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Media monitoring - get, analyze,  
enrich and index *content*

30000+ customers

1500+ employees

55 global offices

Founded 2001 in Oslo

```
50 //fires the appear event when appropriate
51 var check = function() {
52
53     //is the element hidden?
54     if (!t.is(':visible')) {
55
56         //it became hidden
57         t.appeared = false;
58         return;
59     }
60
61     //is the element inside the visible window?
62     var a = w.scrollLeft();
63     var b = w.scrollTop();
64     var o = t.offset();
65     var x = o.left;
66     var y = o.top;
67
68     var ax = settings.accx;
69     var ay = settings.accy;
70     var th = t.height();
71     var wh = w.height();
72     var tw = t.width();
73     var ww = w.width();
74
75     if (y + th + ay >= b &&
76         y <= b + wh + ay &&
77         x + tw + ax >= a &&
78         x <= a + ww + ax) {
79
80         //trigger the custom event
81         if (!t.appeared) t.trigger('appear', settings.data);
82     } else {
83
84         //it scrolled out of view
85         t.appeared = false;
86     }
87 };
88
89 //create a modified fn with some additional logic
90 var modifiedFn = function() {
91
92     //mark the element as visible
93     t.appeared = true;
94
95     //is this supposed to happen only once?
96     if (settings.one) {
97
98         //remove the check
99         w.unbind('scroll', check);
100         var i = $.inArray(check, $.fn.appear.checks);
101         if (i >= 0) $.fn.appear.checks.splice(i, 1);
102     }
103
104     //trigger the original fn
105     fn.apply(this, arguments);
106
107     //bind the modified fn to the element
108     //if (settings.one) t.one('appear', settings.data, modifiedFn);
109     t.on('appear', settings.data, modifiedFn);
110 }
```

9+ engineering offices (7+ countries)

350+ engineers in 50+ teams

Kubernetes in PROD since early 2018

77% of teams onboarded to k8s

***KIND*** is a tool for running local Kubernetes clusters using Docker container as “nodes”.

<https://kind.sigs.k8s.io/>

# What is KIND?

- **K**ubernetes-**IN**-**D**ocker
- Uses Docker containers to simulate nodes
- Multi-node and HA
- Build & Run Kubernetes from source
- Starts a cluster in ~30s
- Uses emojis
- sig-testing

# Why KIND?

- Testing Kubernetes
- Testing controllers & application - ephemeral clusters
- Bootstrapping Cluster-API clusters

# Status of KIND

- Kubernetes Release and PR blocking testing  
<https://testgrid.k8s.io/> and <https://prow.istio.io/>
- Used for IPv6 in CI
- Support of the cloud provider removal effort

