



Open Service Broker API & OpenShift Ansible Broker

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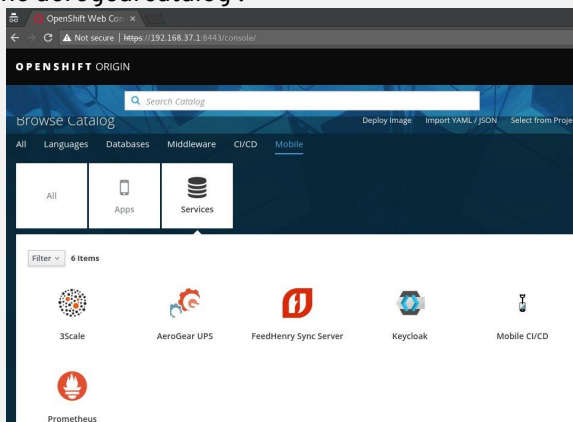
Agenda

- Provision Cloud Services in OpenShift
 - and, how did we get there?
- Open Service Broker API and the k8s service-catalog
- Ansible Service Broker
- Roll your own Ansible Playbook Bundle!

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Mobile Services in OpenShift The aerogearcatalog !

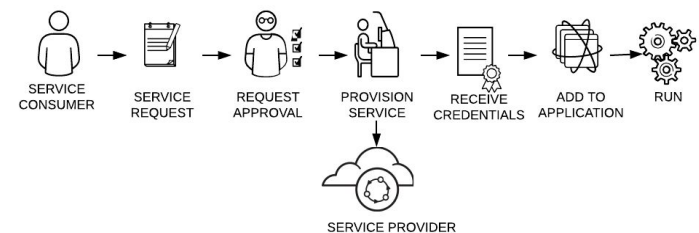


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Typical Provisioning Process in an Enterprise

Manual, Time consuming process

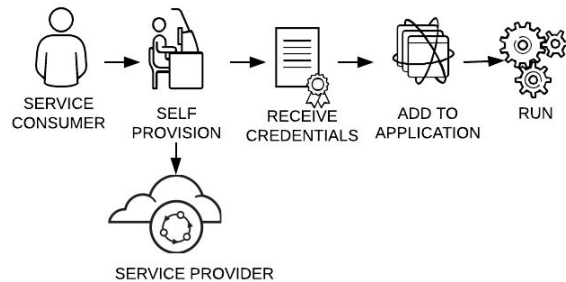


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Service Provisioning with Cloud Service Providers

Semi-automated, Manual binding to the application

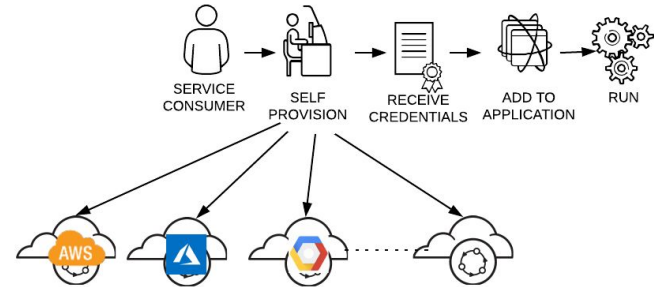


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Multiple Service Providers

Provisioning process different for each service provider and inconsistent



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OPEN SERVICE BROKER API™

A multi-vendor project to standardize how services are consumed on cloud-native platforms across service providers



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Open Service Broker API endpoints

Get the catalog of services provided by the broker:

- GET /v2/catalog

Provision a service:

- PUT /v2/service_instances/{instance_id}
- GET /v2/service_instances/{instance_id}/last_operation

Bind a service:

- PUT /v2/service_instances/{instance_id}/service_bindings/{binding_id}

Update a service:

- PATCH /v2/service_instances/{instance_id}

Unbind & deprovision a service:

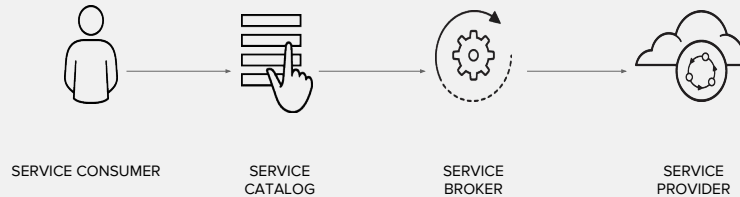
- DELETE /v2/service_instances/{instance_id}/service_bindings/{binding_id}
- DELETE /v2/service_instances/{instance_id}

