

A tour of Kubernetes Dashboards

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Amazon Container Services

mydemoK8scluster | Workloads

kubernetes | Workloads

Google Cloud Platform > Kubernetes Engine > Workloads

Workload Overview

k8dash

LINKERD

Deployment Overview

Weaveshape

Inferno

Kubernetes Metrics

Popular dashboards that you should **NOT** use

Kubernetes dashboard

The dashboard provides real-time monitoring for your Kubernetes cluster. It includes two main charts: CPU Usage and Memory Usage, both showing trends over time. Below the charts, a table lists Deployments, showing details like Name, Labels, Pods, Created, and Images.

Name	Labels	Pods	Created	Images
argocd-application-controller	app.kubernetes.io/component: application-controller, app.kubernetes.io/name: argo-cd-application-controller	1 / 1	5 months ago	argoproj/argocd:v1.7.8
argocd-dex-server	app.kubernetes.io/component: dex-server, app.kubernetes.io/name: argocd-dex-server	1 / 1	5 months ago	quay.io/dexidp/dex:v2.22.0
argocd-redis	app.kubernetes.io/component: redis, app.kubernetes.io/name: argocd-redis	1 / 1	5 months ago	redis:5.0.8

Azure

The Azure dashboard shows a list of workloads across various namespaces. Each entry includes details like Name, Namespace, Ready, Up-to-date, Available, and Age.

Name	Namespace	Ready	Up-to-date	Available	Age
controller	tube-system	0/1	1	1	300 days
controller-reconciler	tube-system	0/1	1	1	300 days
elasticsever	tube-system	0/1	1	1	300 days
sample-metric	tube-system	0/1	1	1	300 days
dashcard-metric-scraper	tube-system	0/1	1	1	300 days
argocd-expiration-controller	argocd	0/1	1	1	120 days
argocd-observer	argocd	0/1	1	1	120 days
argocd-media	argocd	0/1	1	1	120 days
argocd-repo-server	argocd	0/1	1	1	120 days
argocd-secret-store	argocd	0/1	1	1	120 days
simple-repository	argocd	0/1	1	1	120 days
file-repository	argocd	0/1	1	1	120 days
dashcard	argocd	0/1	1	1	120 days
dashcard-metric-scraper	argocd	0/1	1	1	120 days

Google

The Google Cloud Platform dashboard shows a list of workloads. Each entry includes details like Name, Status, Type, Pods, Namespace, and Cluster.

Name	Status	Type	Pods	Namespace	Cluster
flamehead-pod	Does not have minimum availability	Deployment	0/0	default	clusterprod
issue-dm-pod	OK	Deployment	1/1	default	clusterprod
task-equalizer-grafana	OK	Deployment	1/1	default	clusterprod
queuemaster-prometheus-alertmanager	OK	Deployment	1/1	default	clusterprod
queuemaster-prometheus-kube-state-metrics	OK	Deployment	1/1	default	clusterprod
queuemaster-prometheus-node	Amazon Container Services	Amazon ECR Replications	0/0	default	clusterprod
queuemaster-prometheus-pie	Amazon Container Services	Amazon ECR Replications	0/0	default	clusterprod
queuemaster-prometheus-ser	Amazon Container Services	Amazon ECR Replications	0/0	default	clusterprod

Amazon

The Amazon EKS dashboard shows a list of workloads. Each entry includes details like Name, Namespace, Type, Created, Pod count, and Status.

Name	Namespace	Type	Created	Pod count	Status
ambassador	ambassador	Deployment	Apr 16 2021 at 2:54 PM	1	1/1 Pods ready
ambassador-agent	ambassador	Deployment	Apr 16 2021 at 2:56 PM	1	1/1 Pods ready
ambassador-redis	ambassador	Deployment	Apr 16 2021 at 2:56 PM	1	1/1 Pods ready
argocd-dex-server	argocd	Deployment	Apr 16 2021 at 6:30 PM	1	1/1 Pods ready
argocd-redis	argocd	Deployment	Apr 16 2021 at 6:20 PM	1	1/1 Pods ready
argocd-repo-server	argocd	Deployment	Apr 16 2021 at 6:20 PM	1	1/1 Pods ready
argocd-server	argocd	Deployment	Apr 16 2021 at 6:20 PM	1	1/1 Pods ready



Popular dashboards that you should **NOT** use

Octant

Overview

Daemon Sets

Name	Labels	Desired	Current	Ready	Up-To-Date	Age	Node Selector
csi-cephfsplugin		3	3	3	3	54m	
csi-rbdplugin		3	3	3	3	54m	
rook-ceph-agent		3	3	0	3	54m	
rook-discover		3	3	3	3	57m	

Deployments

Name	Labels	Status	Age	Containers	Selector
rook-ceph-mgr-a	app:rook-ceph-mgr, ceph-version:v4.2.2, ceph_daemon:dc-a	1/1	54m	mgr	app:rook-ceph-mgr, ceph_daemon:dc-a, instance:a, mgr-a, rook_ceph-rook-ceph

