

Kleine Applikationen billig & schnell mit Kubernetes

Hartes Leben

- 1 Cloud-API, 1 Sprachen, 5 Tools

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Estimate URL: <https://calculator.aws/#/estimate?id=f57380ea5df2cded07b667b3bfe6f747feeaf9c3>

Estimate summary

Upfront cost

0.00 USD

Monthly cost

74.00 USD

Total 12 months cost

888.00 USD

Includes upfront cost

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```
apiVersion: v1
kind: ConfigMap
metadata:
  name: {{ .Release.Name }}-configmap
data:
  myvalue: "Hello World"
  drink: {{ .Values.favorite.drink | default "tea" | quote }}
  food: {{ .Values.favorite.food | upper | quote }}
  {{ if eq .Values.favorite.drink "coffee" }}mug: "true"{{ end }}
```

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- 1 Cloud-API, 1 Sprachen, 5 Tools
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- Templating
- Provisionieren

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- Programmieren

```
<echo message="The first five letters of the alphabet are:"/>  
<for list="a,b,c,d,e" param="letter">  
  <sequential>  
    <echo>Letter @{letter}</echo>  
  </sequential>  
</for>
```


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```
resource "aws_iam_user" "example" {  
  count = 3  
  name  = "neo.${count.index}"  
}
```

```
<echo message="The first five letters of the alphabet are:"/>  
<for list="a,b,c,d,e" param="letter">  
  <sequential>  
    <echo>Letter @letter</echo>  
  </sequential>  
</for>
```

provs: DSL vs. Kotlin

```
17 // Create namespace if not yet existing
18 if (!chk("kubectl get namespace $namespace")) {
19     cmd("kubectl create namespace $namespace")
20 }
21
22 // Deploy grafana-agent
23 applyGrafanaFileFromResource(File(k3sManualManifestsDir, "grafana-agent.yaml"))
24
25 // Deploy node-exporter
26 applyGrafanaFileFromResource(File(k3sManualManifestsDir, "node-exporter-daemon-set.yaml"))
27
```

c4k-* vs. Helm Templates



dda

Group ID: 8559430

Subgroups and projects

Shared projects

Archived projects

Search by name

Name

	C	c4k-common	★ 6	4 weeks ago
	C	c4k-gitea Provision gitea on k8s with c4k	★ 3	19 minutes ago
	C	c4k-jira	★ 6	1 minute ago
	C	c4k-jitsi	★ 5	1 minute ago
	C	c4k-keycloak	★ 7	6 months ago
	C	c4k-mastodon-bot	★ 6	6 months ago
	C	c4k-nextcloud	★ 5	1 month ago
	C	c4k-shynet	★ 5	1 month ago
	C	c4k-website	★ 2	4 weeks ago

Mit Unit-Test

```
17 (deftest should-generate-config
18   (is (= {:apiVersion "v1"
19         :kind "ConfigMap"
20         :metadata {:name "backup-config"
21                   :labels {:app.kubernetes.io/name "backup"
22                             :app.kubernetes.io/part-of "cloud"}}
23         :data
24         {:restic-repository "s3:restic-repository"}}
25     (cut/generate-config {:restic-repository "s3:restic-repository"})))
26
```

Mit Validierung

```
(s/def ::fqdn pred/fqdn-string?)
```

Mit GUI

domain

Your fqdn:

