

"D"- <<SMO>> VirtualInventory

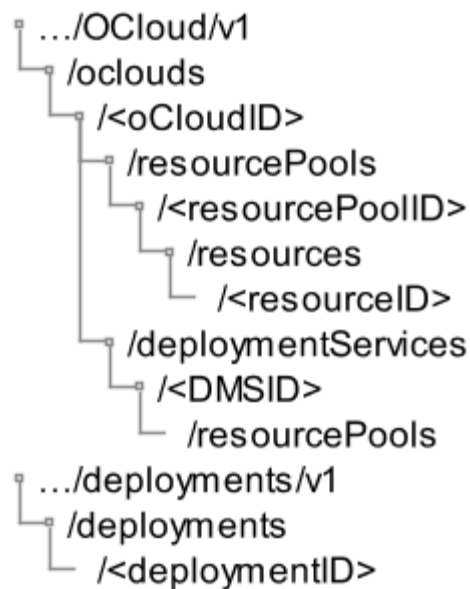
The Virtual Inventory provides access to other existing deployments. It is expected to be a distributed catalog and domain areas with their own Life Cycle and versions would have different domain roots.

This might be implemented by two separate objects as O-Clouds may be inventoried and managed independent of deployments which span them. Therefore O-Clouds and Deployments have two separate domain roots for the inventory created by a "deployment".

For the purposes of this implementation we will assume the following:

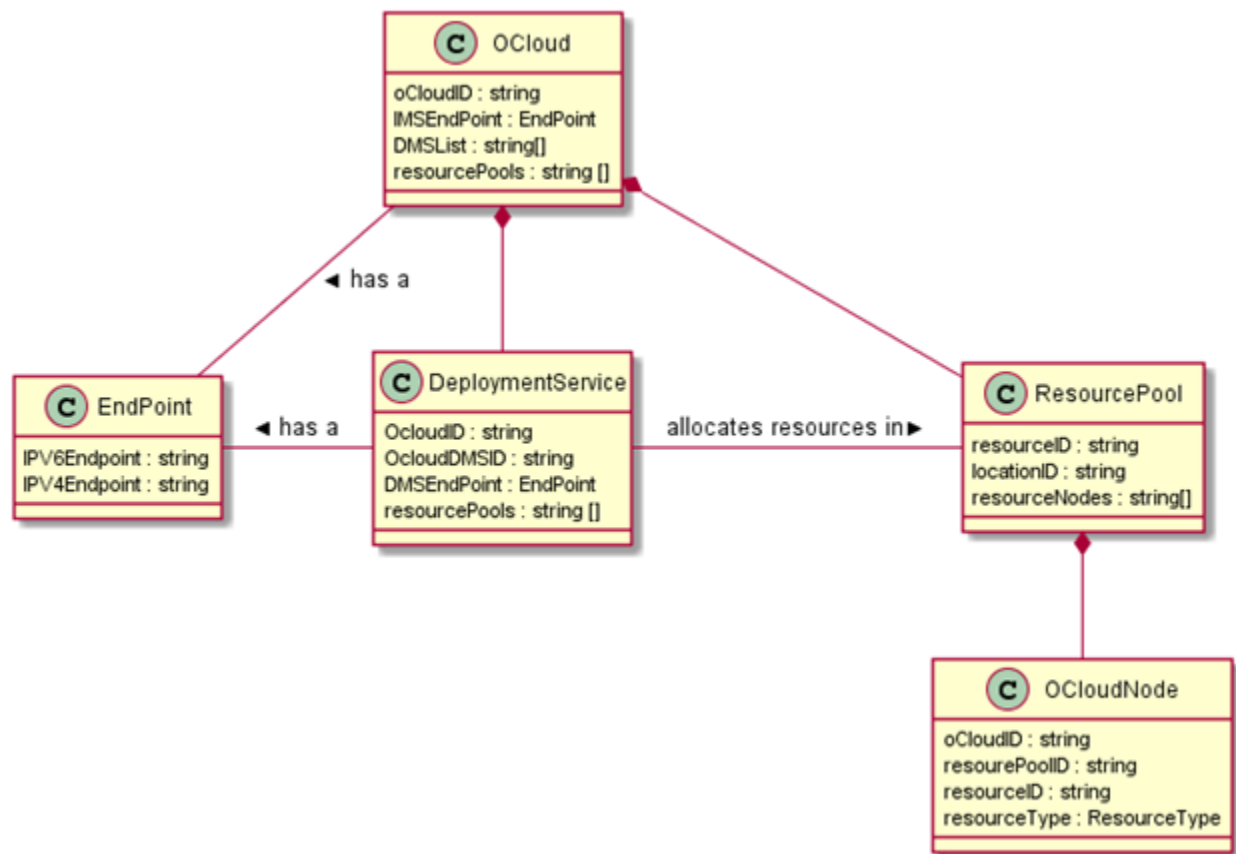
The Controller for inventory will be RESTful. The service endpoints will be used:

