

DevDays**Asia** 2018  
@Taipei

亞太技術年會

# Azure Container & Container Services

Perl Tsai

CSA

Microsoft GCR

Ma Ping

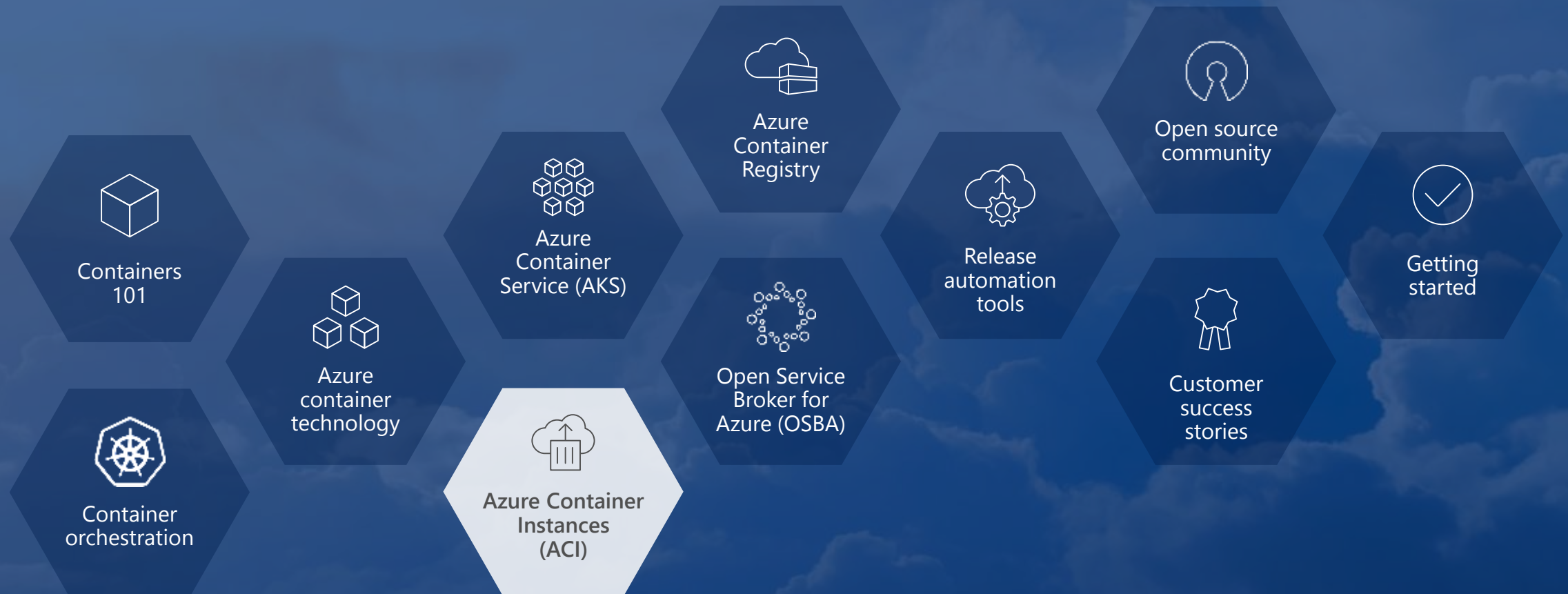
GBB

Microsoft GCR

# Azure Container Family

- Azure Container Instances (ACI)
- Azure Container Service (AKS)
- ACS Engine
- ACI Connector for Kubernetes
- Open Service Broker for Azure (OSBA)
- Kubernetes Developer Tools

# Azure Container Instances (ACI)



**Your container,  
running in Azure**

# Azure Container Instances

- Start in seconds
- No VM management
- Custom CPU/memory
- Billed per second
- Hypervisor-level isolation
- Linux and Windows containers



# Getting Started with ACI

```
$ az container create --name perlcontainer --image microsoft/aci-helloworld --resource-group DevDaysAKSDemo --ip-address public
```

```
  "ipAddress": {
    "ip": "52.168.86.133",
    "ports": [...]
  },
  "location": "eastus",
  "name": "perlcontainer",
  "osType": "Linux",
  "provisioningState": "Succeeded",
```

```
$ curl 52.168.86.133
```

```
<html>
```

```
<head>
```

```
  <title>Welcome to Azure Container Instances!</title>
```

```
</head>
```

# Use Cases for ACI Today

- Lift and shift into containers
- Simple web services
- Compute intensive workloads
- Batch processing
- CI agents



