

ThoughtWorks®

DAEMONSETS

Rise of the Containers Workshop



Problem Statement

- Run one (and only one) pod on every node
- Real world scenarios:
 - logs collection daemon on every node, such as fluentd or logstash
 - node monitoring daemon on every node

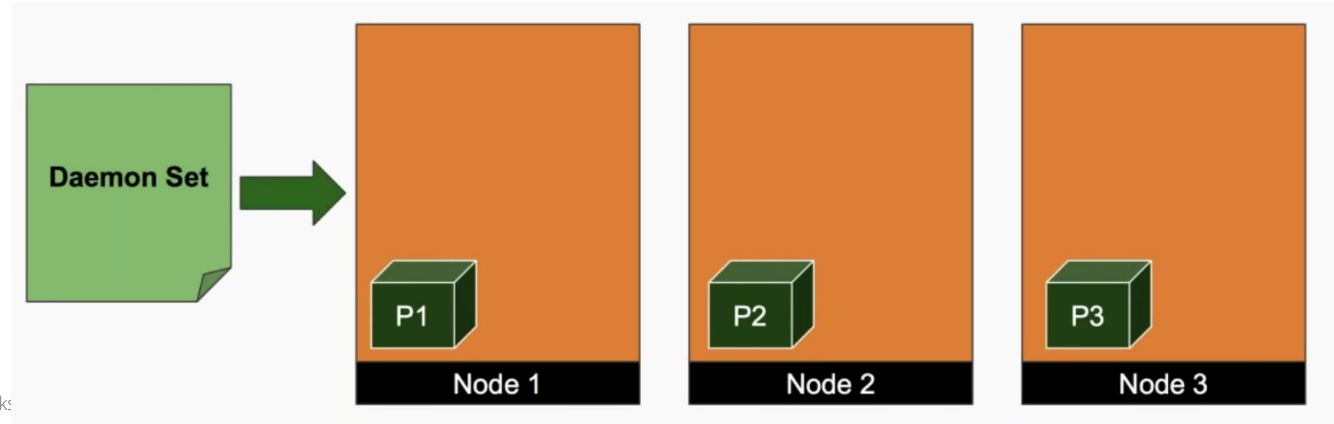
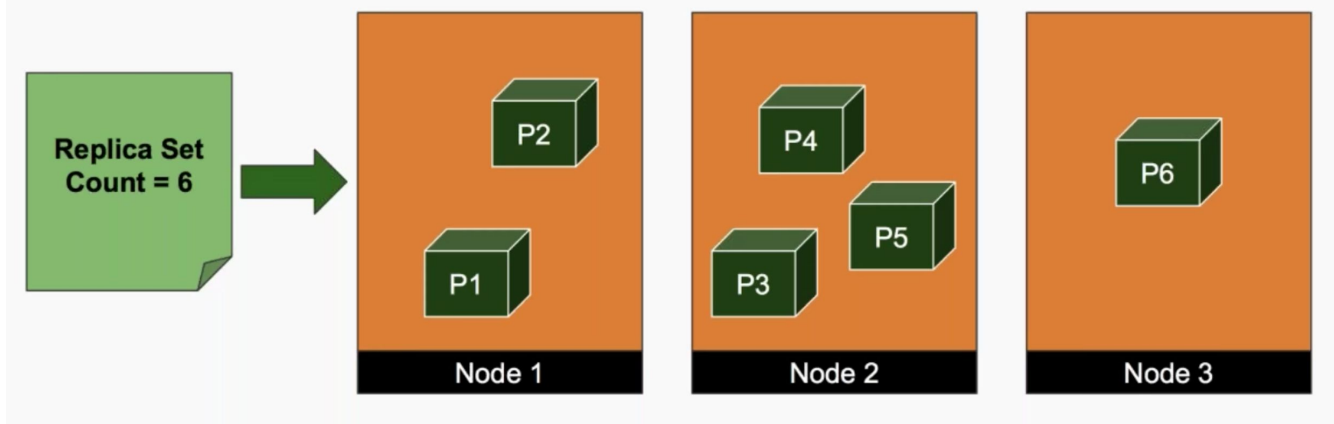
Solution: Daemon Sets

