

# Setup of Nextcloud using Kubernetes

20/21 Cloud Computing Seminar

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# Agenda

- Nextcloud
- Kubernetes
- Yaml files
- Architecture
- Live demo
- Conclusion



- Cloud solution
- Open source
- Founded 2016
- Main functionality sharing files
- Other functionality added

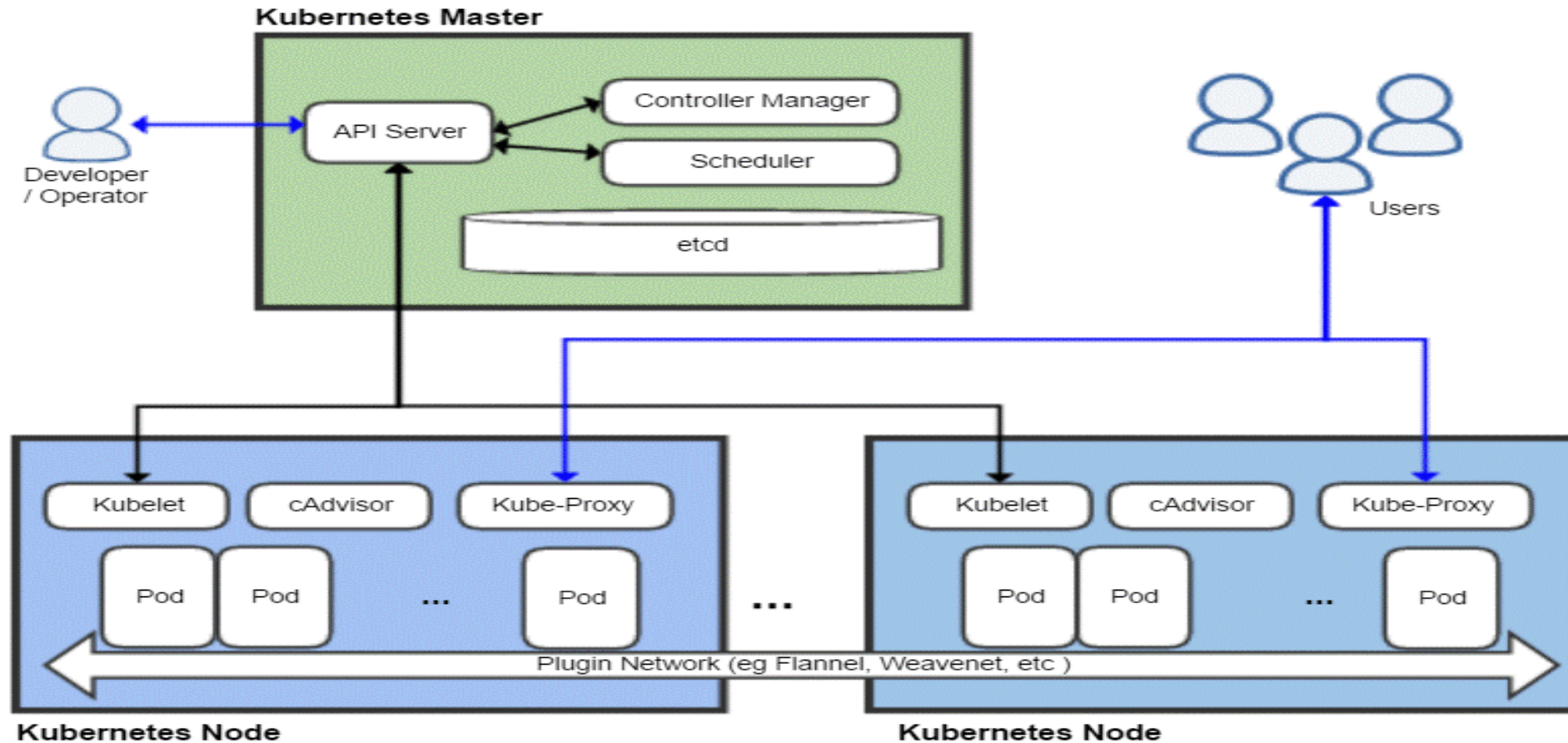


# kubernetes

- Open source platform
- Founded 2014
- First version published 2015
- Aspects of IaaS and PaaS