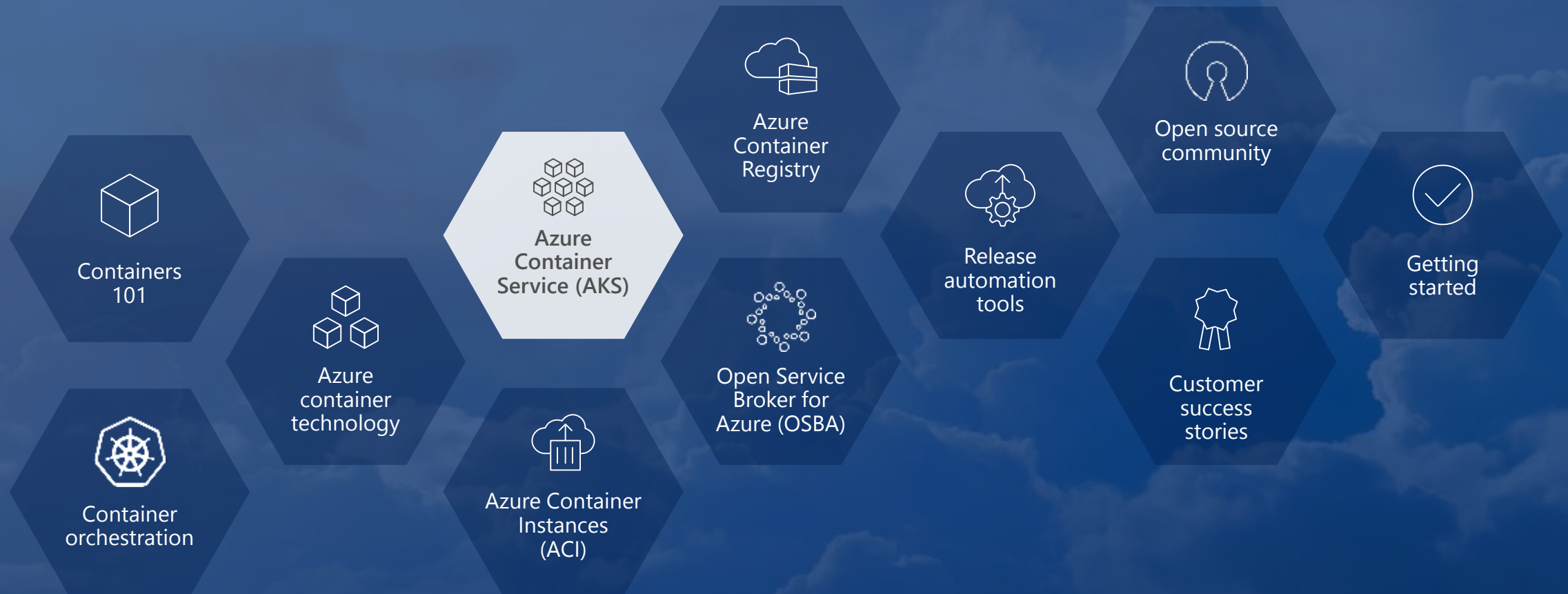


# ACI Permanent Limitations

- **No support for:**
  - Zero-downtime upgrades
  - Maintain > 1 running replicas
  - Batch workflows
  - Service discovery
  - Integrated load balancing
  - Auto-scaling

*If you need these features, you probably need an orchestrator*

# Azure Container Service (AKS)





Azure Container  
Service (AKS)



Azure Container  
Instances (ACI)



