

# Horizontal Pod Autoscaler



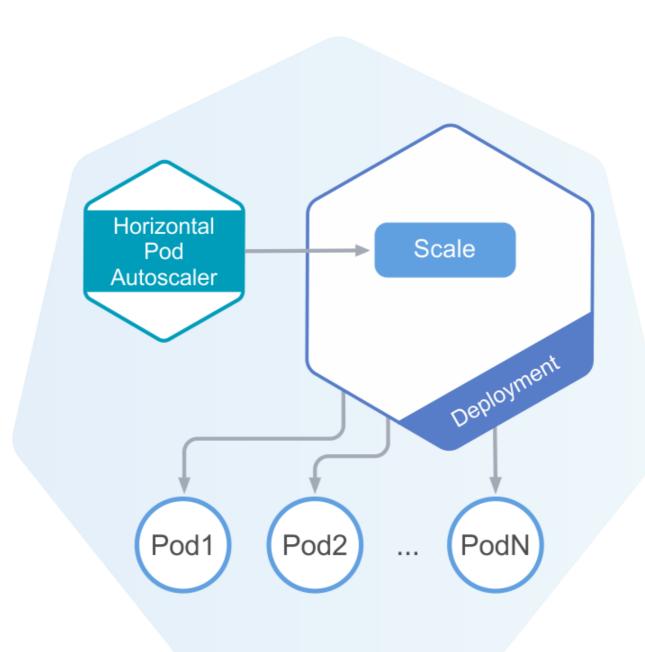


#### План

- HPA
- Metrics Server
- Дефолтные метрики
- Кастомные метрики



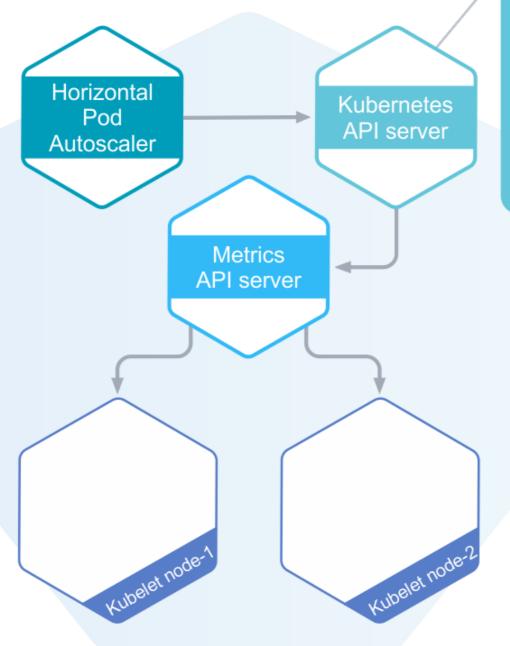
## **HPA**



Kubernetes cluster



Metrics Server



kind: APIService metadata:

apiVersion: apiregistration.k8s.io/v1beta1

name: v1beta1.metrics.k8s.io

spec service

name: metrics-server

namespace: kube-system

group: metrics.k8s.io

Kubernetes cluster



#### HPA v1

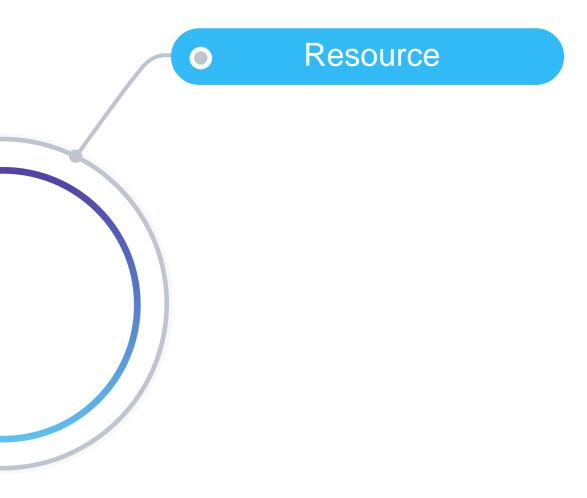
```
Пределы
                               скейлинга
spec:
  maxReplicas: 5
  minReplicas: 1
  scaleTargetRef:
     apiVersion: extensions/v1beta1
     kind: Deployment
                                   Что скейлим
    name: <a href="mailto:php-apache">php-apache</a>
  targetCPUUtilizationPercentage: 50
                                                     При каких
                                                     условиях
                                                      скейлим
```



