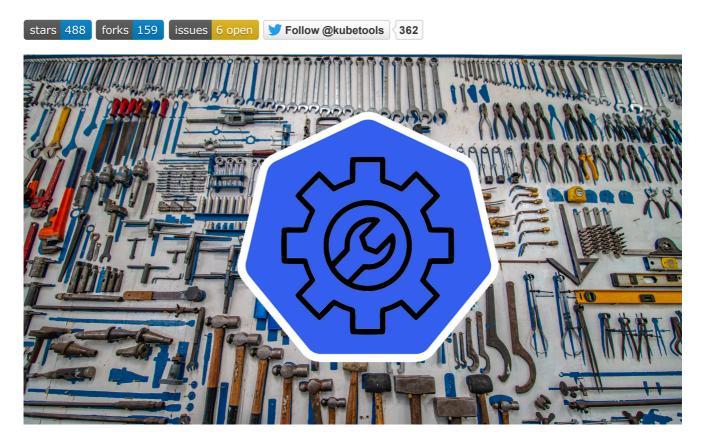
Kubetools

# Kubetools - A Curated List of Kubernetes Tools



There are more than 200+ Kubernetes Certified Service Providers and tons of Kubernetes Certified distributions. Choosing a right distribution can be a daunting task. Kubetools is built with a purpose to build a curated list of popular Kubernetes tools. It is actively maintained by Collabnix Community Follow the Kubetools Twitter account for the latest entries.

Have Questions? Join us over Slack and get chance to be a part of 6400+ DevOps enthusiasts.

Want to contribute? Click here and get your favorite tool added.

#### Cluster Management

kops - Production Grade K8s Installation, Upgrades, and Management silver-surfer - Check ApiVersion compatibility and provide Migration path for Kubernetes objects when upgrading Kubernetes to latest versions

Kube-ops-view - Kubernetes Operational View - read-only system dashboard for multiple K8s clusters

kubeprompt - Kubernetes prompt info

Metalk8s - An opinionated Kubernetes distribution with a focus on long-term on-prem deployments

kind - Kubernetes IN Docker - local clusters for testing Kubernetes

Try Hands On

Clusterman - Cluster Autoscaler for Kubernetes and Mesos

Cert-manager - Automatically provision and manage TLS certificates

Goldilocks - Get your resource requests "Just Right"

katafygio - Dump, or continuously backup Kubernetes objets as yaml files in git

Rancher - Complete container management platform

Sealed Secrets - A Kubernetes controller and tool for one-way encrypted Secrets

OpenKruise/Kruise - Automate application workloads management on

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Kubernetes https://openkruise.io

kubectl snapshot - Take Cluster Snapshots

kapp - simple deployment tool focused on the concept of "Kubernetes application" — a set of resources with the same label https://get-kapp.io

keda - Event-driven autoscaler for Kubernetes

Octant - To better understand the complexity of Kubernetes clusters

Portainer - Portainer inside a Kubernetes environment

Gardener - Deliver fully-managed clusters at scale everywhere with your own Kubernetes-as-a-Service



#### Cluster with Core CLI tools

Bootkube - bootkube - Launch a self-hosted Kubernetes cluster

kubectx + kubens - Switch faster between clusters and namespaces in kubectl

kube-shell - Kubernetes shell: An integrated shell for working with the Kubernetes

kuttle: kubectl wrapper for sshuttle without SSH - Kubernetes wrapper for sshuttle

kubectl sudo - Run kubernetes commands with the security privileges of another user

K9s - Kubernetes CLI To Manage Your Clusters In Style!

Ktunnel - A cli that exposes your local resources to kubernetes

KubeOperator - Run kubectl command in Web Browser. https://kubeoperator.io/

Vimkubectl - Manage any Kubernetes resource from Vim

https://www.vim.org/scripts/script.ph

KubeHelper - KubeHelper - simplifies many daily Kubernetes cluster tasks through a web interface.



## Alert and Monitoring

Thanos - Highly available Prometheus setup with long term storage capabilities. CNCF Sandbox project. https://thanos.io

Prometheus - The Prometheus monitoring system and time series database.

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Grafana - The tool for beautiful monitoring and metric analytics & dashboards

for Graphite, InfluxDB & Prometheus & More

Kubetail - Bash script to tail Kubernetes logs from multiple pods at the same time

Searchlight - Alerts for Kubernetes

linkerd2 Monitoring Mixin for Grafana - Grafana dashboards for linkerd2 monitoring and can

work in standalone (default) or in multi-cluster setup

kuberhaus - Kubernetes resource dashboard with node/pod layout and resource requests

Kubernetes Job/CronJob Notifier - This tool sends an alert to slack whenever there is a Kubernetes cronJob/Job failure/success

Argus - This tool monitors changes in the filesystem on specified paths



# Logging and Tracing

Jaeger - CNCF Jaeger, a Distributed Tracing Platform

Kiali - Kiali project, observability for the Istio service mesh

ELK - Elasticsearch, Logstash, Kibana

fluentbit - Fast and Lightweight Log processor and forwarder for Linux, BSD and OSX