Azure Container  
Registry

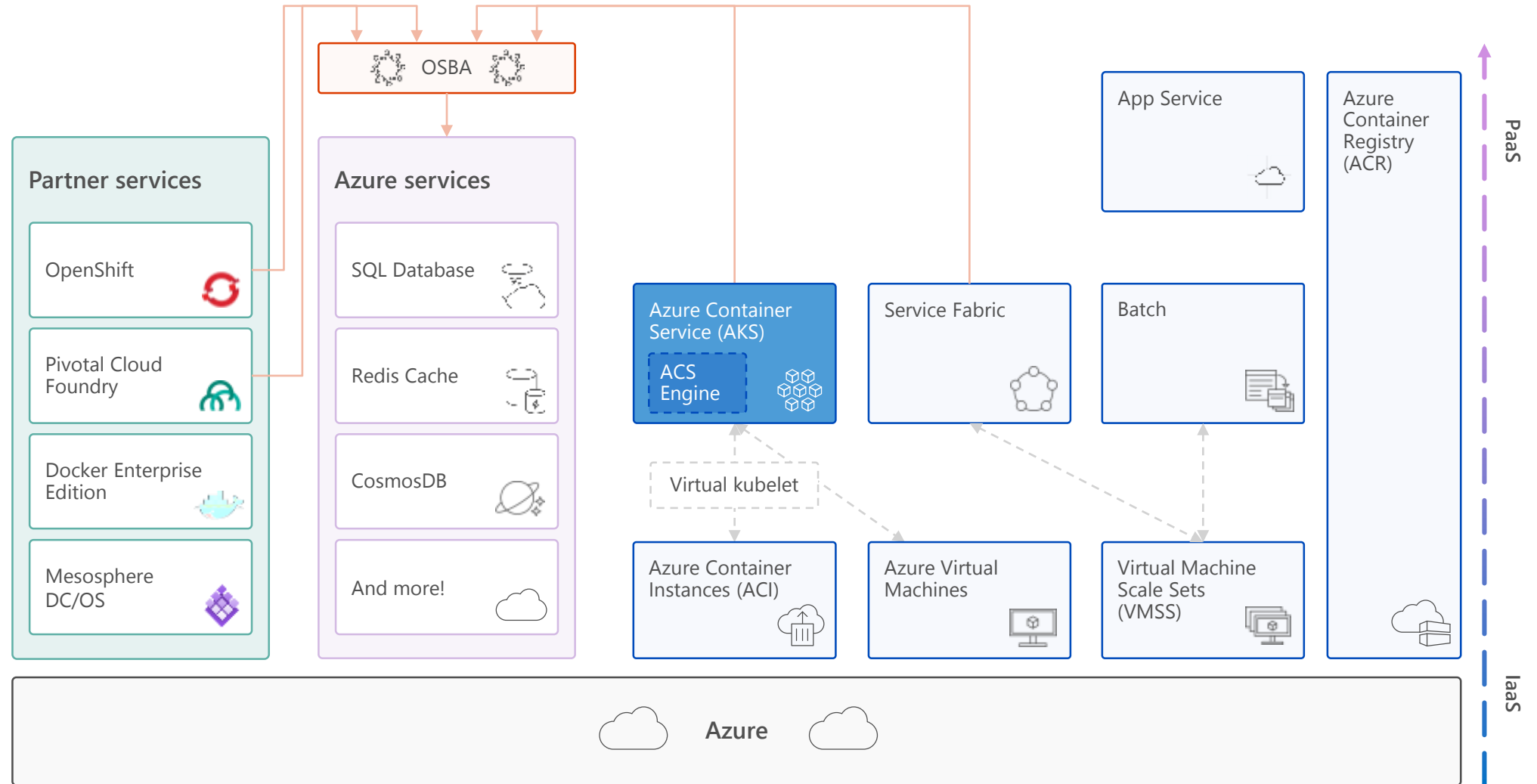


Open Service  
Broker API (OSBA)



Release  
Automation Tools

# Azure Container Service (AKS)





Azure Container  
Service (AKS)



Azure Container  
Instances (ACI)



Azure Container  
Registry



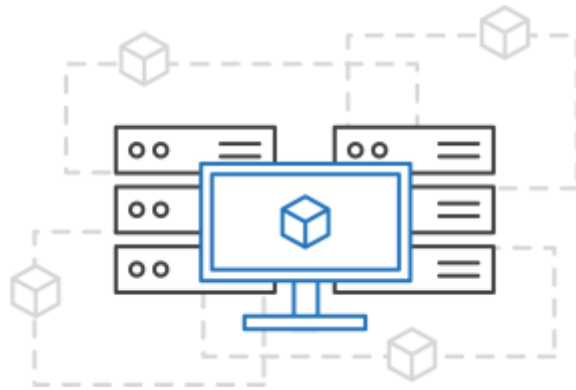
Open Service  
Broker API (OSBA)



Release  
Automation Tools

# Azure Container Service (AKS)

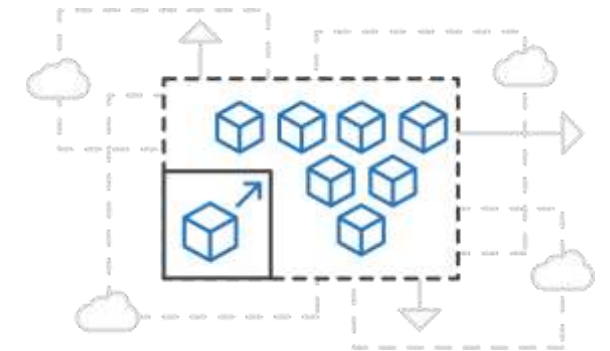
Simplify the deployment, management, and operations of Kubernetes



Focus on your  
containers not the  
infrastructure



Work how you  
want with open-  
source APIs



Scale and run  
applications with  
confidence





Azure Container Instances (ACI)



