

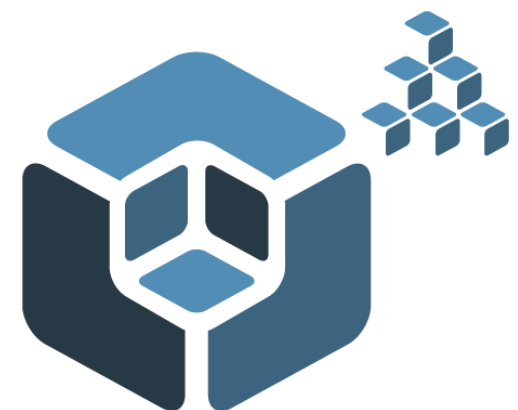


Kubernetes

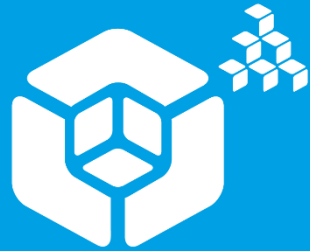
Kubespary

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



Kubespary



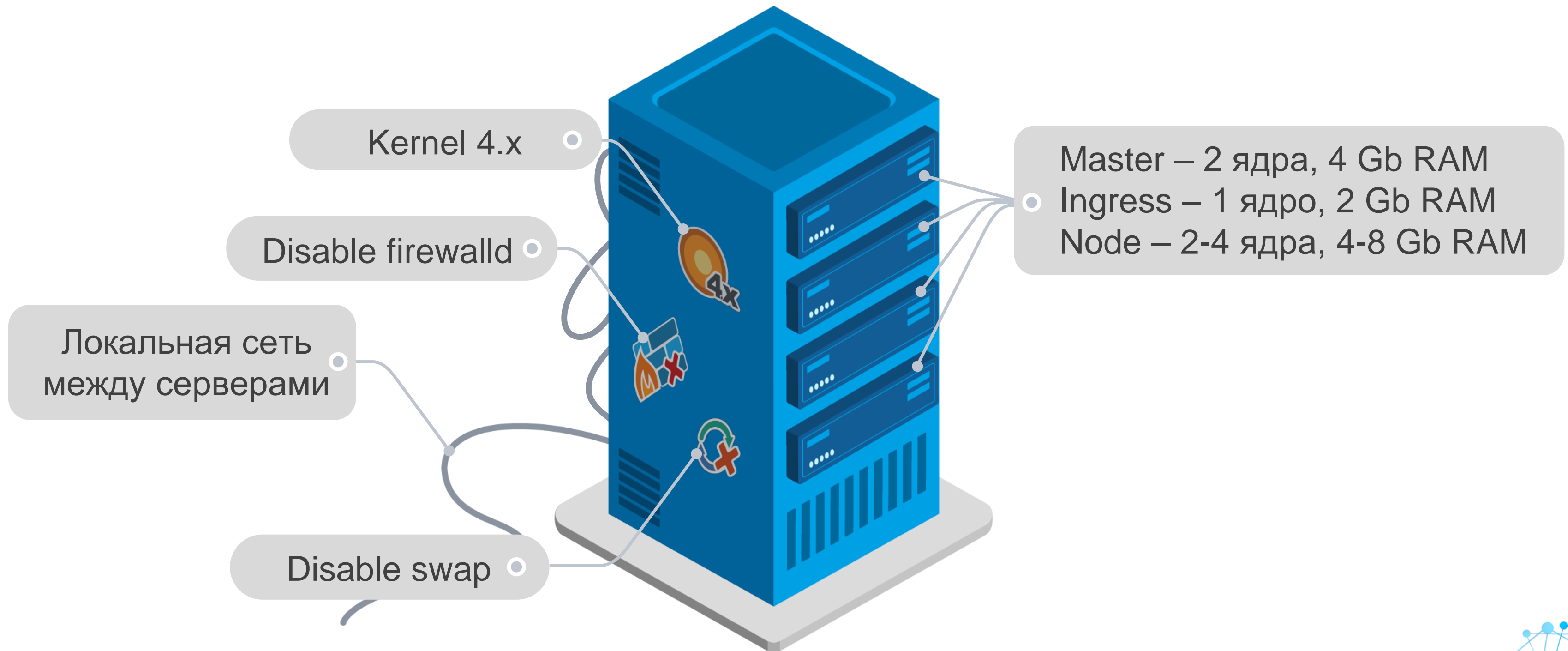
<https://github.com/kubernetes-sigs/kubespary>