#### HPA v1

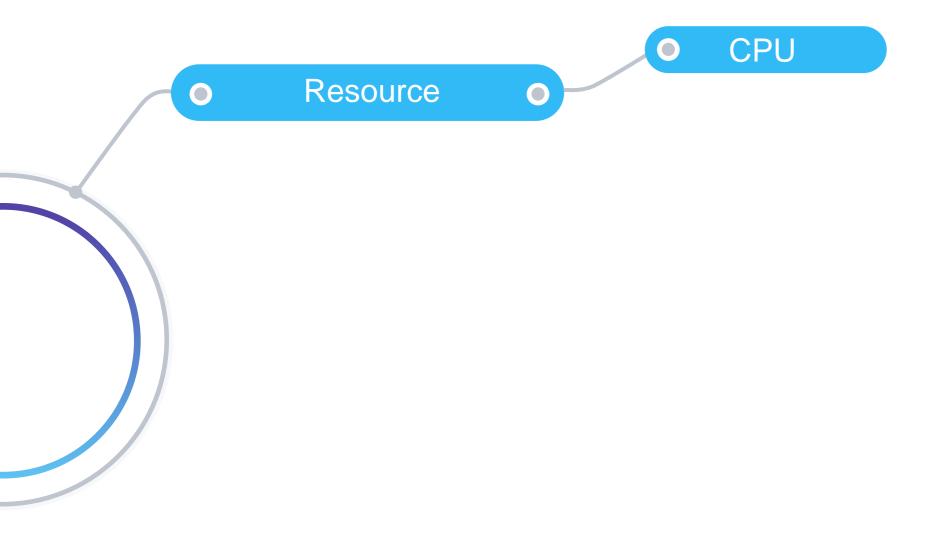
```
Пределы
                              скейлинга
spec:
  maxReplicas: 5
  minReplicas: 1
  scaleTargetRef:
    apiVersion: extensions/v1beta1
    kind: Deployment
                                  Что скейлим
    name: <a href="mailto:php-apache">php-apache</a>
  metrics:
   - type: Resource
                               На какую
       resource:
                               метрику
                               смотрим
         name: cpu
                                                 При каких
                                                 условиях
         target:
                                                скейлим (%)
            type: Utilization
            averageUtilization: 50
```





