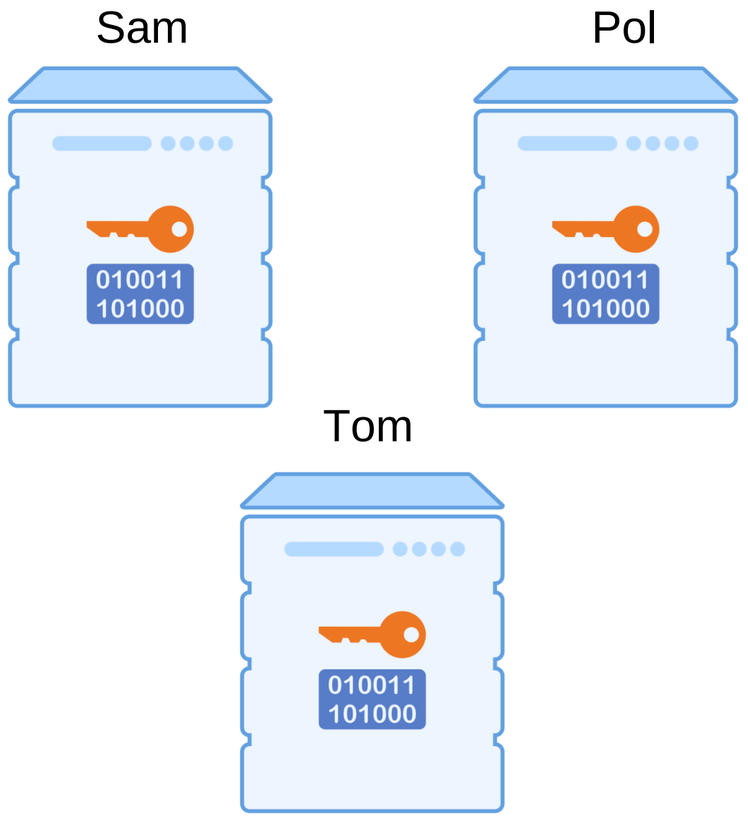
МЕГА СЛЁРМ + Southbridge

Хранение секретов

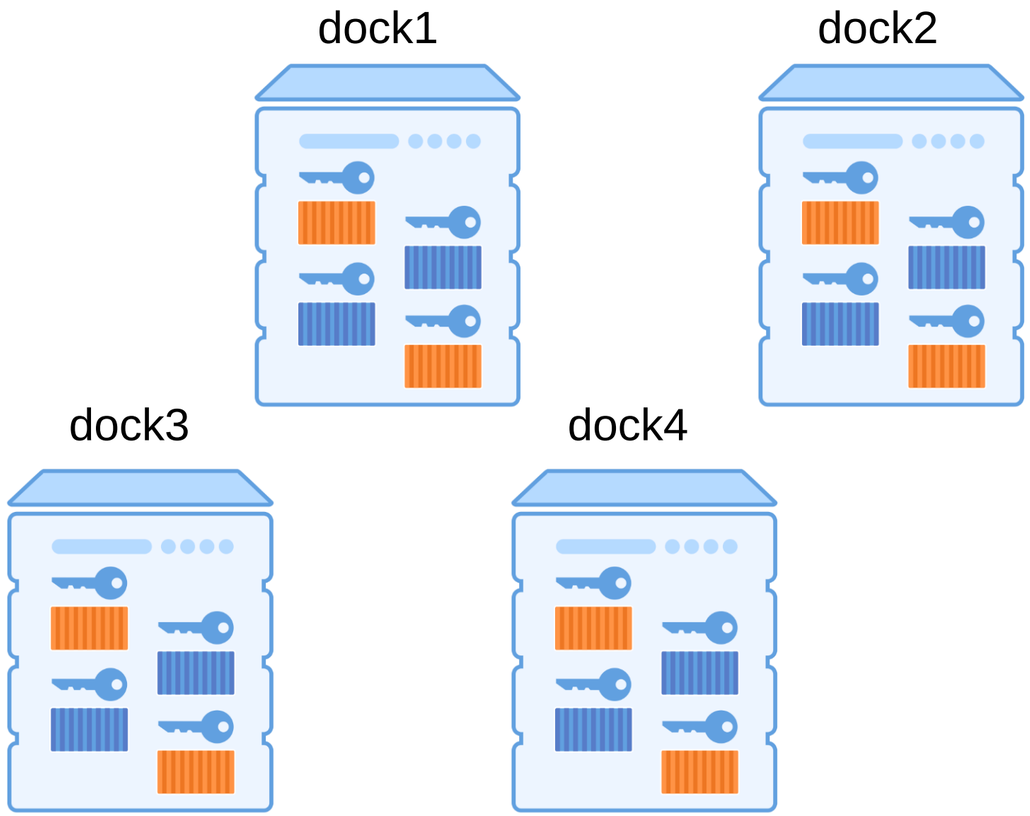
Секреты

- Логины и пароли
- Токены
- Ключи сертификатов

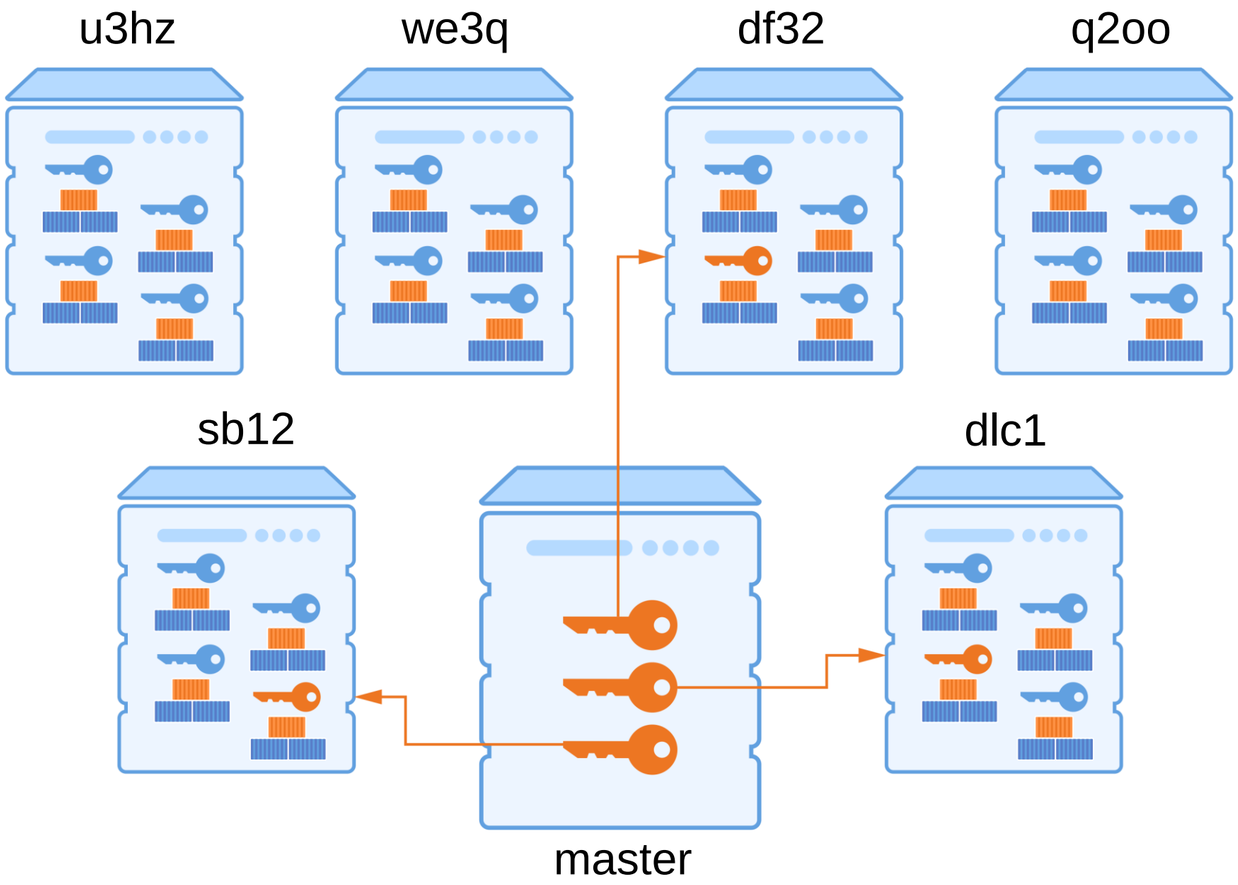
Античность – секреты на серверах

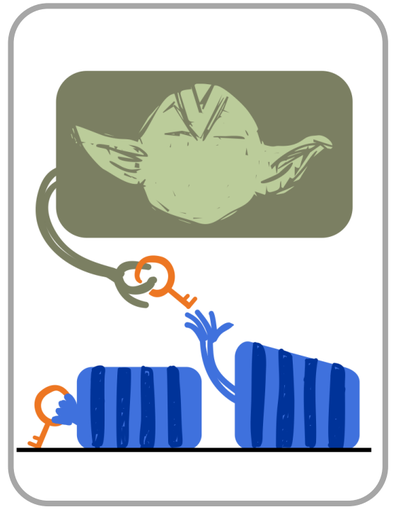


