



SIG Service Catalog

Intro

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Overview

1. Background & Motivations
2. Open Service Broker (OSB) API
3. Service Catalog
4. Demo?
5. Q&A



What is Service Catalog?

Service Catalog: a Kubernetes extension for the discovery and interfacing with externally managed services

Background & Motivations



❤️ -1000 people like this

John:

Wow, that cat is ugly!!



Susan:

Why would you share this??



App Components

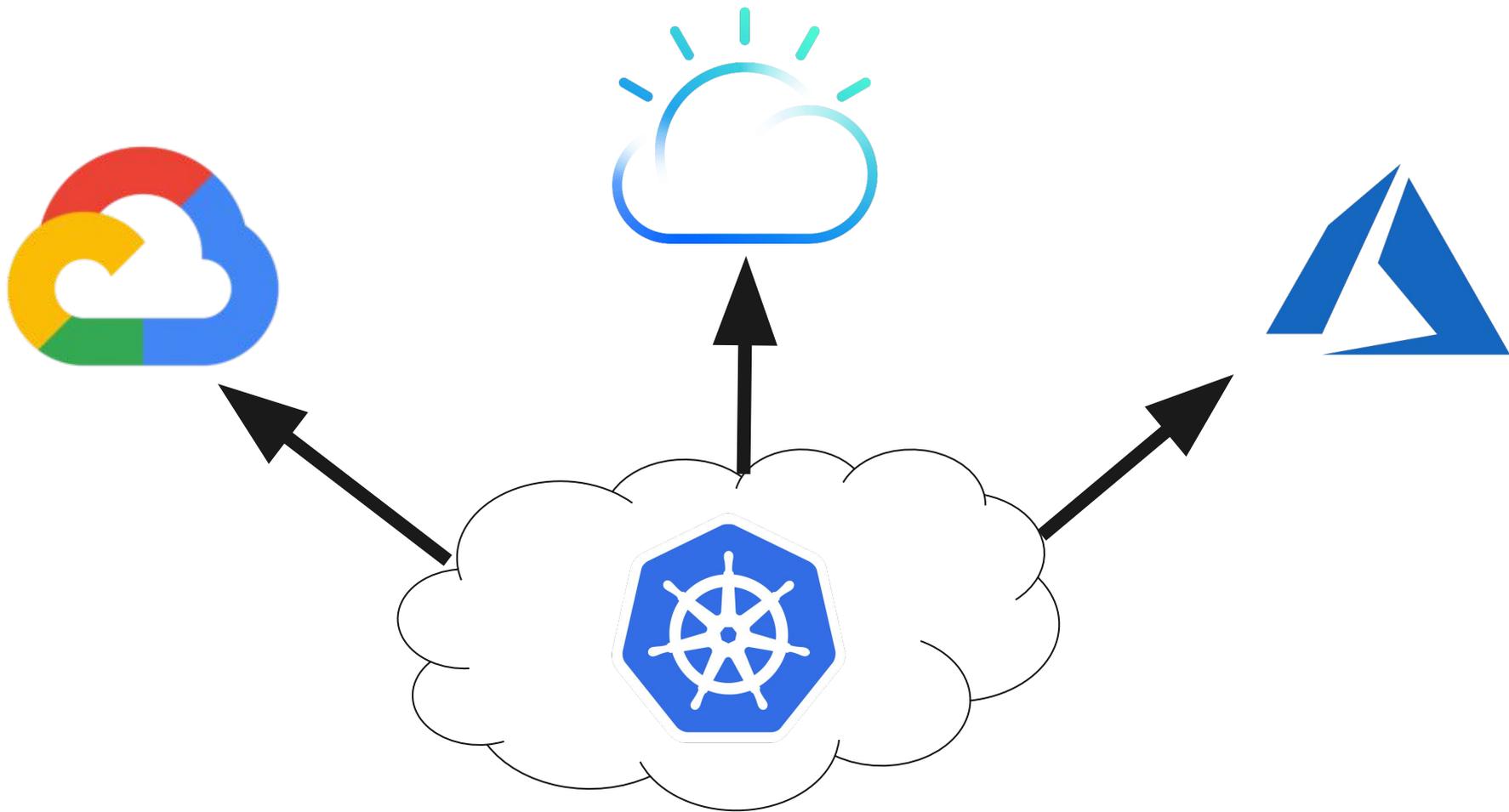
- Bucket storage
- Machine learning engine
- SQL database