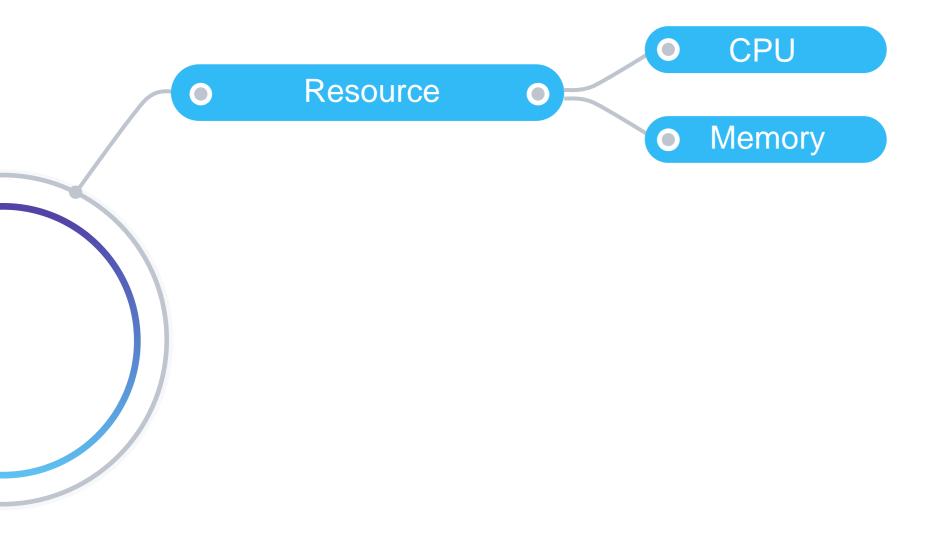






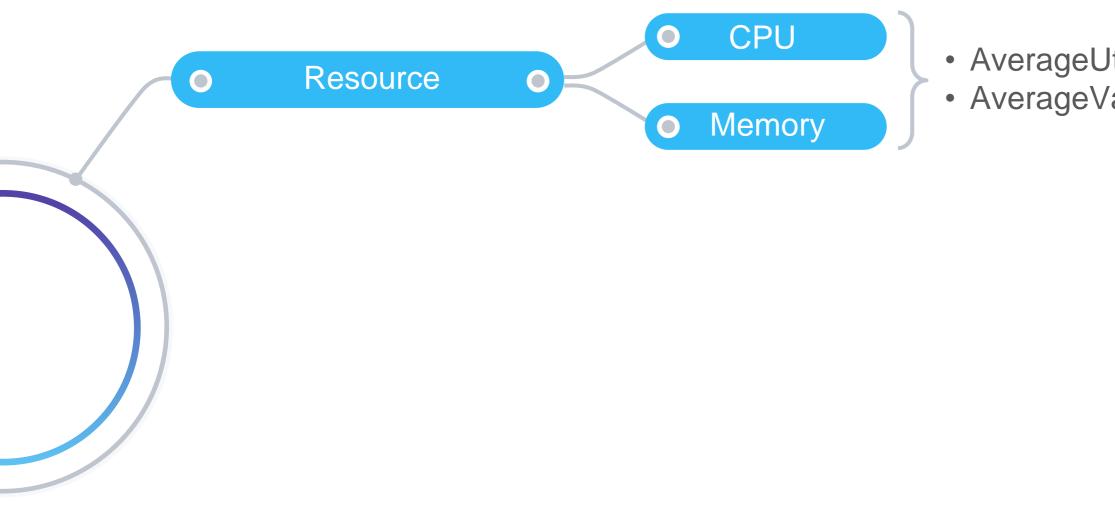






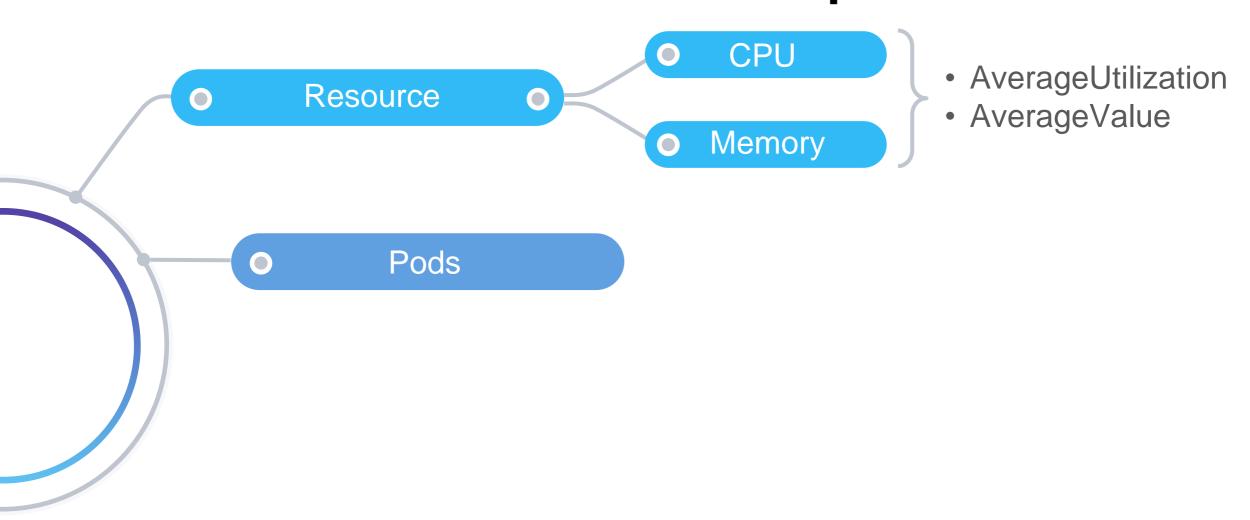




