

# Projet AppScore - Monitoring

## Installation Metrics Server

```
kubectl apply -f https://github.com/kubernetes-sigs/metrics-server/releases/latest/download/components.yaml
```

```
# AJOUTER : - --kubelet-insecure-tls dans la section  
spec.template.spec.containers.args  
# car certif autosigné  
kubectl edit deployment metrics-server -n kube-system
```

ou

```
kubectl patch deployment metrics-server -n kube-system --type='json' -  
p='[{"op": "add", "path": "/spec/template/spec/containers/0/args/-", "value":  
"--kubelet-insecure-tls"}]'
```

```
PS C:\Ynov\M2\Conteneurisation\appscore4> kubectl get deployment metrics-server -n kube-system  
NAME READY UP-TO-DATE AVAILABLE AGE  
metrics-server 1/1 1 1 69d
```

```
PS C:\Ynov\M2\Conteneurisation\appscore4> kubectl get svc metrics-server -n kube-system -o jsonpath='{.spec.selector}'  
{"k8s-app":"metrics-server"}  
PS C:\Ynov\M2\Conteneurisation\appscore4> kubectl get pods -n kube-system -l k8s-app=metrics-server  
NAME READY STATUS RESTARTS AGE  
metrics-server-576c8c997c-wlbwp 1/1 Running 0 6m3s  
PS C:\Ynov\M2\Conteneurisation\appscore4> kubectl get endpoints metrics-server -n kube-system  
Warning: v1 Endpoints is deprecated in v1.33+; use discovery.k8s.io/v1 EndpointSlice  
NAME ENDPOINTS AGE  
metrics-server 10.1.1.44:10250 7m4s  
PS C:\Ynov\M2\Conteneurisation\appscore4> kubectl top pods  
NAME CPU(cores) MEMORY(bytes)  
applicants-api-689b6b66b7-7qv6z 4m 39Mi  
elasticsearch-d847655c-rznrf 34m 518Mi  
kibana-85fcbb78-4kdfg 6m 74Mi  
rabbitmq-7db67947b7-2dkmg 11m 119Mi  
service-api-identity-7f468d9569-jm82p 7m 44Mi  
service-api-jobs-788468bd69-rjbxm 6m 57Mi  
sql-data-77fcdb8cb8-9clsv 57m 871Mi  
user-data-5b8b95ffb4-9hc6m 4m 5Mi  
web-677fbcc4f-strhm 2m 47Mi  
webapp-f7f68c9b7-18rc6 16m 85Mi
```

## Installation Kube State metrics

```
kubectl apply -f https://github.com/kubernetes/kube-state-metrics/releases/download/v2.10.0/standard-conf.yaml
```

**Prometheus** Targets

All scrape pools ▾ All Unhealthy Collapse All Filter by endpoint or labels  Unknown  Unhealthy  Healthy

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://kube-state-metrics.kube-system.svc.cluster.local:8080/metrics	UP	instance="kube-state-metrics.kube-system.svc.cluster.local:8080" job="kube-state-metrics"	9.148s ago	12.515ms	

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
https://kubernetes.default.svc/api/v1/nodes/docker-desktop/proxy/metrics/cadvisor	UP	instance="docker desktop" job="kubernetes-nodes-cadvisor"	5.493s ago	982.195ms	