Azure Container Registry



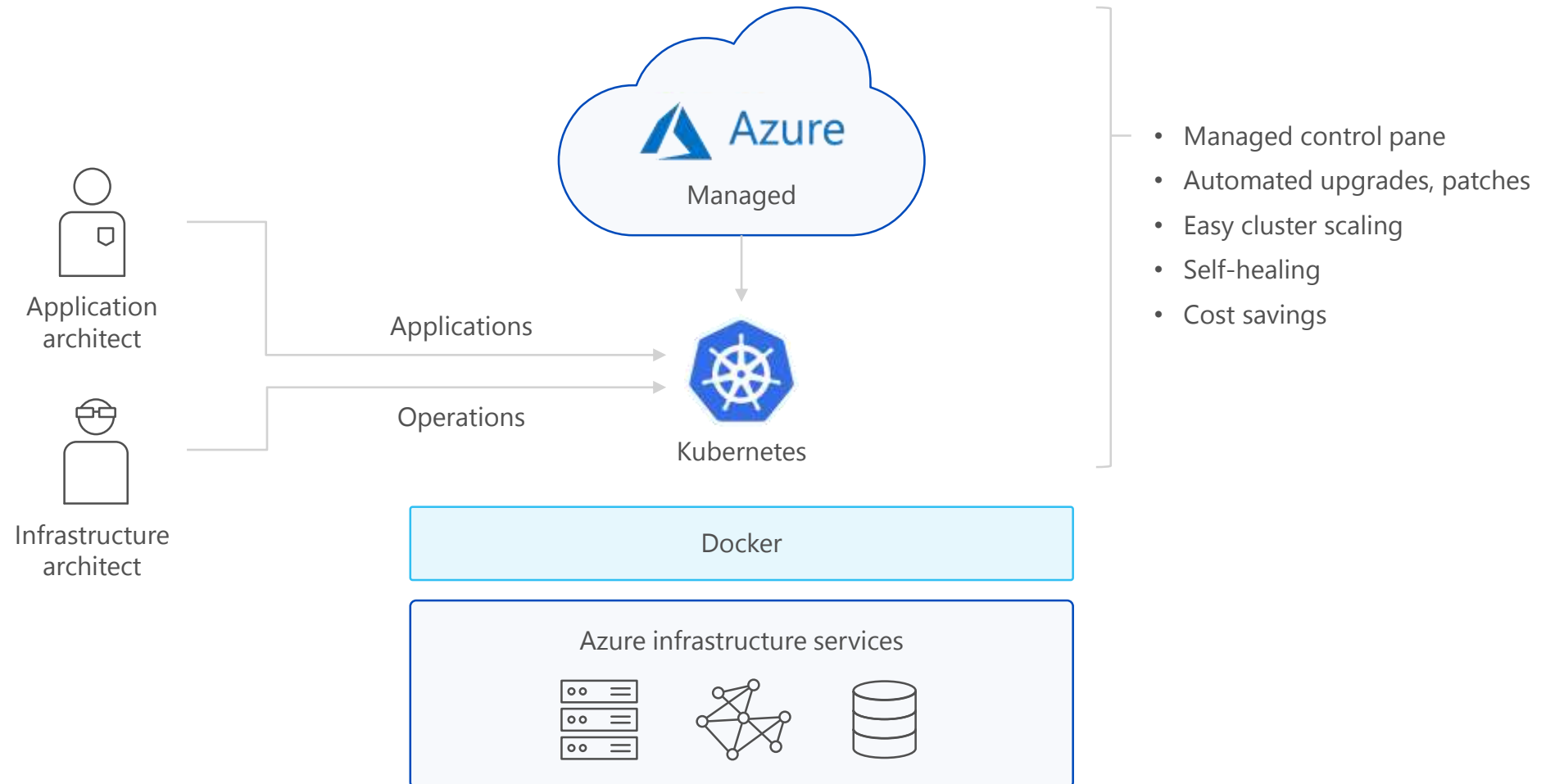
Open Service Broker API (OSBA)



Release Automation Tools

# Azure Container Service (AKS)

A fully managed Kubernetes cluster





Azure Container  
Service (AKS)



Azure Container  
Instances (ACI)



Azure Container  
Registry



Open Service  
Broker API (OSBA)



Release  
Automation Tools

# Azure Container Service (AKS)

## Get started easily

```
$ az aks create -g myResourceGroup -n myCluster --generate-ssh-keys  
\ Running ..
```

```
$ az aks install-cli
```

```
Downloading client to /usr/local/bin/kubectl ..
```

```
$ az aks get-credentials -g myResourceGroup -n myCluster
```

```
Merged "myCluster" as current context ..
```

```
$ kubectl get nodes
```