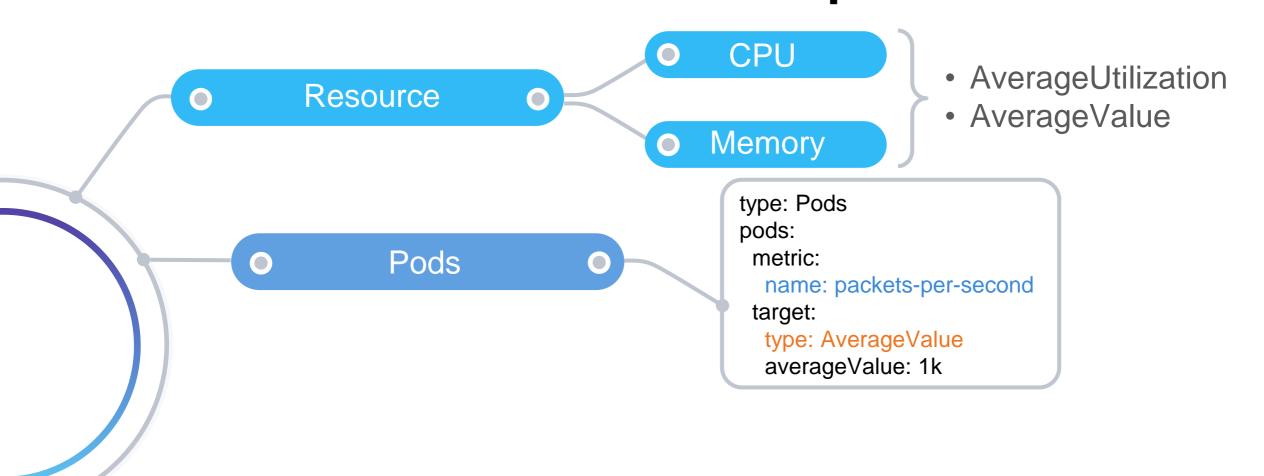


- AverageUtilization
- AverageValue