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Service Broker: an Implementation of Open Service Broker API

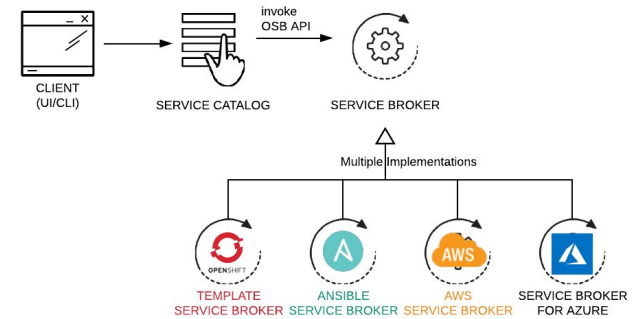
Automated, Standard and Consistent



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Openshift Catalog: many brokers



```
# oc get clusterservicebroker
NAME                                AGE
ansible-service-broker             36d
template-service-broker            36d
```



Openshift Ansible Broker (OAB)

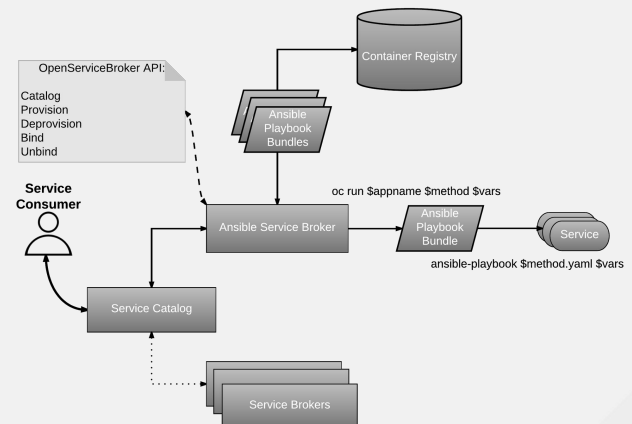
Open Service Broker API implementation for Openshift

- Manages applications and services defined in APBs
- Ansible Playbook Bundles (APBs)
 - Define, distribute and provision microservices via Ansible Playbooks
 - Packaged in Linux containers
 - Ansible runtime and playbooks corresponding to OSB API
- Service Catalog
 - Entry point for user
 - Offers list of available applications/services for an application

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Openshift Ansible Broker (OAB)



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DEMO TIME



Roll your own!

Provide a simple APB into the Openshift Service Catalog

- My random service (as Linux container)
- Create your own APB:

```
apb init ...  
apb prepare  
apb build  
apb push // to local broker
```

Dude, show us some code!



Implementing a Service Broker

- Most devs will be consumers of the Service Catalog / OSB API
- If you're implementing services, you may want to add the OSB API
- OpenServiceBroker Kit: <https://github.com/osbkit>
 - Go lang for now
 - Java will probably follow soon
- BUT....
 - Simple to expose the API using JAX-RS

Implementing a Service Broker

//Returning the catalog of services

```
@Path("/v2")
@Consumes({MediaType.APPLICATION_JSON})
@Produces({MediaType.APPLICATION_JSON})
public class MyServiceBroker {

    @Path("/catalog")
    @GET
    public Catalog getCatalog(@Context SecurityContext securityContext) { ... }
```

...

WF-Swarm:

<https://github.com/starksm64/wildfly-swarm-service-broker/blob/master/src/main/java/org/wildfly/swarm/osbapi/api/AbstractServiceBroker.java>

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Resources and Links

- The demo
 - https://github.com/matzew/ansible_service_broker_talk
- Open Service Broker API and Specification
 - <https://www.openservicebrokerapi.org/>
- Kubernetes Service Catalog
 - <https://github.com/kubernetes-incubator/service-catalog>
- Openshift Ansible Broker (OAB)
 - <https://github.com/openshift/ansible-service-broker>
- Ansible Playbook Bundle (APB)
 - <https://github.com/ansibleplaybookbundle/ansible-playbook-bundle>
- OAB / APB tutorial
 - <https://blog.openshift.com/apb-development-tutorial-mediawiki-1-23-postgresql-9-5/>
- AeroGear Catalog
 - <https://github.com/aerogearcatalog>
 - <https://hub.docker.com/r/aerogearcatalog/>
- Paul Morie on "Service Catalog on Openshift v3.7"
 - <https://blog.openshift.com/openshift-commons-briefing-106-service-catalog-on-openshift-3-7-deep-dive/>

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