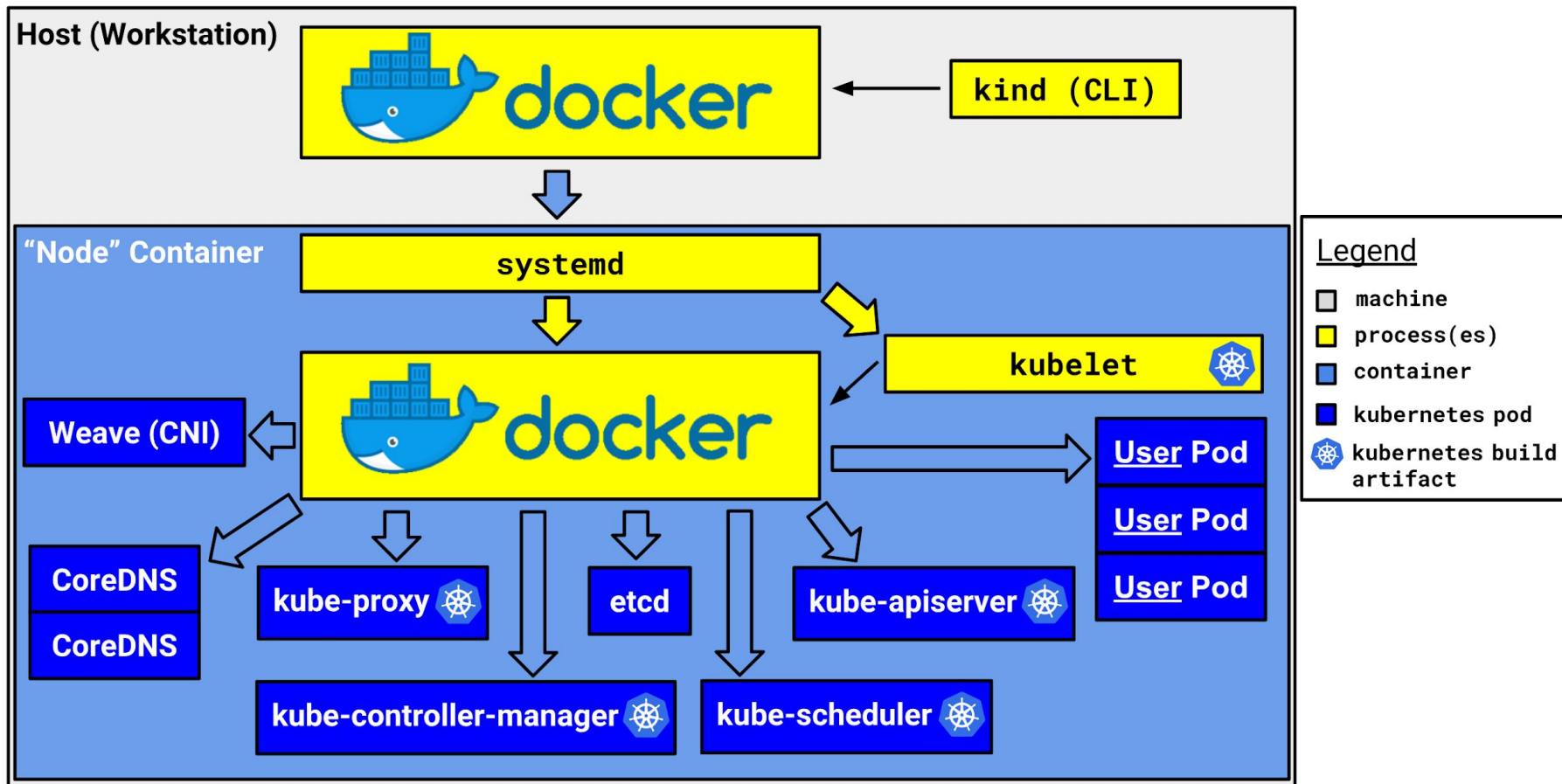
# Kubernetes in a Container

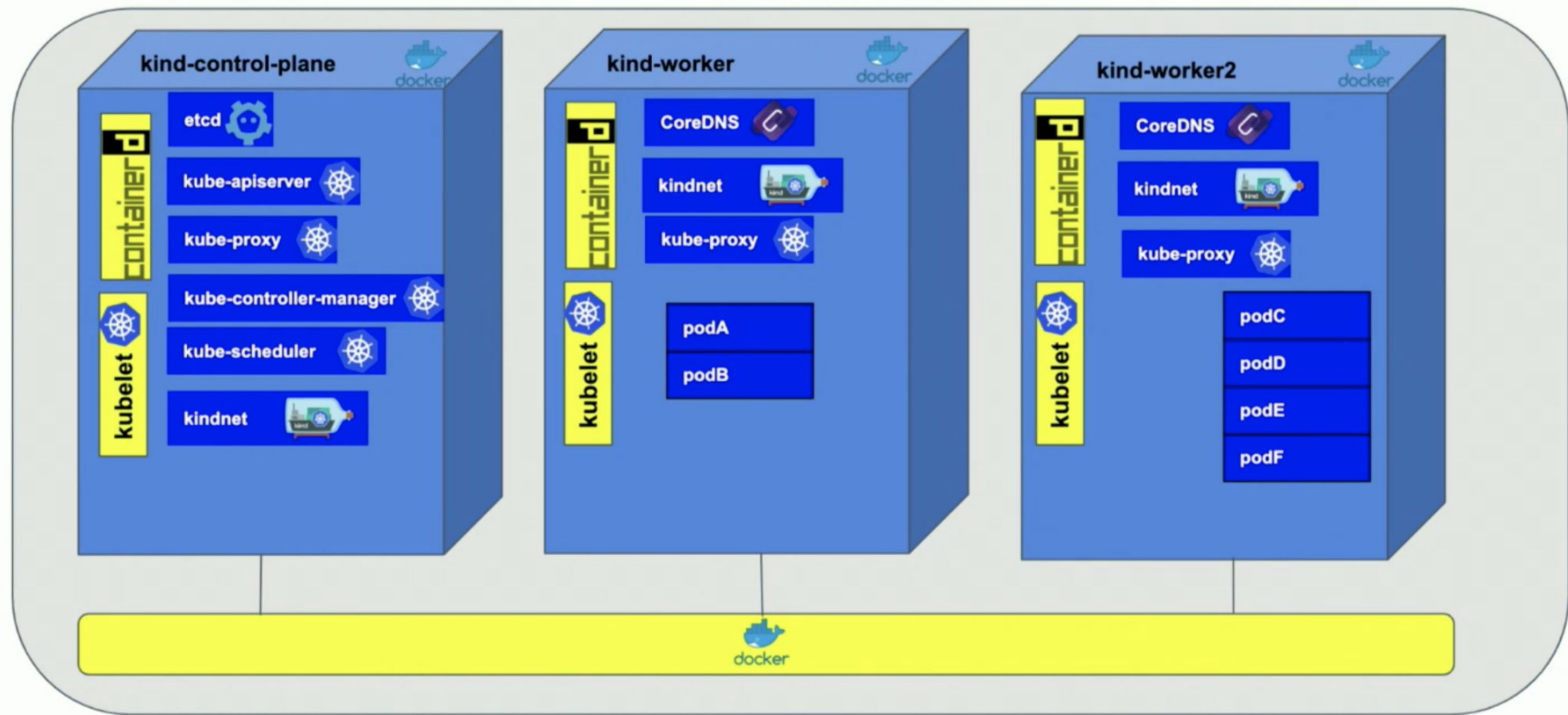
kindest/node:v1.16.3

- docker
- kubeadm
- kubelet
- systemd
- Core images
  - kube-apiserver
  - etcd
  - coredns
  - pause
  - ...



## kind - Kubernetes IN Docker





# KIND - exposing services

## alternatives to kubectl port-forward

- Linux
  - LB: MetalLB
  - Route for NodePort and Services
- OSX
  - Tunnel [inlets.dev](https://inlets.dev)
  - Docker port forward from host to nodes for NodePort  
<https://projectcontour.io/kindly-running-contour/>

**BRACE YOURSELVES**

**A LIVE DEMO IS  
COMING**



# KIND

- Repo: <https://github.com/kubernetes-sigs/kind>
- Docs: <https://kind.sigs.k8s.io/>
- Slack: #kind
- Mailinglist: kubernetes-sig-testing
  - Project meetings: Mondays 2000 CET (every 2 weeks)
- Tutorial:

## *A Kind Workflow for Contributing to Kubernetes*

- <https://www.youtube.com/watch?v=BPVO2mcfJk>
- <https://hackmd.io/@maulion/kind-workflow#/>