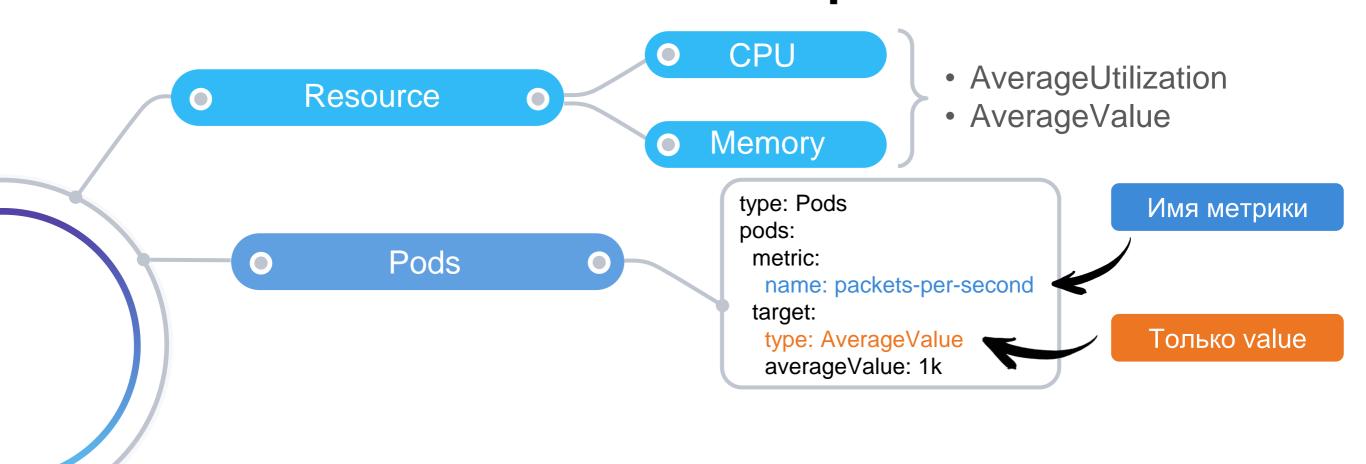




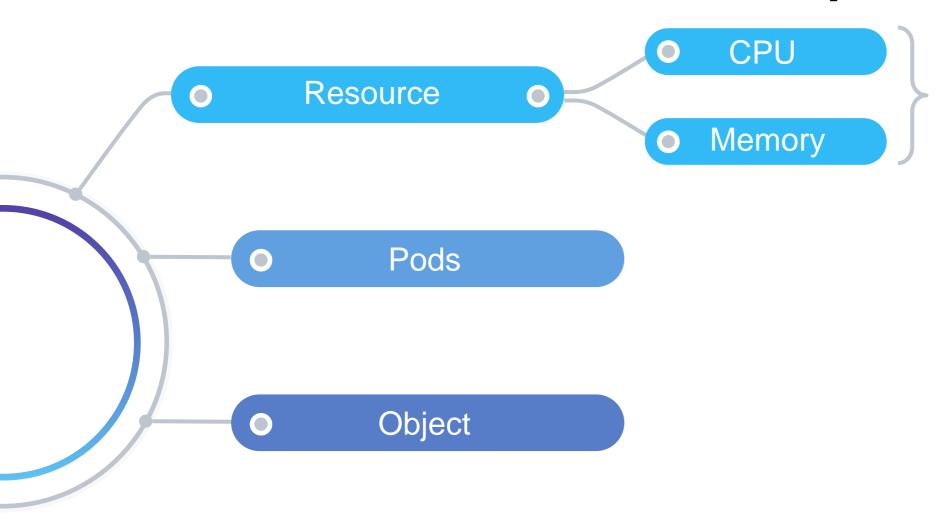






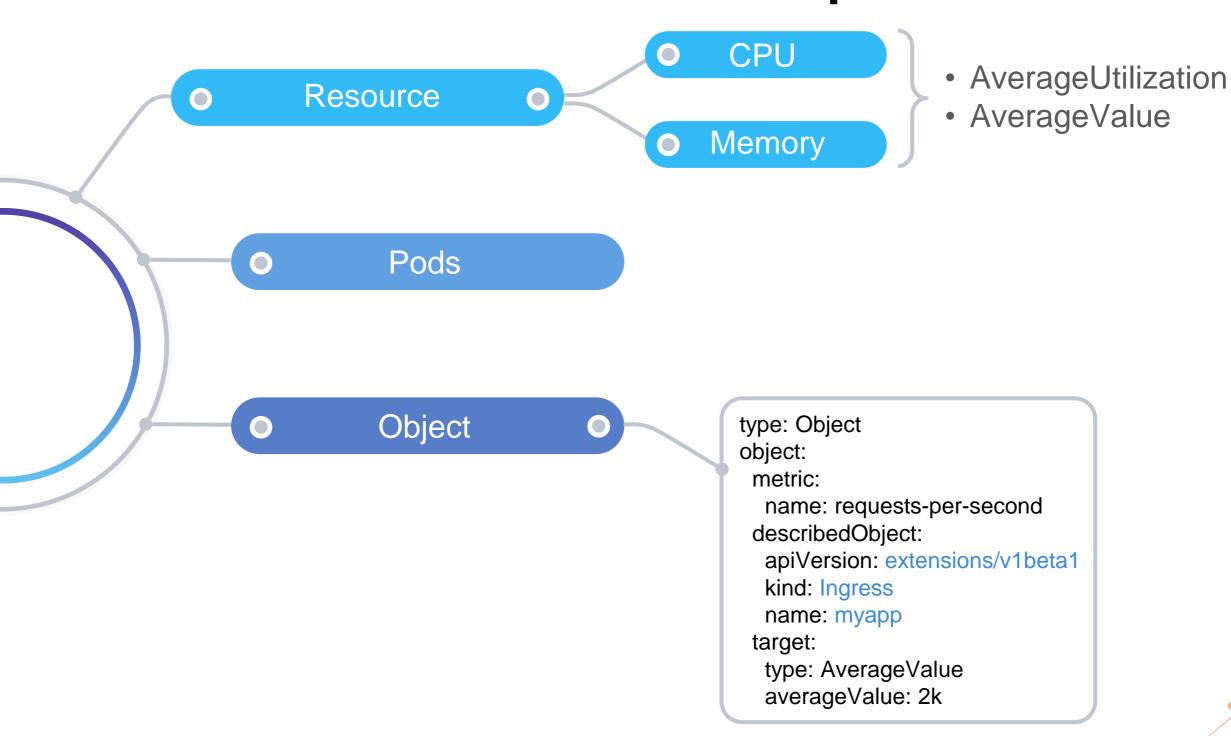




