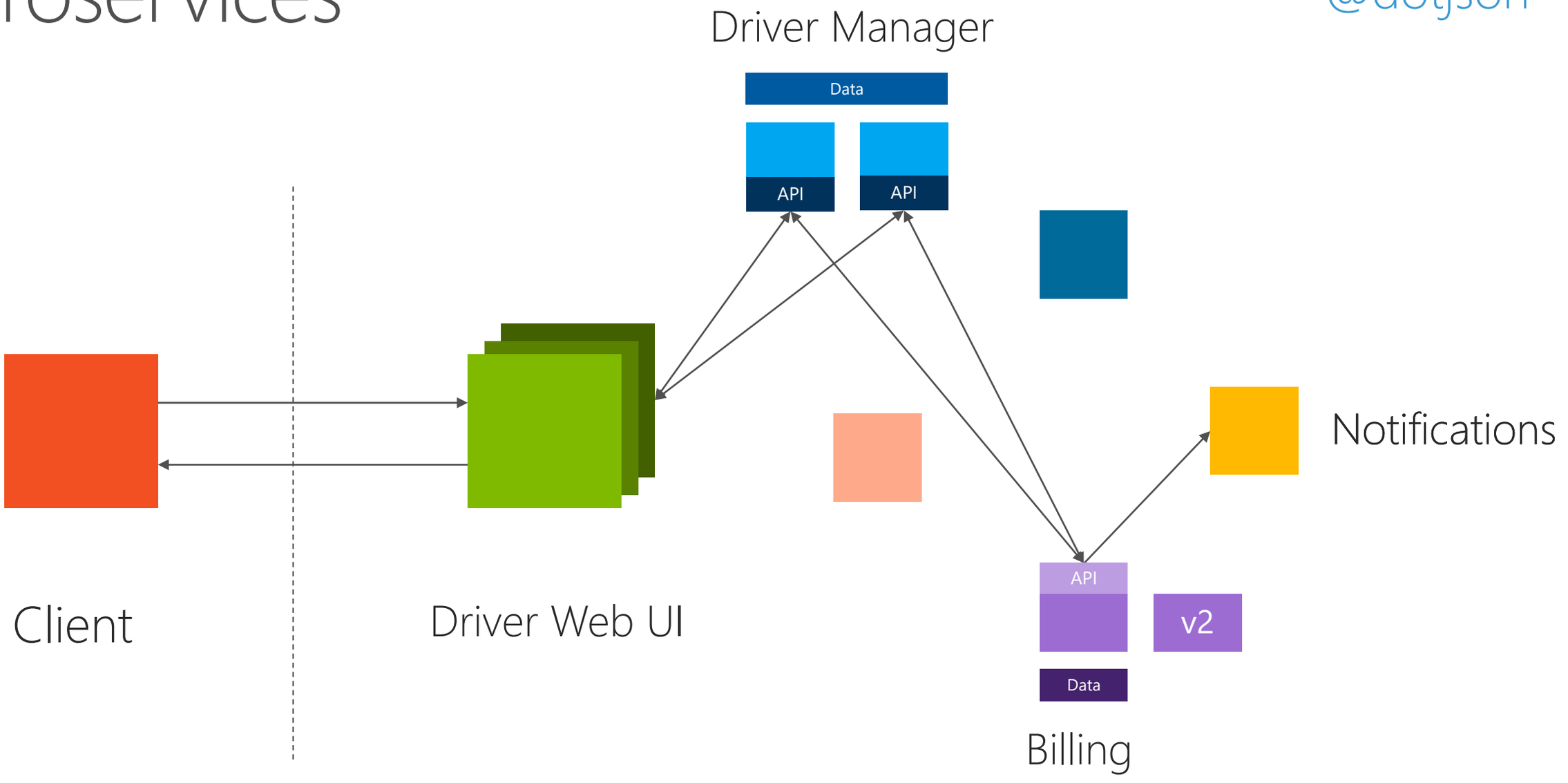
Microservices

@dotjson



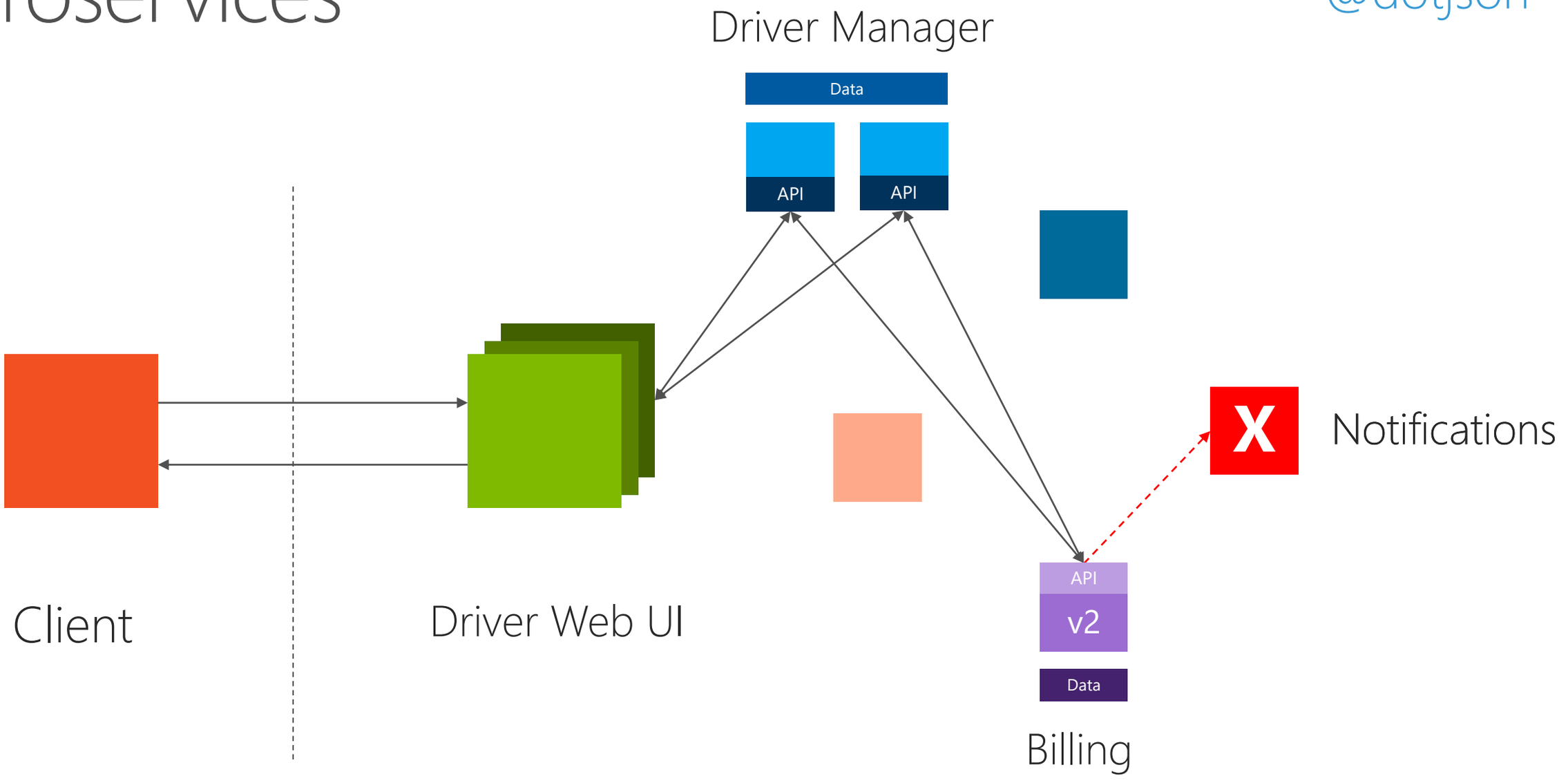
Microservices

@dotjson



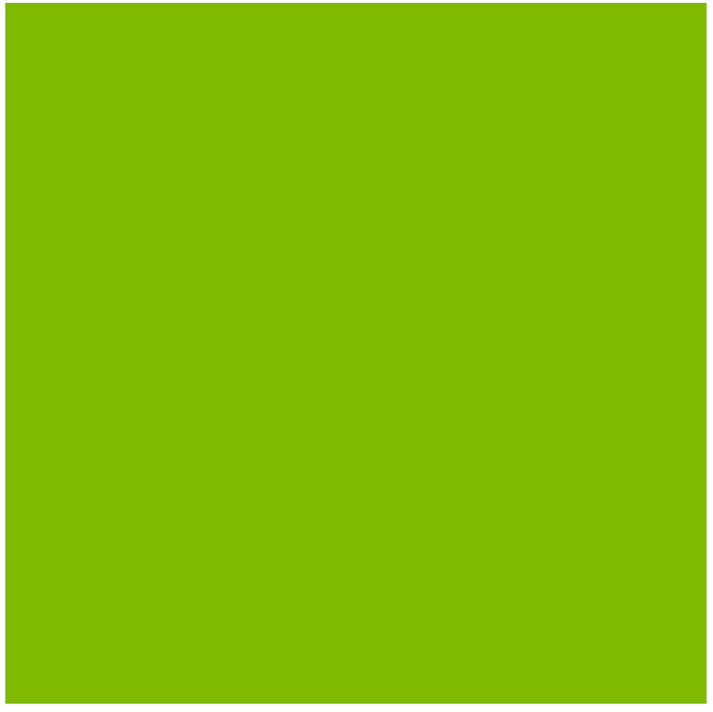
Microservices

@dotjson

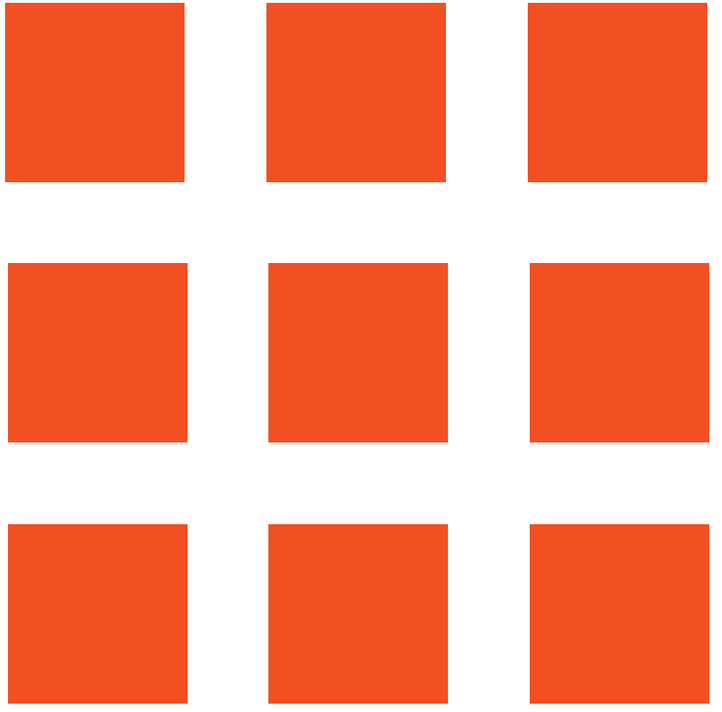


Infrastructure