NAME	STATUS	AGE	VERSION
aks-mycluster-36851231-0	Ready	4m	v1.8.1
aks-mycluster-36851231-1	Ready	4m	v1.8.1
aks-mycluster-36851231-2	Ready	4m	v1.8.1



Azure Container  
Service (AKS)



Azure Container  
Instances (ACI)



Azure Container  
Registry



Open Service  
Broker API (OSBA)



Release  
Automation Tools

# Azure Container Service (AKS)

## Manage an AKS cluster

```
$ az aks list -o table
```

Name	Location	ResourceGroup	KubernetesRelease	ProvisioningState
myCluster	westus2	myResourceGroup	1.7.7	Succeeded

```
$ az aks upgrade -g myResourceGroup -n myCluster --kubernetes-version 1.8.1  
\ Running ..
```

```
$ kubectl get nodes
```

NAME	STATUS	AGE	VERSION
aks-mycluster-36851231-0	Ready	12m	v1.8.1
aks-mycluster-36851231-1	Ready	8m	v1.8.1
aks-mycluster-36851231-2	Ready	3m	v1.8.1

```
$ az aks scale -g myResourceGroup -n myCluster --agent-count 10  
\ Running ..
```



Azure Container Service (AKS)



Azure Container Instances (ACI)



Azure Container Registry



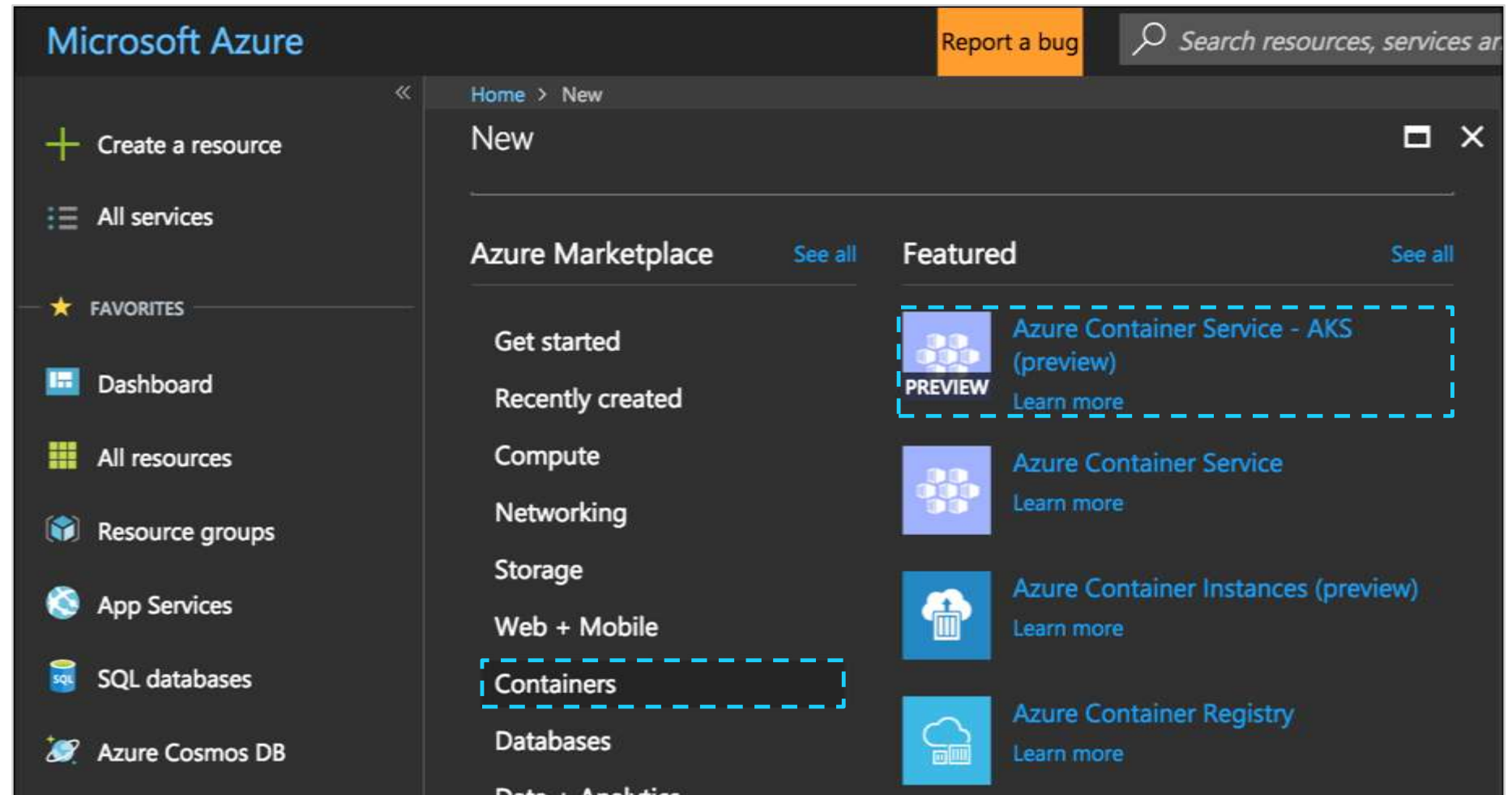
Open Service Broker API (OSBA)