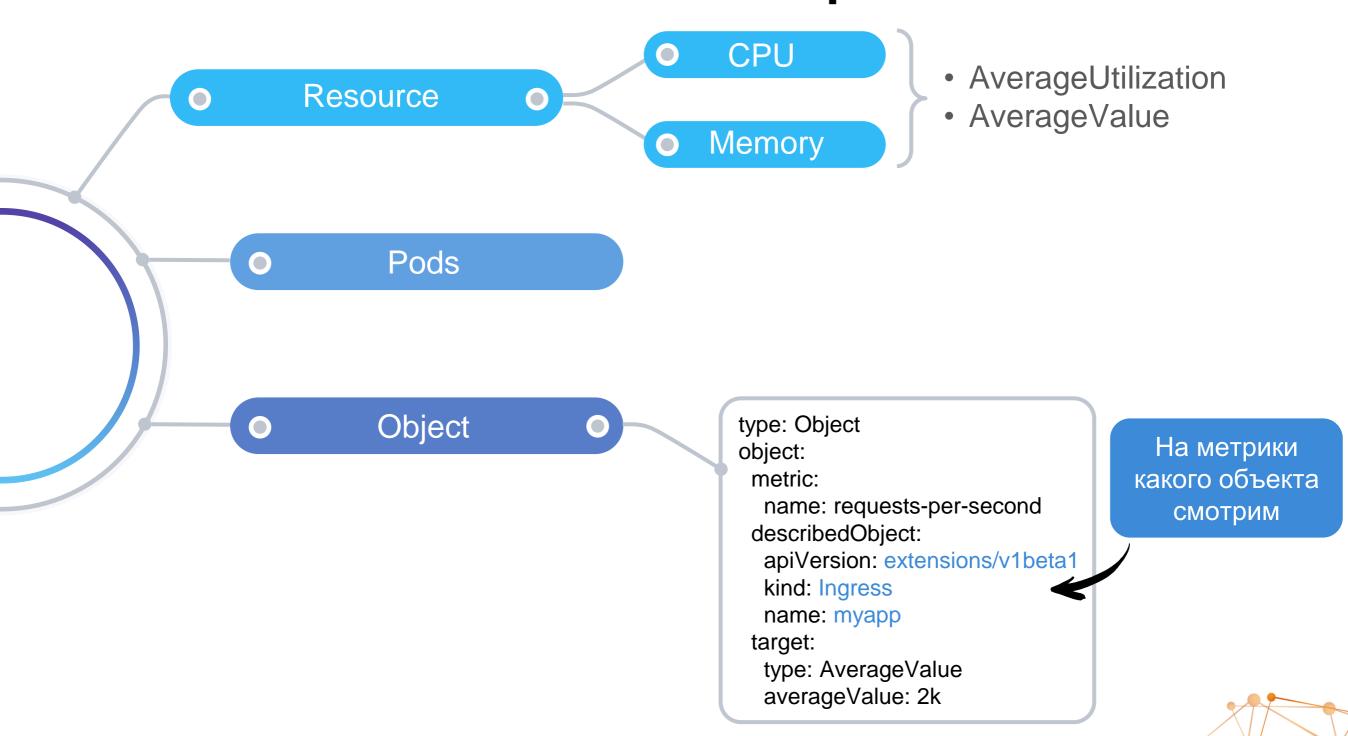


- AverageUtilization
- AverageValue

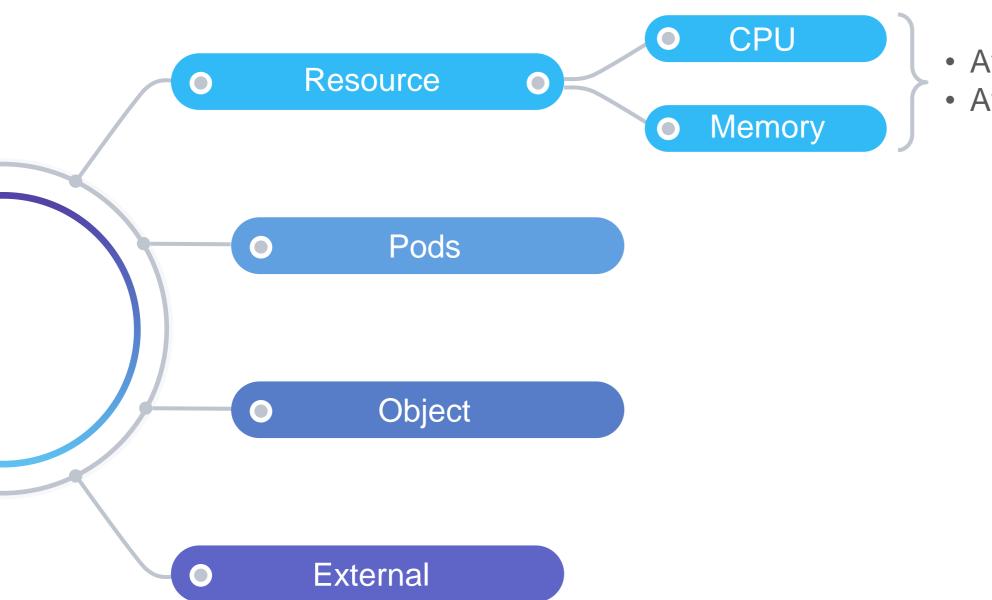