@dotjson



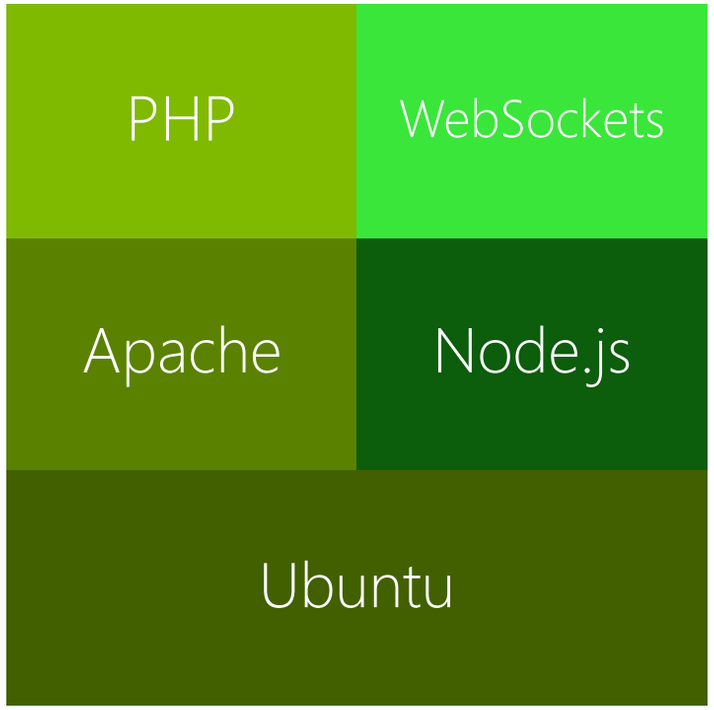
Monolith



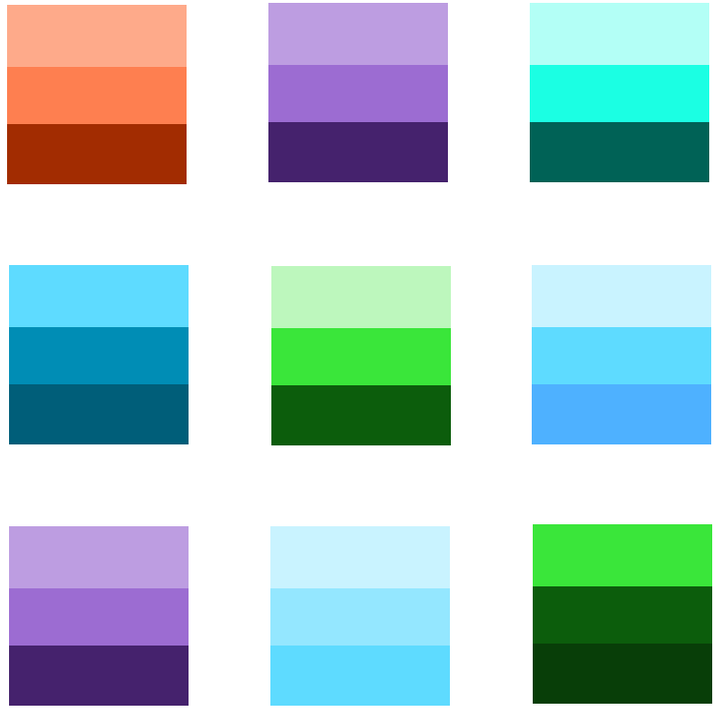
Microservices

Dependencies

@dotjson



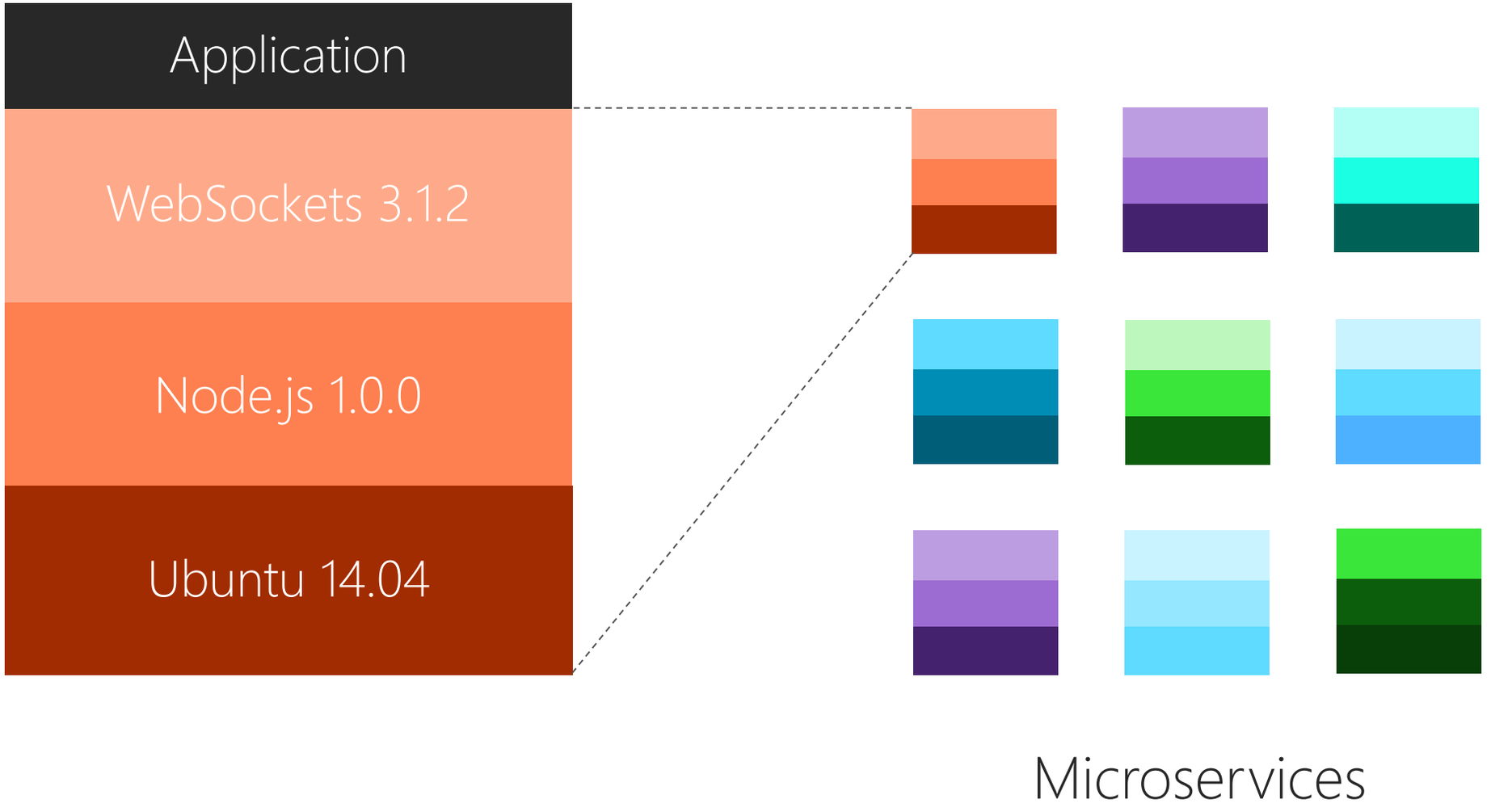
Monolith



Microservices

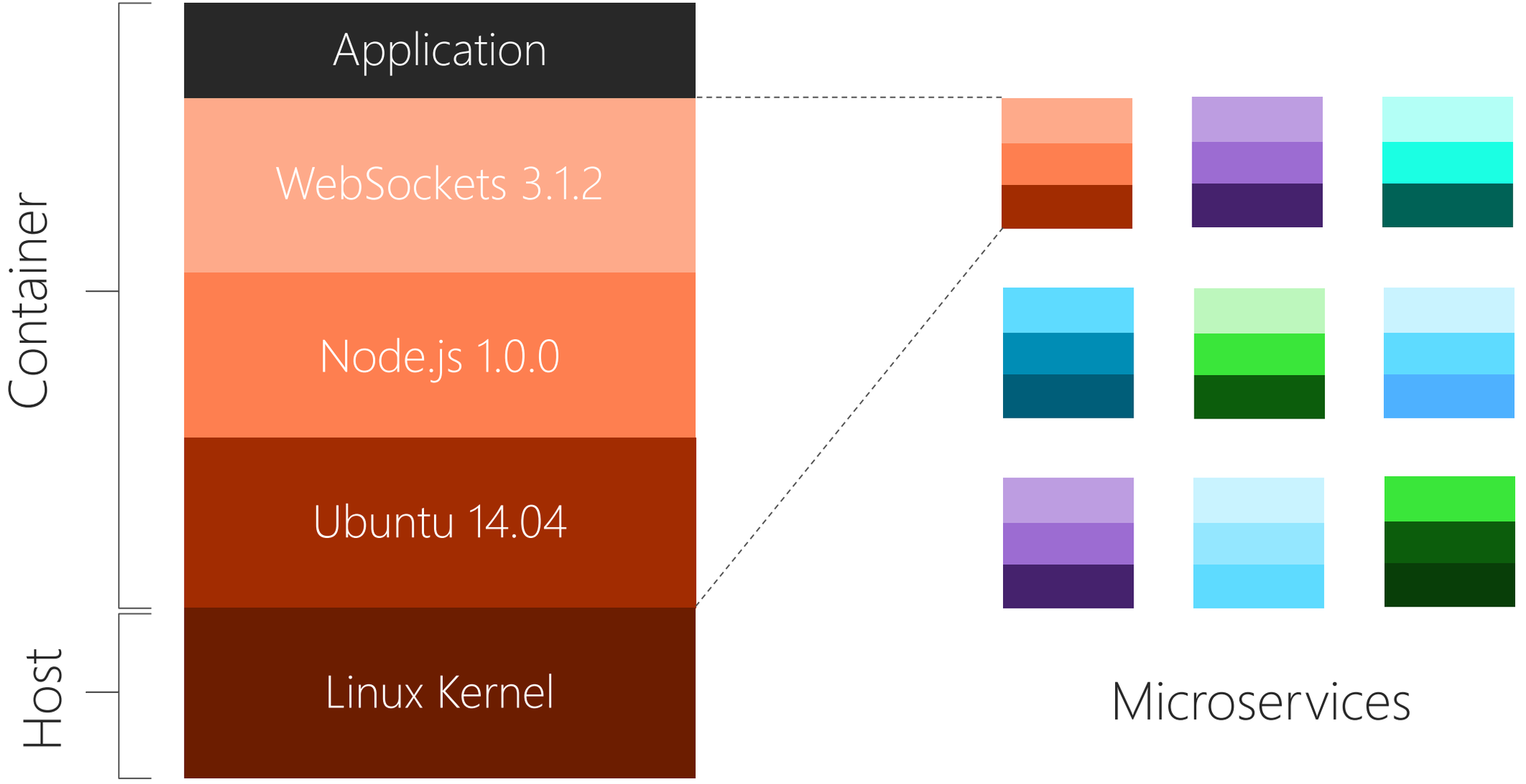