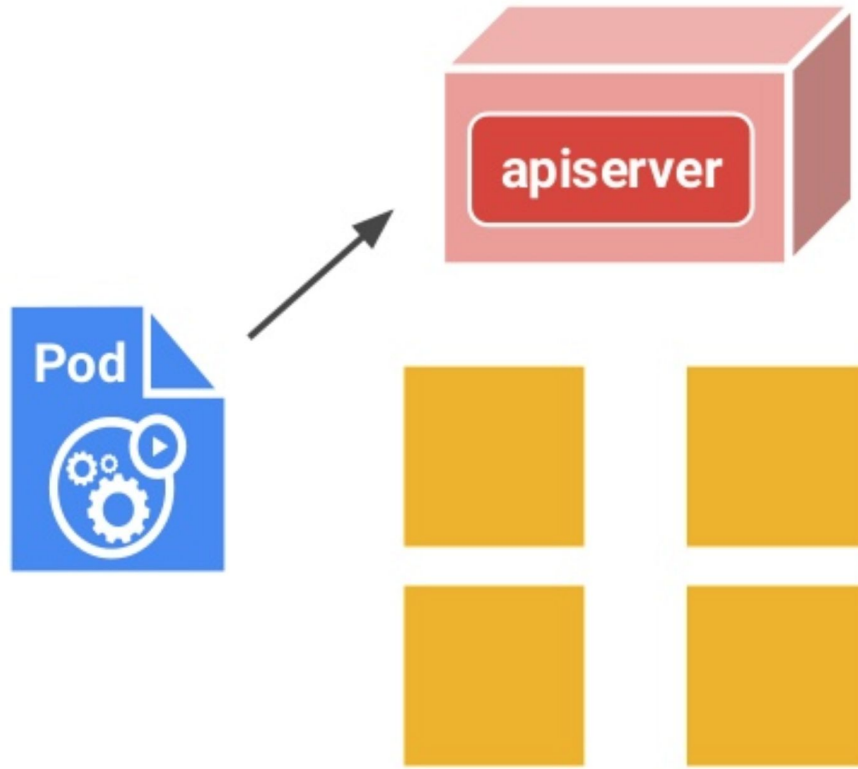
- Ensures every single node in the cluster runs the same pod resource
- When a node is added, a new pod will be started automatically
- When a node is removed, the pod will NOT be rescheduled on another node

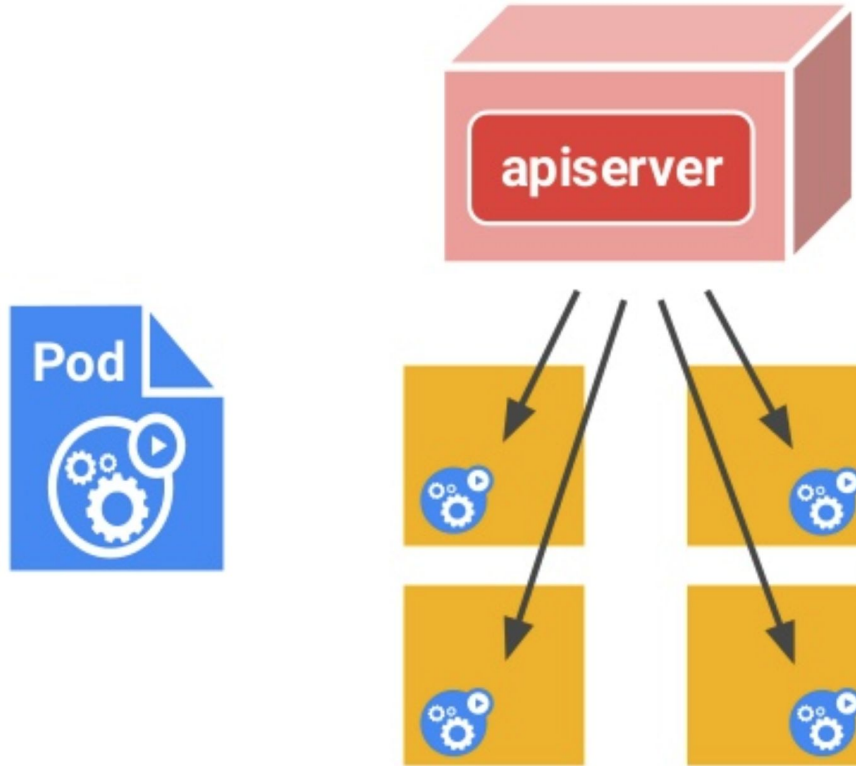
Total number pods in the DaemonSet == No. of nodes in the cluster

```
apiVersion: extensions/v1
kind: DaemonSet
spec:
  template:
    spec:
      nodeSelector:
        app: datastore-node
      containers:
        image: kubernetes/sharded
        ports:
          - containerPort: 9042
```