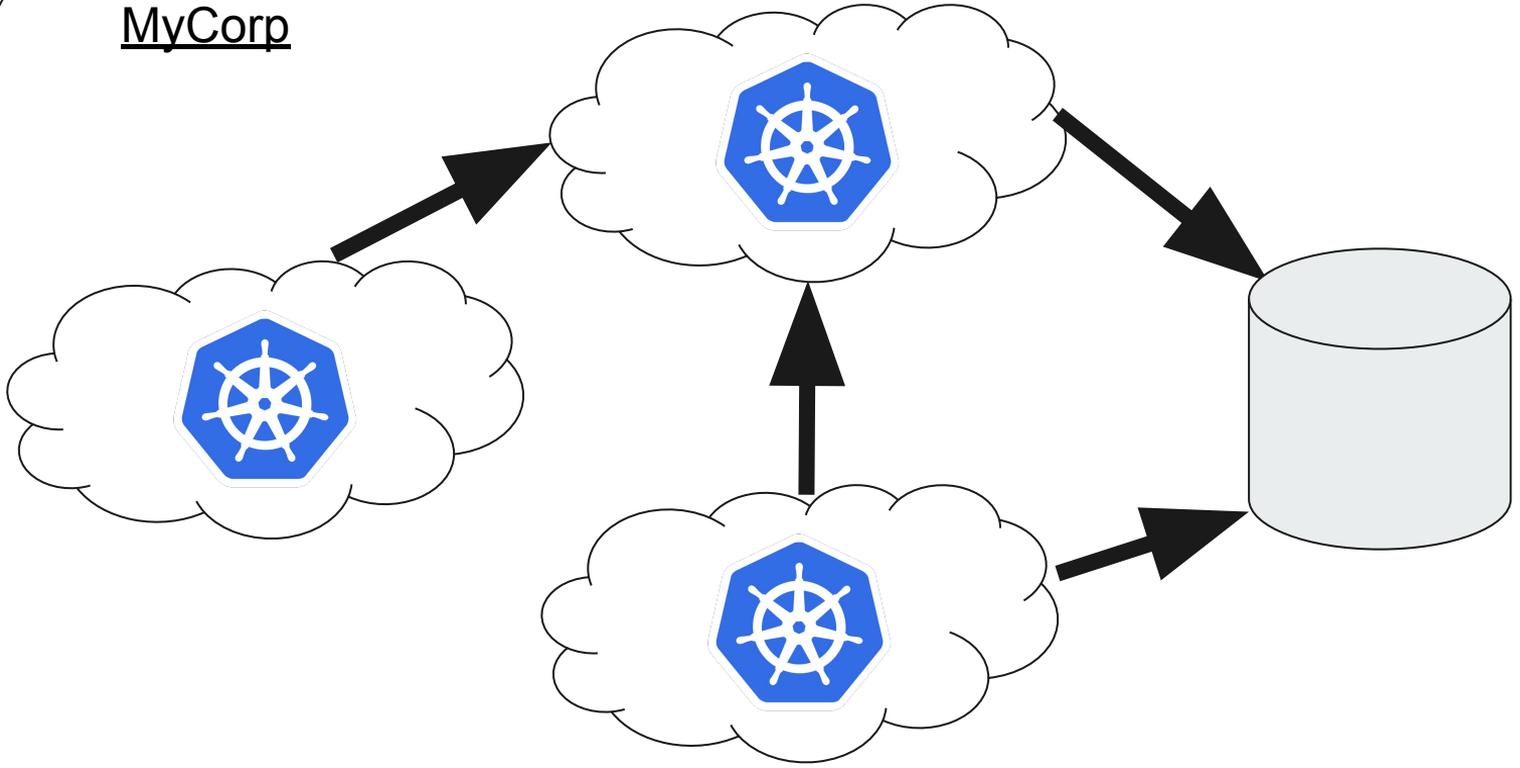
Google Cloud



IBM Cloud



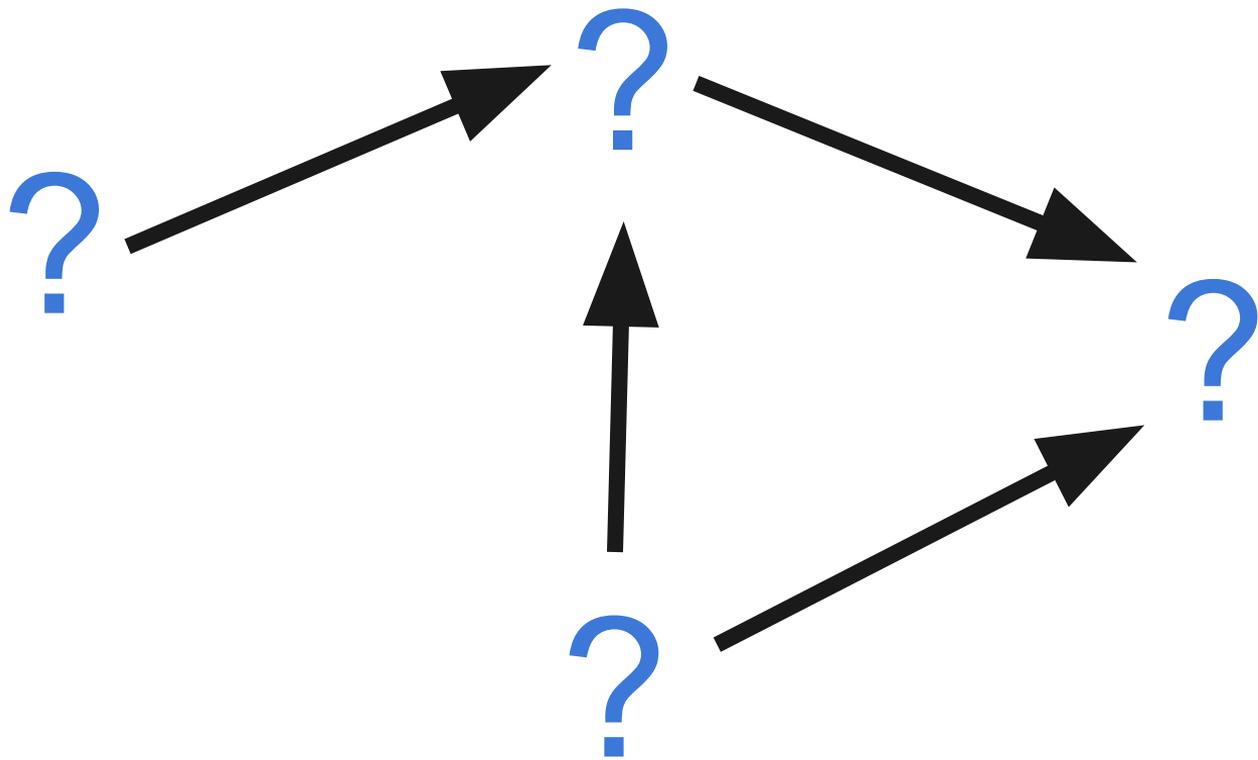
MyCorp

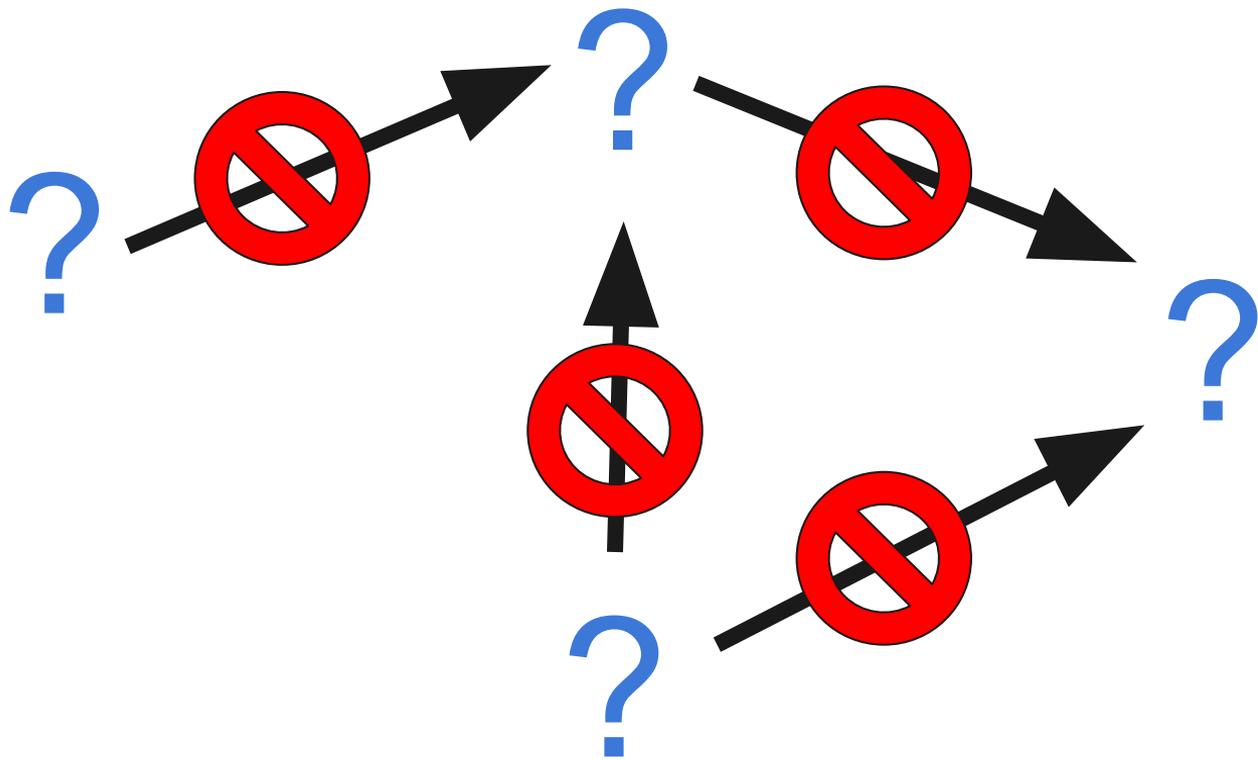




What does that look like today?

- Have to get access to services out-of-band of Kubernetes
- What about multiple app deployments?
- Scripting against proprietary APIs
- Lifecycle problems







Making this better

If we're designing from the ground up for Kubernetes, what would we want?

- Declarative
- Consistent
 - Portability
 - Infrastructure Cost
 - Ease of use
- Not k8s *exclusive*

Open Service Broker (OSB) API



Open Service Broker (OSB) API

Pivotal[®]