# kubernetes



# Yaml files

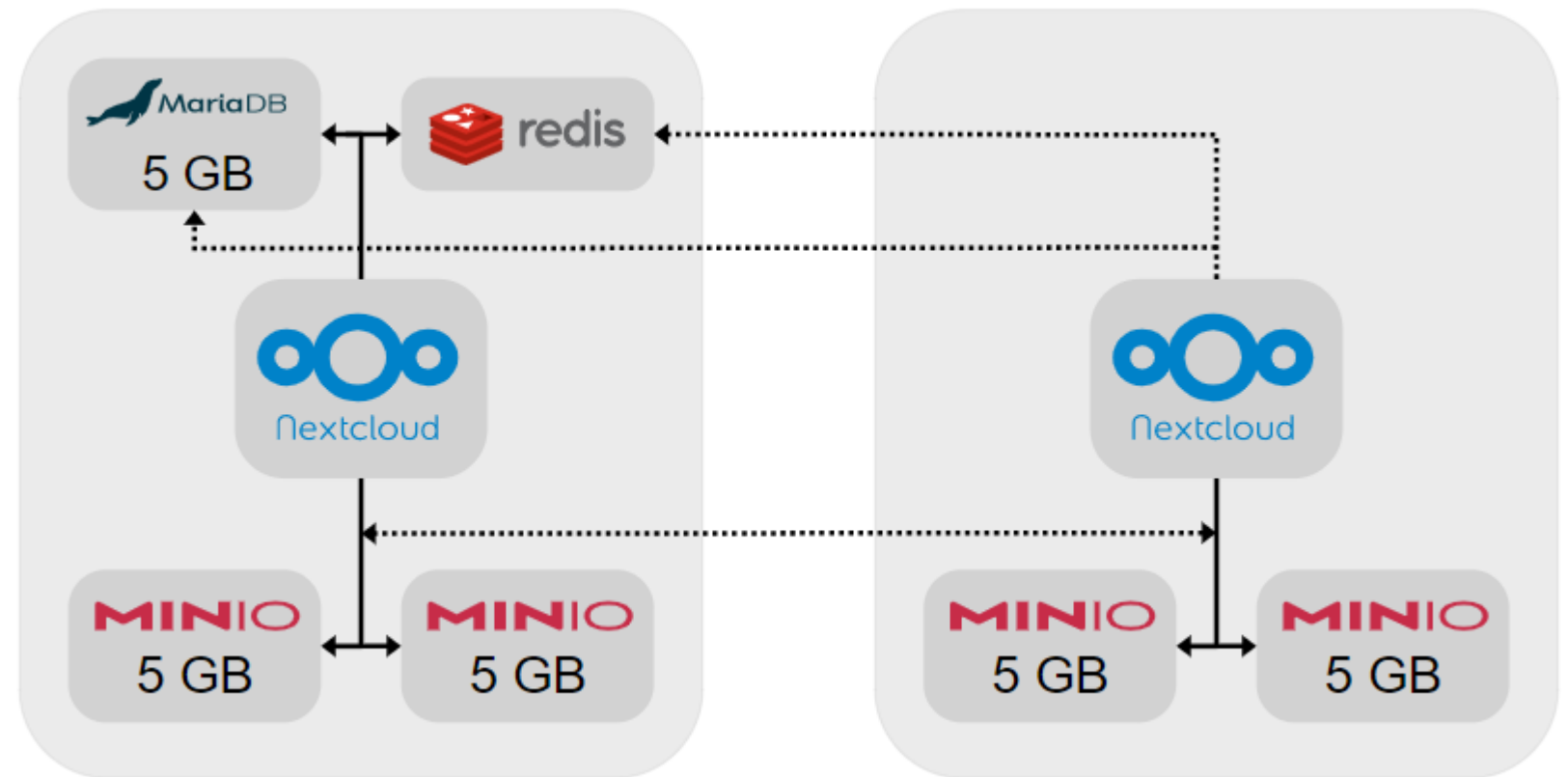
## Base structure:

- Apiversion
- Kind
- Metadata
- Spec

```
final.yaml
1 # Copyright 2017, Google, Inc.
2 # Licensed under the Apache License, Version 2.0 (the "License")
3 apiVersion: extensions/v1beta1
4 kind: Deployment
5 metadata:
6   name: envtest
7 spec:
8   replicas: 1
9   template:
10    metadata:
11     labels:
12      name: envtest
13    spec:
14     containers:
15     - name: envtest
16       image: gcr.io/<PROJECT_ID>/envtest
17       ports:
18       - containerPort: 3000
19       env:
20       - name: LANGUAGE
21         valueFrom:
22          configMapKeyRef:
23           name: language
24           key: LANGUAGE
25       - name: API_KEY
26         valueFrom:
27          secretKeyRef:
28           name: apikey
29           key: API_KEY
```

# Architecture

- Main objectives:
  - Scalability
  - Storage distribution
  - High availability



# Live demonstration

- Cluster setup
- 4 node cluster
- Working deployment



# Conclusion

- Kubernetes
  - Powerful
  - Easy to set up
- Nextcloud
  - Useful application
  - Many different features
- Future outlook
  - Expansion of pods
  - Adding of features

Thank you for your attention 😊