Isolating dependencies

@dotjson



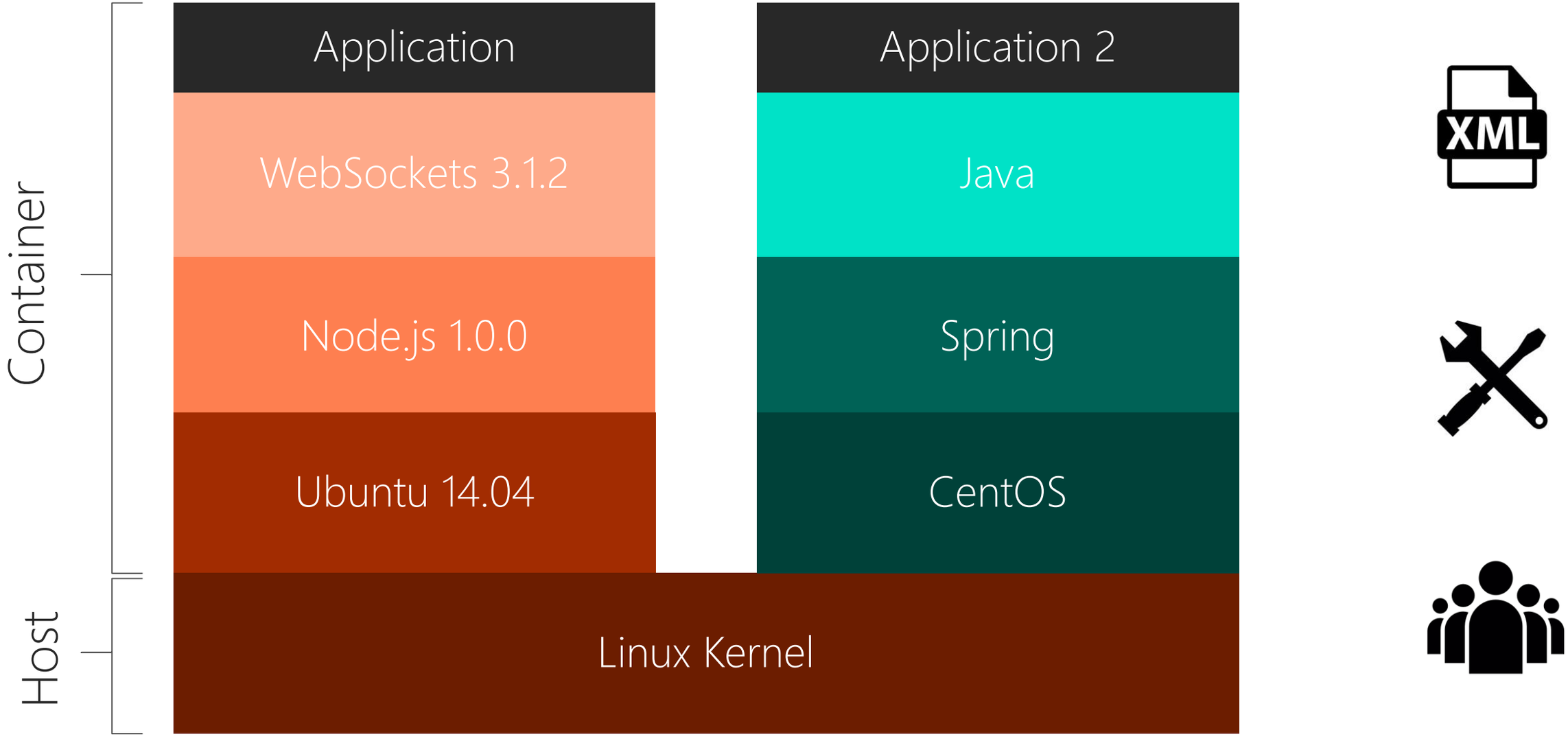
Containerisation

@dotjson



Containerisation

@dotjson



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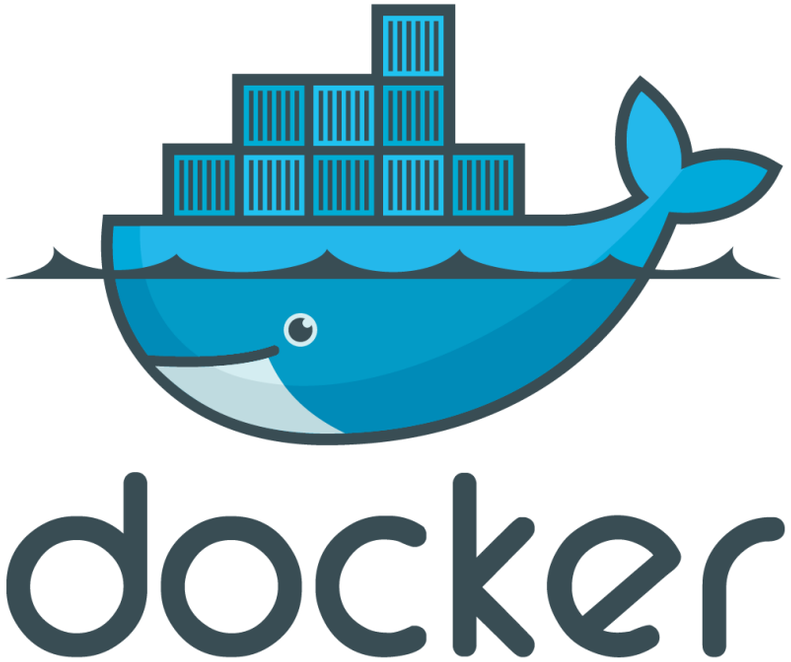
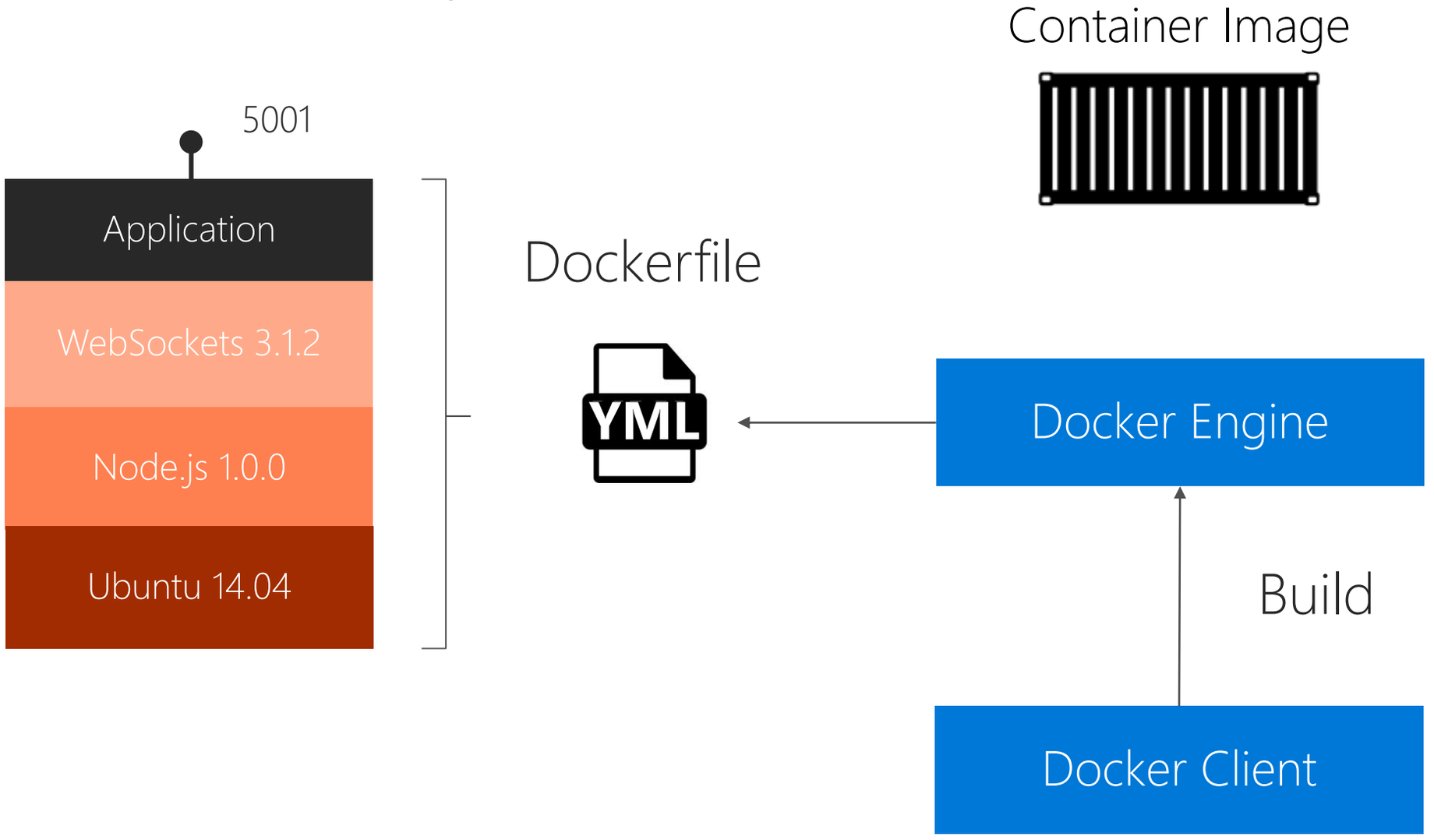