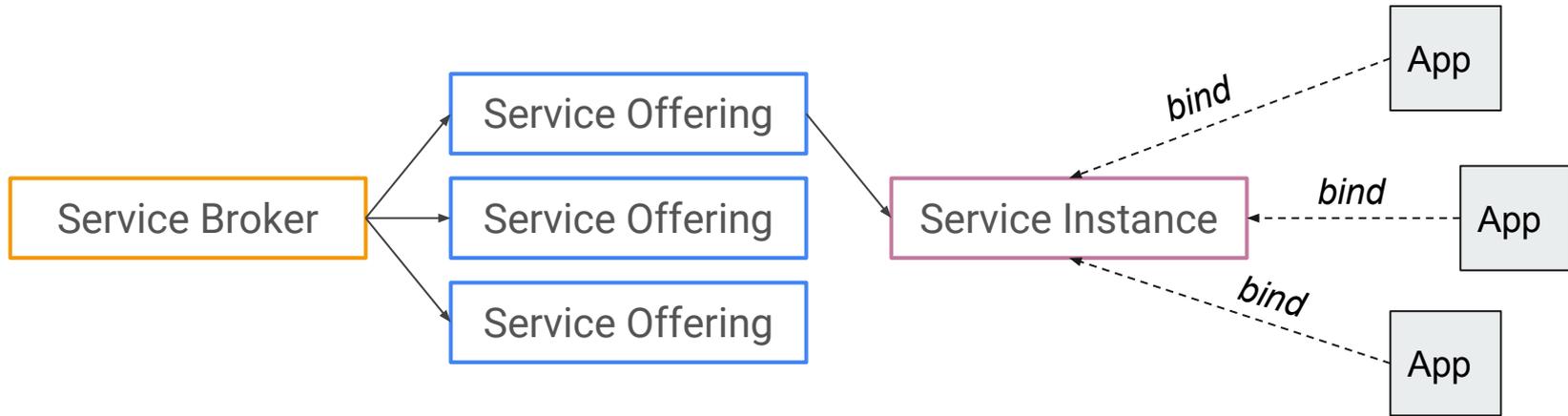
Google

IBM

 redhat[®]

SAP[®]

Open Service Broker (OSB) API



Additional customizability:

- Service “plans”
- Schematized parameters for provisioning and binding

Service Catalog



Service Catalog Resources

- *ServiceBroker*
- *ServiceClass*
- *ServicePlan*
- *ServiceInstance*
- *ServiceBinding*



Service Catalog Resources

Cluster-scoped:

- *ClusterServiceBroker*
- *ClusterServiceClass*
- *ClusterServicePlan*

Namespace-scoped:

- *ServiceInstance*
- *ServiceBinding*

Coming Q2 2018:

- *ServiceBroker*
- *ServiceClass*
- *ServicePlan*



ClusterServiceBroker

```
1 apiVersion: servicecatalog.k8s.io/v1beta1
2 kind: ClusterServiceBroker
3 metadata:
4   name: my-broker
5 spec:
6   url: https://www.mybroker-url.com
7   authInfo:
8     bearer:
9       secretRef:
10        name: my-broker
11        namespace: broker
```



ServiceInstance

```
1 apiVersion: servicecatalog.k8s.io/v1beta1
2 kind: ServiceInstance
3 metadata:
4   name: my-instance
5   namespace: demo
6 spec:
7   clusterServiceClassExternalName: my-class
8   clusterServicePlanExternalName: my-plan
9   parameters:
10     foo: bar
11     bar:
12       - hello
```



ServiceBinding

```
1 apiVersion: servicecatalog.k8s.io/v1beta1
2 kind: ServiceBinding
3 metadata:
4   name: my-binding
5   namespace: demo
6 spec:
7   instanceRef:
8     name: my-instance
9   parameters:
10    foo: baz
11    hello: world
```



Service Catalog CLI (*svcat*)

- kubectl plugin and standalone CLI

```
$ svcat get brokers
```

NAME	URL	STATUS
ups-broker	http://ups-broker-ups-broker.ups-broker.svc.cluster.local	Ready

```
$ svcat get classes
```

NAME	DESCRIPTION	UUID
user-provided-service	A user provided service	4f6e6cf6-ffdd-425f-a2c7-3c9258ad2468
user-provided-service-single-plan	A user provided service	5f6e6cf6-ffdd-425f-a2c7-3c9258ad2468

```
$ svcat sync broker ups-broker
```

```
Successfully fetched catalog entries from the ups-broker broker
```

```
$ svcat provision -n test-ns ups-instance --class user-provided-service --plan default
```

```
Name:      ups-instance
Namespace: test-ns
Status:
Class:     user-provided-service
Plan:     default
```



Demo!



Resources

<https://github.com/kubernetes-incubator/service-catalog/>

SIG Service Catalog Meetings: Mondays @ 13:00 PT Weekly

<https://github.com/openservicebrokerapi/servicebroker>

Open Service Broker API Meetings: Tuesdays @ 9:30 PT Weekly

Questions?