

Cadvisor and Prometheus

In our last article [The container monitor – cadvisor](#), we already introduce how to use cadvisor to collect containers' metadata. So in this blog, we are going to introduce how to combine cadvisor and Prometheus to build a monitor system.

- how to combine cadvisor and Prometheus.
- check CPU, memory and network status in Prometheus.

How to combine cadvisor and Prometheus

Step1: add cadvisor into Prometheus as target :

```
#prometheus.yml

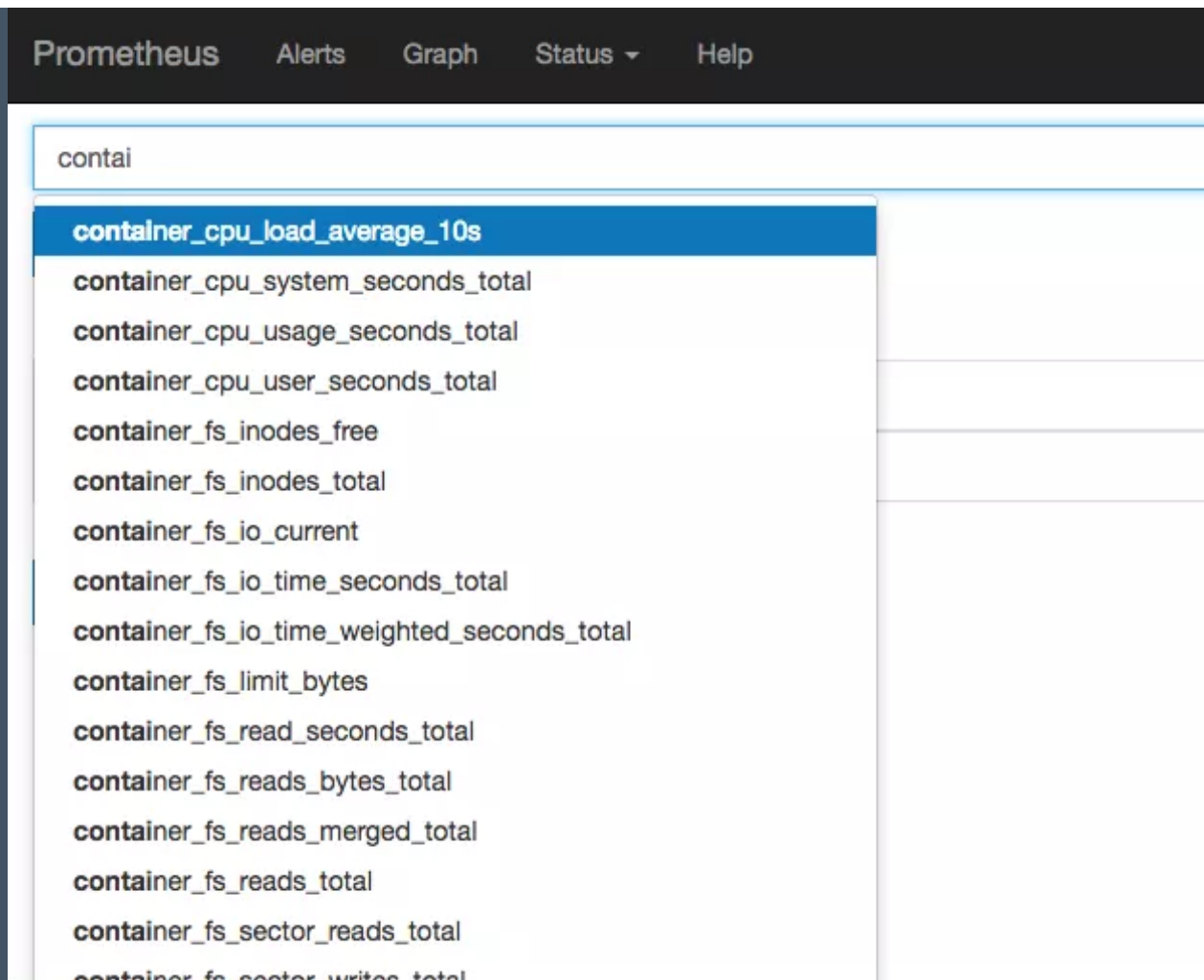
scrape_configs:
  - job_name: 'node'
    static_configs:
      - targets: ['127.0.0.1:9100']
```

```
- job_name: 'container'
  static_configs:
    - targets: ['127.0.0.1:8080'] # access address of cadvisor
```

Step2: reload configuration of prometheus,
visit <http://localhost:9090/targets> and you will see the `cadvisor` has been added into Prometheus.