**MY FACE WHEN YOU ADD**

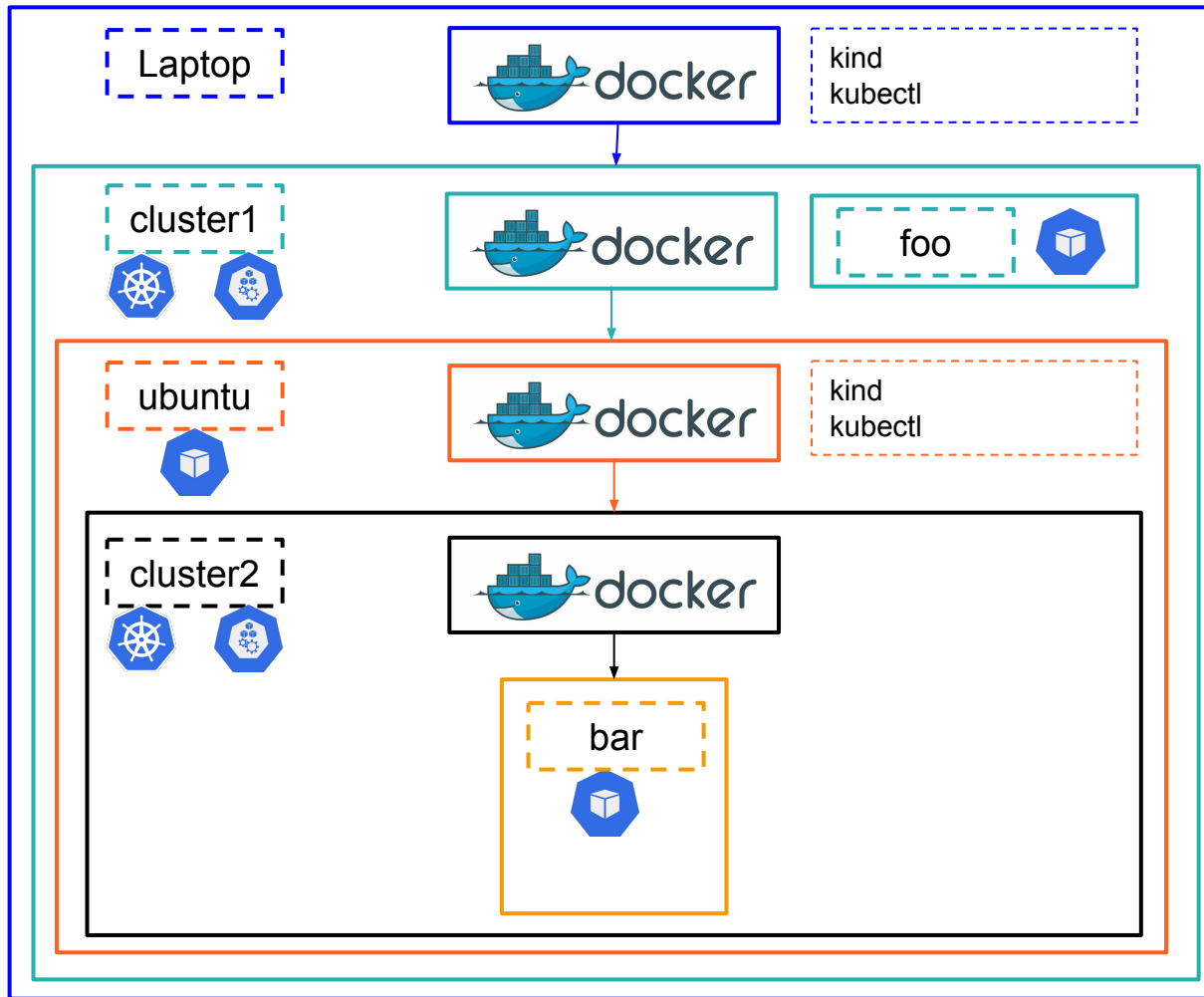
**ONE MORE THING...**

makeameme.org

@recollir

# KIND in Kubernetes???









Repository providing samples and testing for running sigs.k8s.io/kind on various CI services <https://sigs.k8s.io/kind>

📦 30 commits

🌿 1 branch

📦 0 packages

📦 0 releases

👤 9 contributors

🔗 Apache-2.0

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



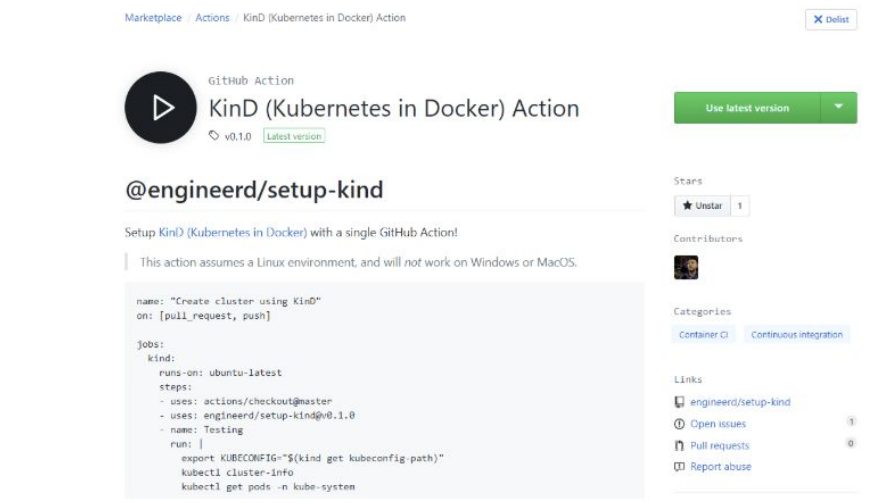
BenTheElder Merge pull request #17 from hoegaarden/gcb ...

