

Kubespray



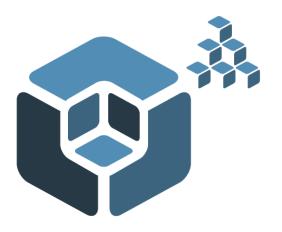




Kubespray

Некоторые проблемы при переходе на установку через kubeadm

- нет возможности апгрейда кластера, установленного классическим способом
- сертификаты выписаны на 1 год, обновлять надо вручную
- если установка остановилась по ошибке, повторный запуск не всегда может помочь





Kubespray



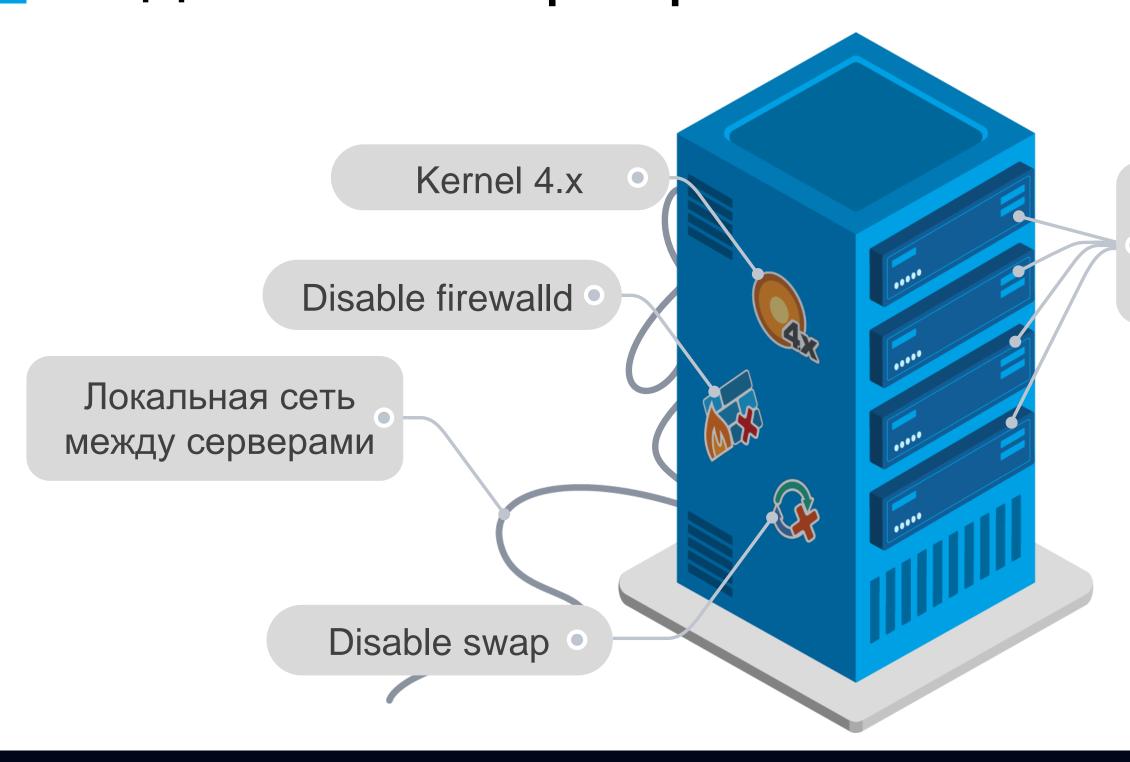
https://github.com/kubernetes-sigs/kubespray



https://github.com/southbridgeio/kubespray



Подготовка серверов



Master – 2 ядра, 4 Gb RAM Ingress – 1 ядро, 2 Gb RAM Node – 2-4 ядра, 4-8 Gb RAM



Установка

```
git clone https://github.com/southbridgeio/kubespray

cd kubespray

pip install -r requirements.txt

yum install -y sshpass
```

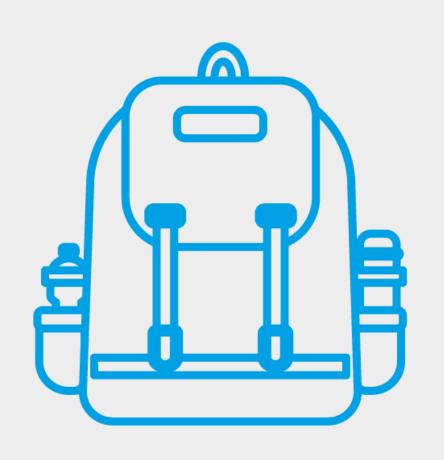


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Инвентарь

```
master-1.s000000.slurm.io ansible_host=172.21.0.2 ip=172.21.0.2
master-2....
[kube-master]
master-1.s000000.slurm.io
master-2.s000000.slurm.io
[etcd]
master-1.s000000.slurm.io
[kube-node]
node-1.s000000.slurm.io
ingress-1.s000000.slurm.io
[kube-ingress]
ingress-1.s000000.slurm.io
[k8s-cluster:children]
kube-node
kube-master
```





Group_vars/all

```
group vars/all/all.yml
kubelet load modules: true
kubeadm enabled: false
skip non kubeadm warning: true
kube read only port: 10255
group vars/all/docker.yml
docker storage options: -s overlay2
group vars/etcd.yml
etcd snapshot count: "5000"
etcd ionice: "-c2 -n0"
etcd memory limit: 0
```





Group_vars/k8s-cluster

```
group vars/k8s-cluster/k8s-cluster.yml
kube version: v1.15.2
kube oidc auth: false
kube basic auth: false
kube network plugin: flannel
kube service addresses: 10.100.0.0/16
kube pods subnet: 10.0.0.0/16
kube apiserver insecure port: 0
kube proxy mode: iptables
cluster name: s000000.local
kubeconfig localhost: true
kubectl localhost: true
kubelet authentication token webhook: true
kubelet authorization mode webhook: true
group vars/k8s-cluster/k8s-net-flannel.yml
flannel backend type: "host-gw"
flannel interface regexp: '172\\.21\\.0\\.\\d{1,3}'
```



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Addons

```
group vars/k8s-cluster/addons.yml
ingress nginx enabled: true
ingress_nginx_host_network: true
ingress nginx configmap:
   server-tokens: "False"
  proxy-body-size: "2048M"
   proxy-buffer-size: "16k"
   worker-shutdown-timeout: "180"
ingress nginx nodeselector:
  node-role.kubernetes.io/ingress: "true"
ingress nginx tolerations:
  - key: "node-role.kubernetes.io/ingress"
    operator: "Exists"
group vars/k8s-cluster/kube-ingress.yml
node labels:
  node-role.kubernetes.io/ingress: "true"
node taints:
  - "node-role.kubernetes.io/ingress=:NoSchedule"
```





Развертывание кластера

```
ansible-playbook -u s000000
  -k -i inventory/slurm/hosts.ini
  -b --diff
  cluster.yml
```



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Доработка напильником

```
kubectl label node ingress-1.s000000.slurm.io
   node-role.kubernetes.io/node-
kubectl completion bash >
   ~/.kube/completion.bash.inc
printf "
source '$HOME/.kube/completion.bash.inc'
  " >> $HOME/.bash profile
source $HOME/.bash profile
```