Prometheus Alerts Graph Status ▾ Help				
Targets				
container (1/1 up)				
Endpoint	State	Labels	Last Scrape	Error
http://127.0.0.1:8080/metrics	UP	instance="127.0.0.1:8080"	23.401s ago	
node (1/1 up)				
Endpoint	State	Labels	Last Scrape	Error
http://127.0.0.1:9100/metrics	UP	instance="127.0.0.1:9100"	50.453s ago	

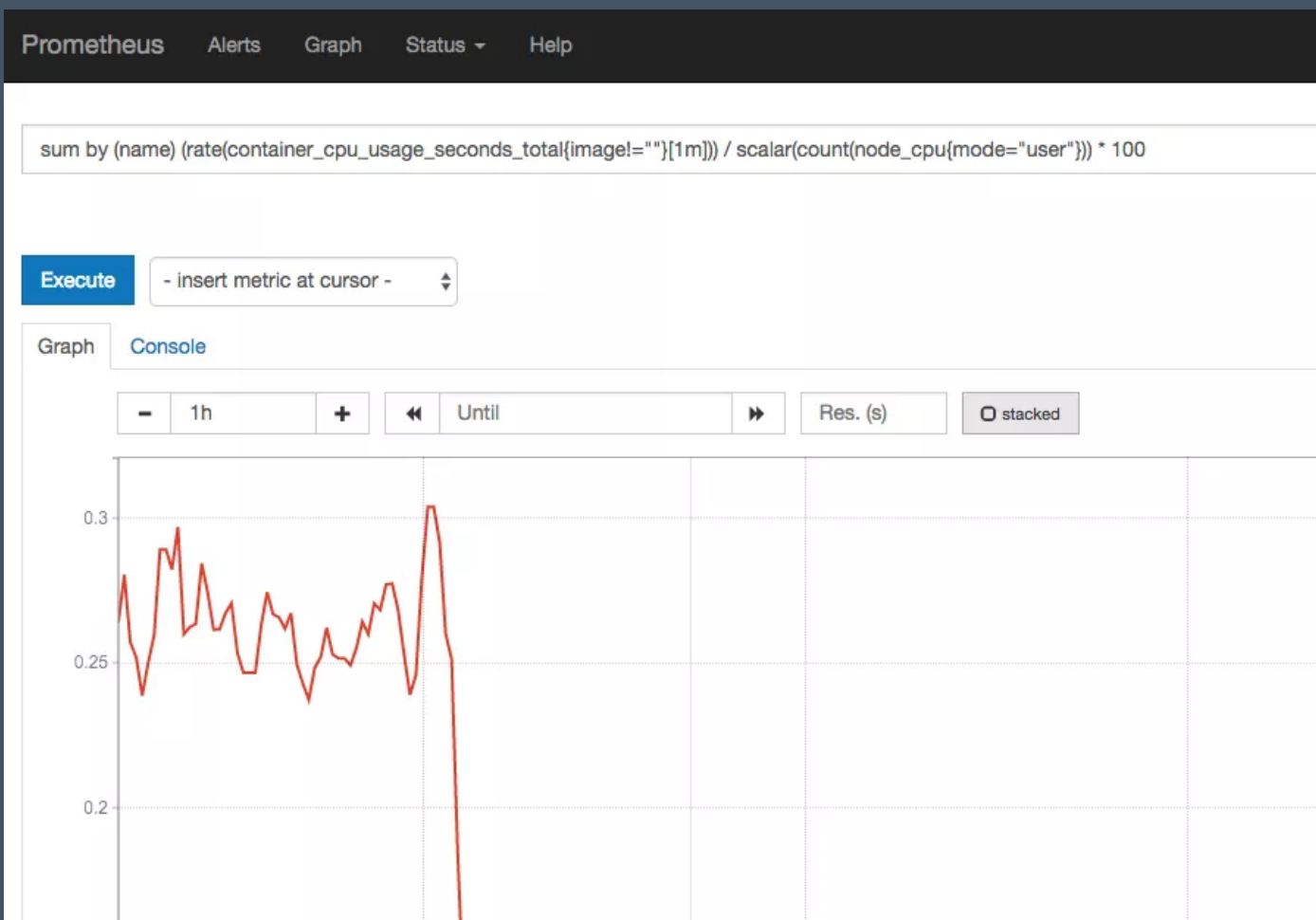
Step3: visit graph page of Prometheus by <http://localhost:9090/graph>, and you will be able to search related data by `container`.