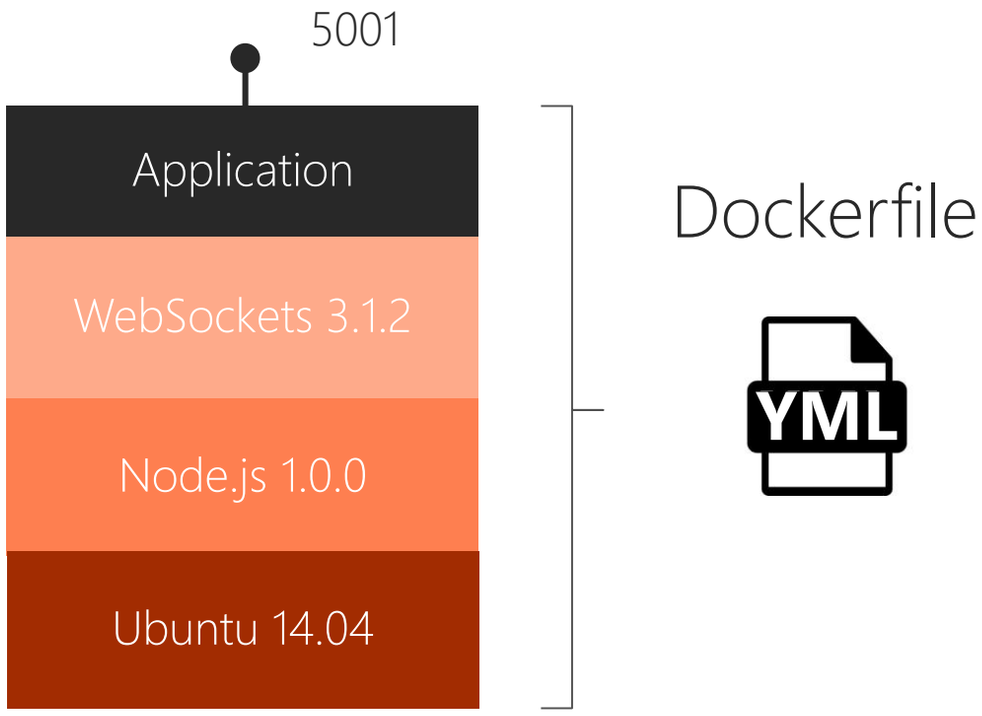
Docker ecosystem

@dotjson

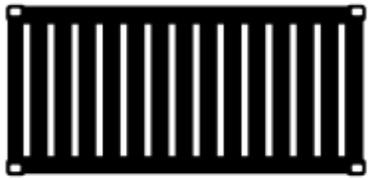


Docker ecosystem

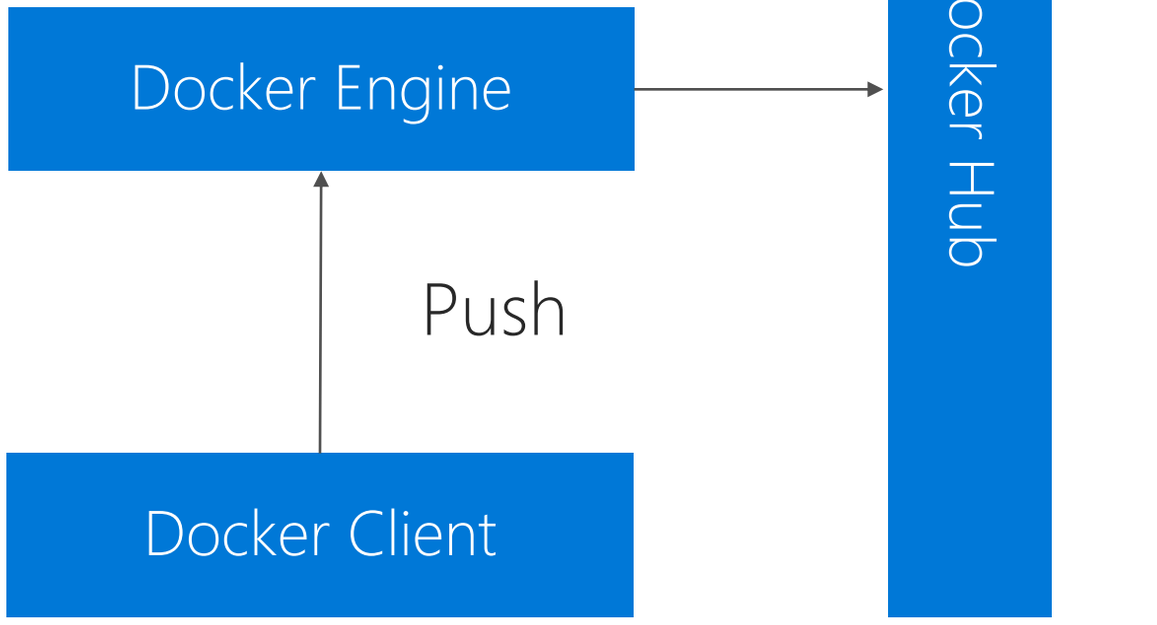
@dotjson



Container Image



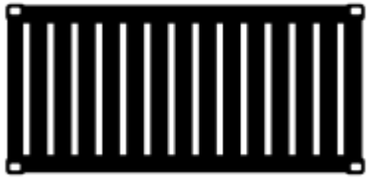
Should be immutable



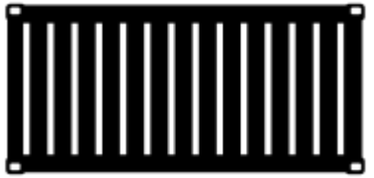
Docker Compose

@dotjson

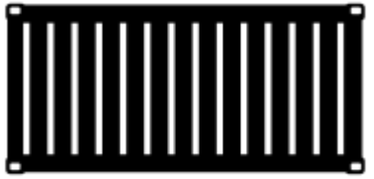
Container Image 1