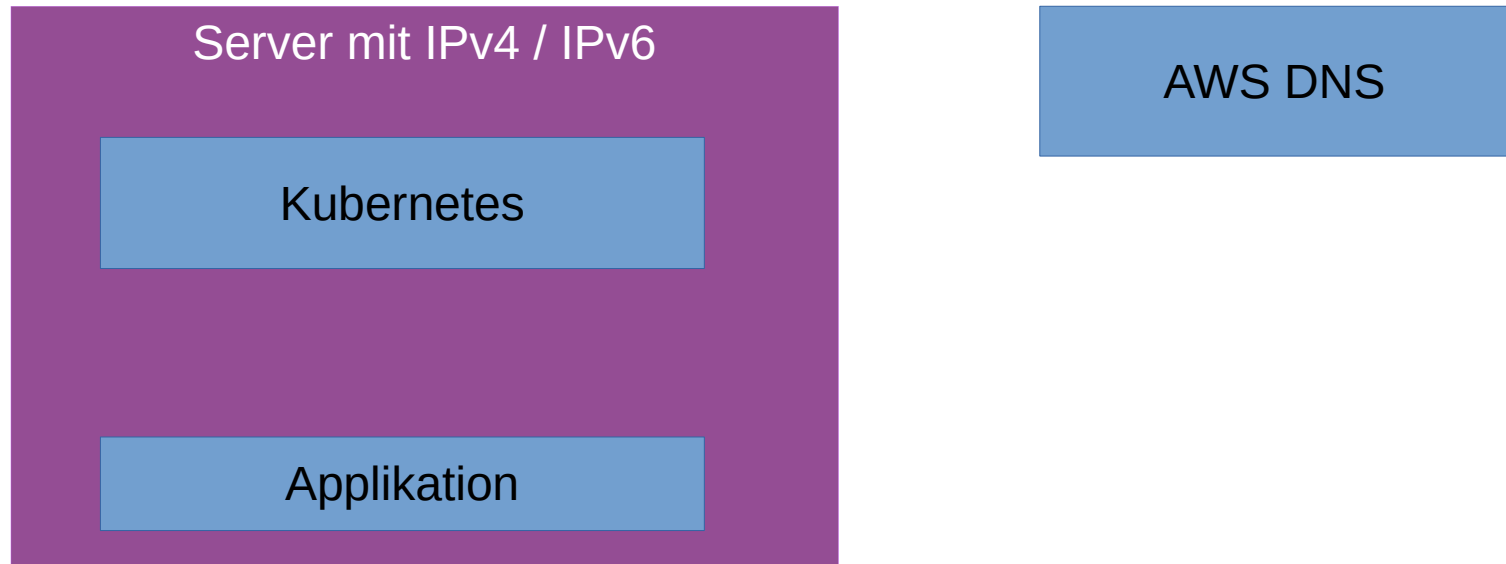
repo-test-de ✘

```
-- Spec failed -----  
  
"repo-test-de"  
  
should satisfy  
  