Новое время – секреты у контейнеров



Современность – копии секретов у подов





Секреты в Kubernetes

```
kubectl create secret generic mygreatsecret \
  --from-file=username.txt \
  --from-file=key=username.txt \
  --from-literal=dbpass=rootpassword \
  --from-env-file=file.env
```

Секреты в Kubernetes

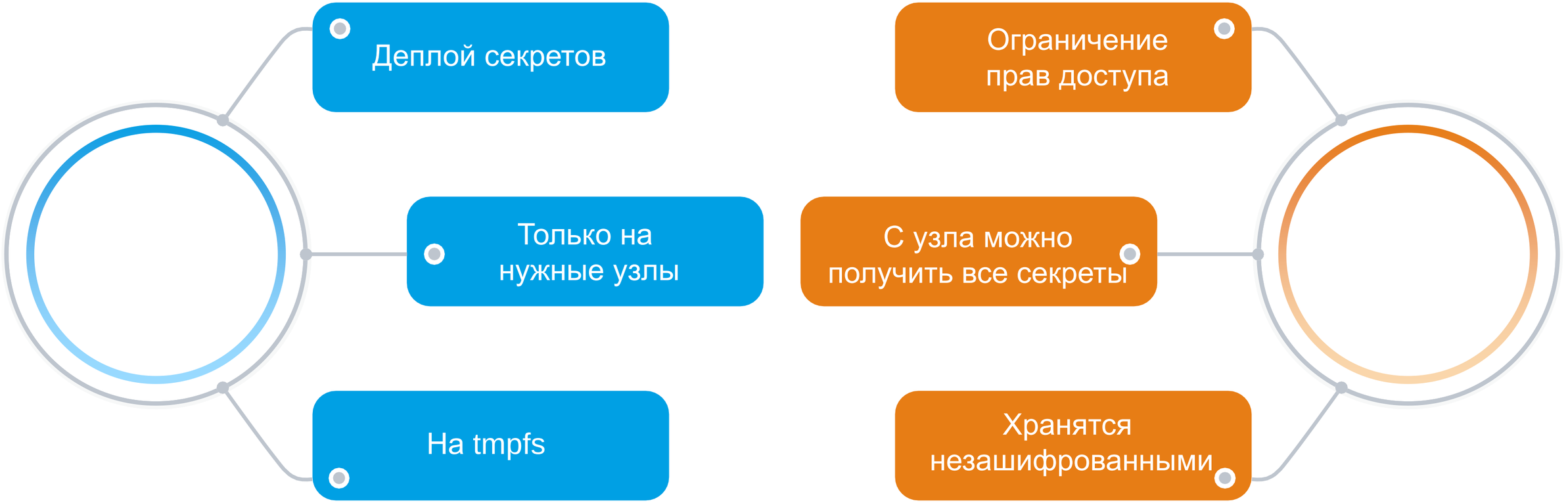
```
apiVersion: v1
kind: Secret
metadata:
  name: mysecret
type: Opaque
data:
  username: YWRtaW4=
stringData:
  apiUrl: "https://my.api.com/api/v1"
  username: username
  password: password
```