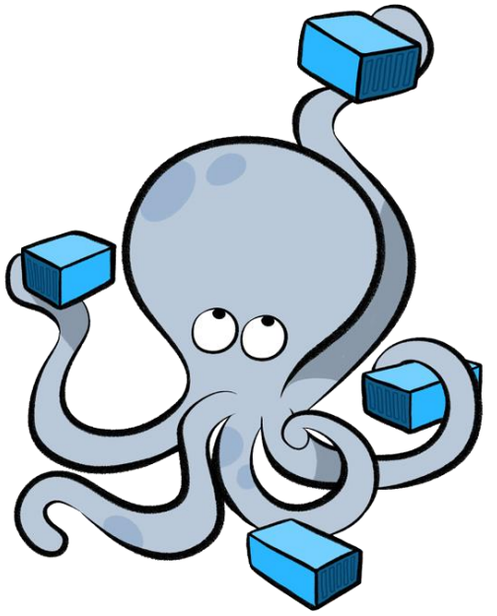


Container Image 2



Container Image 3



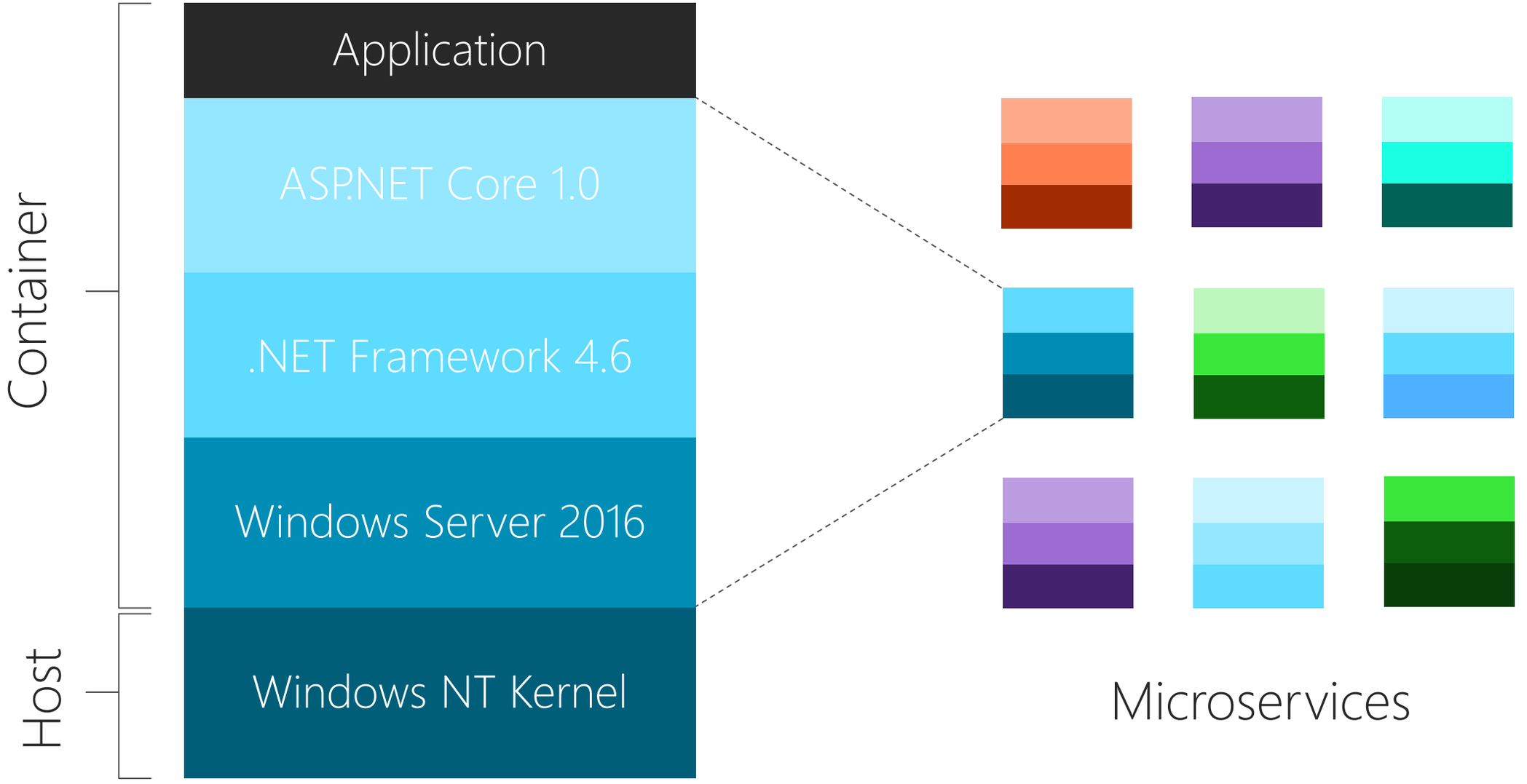


Docker-Compose

Requirements

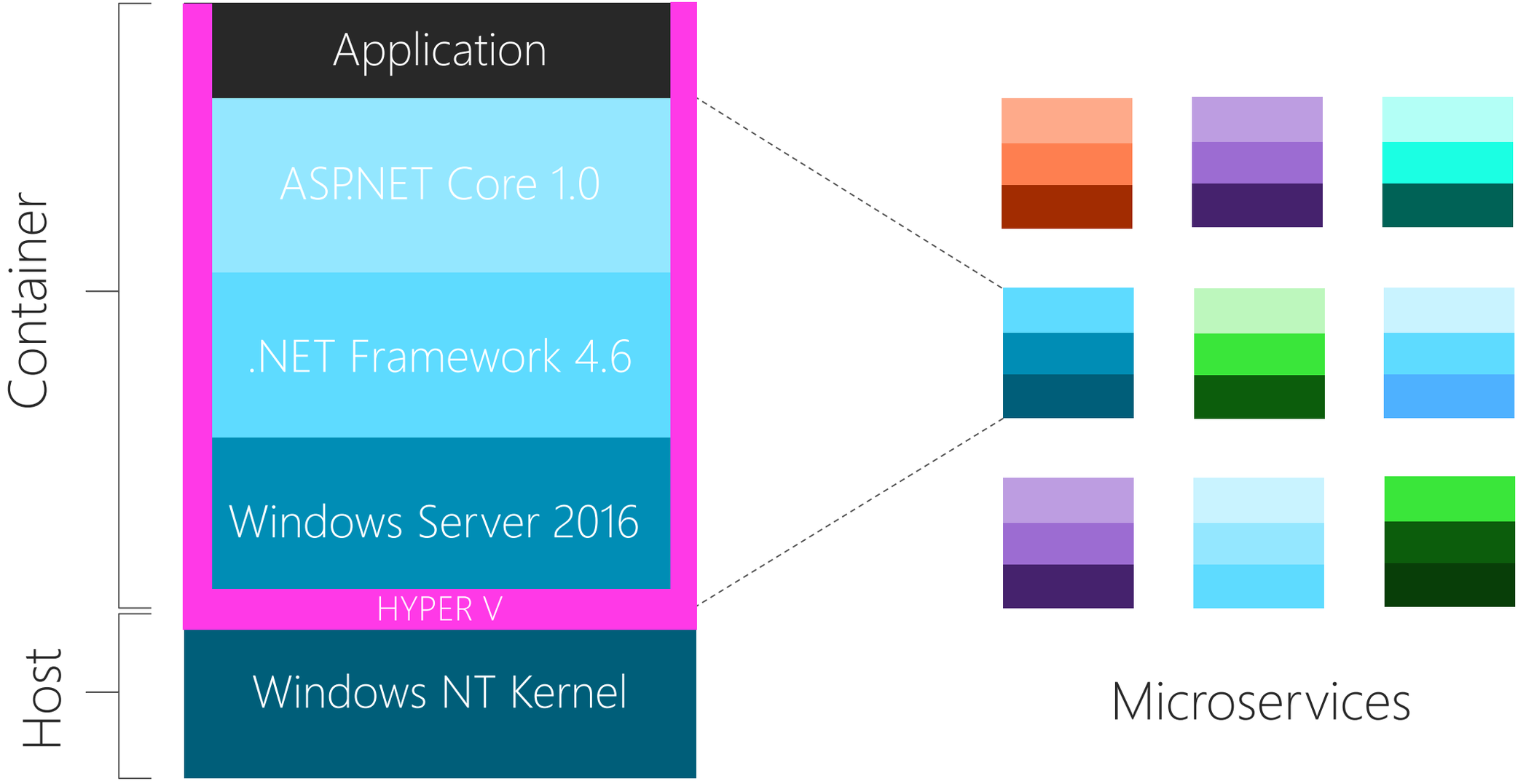
Docker on Windows

@dotjson



Docker on HyperV

@dotjson



Docker on Unikernel

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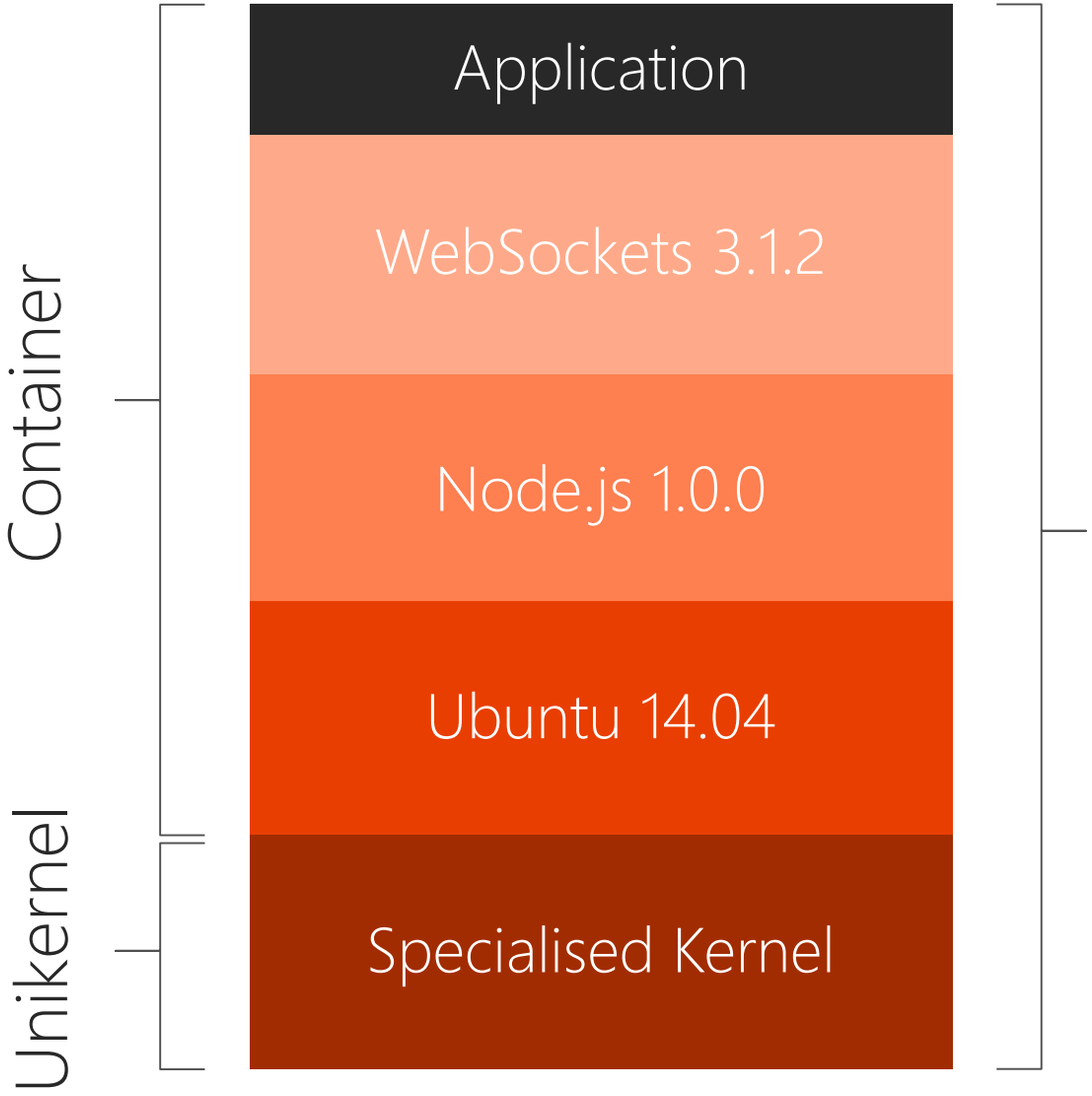
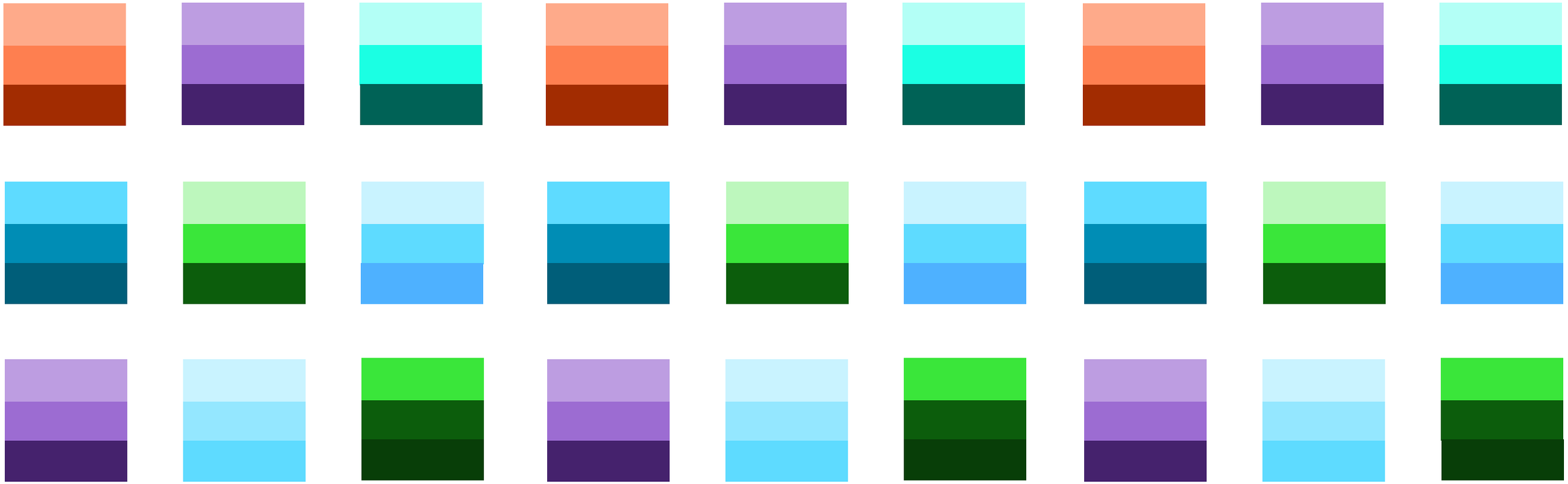