|**Métrique demandée|Requête à taper dans Prometheus pour l'afficher**|

|---|---

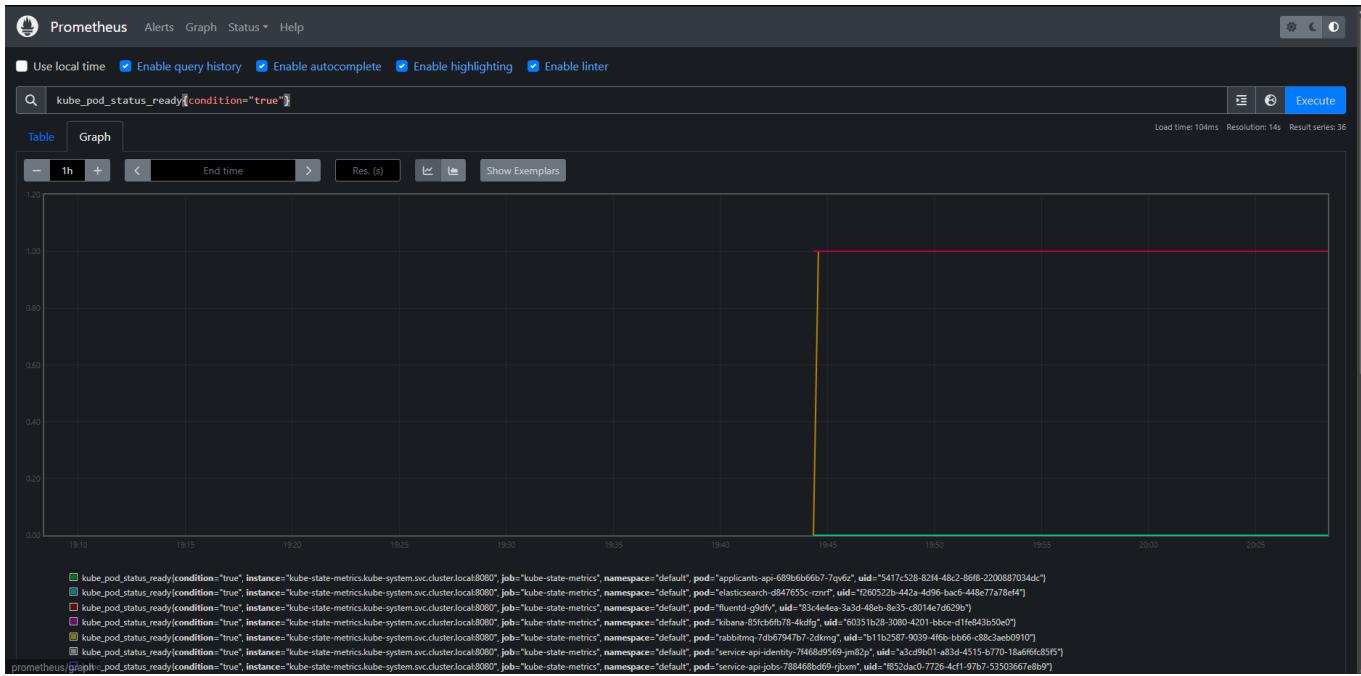
|**Sondes (Liveness/Readiness)**| prober\_probe\_total ou kube\_pod\_status\_ready |

|**État du cluster**| kube\_node\_status\_condition |

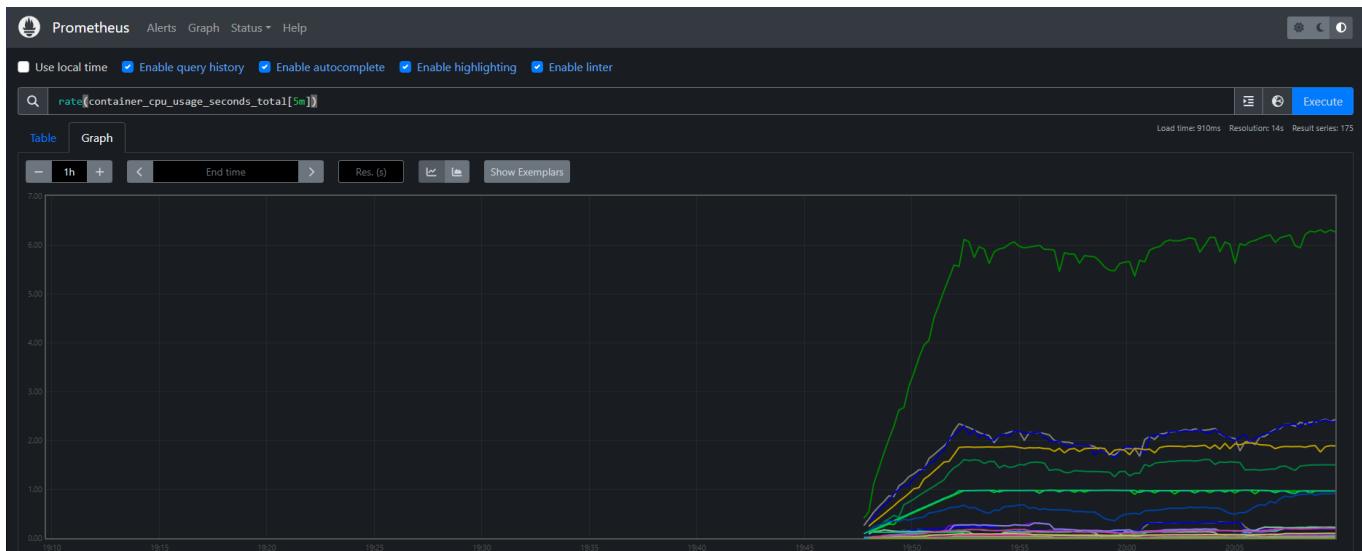
|**Ressources (Nodes/Pods)**| node\_cpu\_seconds\_total ou container\_memory\_usage\_bytes |

|**Plan de contrôle**| apiserver\_request\_total ou rest\_client\_requests\_total |

```
# Santé des Pods : CPU en temps réel
kube_pod_status_ready{condition="true"}
```



```
# La charge CPU des conteneurs
rate(container_cpu_usage_seconds_total[5m])
```



# Les erreurs (Restart)

`kube_pod_container_status_restarts_total`