Подключение секретов

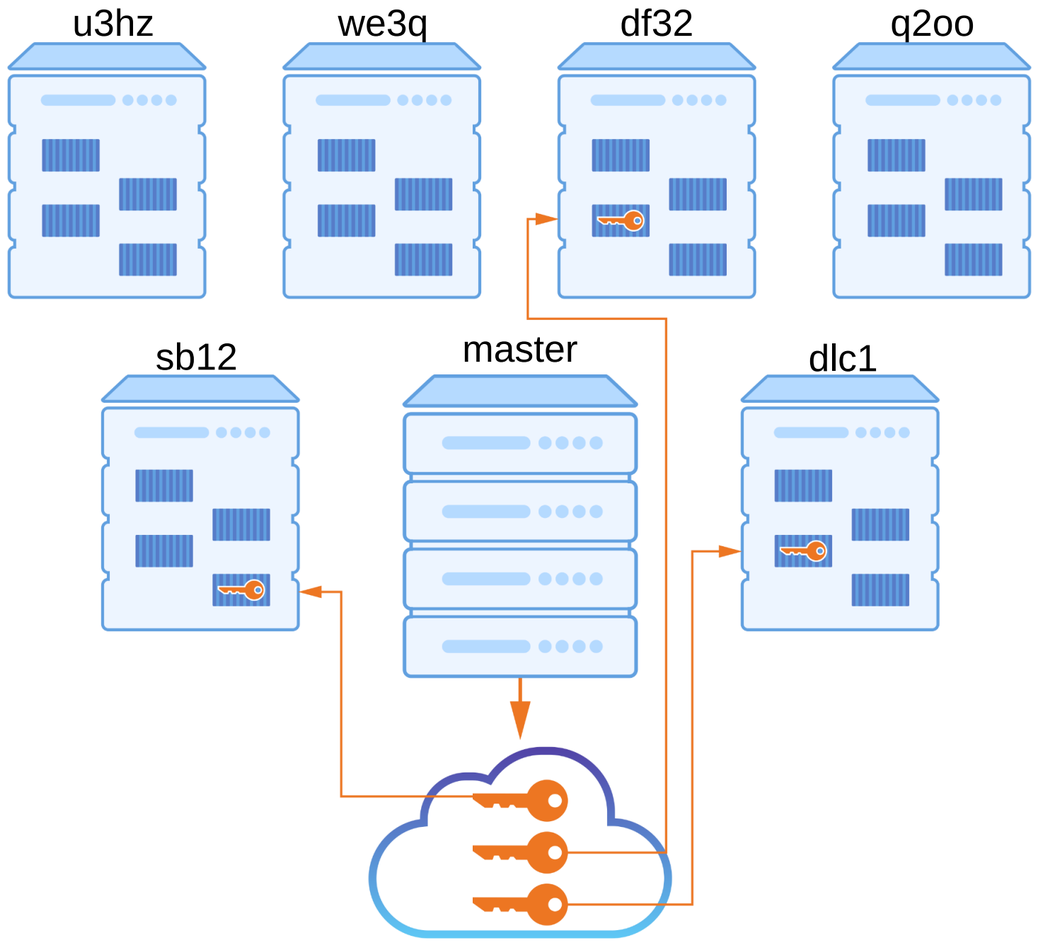
```
containers:
 - name: mypod
   image: redis
   volumeMounts:
   - name: foo
     mountPath: "/etc/foo"
     readOnly: true
 volumes:
 - name: foo
   secret:
     secretName: mysecret
```

```
containers:
 - name: mypod
   image: redis
   env:
     - name: SECRET_TOKEN
       valueFrom:
         secretKeyRef:
           name: mysecret
           key: token
```