Show CPU, memory and Network with Prometheus

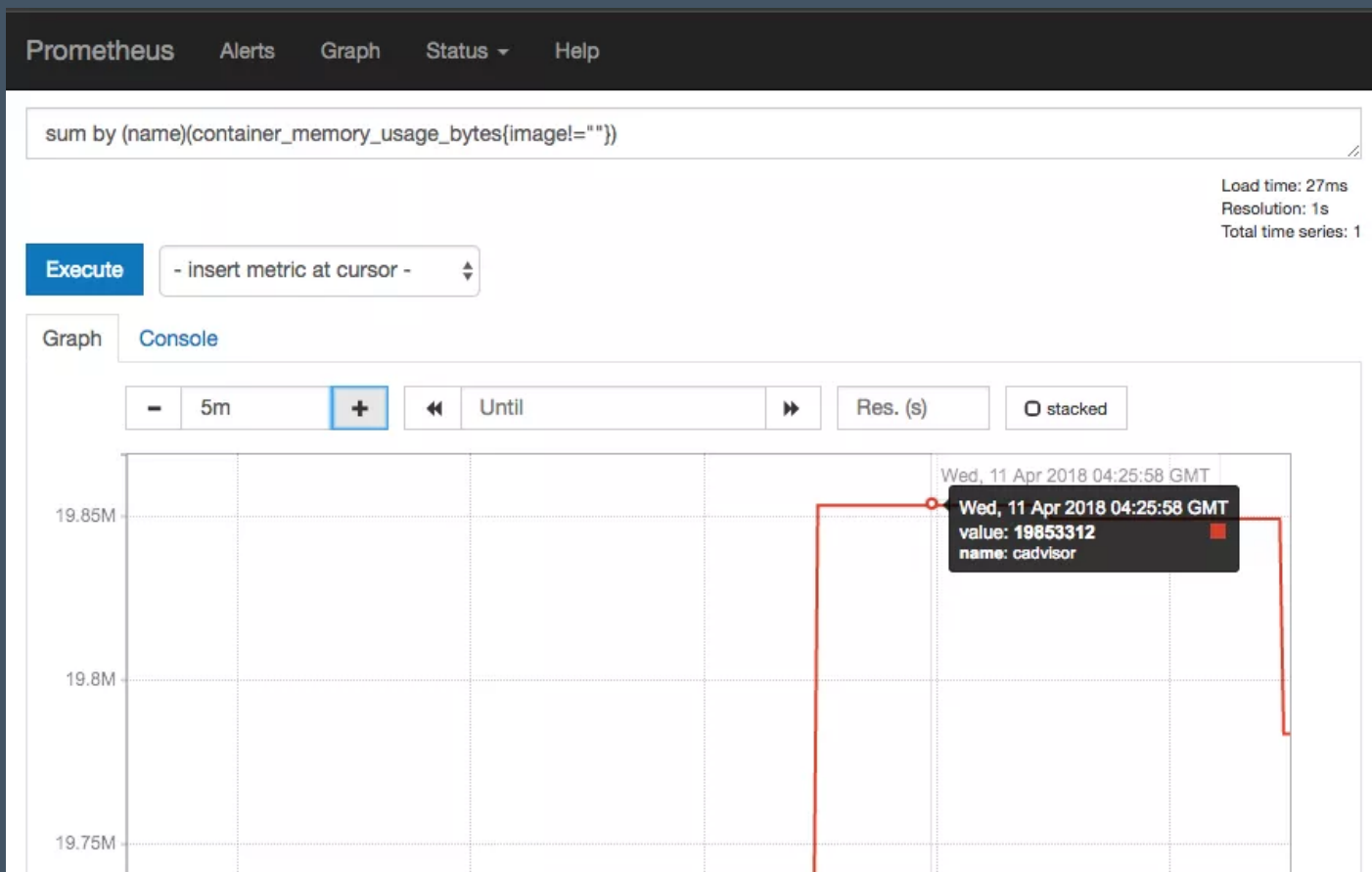
CPU :

```
sum by (name) (rate(container_cpu_usage_seconds_total{image!=""}[1m]))
```