Loki - Like Prometheus, but for logs



# Troubleshooting

Kubectl-debug - Allows you to run a new container with all the troubleshooting tools installed in running pod for debugging purposed

PowerfulSeal - A powerful testing tool for Kubernetes clustersd

Crash-diagnostic - Crash-Diagnostics is a tool to help investigate, analyze, and troubleshoot unresponsive or crashed Kubernetes clustersd

K9s - Kubernetes CLI To Manage Your Clusters In Style!d

Kubernetes CLI Plugin - Doctor - kubectl cluster triage plugin for k8s - [4] (brew doctor equivalent)d

Knative Inspect - A light-weight debugging tool for Knative's system componentsd Kubeman - To find information from Kubernetes clusters, and to investigate issues related to Kubernetes and Istiod

kpexec - kpexec is a kubernetes cli that runs commands in a container with high privilegesd



# Developement Tools/Kit

Okteto: A Tool for Cloud Native Developers - Build better applications by developing and testing your code directly in Kubernetes

Tilt: Tilt manages local development instances for teams that deploy to Kubernetes - Local Kubernetes development with no stress

Garden: Kubernetes from source to finish - Development orchestrator for Kubernetes, containers and functions.

KuberNix - Single dependency Kubernetes clusters for local testing, experimenting and development

Copper - A configuration file validator for Kubernetes

ko - Build and deploy Go applications on Kubernetes

Dekorate - Java annotation processors for Kubernetes

Lens IDE [The Kubernetes IDE -

Kosko - Organize Kubernetes manifests in JavaScript

Telepresence - Fast, local development for Kubernetes and Openshift microservices Monokle - Desktop UI for managing Kubernetes manifests



## Alternative Tools for Developement

Minikube - minikube implements a local Kubernetes clusterd

KubeSphere - Easy-to-use Production Ready Container Platform https://kubesphere.iod skippbox - A Desktop application for k8sd

kind - Kubernetes IN Docker - local clusters for testing Kubernetes https://kind.sigs.k8s.io/dk3d - k3d is a lightweight wrapper to run k3s (Rancher Lab's minimal Kubernetes distribution) in docker.d



# CI/CD integration Tools

HybridK8s Droid - Intelligence foor your favourite Delivery Platform

Devtron - Software Delivery Workflow for Kubernetes

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Skaffold - Easy and Repeatable Kubernetes Development

Apollo - Apollo - The logz.io continuous deployment solution over kubernetes

Helm Cabin - Web UI that visualizes Helm releases in a Kubernetes cluster

flagger - Progressive delivery Kubernetes operator (Canary, A/B Testing and Blue/Green deployments)

Kubeform - Kubernetes CRDs for Terraform providers https://kubeform.com

Spinnaker - Spinnaker is an open source, multi-cloud continuous delivery platform for releasing software changes with high velocity and confidence. http://www.spinnaker.io/

werf - GitOps tool to deliver apps to Kubernetes and integrate this process with GitLab and other CI tools

Flux - GitOps Kubernetes operator

Argo CD - Declarative continuous deployment for Kubernetes

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Tekton - A cloud native continuous integration and delivery (CI/CD) solution

Jenkins X - Jenkins X provides automated CI+CD for Kubernetes with Preview Environments on Pull Requests using Tekton, Knative, Lighthouse, Skaffold and Helm



# **Security Tools**

TerraScan - Detect compliance and security violations across Infrastructure as Code to mitigate risk before provisioning cloud native infrastructure.

klum - Kubernetes Lazy User Manager

Kyverno - Kubernetes Native Policy Management https://kyverno.io

kiosk - kiosk office Multi-Tenancy Extension For Kubernetes - Secure Cluster

Sharing & Self-Service Namespace Provisioning

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kube-bench - CIS Kubernetes Benchmark tool

kube-hunter - Pentesting tool - Hunts for security weaknesses in Kubernetes clusters

kube-who-can - Show who has RBAC permissions to perform actions on different resources in Kubernetes

starboard - Kubernetes-native security toolkit

Simulator - Kubernetes Security Training Platform - Focussing on security mitigation

RBAC Lookup - Easily find roles and cluster roles attached to any user, service account, or group name in your Kubernetes cluster https://fairwinds.com

Kubeaudit - kubeaudit helps you audit your Kubernetes clusters against common security controls

Gangway - An application that can be used to easily enable authentication flows via OIDC for a kubernetes cluster

Audit2rbac - Autogenerate RBAC policies based on Kubernetes audit logs

Chartsec - Helm Chart security scanner

kubestriker - Security Auditing tool

Datree - CLI tool to prevent K8s misconfigurations by ensuring that manifests and Helm charts follow best practices as well as your organization's policies