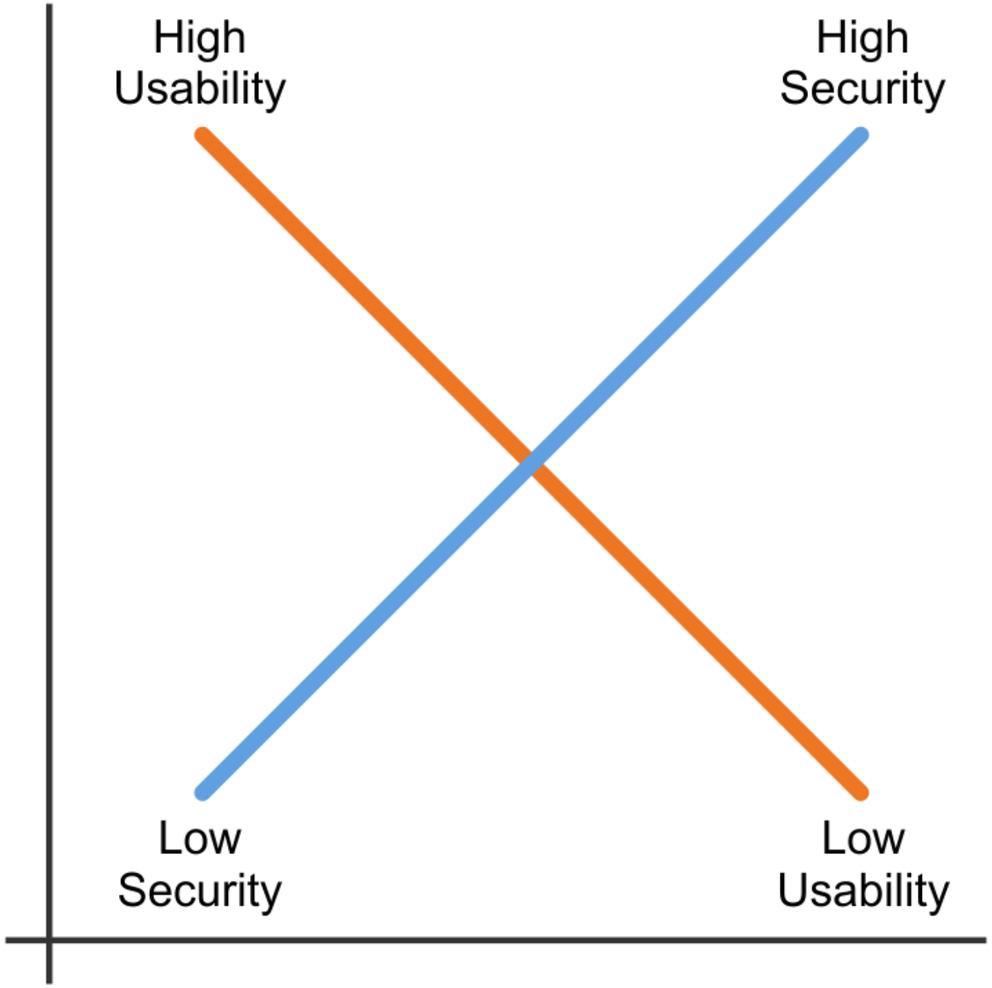
Возможности и опасности



Светлое будущее – секреты внутри пода