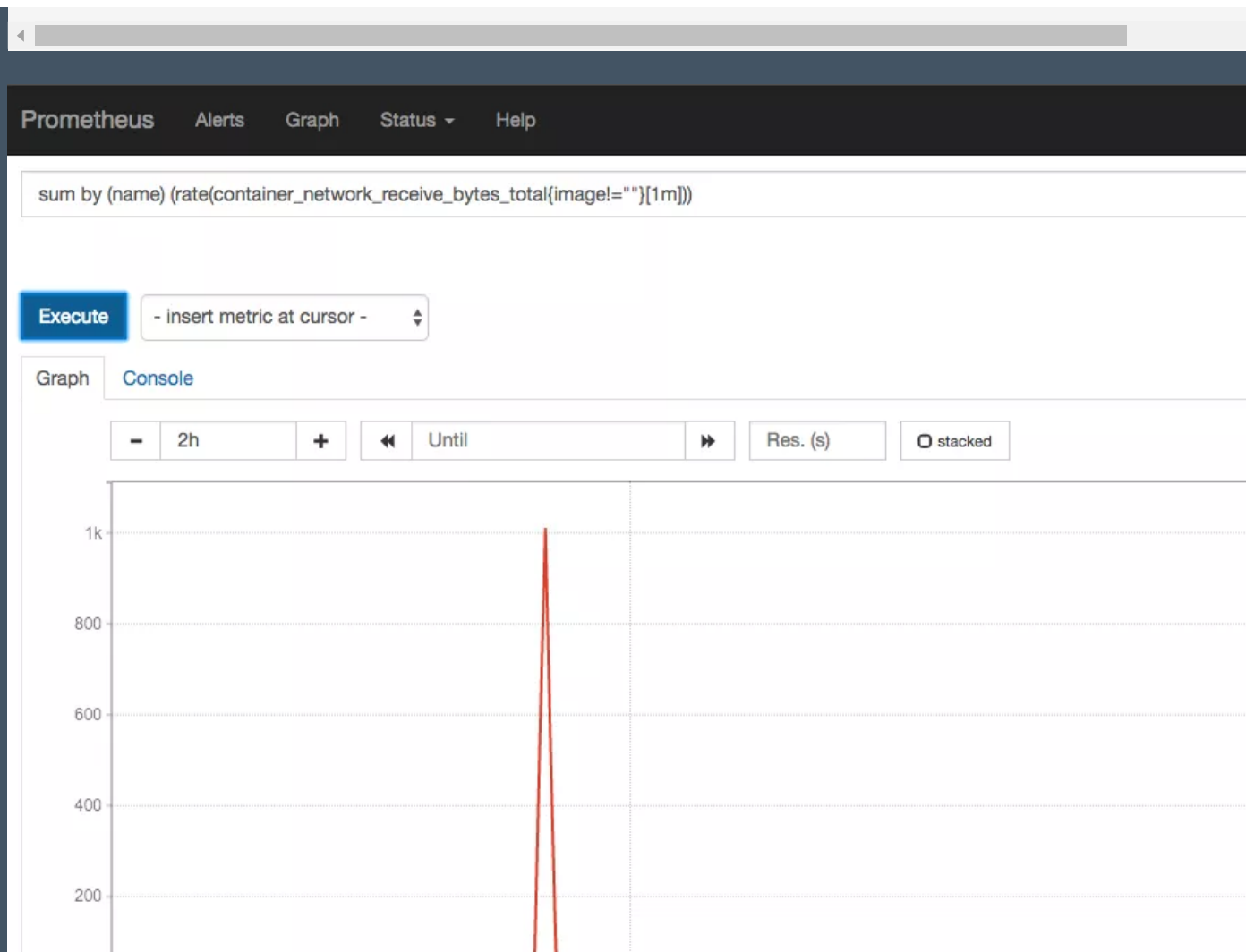
Memory :

```
sum by (name)(container_memory_usage_bytes{image!=""})
```