Release Automation Tools

# Azure Container Service (AKS)

Create an AKS cluster via the Azure portal







Azure Container  
Service (AKS)



Azure Container  
Instances (ACI)



Azure Container  
Registry



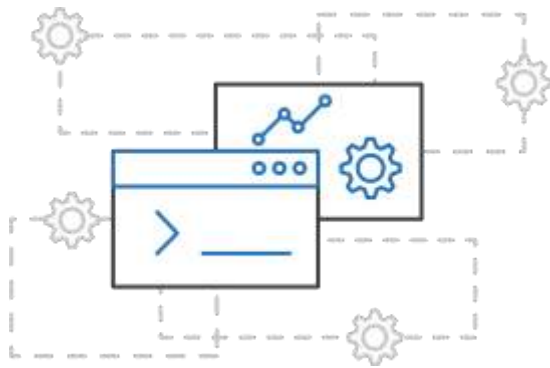
Open Service  
Broker API (OSBA)



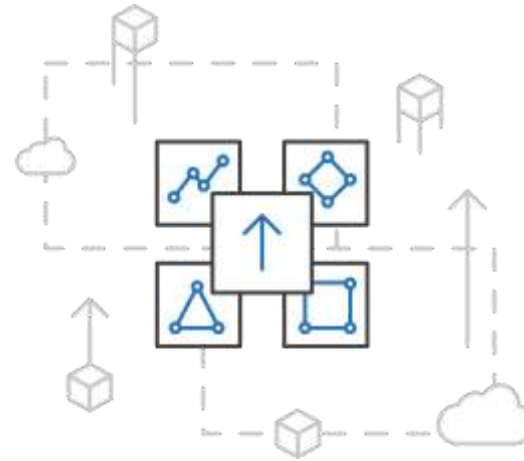
Release  
Automation Tools

# Azure Container Service (AKS)

## Azure Container Service Engine



A proving ground  
for new features



Enables custom  
deployments



Available  
on GitHub



QUERY PROCESSING  
MACHINE LEARNING  
INTELLIGENT CLOUD  
AZURE

# Case



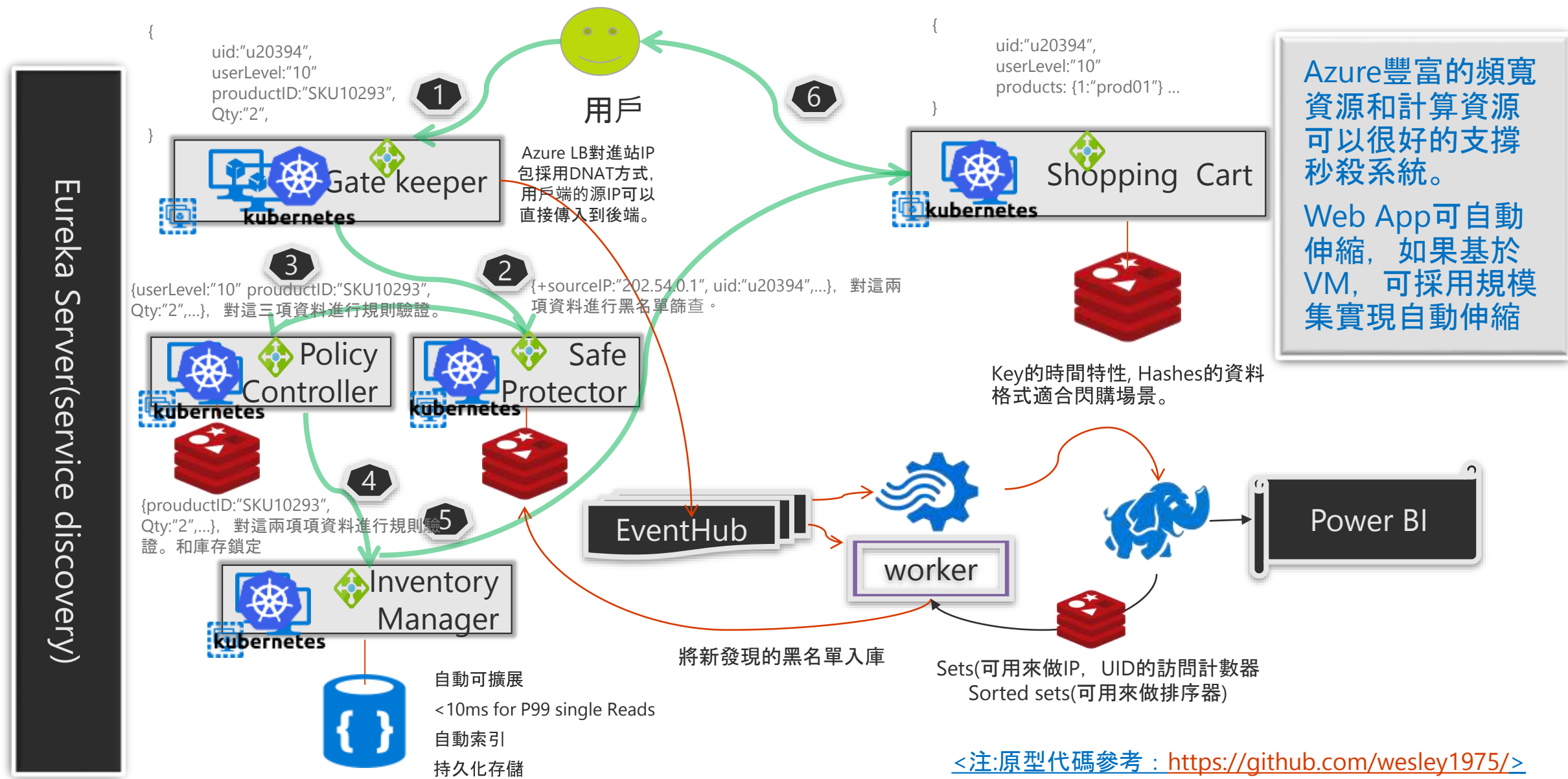
# 電商秒殺平臺的參考架構

- 秒殺的銷售方式在電商中越來越流行。由於秒殺業務具有流量瞬間爆發的特點，正常的業務系統很難支撐如此巨大的暫態流量。因此，有些電商會單獨的構建一個專門處理秒殺流量的系統。