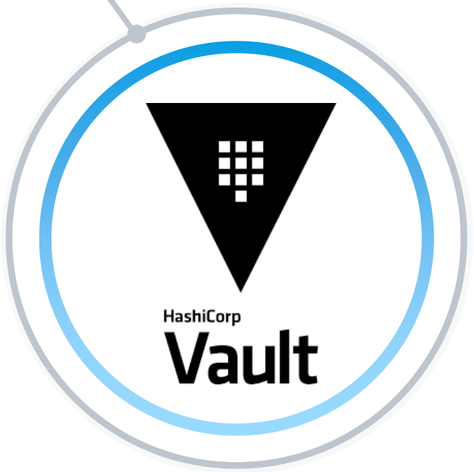


Security vs Usability

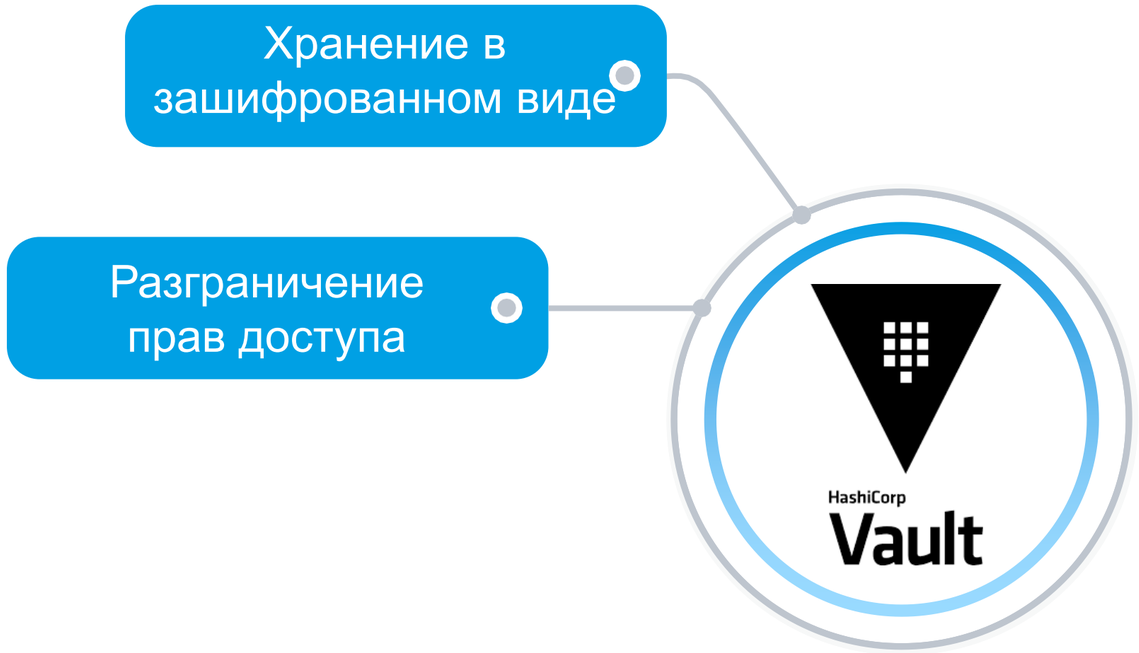


Hashicorp Vault