- O-Clouds - {apiRoot}/OCloud/v1.
- Deployments - {apiroot}/deployment/v1



```
@startsalt
{
  scale 1.5
  {T
+.../OCloud/v1
++/oclouds
+++/<oCloudID>
++++/resourcePools
+++++/<resourcePoolID>
++++++/resources
+++++++/<resourceID>
+++++/deploymentServices
+++++/<DMSID>
++++++/resourcePools
+.../deployments/v1
++/deployments
+++/<deploymentID>
  }
}
@endsalt
```

- The O-Cloud Inventory Model is represented in the class diagram below



```

@startuml
Class EndPoint {
  IPV6EndPoint : string
  IPV4EndPoint : string
}

Class OCloud {
  oCloudID : string
  IMSEndPoint : EndPoint
  DMSList : string[]
  resourcePools : string []
  images : string []
}

Class ResourcePool {
  resourceID : string
  locationID : string
  resourceNodes : string[]
}

Class OCloudNode {
  oCloudID : string
  resourePoolID : string
  resourceID : string
  resourceType : ResourceType
}

Class DeploymentService {
  OcloudID : string
  OcloudDMSID : string
  DMSEndPoint : EndPoint
  resourcePools : string []
  tenants : string []
}

```

OCloud -- EndPoint : > has a
DeploymentService -left- EndPoint : > has a

OCloud *-- ResourcePool
OCloud *-- DeploymentService

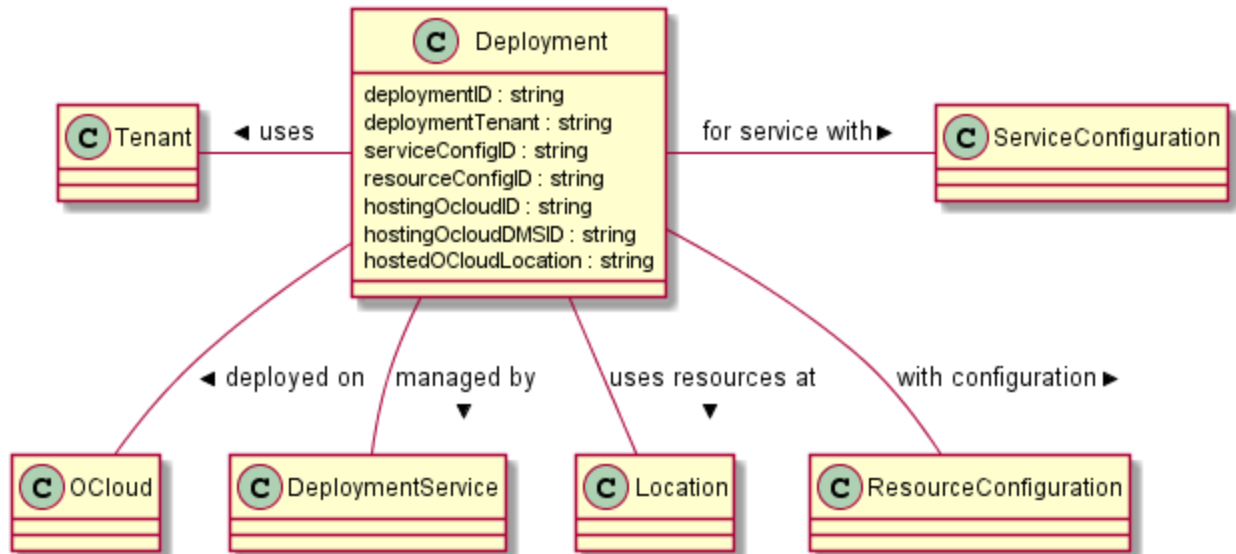
DeploymentService -right- ResourcePool : > allocates resources in
ResourcePool *-- OCloudNode

```

@enduml

```

- The deployment Inventory Model is represented in the class diagram below



```
@startuml
Class Deployment {
    deploymentID : string
    deploymentTenant : string
    serviceConfigID : string
    resourceConfigID : string
    hostingOcloudID : string
    hostingOcloudDMSID : string
    hostedOCloudLocation : string
}

```

```
Deployment -left- Tenant : uses >
Deployment -- OCloud : deployed on >
Deployment -- DeploymentService : managed by >
Deployment -- Location : uses resources at >
Deployment -- ResourceConfiguration : with configuration >
Deployment -right- ServiceConfiguration : for service with >

```

```
@enduml
```