fqdn-string?  
  
-----  
Detected 1 error
```

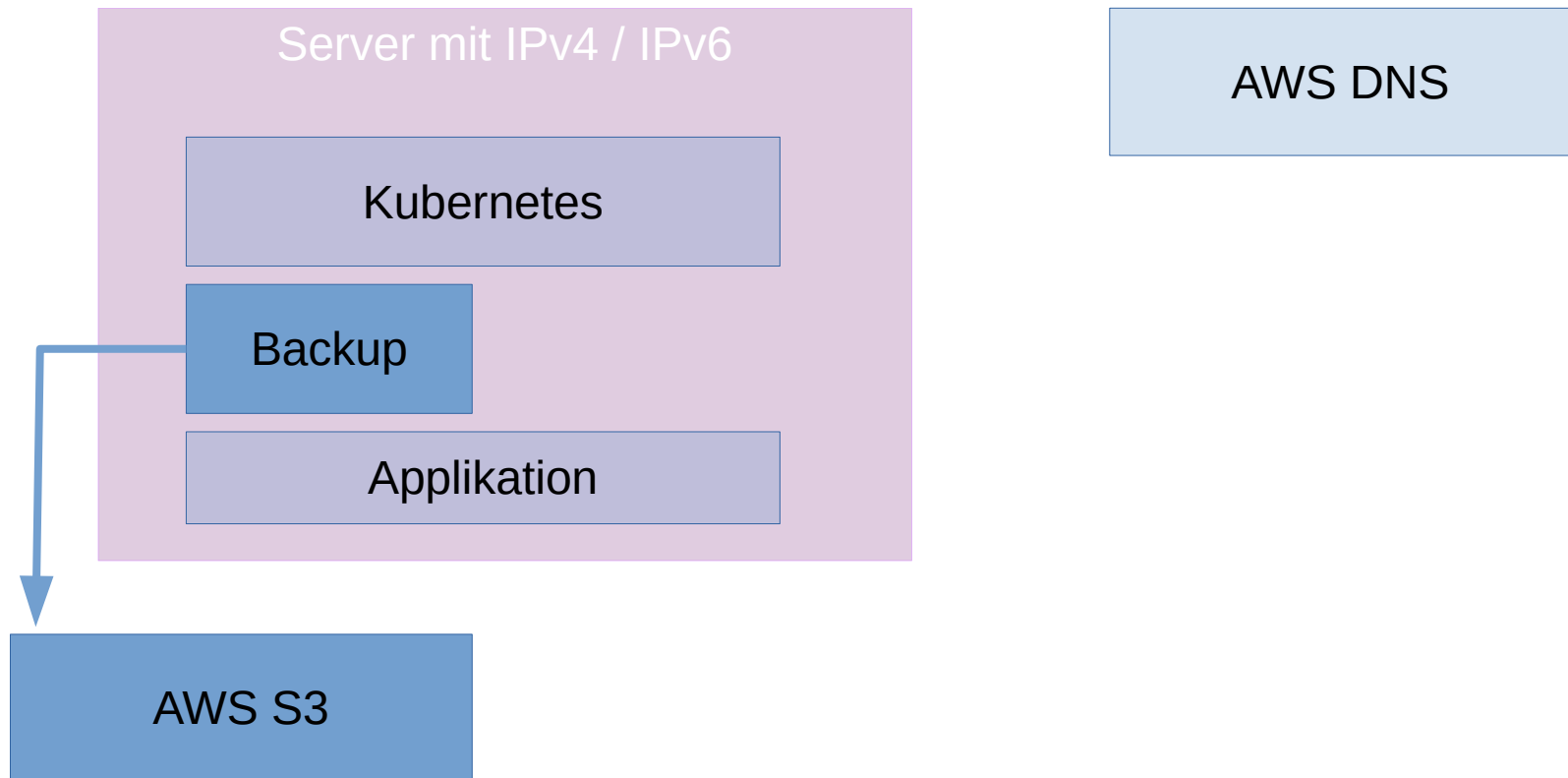
Your mailer email address:

