

This is an example cheat sheet, feel free to customize for your own needs by opening <https://github.com/zalando-incubator/kubernetes-on-aws/blob/dev/docs/user-guide/kubernetes-cheat-sheet.svg> with Inkscape.

Installation & Configuration

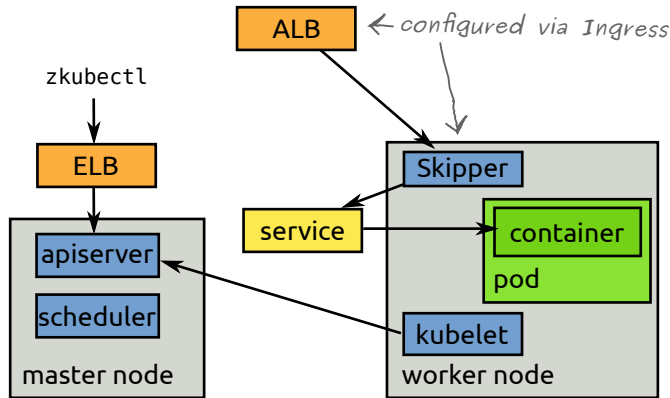
```
pip3 install -U stups ← installs zkubect!,
stups configure stups.example.org might need "sudo"
```

```
put in ~/.bashrc
source <(zkubect! completion bash)
source <(zkubect! completion zsh) put in ~/.zshrc
```

Cluster Login

```
zkubect! list
zkubect! list-clusters shows all available clusters
zkubect! login CLUSTER_ALIAS writes ~/.kube/config
zkubect! cluster-info
```

Architecture



Bootstrapping Deployment Configurations

```
zkubect! init [DIR] [--from-senza=SENZA_YAML_PATH]
create delivery.yaml and deploy/apply/*
in current folder or DIR (empty or from existing Senza def)
```

```
echo "pw" | zkubect! encrypt
encrypt "pw" for usage in Kubernetes secret
```

Running in Production

- Always run at least two replicas to survive cluster updates.
- Always set CPU/memory requests. *better three*
- Always set memory limit.
- Use Downwards API and MEM_TOTAL_KB to set JVM max heap.
- Use readinessProbe. *to only get traffic when healthy*

Creating/Updating Resources

```
zkubect! apply -f myresource.yaml
zkubect! scale deploy DEPLOY_NAME --replicas=10
zkubect! edit deploy DEPLOY_NAME
opens editor to change YAML
```

only in test clusters

Troubleshooting

```
zkubect! get deploy
zkubect! get pods -l application=APP_NAME
zkubect! describe pod POD_NAME see status and reason (e.g. OOM killed)
zkubect! get pod POD_NAME -o yaml
zkubect! top pod POD_NAME --containers
zkubect! logs -f [-c CONTAINER_NAME] POD_NAME tail my app logs
zkubect! logtail REGEX_PATTERN [-s TIME] (or check scalyr.com)
zkubect! exec -it POD_NAME [-c CONTAINER_NAME] sh
zkubect! port-forward POD_NAME [LOCAL_PORT:]PORT
open Kubernetes Dashboard in browser
zkubect! dashboard does my svc have endpoints?
zkubect! describe svc SVC_NAME ALB configured?
zkubect! describe ingress INGRESS_NAME
zkubect! opsview makes my fan spin
```

only works in test clusters

Emergency/Manual Access & Cluster Updates

```
zkubect! emergency-access -i INC-1234 REASON
zkubect! manual-access REASON
zkubect! list-access-requests
zkubect! approve-manual-access USERNAME
zkubect! cluster-update status
zkubect! cluster-update block|unblock
in case of emergency: prevent cluster updates
```

only for prod

Resource Types

configmaps	cm
deployments	deploy
endpoints	ep
events	ev
horizontalpodautoscalers	hpa
ingresses	ing
jobs	
limitranges	limits
namespaces	ns
nodes	no
statefulsets	← for databases etc
pods	po
replicasets	rs
cronjob	
secrets	← to store DB passwords and other credentials
serviceaccount	sa
services	svc
thirdpartyresources	
platformcredentialsets	← Zalando specific: declare needed OAuth tokens/clients

Documentation & Help

```
https://dev.example.org/ ← use the search!
https://cloud.docs.example.org/ ← community channels
my-kubernetes-users@example.org ← official support
#Kubernetes Users HipChat room ← my-support@example.org
```