DaemonSet vs ReplicaSet



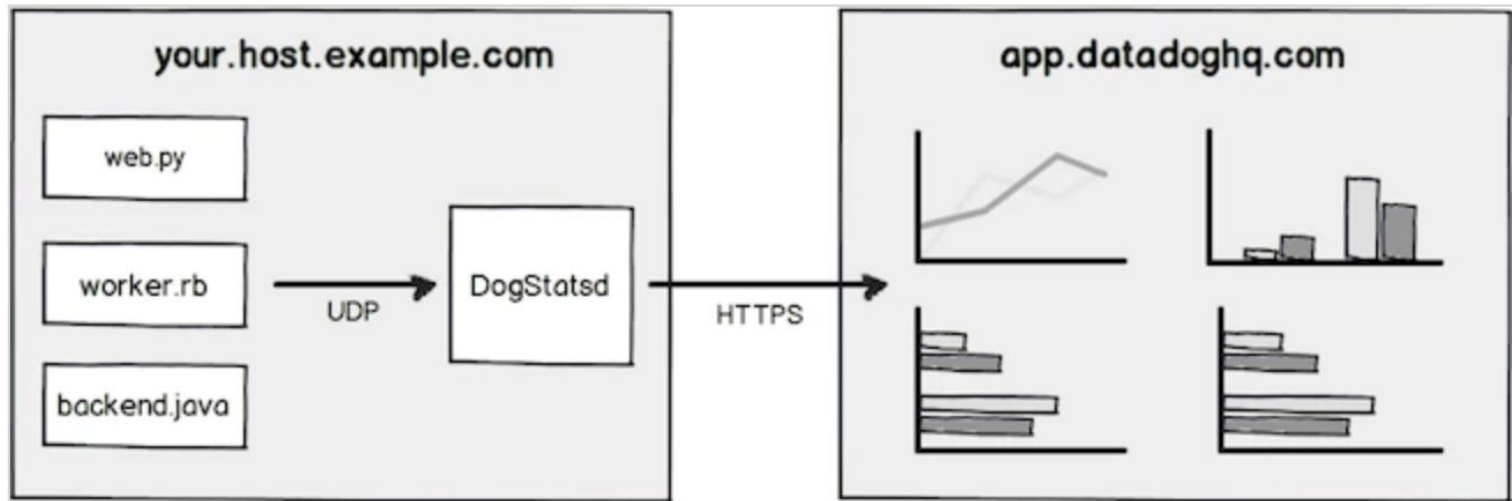




The background of the image is a teal-colored surface with a repeating hexagonal pattern, resembling a honeycomb or mesh texture. The pattern is slightly distorted, creating a sense of depth and perspective as it recedes into the distance.

DEMO

How Datadog Works?



A man in a light-colored button-down shirt is standing in a grocery store aisle. He is pointing his right index finger at a tablet mounted on a shelf. The tablet displays four images of different food bowls. In his left hand, he holds a box of CS Fresh produce. The background shows shelves stocked with various products, including bags of rice and boxes of CS Fresh produce. A sign on the right side of the aisle lists items like 'FRESH', 'ORGANIC', 'FRESH', 'ORGANIC', and 'FRESH'. The entire image has a magenta color overlay.

HANDS-ON

1. Create Daemon Set and start datadog agent. Substitute your api key in config
2. Add custom metric for an endpoint using library:
<https://github.com/DataDog/java-dogstatsd-client>
3. Create image and start Metadata service on K8s
4. Try to access the endpoint.
5. Checkout custom metric in datadog

THANK YOU

For questions or suggestions:

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