test@test.de ✔

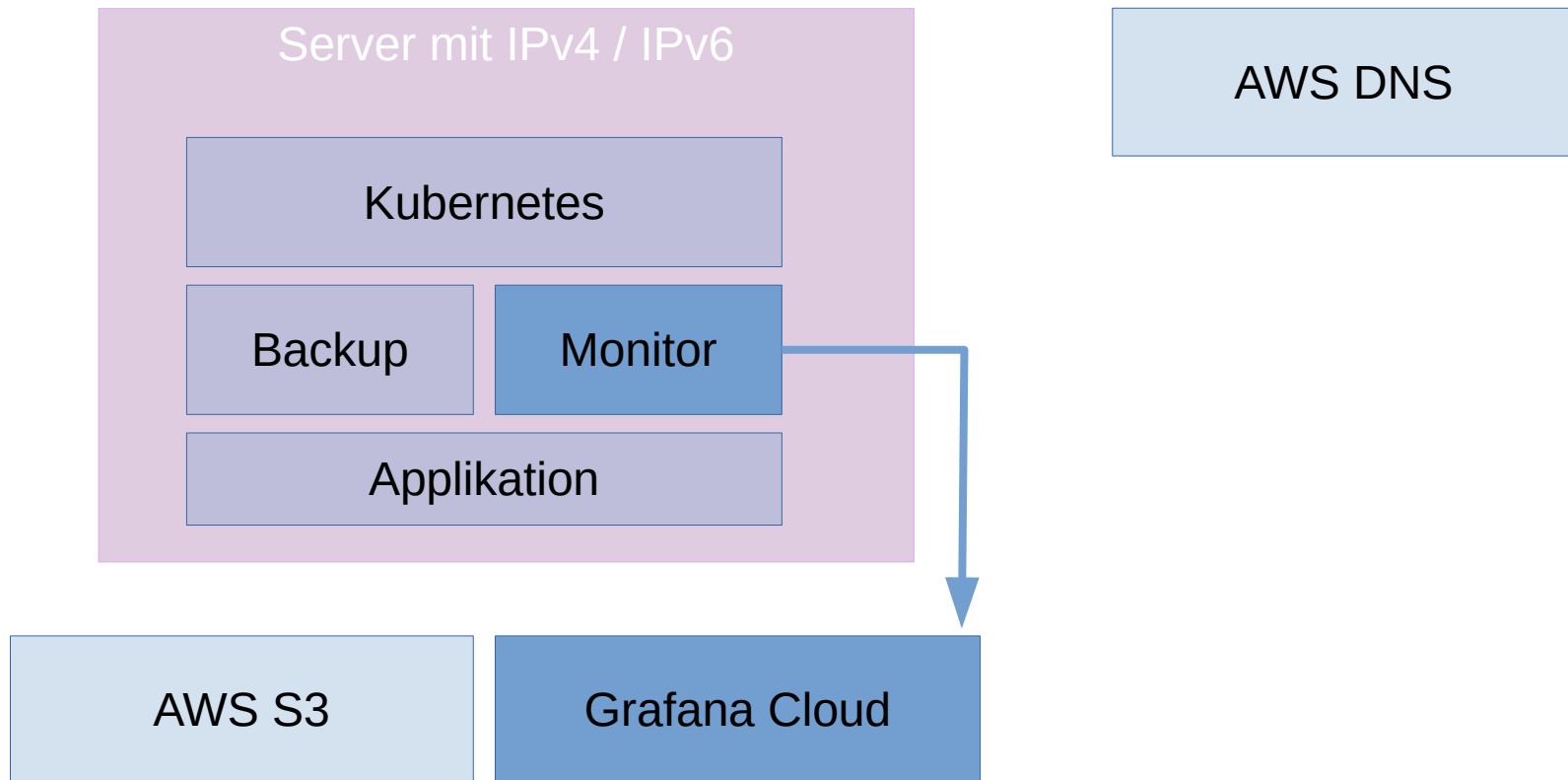
Kosten: Ein Single Node Cluster



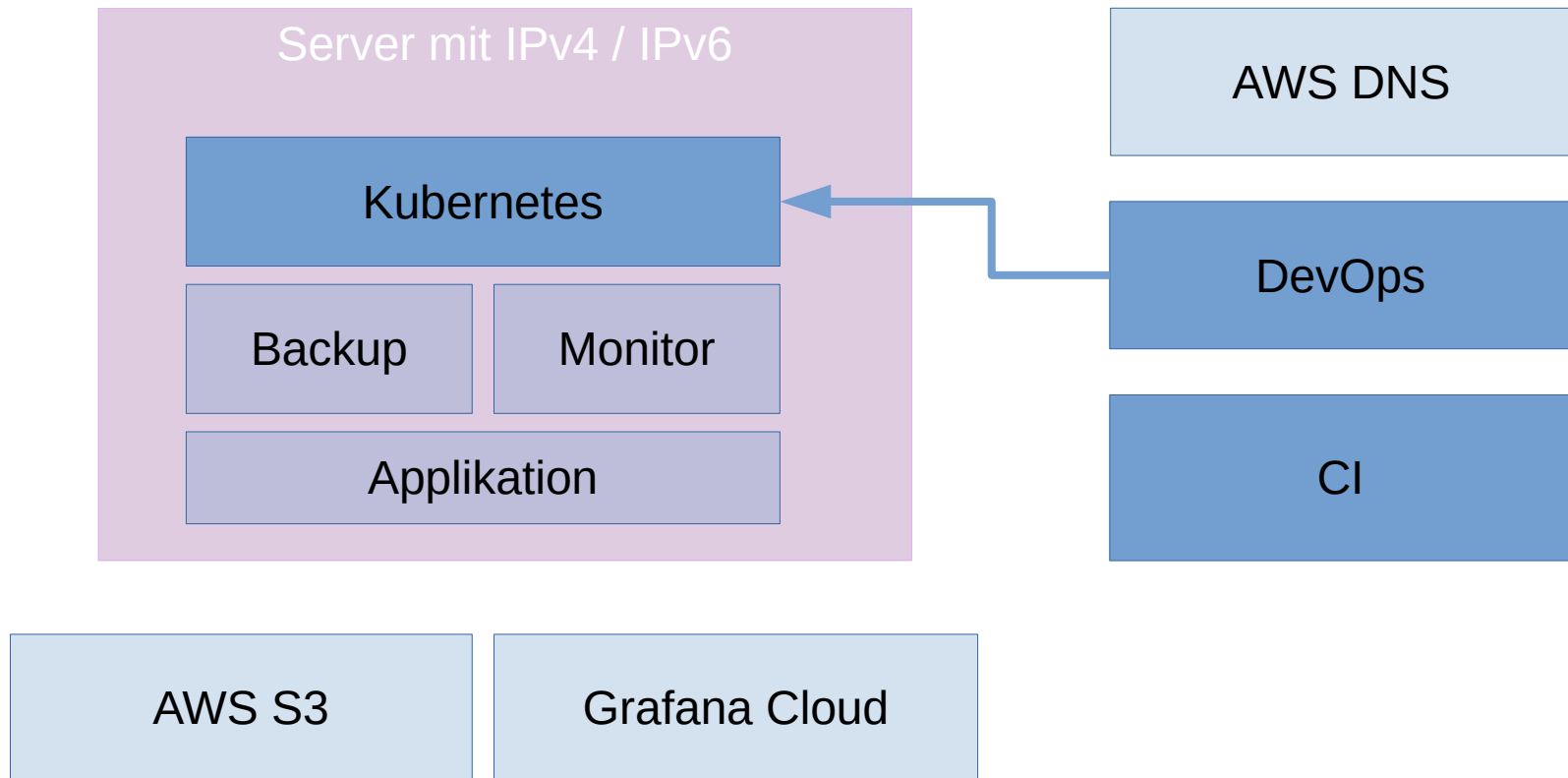
Mit Backup






Mit Monitoring



API over SSH



Kosten

CX21	vCPU 2 	RAM 4 GB	Disk space 40 GB	Traffic 20 TB	IPv4 	Locations  	€ 0.0104 / hr	€ 6.37 / mo
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Tools-Zoo: ddabuild verbindet alles

- Vergleichbar zu make aber in Python

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- docker / podman

Fazit

- Günstig – und trotzdem Kubernetes

Fazit