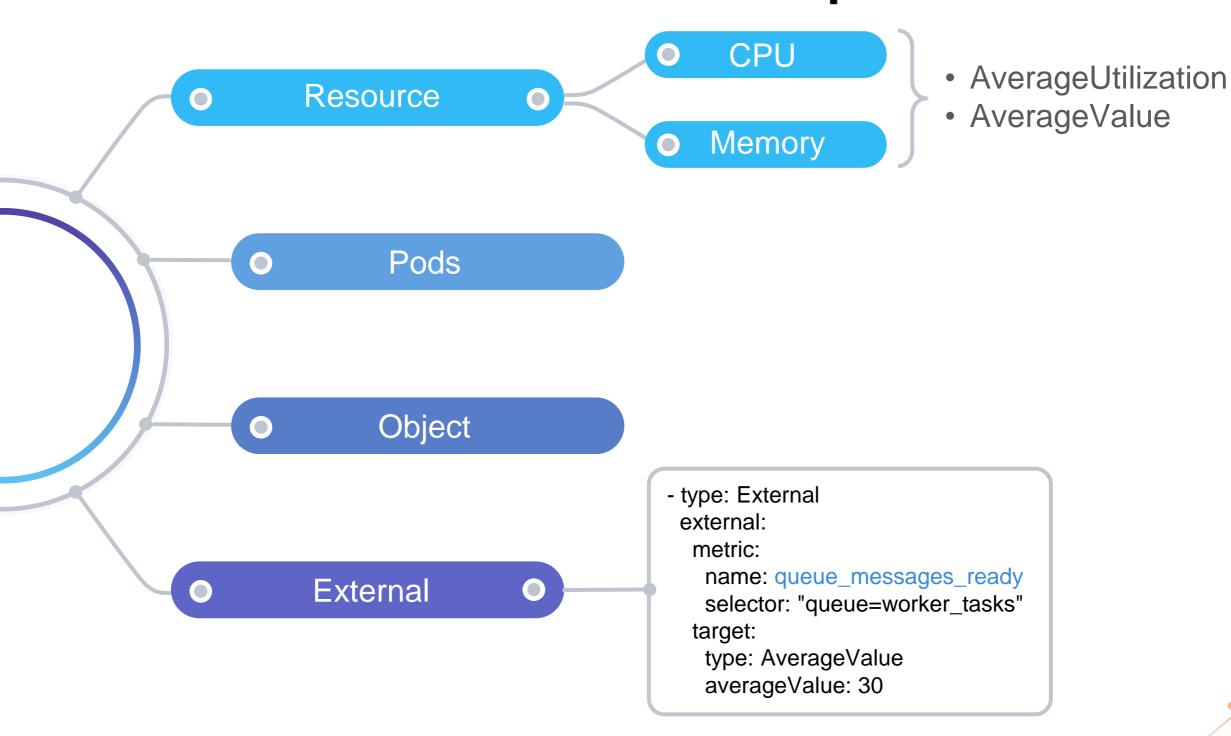




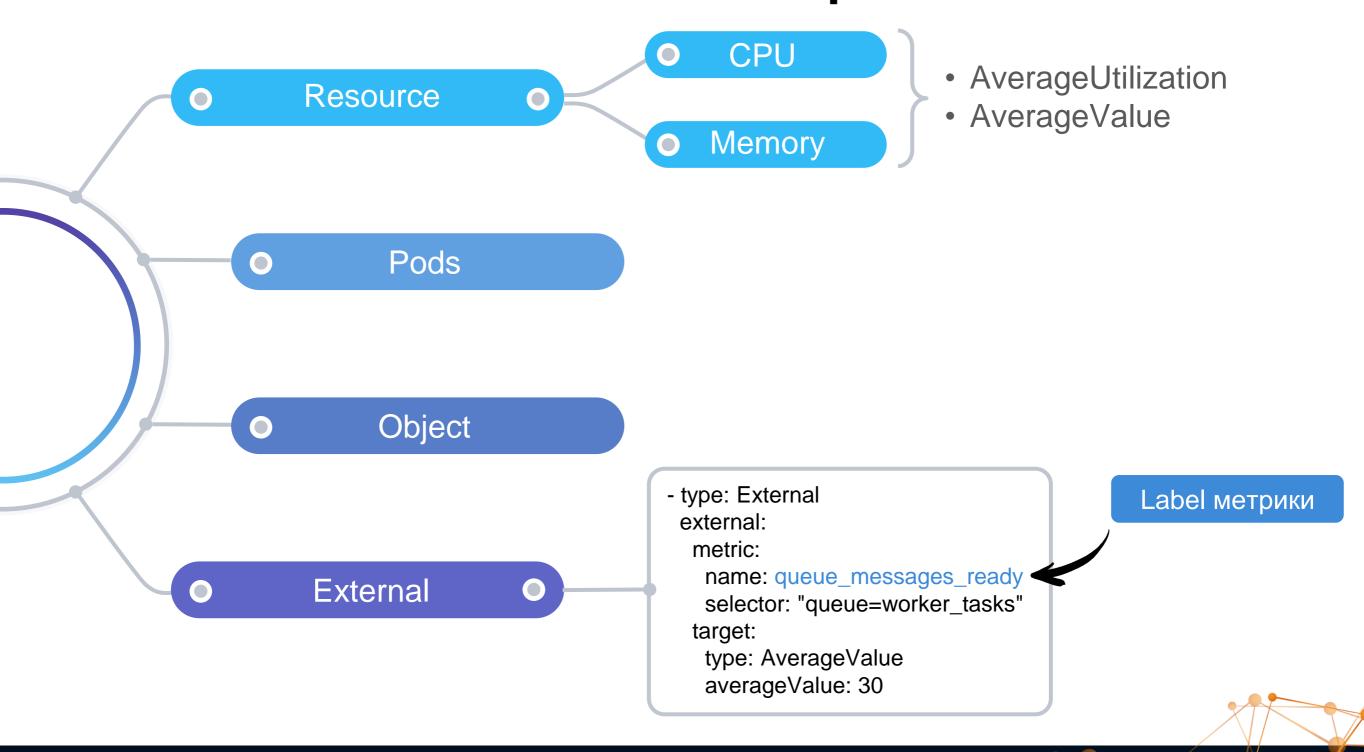


- AverageUtilization