- Smaller attack surface
- Tiny memory footprint
- No disk?!

*Not for production environments

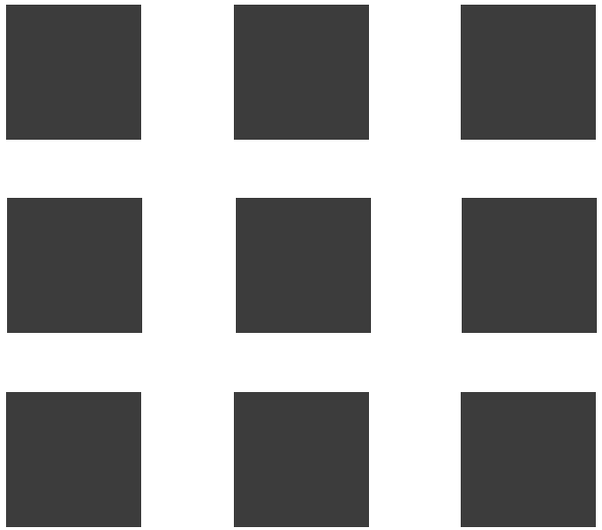
@dotjson



Microservices

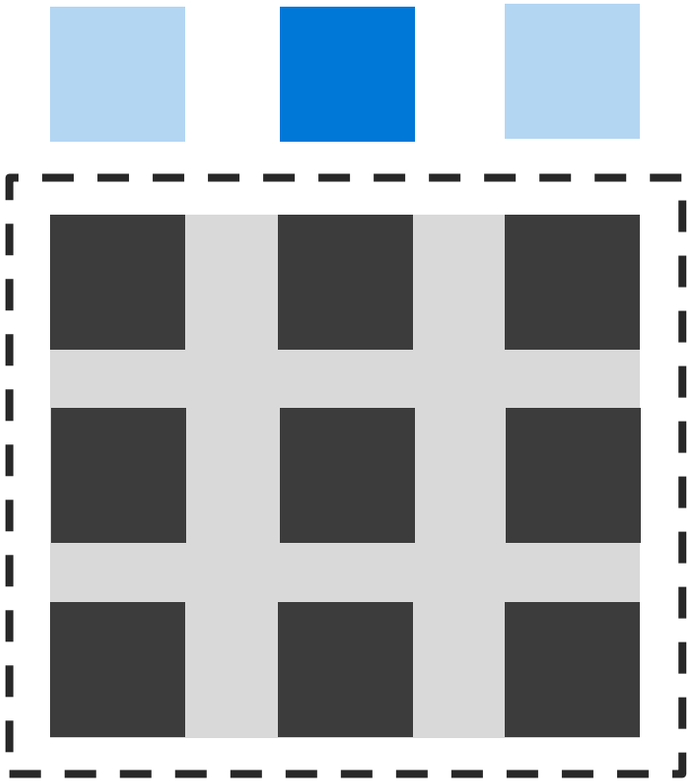
Service orchestration

@dotjson



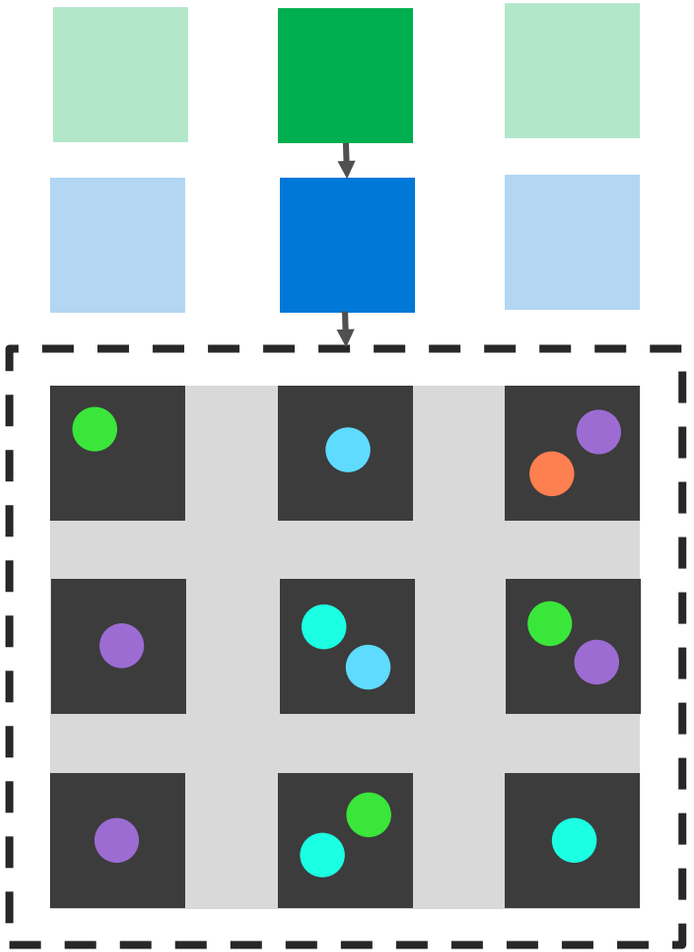
Clustering

@dotjson



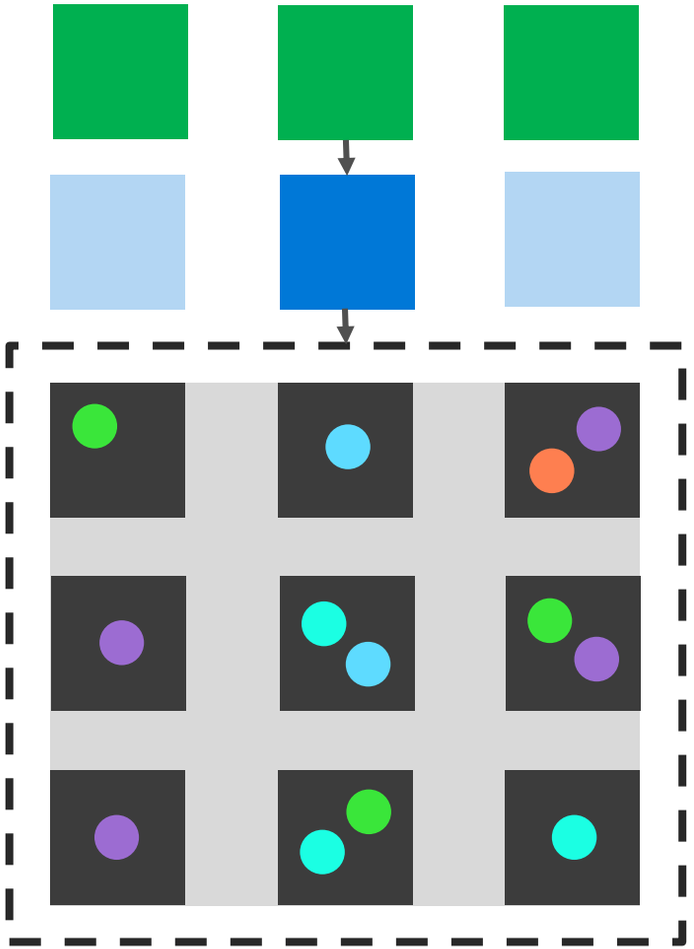
Scheduling

@dotjson



