



Innovate Summit 2017

Logging Kubernetes with Fluentd & Papertrail

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Kubernetes® is an open source platform for automating deployment, management and scaling containerised applications



Image from <https://github.com/cncf/artwork>

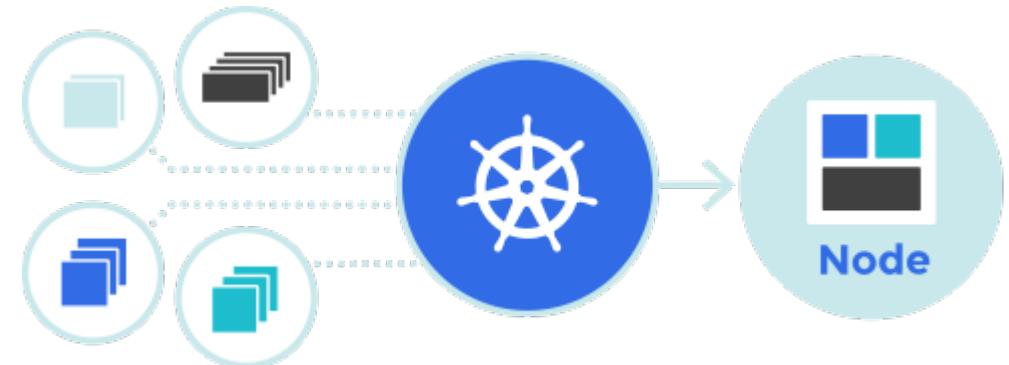


Image from <https://kubernetes.io>

- Aggregate logs from thousands of sources
- Slice and dice logs depending on source
- Tail & Search
- React & Analyse

- Data Collector that allows us to unify data collections and consumption
- Structures data as JSON
- Collects, filters, buffers and outputs logs across multiple sources and destinations



- Read logs for any file source
- Parses logs in pipelines
- Read logs from multiple sources with any format into JSON
- Apply as many filters as you want
- Tag
- Output to multiple destinations

Kubernetes & Fluentd & Papertrail



- Fluentd® plugin for Papertrail®
<https://github.com/solarwinds/fluent-plugin-papertrail>
- Docker® image with Fluentd® and the Papertrail® plugin preinstalled
[docker pull quay.io/solarwinds/fluentd-kubernetes](https://quay.io/repository/solarwinds/fluentd-kubernetes)
- Kubernetes® Daemonset that deploys above container in a pod in all nodes in the cluster
<https://github.com/fluent/fluentd-kubernetes-daemonset/pull/52>
- Logs from all workloads running on Kubernetes® are now streamed to Papertrail® while preserving the namespace, pod name and container name

```
1  apiVersion: extensions/v1beta1
2  kind: DaemonSet
3  metadata:
4      name: fluentd-papertrail-global-logging
5      namespace: kube-system
6      labels:
7          k8s-app: fluentd-logging
8          version: v1
9          kubernetes.io/cluster-service: "true"
10     spec:
11         updateStrategy:
12             type: RollingUpdate
13         template:
14             metadata:
15                 labels:
16                     k8s-app: fluentd-logging
17                     version: v1
18                     kubernetes.io/cluster-service: "true"
19             spec:
20                 tolerations:
21                     - key: node-role.kubernetes.io/master
22                         effect: NoSchedule
23             containers:
24                 - name: fluentd
25                     image: quay.io/solarwinds/fluentd-kubernetes:v0.12.33-alpine-papertrail
26                     imagePullPolicy: Always
27                     env:
28                         - name: FLUENT_PAPERTRAIL_HOST
29                             value: "<PAPERTRAIL_HOST>"
30                         - name: FLUENT_PAPERTRAIL_PORT
31                             value: "<PAPERTRAIL_PORT>"
32                         - name: FLUENT_HOSTNAME
33                             value: "<CLUSTER_NAME>"
34             resources:
35                 limits:
36                     memory: 200Mi
37             requests:
38                 cpu: 100m
39                     memory: 200Mi
40             volumeMounts:
41                 - name: varlog
42                     mountPath: /var/log
43                 - name: varlibdockercontainers
44                     mountPath: /var/lib/docker/containers
45                     readOnly: true
46             terminationGracePeriodSeconds: 30
47             volumes:
48                 - name: varlog
49                     hostPath:
50                         path: /var/log
51                 - name: varlibdockercontainers
52                     hostPath:
53                         path: /var/lib/docker/containers
```


Demo

Kubernetes & Fluentd & Papertrail



The screenshot shows the SolarWinds Papertrail landing page. At the top, there's a navigation bar with links for Tour, Pricing, Blog, Contact, Log In, and Sign Up. The main heading is "Frustration-free log management. Get started in seconds." Below it, a subtext says "Instantly manage logs from 2 servers... or 2,000." A central call-to-action button is labeled "Start Logging - Free Plan". To the left of the button, there are fields for "Email" and "Password". A small note above the button says "Get a flight data recorder for your systems & apps. No credit card required." Below the button, a smaller note says "Clicking 'Start' agrees to Terms." The background of the page features a blurred view of a terminal window displaying log data.

Questions ?

<https://papertrailapp.com>

MANAGING BILLIONS OF LOG MESSAGES FOR OPERATIONS-SAVVY COMPANIES



Travis CI



Product Hunt

dnsimple

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