✓ Latest commit c7b1e36 24 days ago

📁 .circleci	add circle-ci	7 months ago
📁 drone	drone example added	5 months ago
📁 gitlab	sed'ing for gitlab to reach KinD	5 months ago
📄 .gitlab-ci.yml	sed'ing for gitlab to reach KinD	5 months ago
📄 .travis.yml	Run kind on travis CI	7 months ago
📄 LICENSE	Initial commit	7 months ago
📄 README.md	Add some docs for running kind on GCB	last month
📄 azure-pipelines.yml	adding Azure pipelines	5 months ago
📄 concourse.md	Remove CI badge for wings.pivotal.io	2 months ago
📄 gcb.md	Add some docs for running kind on GCB	last month
📄 kind-config.yaml	Run kind on travis CI	7 months ago
📄 kind-smoketest.sh	update kind version	3 months ago


# Running Kubernetes end-to-end tests with Kind and GitHub Actions

## The Kind GitHub Action



The screenshot shows the GitHub Actions marketplace page for the `@engineerd/setup-kind` action. At the top, there are links for "Marketplace", "Actions", and "KinD (Kubernetes in Docker) Action", along with a "Delist" button. The action's icon is a play button inside a circle. The title is "KinD (Kubernetes in Docker) Action" with a "v0.1.0" tag and a "Latest version" label. A green button says "Use latest version". Below the title is the username "@engineerd/setup-kind". The description reads: "Setup KinD (Kubernetes in Docker) with a single GitHub Action!" and a note: "This action assumes a Linux environment, and will not work on Windows or MacOS." A code block shows the action's configuration in a workflow file. On the right, there are sections for "Stars" (1 star), "Contributors" (1 contributor), "Categories" (Container CI, Continuous integration), and "Links" (engineerd/setup-kind, Open issues, Pull requests, Report abuse).

Marketplace / Actions / KinD (Kubernetes in Docker) Action Delist

 GitHub Action  
v0.1.0 Latest version Use latest version

**@engineerd/setup-kind**


Setup KinD (Kubernetes in Docker) with a single GitHub Action!

This action assumes a Linux environment, and will not work on Windows or MacOS.





```
name: "Create cluster using KinD"
on: [pull_request, push]

jobs:
  kind:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@master
      - uses: engineerd/setup-kind@v0.1.0
      - name: Testing
        run: |
          export KUBECONFIG="$(kind get kubeconfig-path)"
          kubectl cluster-info
          kubectl get pods -n kube-system
```

Stars  
★ Unstar 1

Contributors  


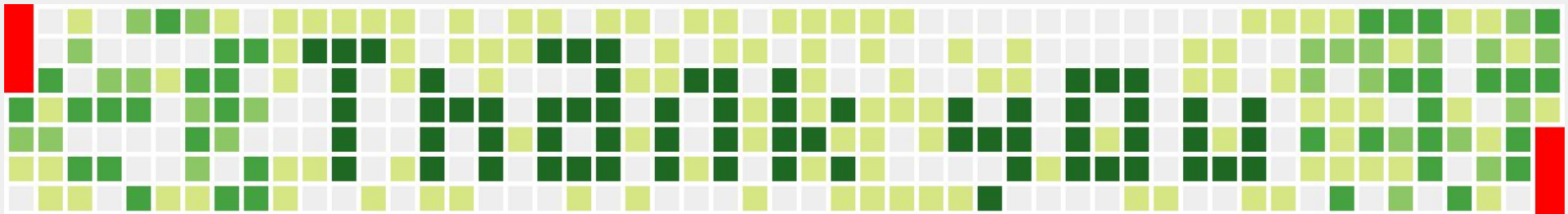
Categories  
Container CI Continuous integration

Links  
 engineerd/setup-kind  
 Open issues 1  
 Pull requests 0  
 Report abuse

To configure a Kubernetes cluster in your GitHub Actions in a single step, you can use the new `@engineerd/setup-kind` action:

```
jobs:
  kind:
    runs-on: ubuntu-latest
    steps:
      - uses: actions/checkout@master
      - uses: engineerd/setup-kind@v0.1.0
      - name: Testing
        run: |
          export KUBECONFIG="$(kind get kubeconfig-path)"
          kubectl cluster-info
```

[https://radu-matei.com/blog/kubernetes-e2e-github-actions/?\\_lrsc=49666db3-b2a2-4923-b21e-82586c6d2e42](https://radu-matei.com/blog/kubernetes-e2e-github-actions/?_lrsc=49666db3-b2a2-4923-b21e-82586c6d2e42)



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@recollir

# Slides based on

*Deep Dive Kind* (KubeCon NA 2019)