Octant

K8dash

Workloads

WORKLOADS

40 / 41

PODS

50 / 51

NAME	NAMESPACE	AGE	PODS
argocd-values	argocd	5m	1/1
argocd-application-controller	argocd	5m	1/1
argocd-ds-server	argocd	5m	1/1
argocd-mrds	argocd	5m	1/1
argocd-redis	argocd	5m	1/1
argocd-server	argocd	5m	1/1
argocd-secrets	argocd	5m	1/1
argocd-spiffe-agent	argocd	5m	1/1

Kontena

Nodes

Workloads

Pods

Calico Node: calico-node-rwf4g

CPU

0.100

10:45 16:55 17:05 17:15 17:25 17:35 17:45

Usage Requests

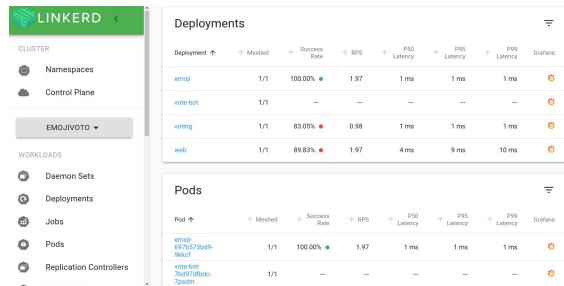
Created	27d 5h 55m ago (2019-08-21T08:50:15Z)
Namespace	kube-system
Status	Running
Node	ip-192-168-81-7.eu-north-1.compute.internal
Pod IP	192.168.81.7
Priority Class	—
QoS Class	Burstable
Labels	controller-revision-hash: 5c9ddcc74, k8s-app: calico-node, pod-template-generation: 1
Annotations	scheduler.alpha.kubernetes.io/critical-pod:
Conditions	Initialized, Ready, ContainersReady, PodScheduled
Controlled By	DaemonSet calico-node
Tolerations	9
Affinities	1
Secrets	calico-node-token-8dnkm

Kontena/Mirantis Lens



AMBASSADOR
FEST

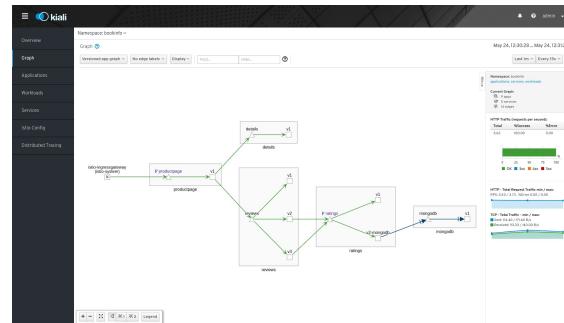
Task specific dashboards



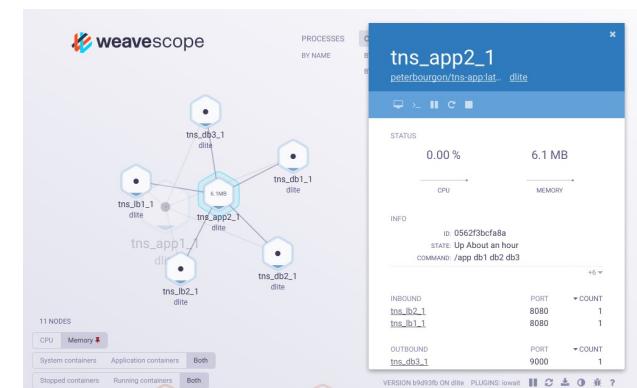
LinkerD



Argo CD



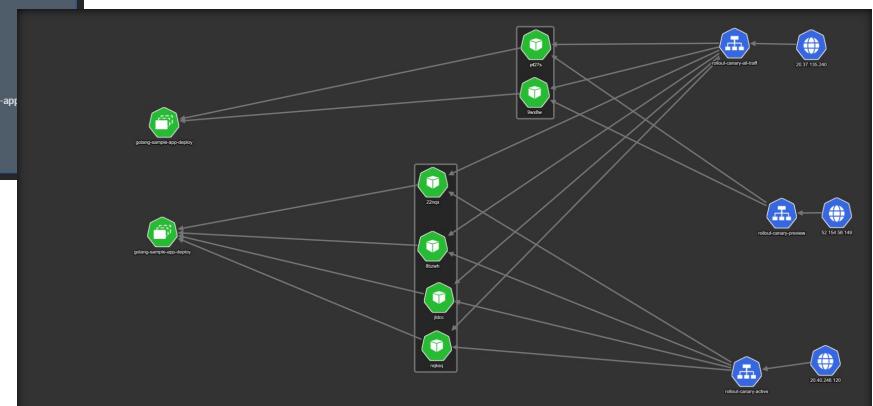
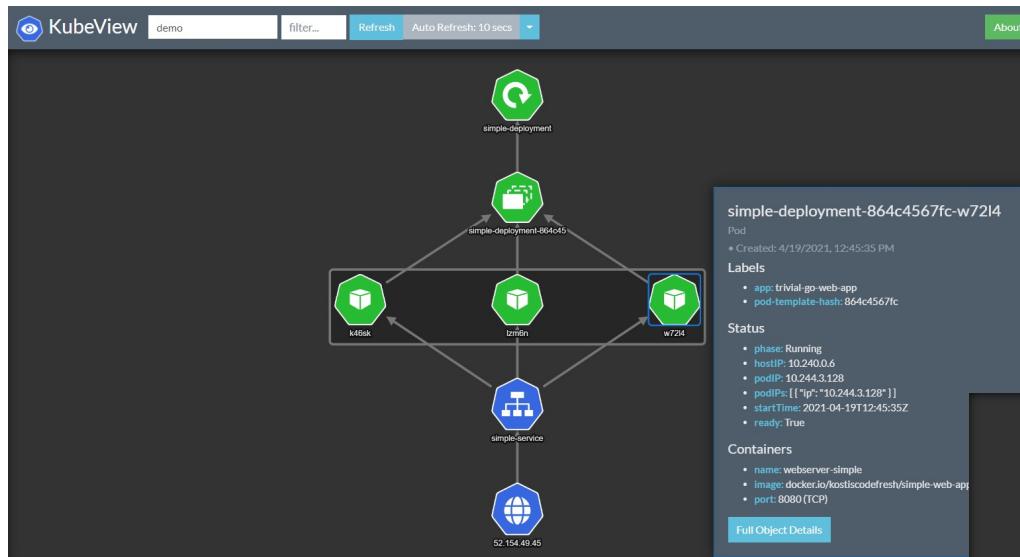
Kiali