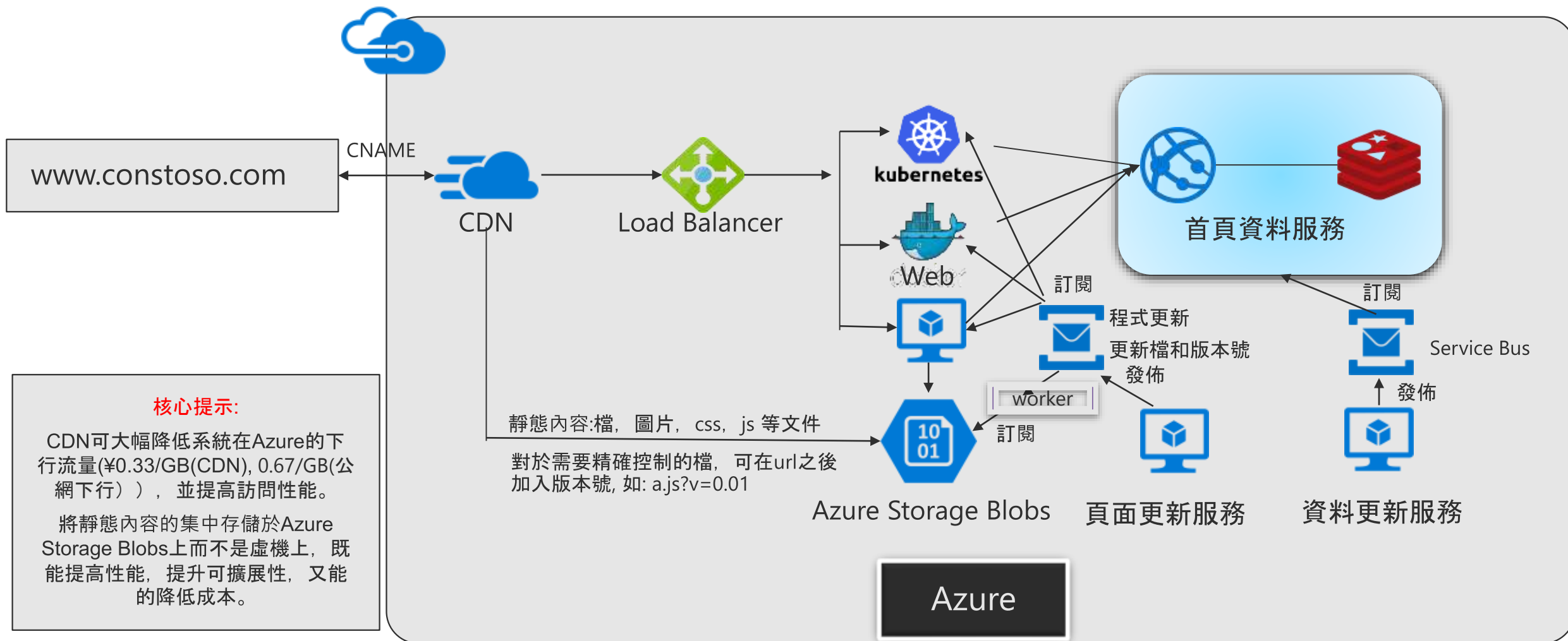


秒殺系統實質是一個限流系統，攔截低品質的流量，將高品質的流量放入到幕後處理

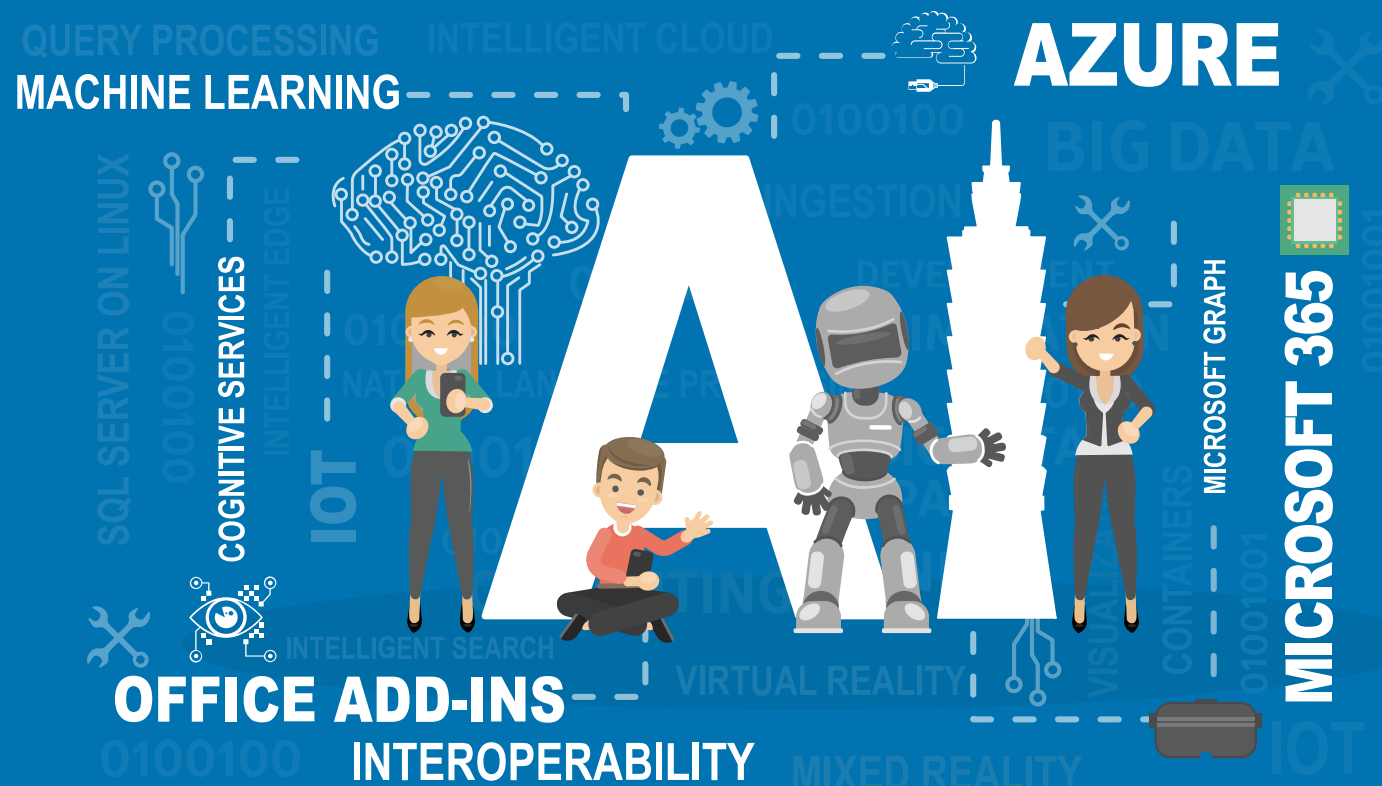
# 電商秒殺平臺的參考架構



# 電商系統首頁的展現的系統架構







DevDays **Asia** 2018  
@Taipei

亞太技術年會

Thank you