Leader Election

@dotjson



Discovery

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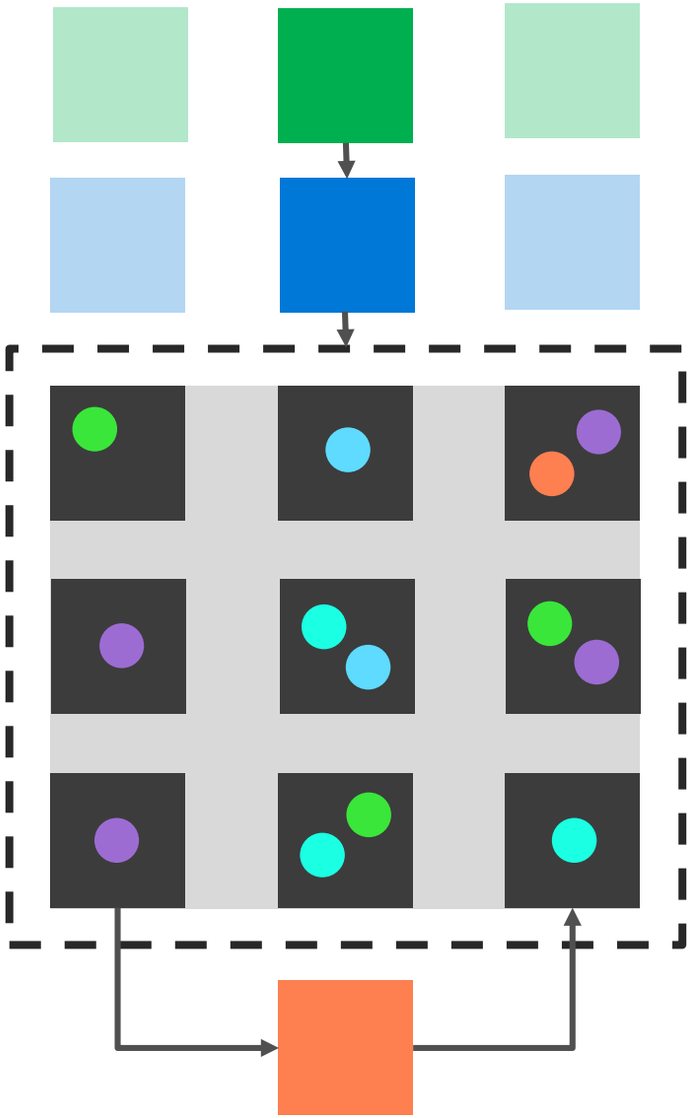
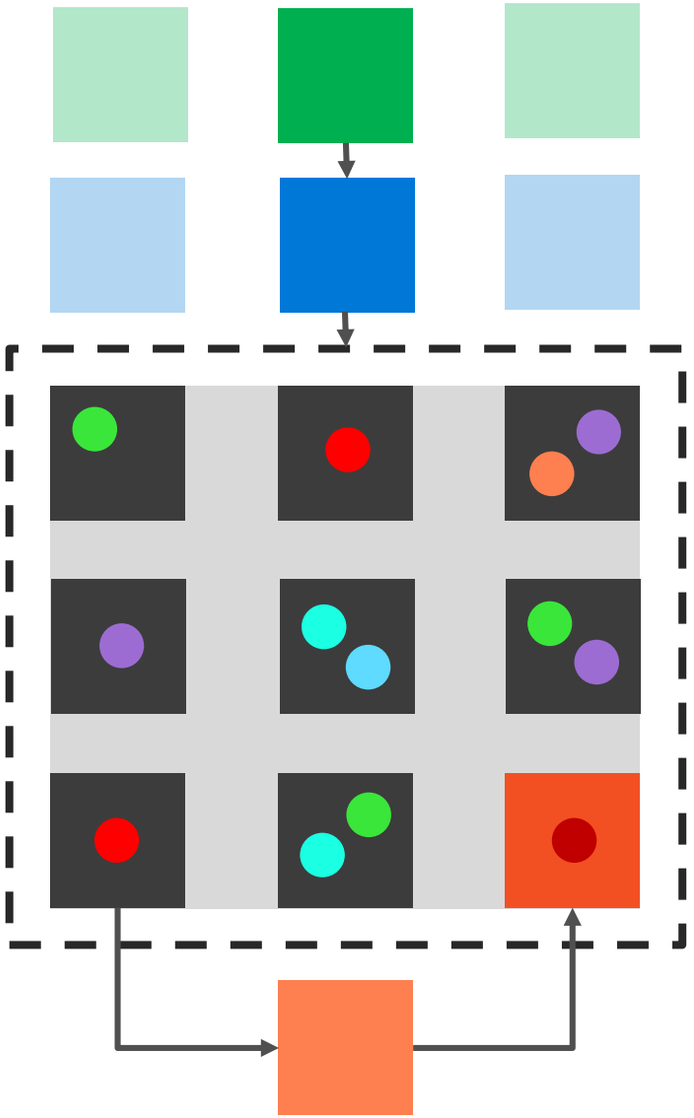


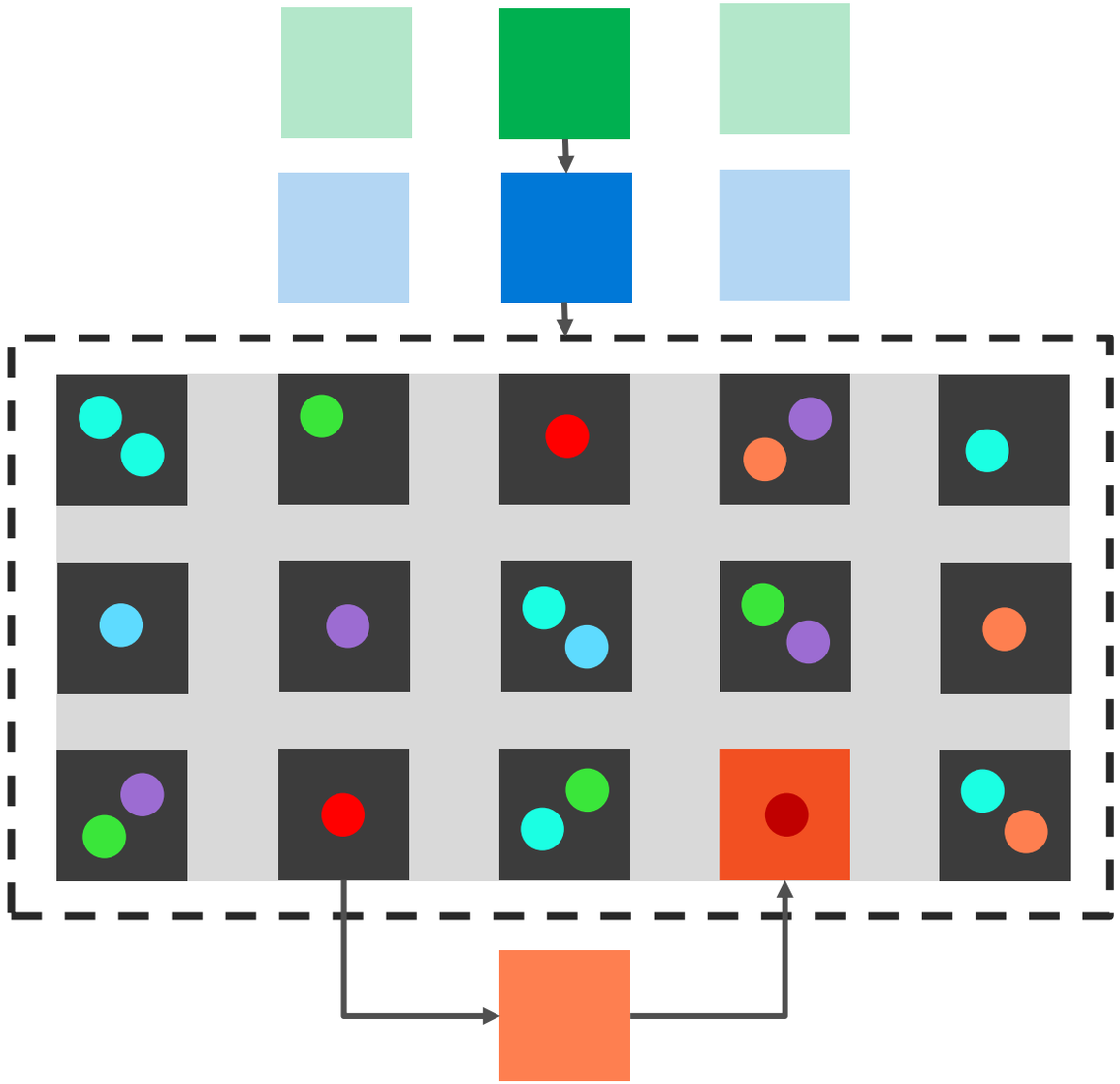
Health + Failure

@dotjson



Scaling

@dotjson



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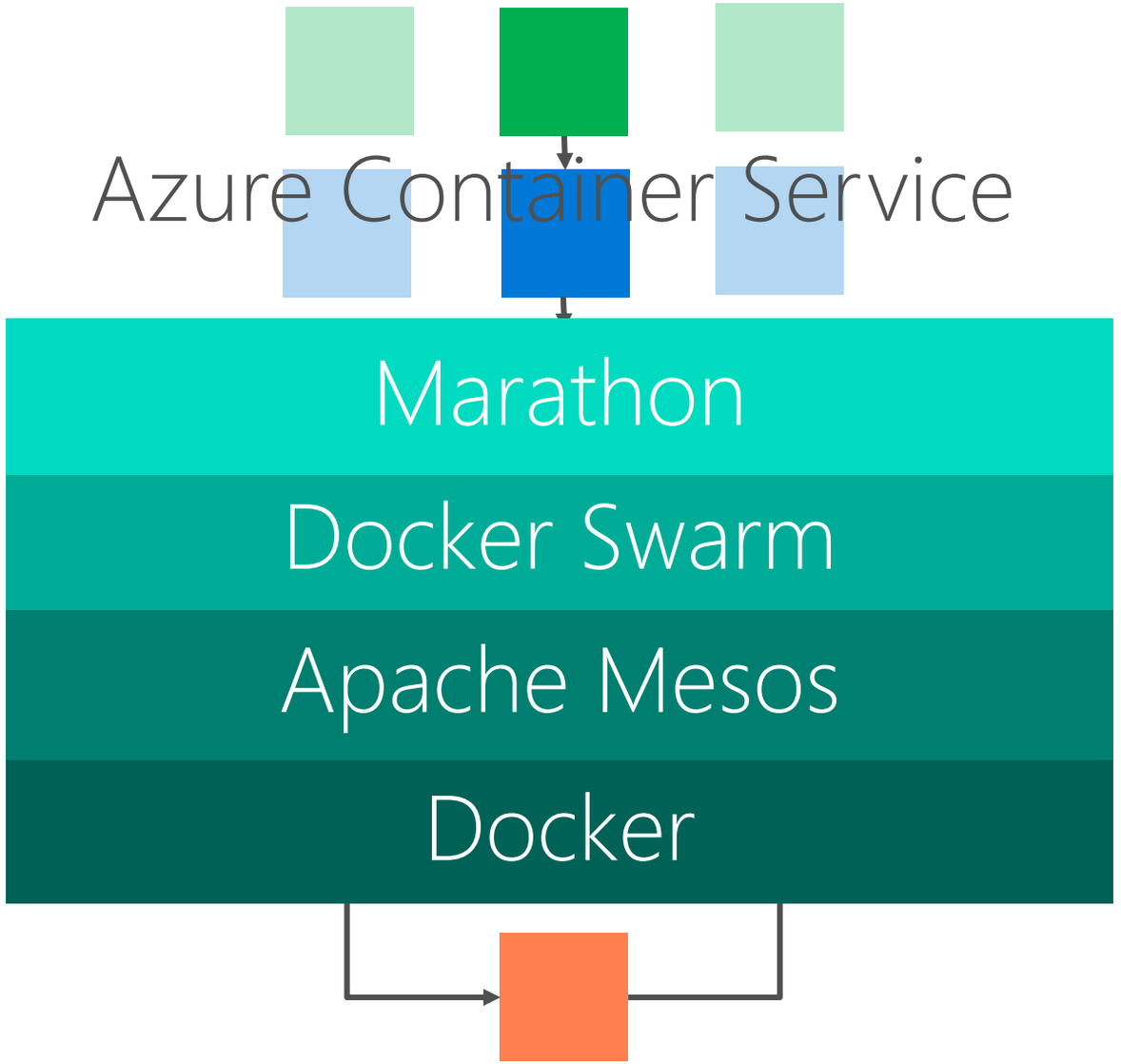