- AverageValue



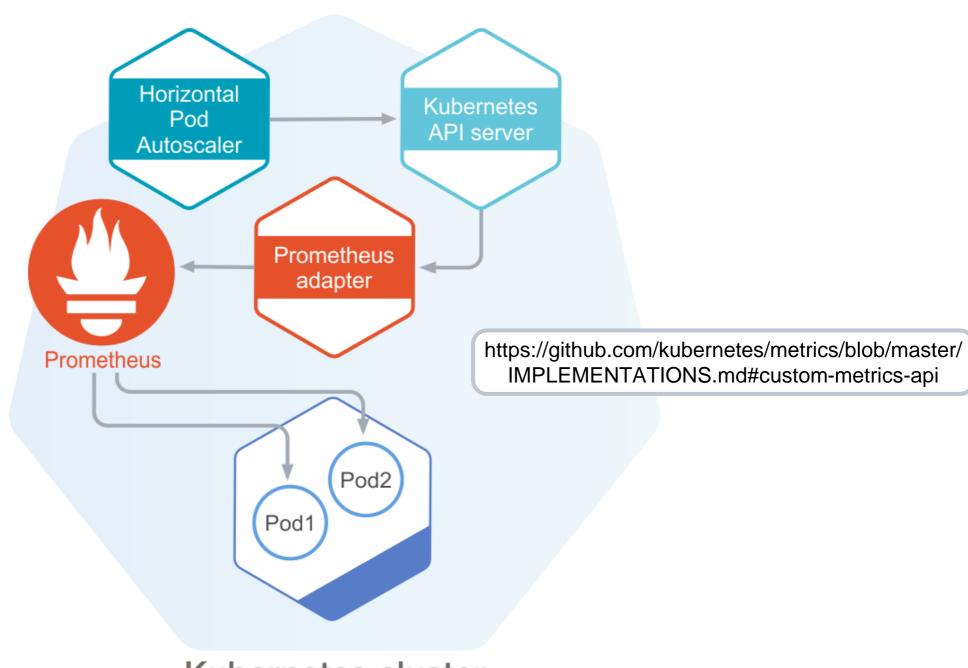








#### Реализации metrics server



Kubernetes cluster