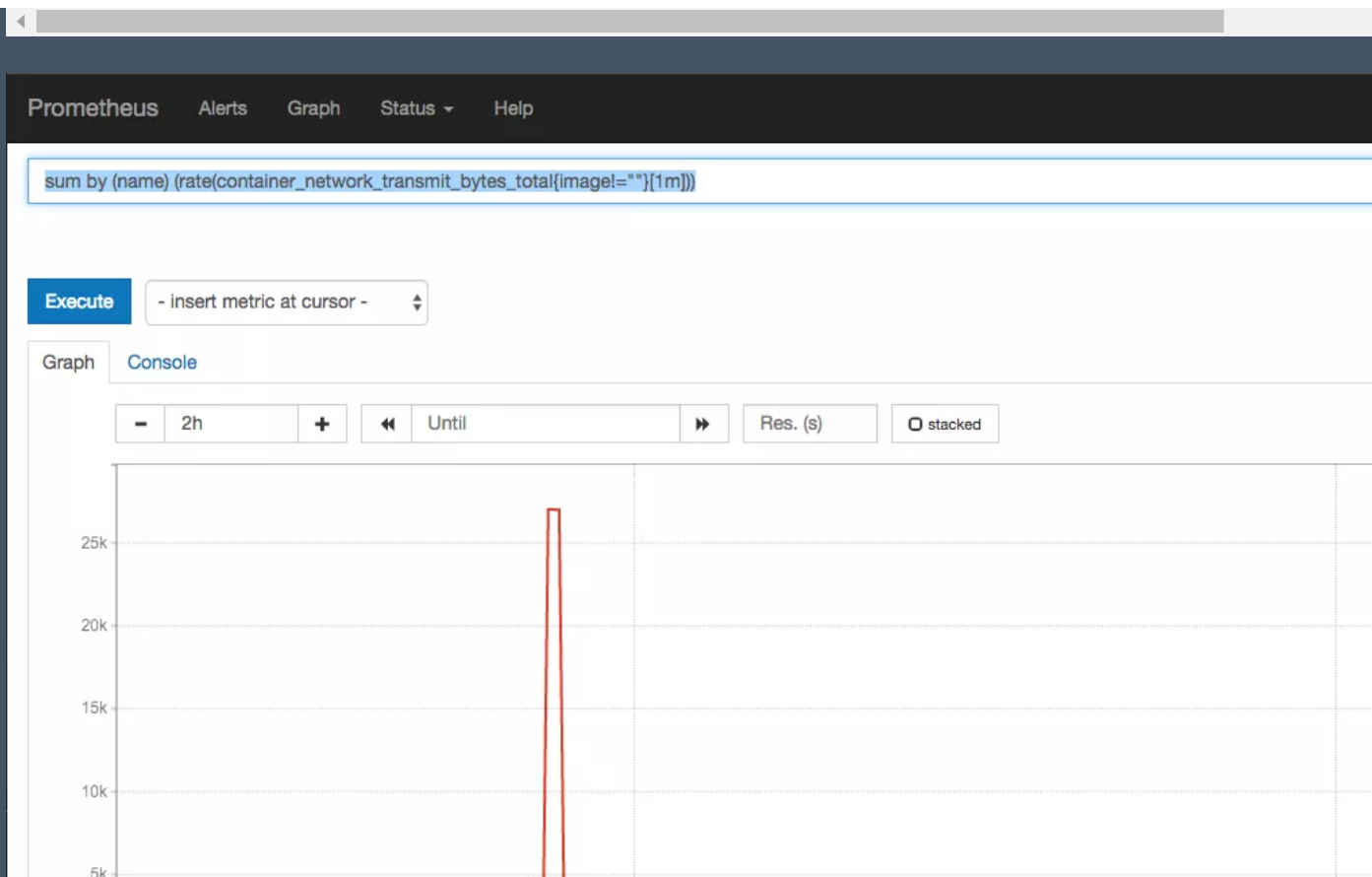
Network(Import):

```
sum by (name) (rate(container_network_receive_bytes_total{image!=""}[1
```



Network(Export):

```
sum by (name) (rate(container_network_transmit_bytes_total{image!=""}[
```



Disk :

```
sum by (name) (container_fs_usage_bytes{image!=""})
```