Scope



Kubeview – great dashboard for beginners



Kubevious – if you want to become an expert

The image displays two screenshots of the Kubevious application interface.

Left Screenshot (Dashboard): Shows a dark-themed dashboard with several sections. On the left, there are lists for 'Namespace openfaas-fn' and 'Namespace openfaas'. In the center, there are sections for 'Namespace polaris', 'Namespace sock-shop', and 'Infra Infrastructure'. A large central area displays a heatmap representing cluster consumption. At the bottom, there are tabs for 'Alerts' and 'Timeline'.

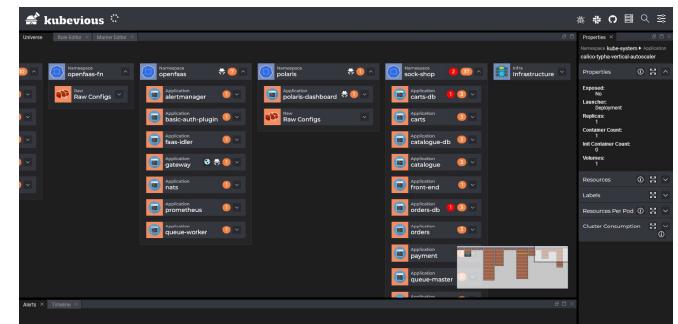
Right Screenshot (Rule Editor): Shows the 'Rule Editor' tab. It includes a sidebar with a '+ New rule' button and a list of existing rules: 'container-memory-usage' [39], 'fat-namespace' [1], 'host-network-pod-security-policy' [2], 'latest-tag-check' [12], 'managed-by-helm' [5], 'namespace-cpu-usage' [1], 'namespace-resource-rule' [1], and 'no-memory-request-set' [34]. The main area contains a 'Target' section and a 'Rule script' section. The rule script is defined as:

```
1 if (item.props.tag == 'latest') {  
2   error("You are using latest image. Please dont do that.");  
3 }
```

At the bottom are buttons for 'Delete', 'Cancel', and 'Save'.



My personal recommendation



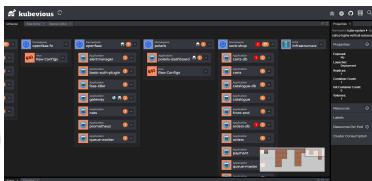
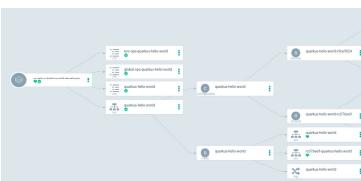
Kubeview - Beginner →

Argo CD - Intermediate →

Kubevious - Expert



Dashboards we tested for this talk



- Kubernetes dashboard <https://github.com/kubernetes/dashboard>
- Cloud providers (Google, Azure, AWS) \$
- Octant <https://octant.dev/>
- Lens <https://k8slens.dev/>
- Argo CD <https://argoproj.github.io/argo-cd/> 😊
- Scope <https://github.com/weaveworks/scope>
- Kiali <https://kiali.io/>
- Linkerd <https://linkerd.io/>
- Infra App <https://infra.app/> 💸
- Kubenav <https://kubenav.io/> 📱
- Kubernetic <https://www.kubernetic.com/> 💸
- Kube Ops View <https://codeberg.org/hjacobs/kube-ops-view>
- Kube Web View <https://codeberg.org/hjacobs/kube-web-view/>
- K8dash <https://github.com/indeedeng/k8dash>
- Kubeview <https://github.com/benc-uk/kubeview> 😊
- Kubevious <https://kubevious.io/> 😊