Krane - Kubernetes RBAC static Analysis & visualisation tool

Falco - The Falco Project - Cloud-Native runtime security

Clair - Vulnerability Static Analysis for Containers



#### **Network Policies**

trireme-kubernetes - Aporeto integration with Kubernetes Network Policies

Calico - Cloud native connectivity and network policy

kubepox - Kubernetes network Policy eXploration tool

kokotap - Tools for kubernetes pod network tapping

Submariner - Connect all your Kubernetes clusters, no matter where they are in the world egress-operator - An operator to produce egress gateway pods and control access to them with network policies

kubefwd (Kube Forward) - Bulk port forwarding Kubernetes services for local development



# **Testing Tools**

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#### Service Mesh

Istio - Connect, secure, control, and observe services

Traefik - The Cloud Native Edge Router

NGINX Ingress Controller - NGINX and NGINX Plus Ingress Controllers for Kubernetes

Autopilot - THE SERVICE MESH SDK

linkerd-config - A Kubernetes controller that knows how to reconcile the Linkerd configuration

Kong - Kong for Kubernetes: the official Ingress Controller for Kubernetes

OSM - Open Service Mesh (OSM) is a lightweight, extensible, cloud native service mesh

Layer5 - Layer5, the service mesh company, representing every service mesh

Gloo Mesh - The Service Mesh Orchestration Platform

APISIX - Apache APISIX is a dynamic, real-time, high-performance API gateway.

Contour - High performance ingress controller for Kubernetes



## Observability

Kubespy - Tools for observing Kubernetes resources in real time

Popeye - A Kubernetes cluster resource sanitizer

Stern - Multi pod and container log tailing for Kubernetes

Cri-tools - CLI and validation tools for Kubelet Container Runtime Interface (CRI)

Kubebox - Terminal and Web console for Kubernetes

Kubewatch - Watch k8s events and trigger Handlers

kube-state-metrics - Add-on agent to generate and expose cluster-level metrics

Sloop - Kubernetes History Visualization

kubectl tree 🛕 - Kubectl plugin to observe object hierarchies through ownerReferences

chaoskube - chaoskube periodically kills random pods in your Kubernetes cluster

BotKube - Helps you monitor your Kubernetes cluster(s), debug critical deployments and gives recommendations for standard practices

Kubestone - Kubestone is a benchmarking Operator that can evaluate the performance of Kubernetes installations

Chaos Mesh - A Chaos Engineering Platform for Kubernetes

Lemur - LEMUR: Observability and Context

kubernetes-event-exporter - Export Kubernetes events to multiple destinations with routing and filtering

Kubevious - Kubevious provides a usable and highly graphical interface for Kubernetes



## Machine Learning/Deep Learning

Kubeflow - Machine Learning Toolkit for Kubernetes

Volcano - A Kubernetes Native Batch System



#### **Compute Edge Tools**

Kubeless - Kubernetes Native Edge Computing Framework Kubeless - Kubernetes Native Serverless Framework



## **Kubernetes Tools for Specific Cloud**

Kubernetes on AWS (kube-aws) - A command-line tool to declaratively manage Kubernetes clusters on AWS

Draft: Streamlined Kubernetes Development - A tool for developers to create cloud-native applications on Kubernetes

helm-ssm - A low dependency tool for retrieving and injecting secrets from AWS SSM into Helm

Skupper - Multicloud communication for Kubernetes



# **Storage Providers**

ChubaoFS - distributed file system and object storage

Longhorn - Cloud-Native distributed block storage built on and for Kubernetes

OpenEBS - Kubernetes native - hyperconverged block storage with multiple storage engines

Rook - Storage Orchestration for Kubernetes

SeaweedFS - Distributed file system supports read-write many volumes

TiKV - Distributed transactional key-value database

velero - Backup and migrate Kubernetes applications and their persistent volumes

Vitess - Vitess is a database clustering system for horizontal scaling of MySQL

kaDalu - A lightweight Persistent storage solution for Kubernetes / OpenShift using GlusterFS in background



# Multiple Tools Repo

Chaos Toolkit Kubernetes Support - Kubernetes driver extension of the Chaos Toolkit probes and actions API

k14s - Kubernetes Tools that follow Unix philosophy to be simple and composable Pulumi - Pulumi - Modern Infrastructure as Code. Any cloud, any language. Give your team cloud superpowers rocket https://www.pulumi.com



## Non-Categorize

Rudr - A Kubernetes implementation of the Open Application Model specification

Keel - Kubernetes Operator to automate Helm, DaemonSet, StatefulSet & Deployment

#### updates

Cabin, the mobile app for Kubernetes - The Mobile Dashboard for Kubernetes

Funktion - CLI tool for working with funktion

Alterant - A simple Kubernetes configuration modifier

**BUCK** - Brigade Universal Controller for Kubernetes

kube-fledged - A kubernetes add-on for creating and managing a cache of container images directly on the cluster worker nodes, so application pods start almost instantly

Kubecost - Cross-cloud cost allocation models for workloads running on Kubernetes

kpt - toolkit to help you manage, manipulate, customize, and apply Kubernetes Resource configuration

capsule - Capsule helps to implement a multi-tenancy and policy-based environment in your Kubernetes cluster



#### **Maintainers**

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