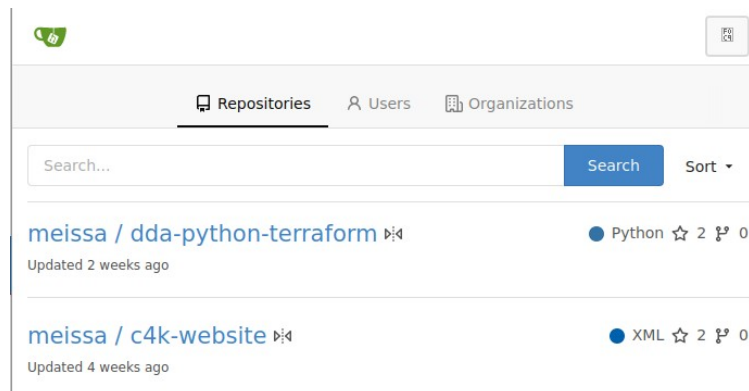
- Günstig – und trotzdem Kubernetes
- Multilanguage Setup – Spaß für jeden

Fazit

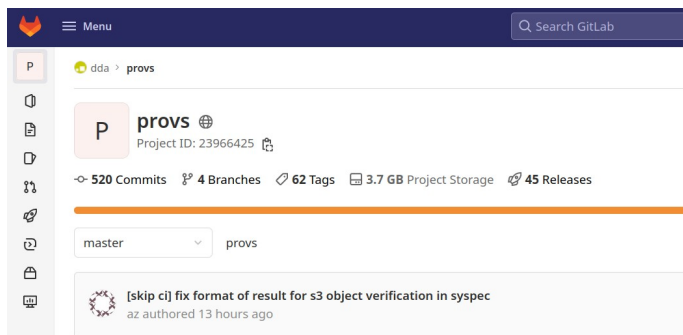
- Günstig - und trotzdem Kubernetes
- Multilanguage Setup – Spaß für jeden
- Weniger Schmerzen mit Templates und DSLs

Links

- <https://repo.prod.meissa.de>



- <https://gitlab.com/domaindrivenarchitecture>



Meissa – OpenSource & Community

- Peer-Learning: Lesekreise & Workshops mit Peers



- OpenSource: Freiheit mit Software



- Gemeinwohl: Plastiksammeln & GWÖ