Southbridge

<https://github.com/southbridgeio/kubespary>

Подготовка серверов



Установка

```
sudo -i  
  
git clone https://github.com/southbridgeio/kubespray  
  
cd kubespray  
  
pip install -r requirements.txt
```



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`

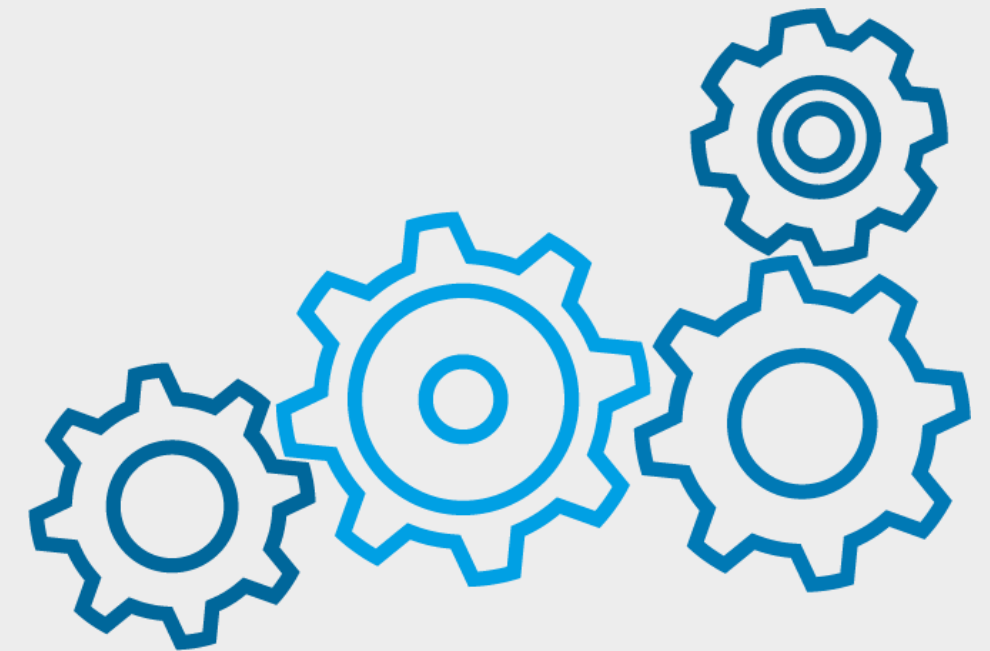
```
docker_storage_options: -s overlay2
```

`group_vars/all/download.yml`

```
download_run_once: true
```

`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: v1.16.3
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_regex: '172\\.21\\.0\\.\\d{1,3}'
```



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: ""
ingress_nginx_tolerations:
  - key: "node-role.kubernetes.io/ingress"
    operator: "Exists"
```

`group_vars/kube-ingress.yml`

```
node_labels:
  node-role.kubernetes.io/ingress: ""
node_taints:
  - "node-role.kubernetes.io/ingress=:NoSchedule"
```



Развертывание кластера

```
ansible-playbook -u s0000000  
-i inventory/slurm/hosts.ini  
-b --diff  
cluster.yml
```



Доработка напильником

```
kubectl completion bash >  
  ~/.kube/completion.bash.inc  
  
printf "  
source '$HOME/.kube/completion.bash.inc'  
" >> $HOME/.bash_profile  
  
source $HOME/.bash_profile
```

