



# USANDO MONGODB AS A SERVICE NO KUBERNETES COM O OPERATOR

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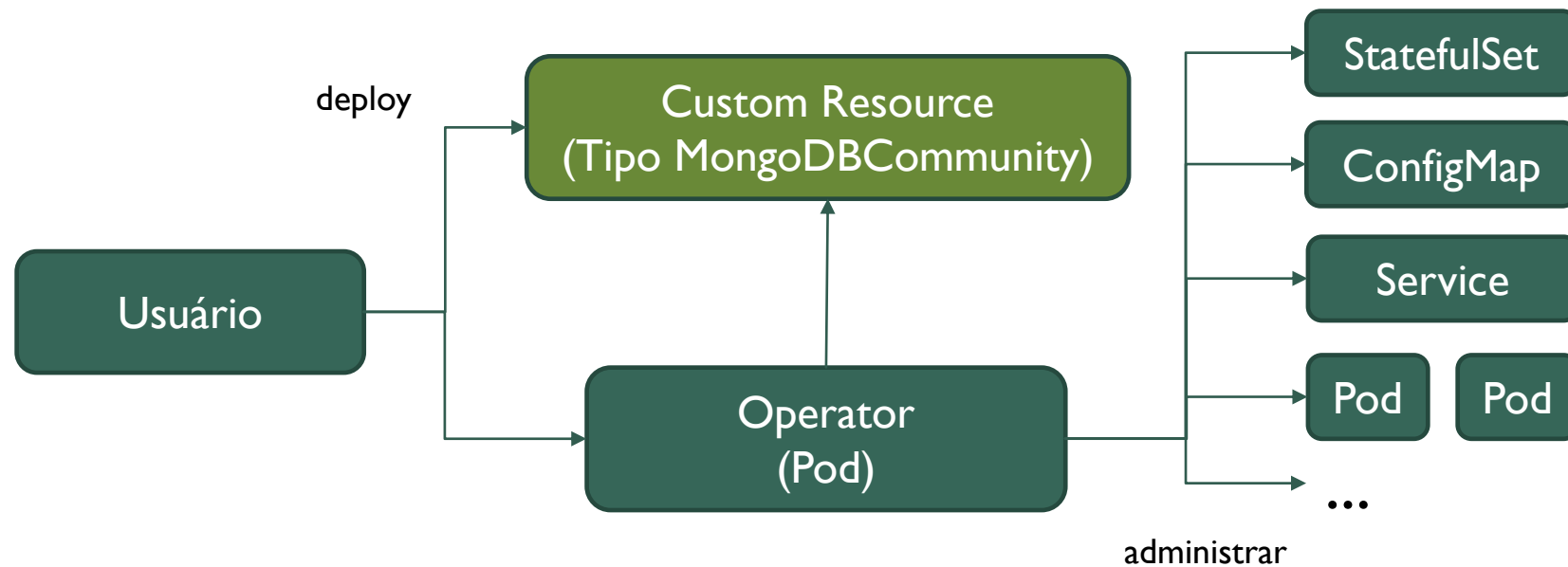


## MongoDB Community Kubernetes Operator

- Facilita a instalação do MongoDB no Kubernetes
- Funciona em todos os Cloud Providers
- Ideal para aplicações rodando em Kubernetes
- Open source

Github: <https://github.com/mongodb/mongodb-kubernetes-operator>

# O QUE É UM OPERATOR



# OBJETO MONGODB



```
apiVersion: mongodbcommunity.mongodb.com/v1
kind: MongoDBCommunity
metadata:
  name: mongodb-exemplo
  namespace: mongodb
spec:
  members: 3
  type: ReplicaSet
  version: "4.4.0"
```

# INSTALAÇÃO



```
git clone https://github.com/mongodb/mongodb-kubernetes-operator.git
```

```
kubectl apply -f mongodb-kubernetes-operator/config/crd/bases/mongodbcommunity.mongodb.com_mongodbcommunity.yaml
```

```
kubectl create namespace mongodb
```

```
kubectl apply -f mongodb-kubernetes-operator/config/rbac/ -n mongodb
```

```
kubectl apply -f mongodb-kubernetes-operator/config/manager/manager.yaml -n mongodb
```

# CRIANDO O BANCO DE DADOS



```
kubectl create secret generic user-password -n mongodb --from-literal="password=uu90eCxu03ZZ"
```

```
cat <<EOF | kubectl apply -f -
apiVersion: mongodbcommunity.mongodb.com/v1
kind: MongoDBCommunity
metadata:
  name: mongodb
  namespace: mongodb
spec:
  members: 1
  type: ReplicaSet
  version: "4.4.0"
  security:
    authentication:
      modes: ["SCRAM"]
  users:
    - name: app1
      db: admin
      passwordSecretRef:
        name: user-password
      roles:
        - name: readWrite
          db: myDb
      scramCredentialsSecretName: mongodb-database
EOF
```

## Vantagens

- Custo reduzido
- Funciona em todos os cloud providers
- Open source (não precisa de licença)
- MongoDB completo
- Auto gerenciável
- Banco de dados se mantém seguro dentro do cluster

## Desvantagens

- Configuração de backup precisa ser manual
- Requer um nível de familiaridade com Kubernetes
- Expor o banco a internet também precisa ser manual
- Não possui interface gráfica, sendo que toda a administração é feita por código



# CONECTANDO NO MONGODB



```
mongodb://${USERNAME_DB}:${PASSWORD}@mongodb-0.mongodb-svc.mongodb.svc.cluster.local:27017,mongodb-1.mongodb-svc.mongodb.svc.cluster.local:27017,mongodb-2.mongodb-svc.mongodb.svc.cluster.local:27017
```

```
USERNAME_DB="app1"
```

```
PASSWORD="$(kubectl get secret -n mongodb user-password -o jsonpath='{.data.password}' | base64 -d)"
```

```
MONGO_URI="$(kubectl get mdbc mongodb -n mongodb -o jsonpath='{.status.mongoUri}')"
```

```
kubectl exec -it mongodb-0 -n mongodb -c mongod -- mongo ${MONGO_URI} --username "${USERNAME_DB}" --password "${PASSWORD}"
```

```
use myDb
db.col.insert({
  "hello": "world"
})
```

---

OBRIGADO!



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