Azure Container Service
Marathon
Docker Swarm
Apache Mesos
Docker

@dotjson

Service Fabric

@dotjson

Service Fabric

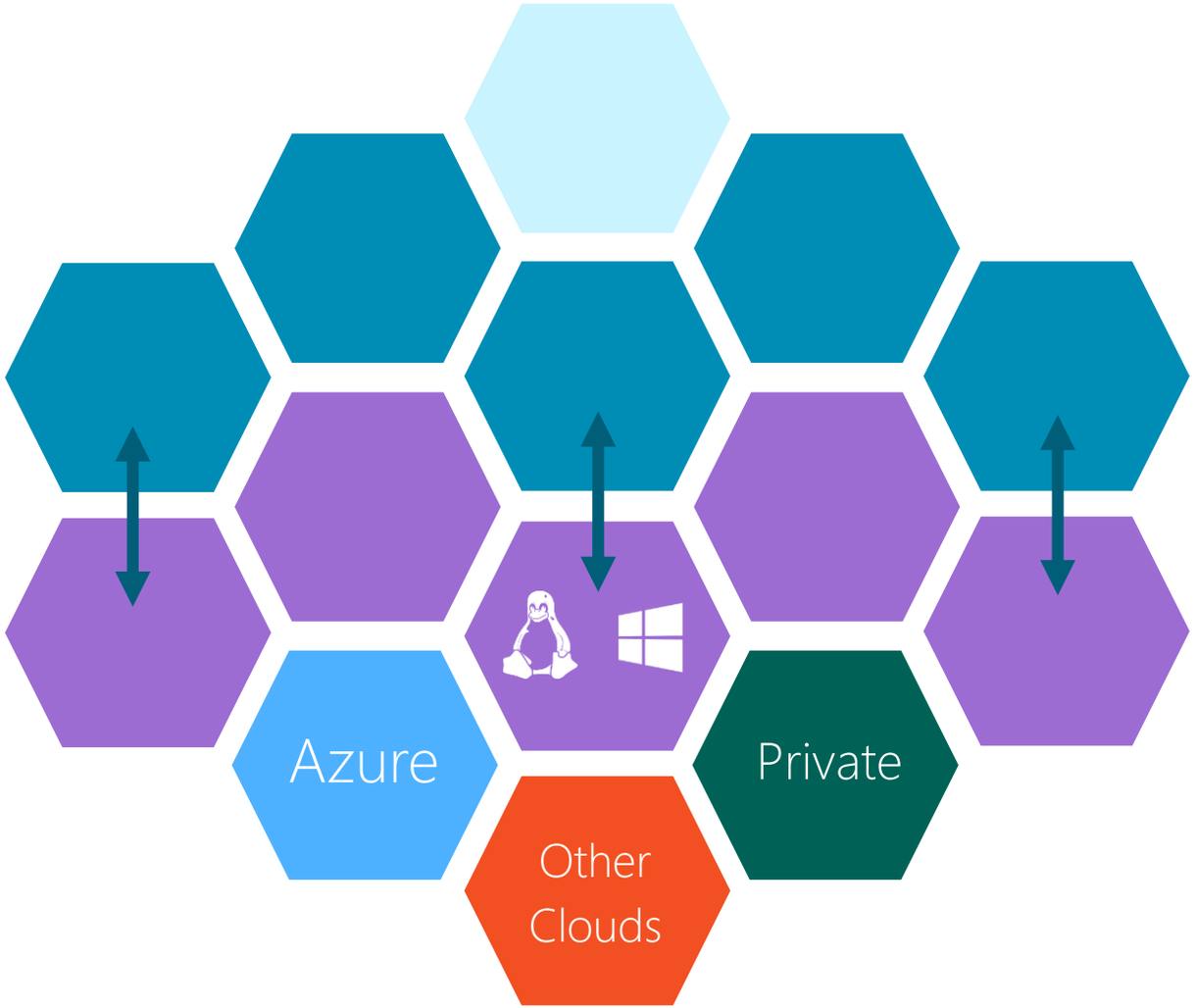
Next generation scale out microservices platform

PEEK

@dotjson

Azure Service Fabric Explorer

@dotjson

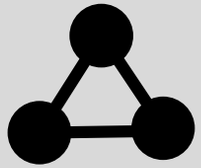


Programming Model

Guest Executables

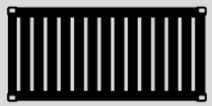
Reliable Services

Reliable Actors



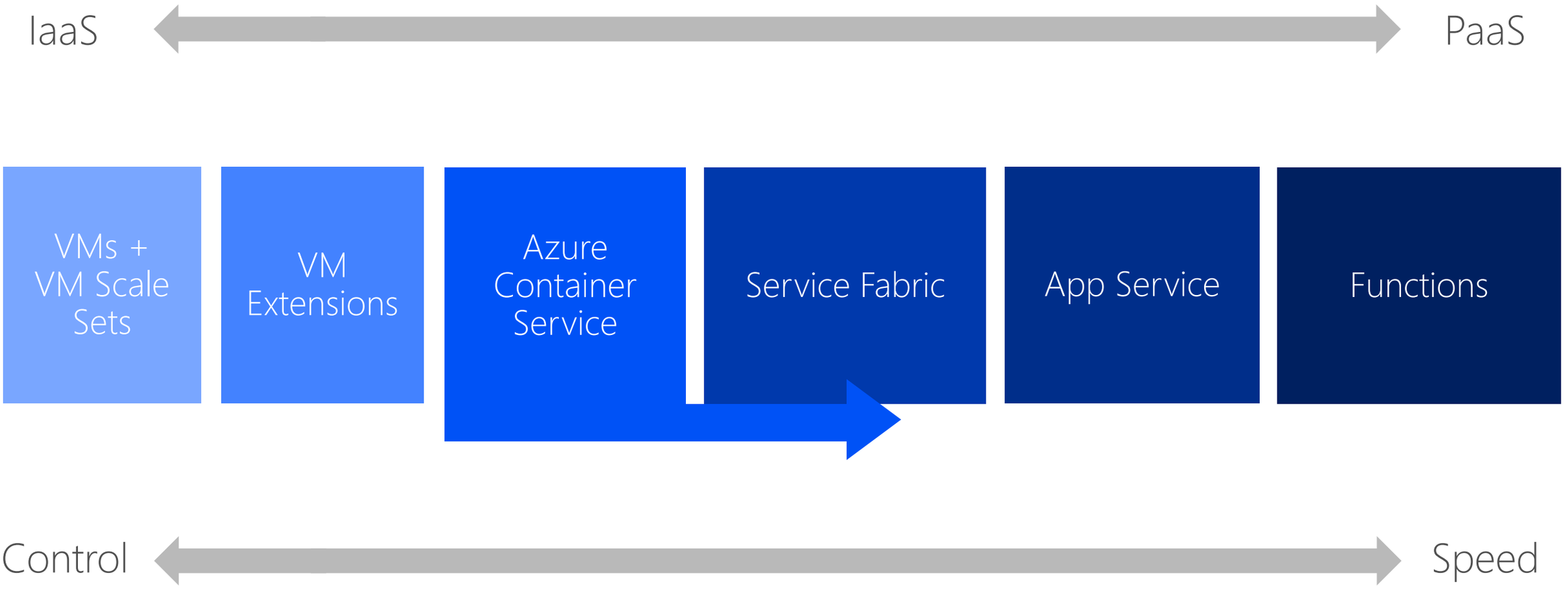
Guest Containers

Native Containers



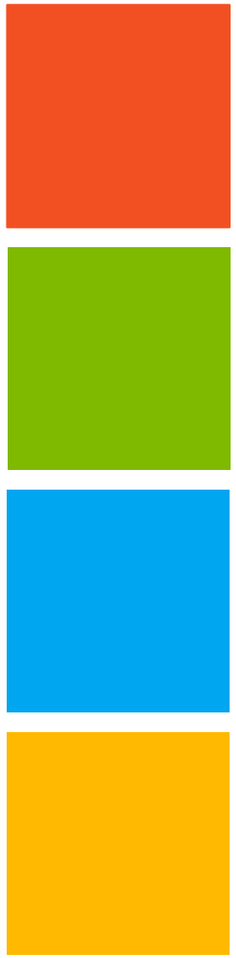
Azure Compute Continuum

@dotjson



Recap

@dotjson



Microservices Architecture

Containerisation

Orchestration

Azure Services

Call to action

@dotjson

Introduction to Microservices

https://www.nginx.com/blog/introduction-to-microservices/

Introduction to Service Fabric

https://azure.microsoft.com/en-gb/documentation/learning-paths/service-fabric/

Building Microservices: Designing Fine Grained Systems

Sam Newman

Joni Collinge

@dotjson