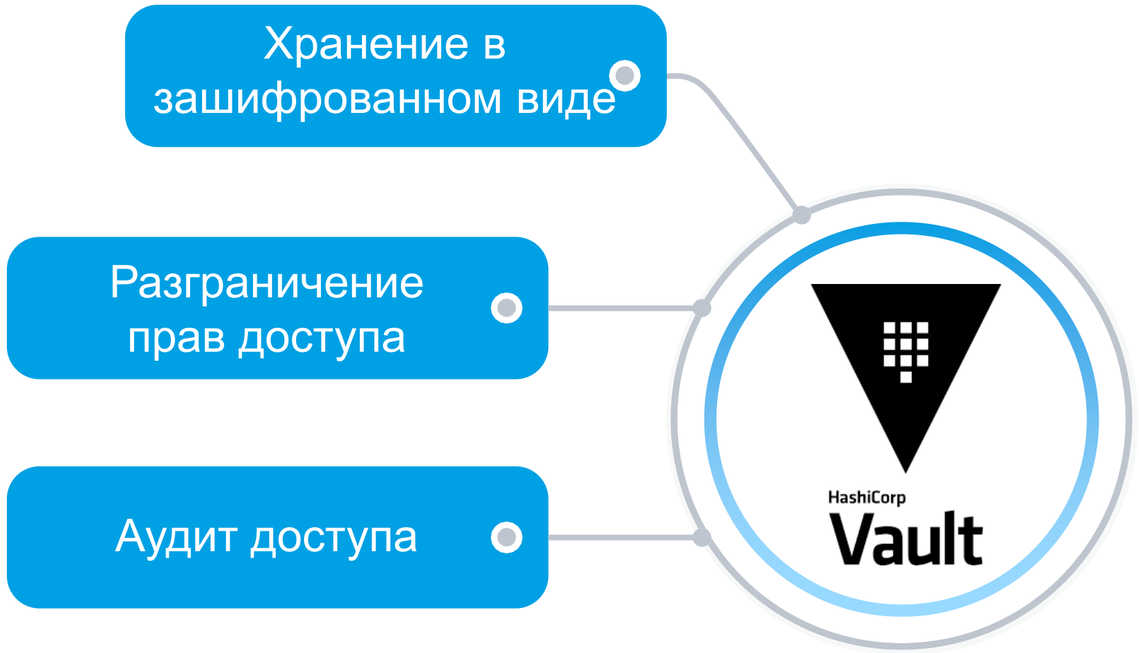
Хранение в зашифрованном виде



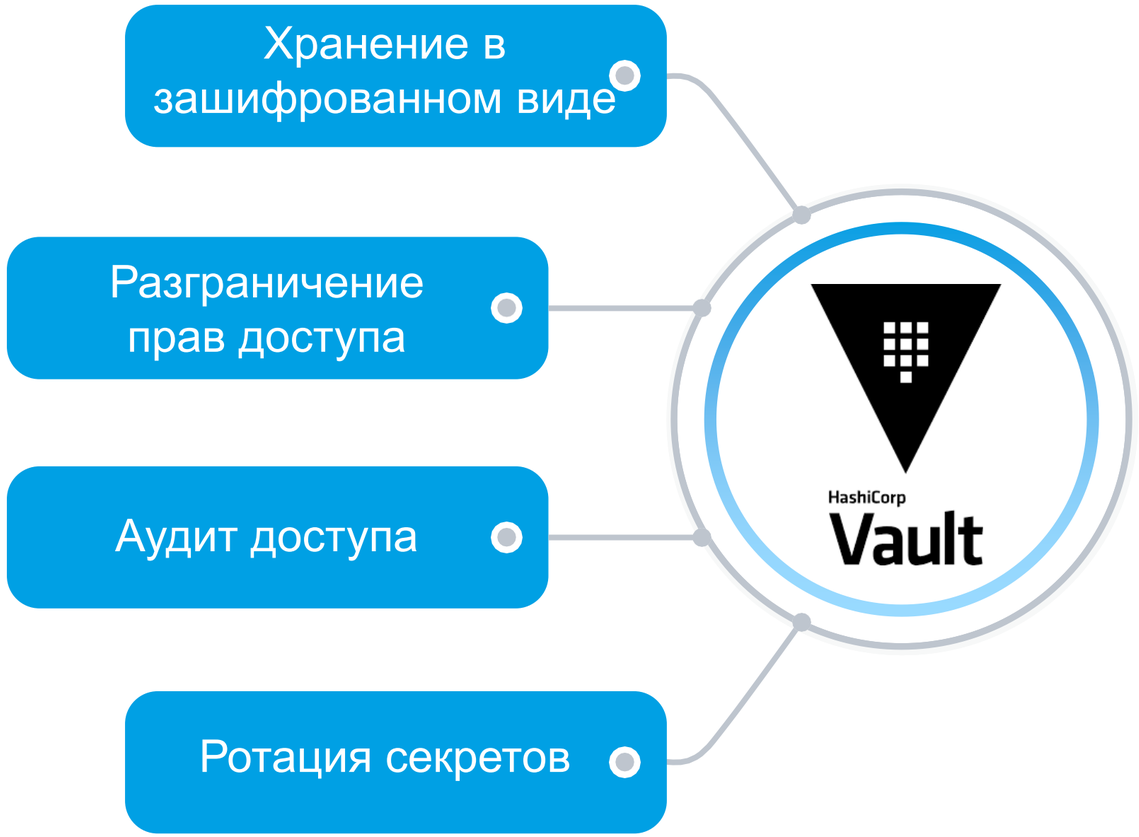
Hashicorp Vault



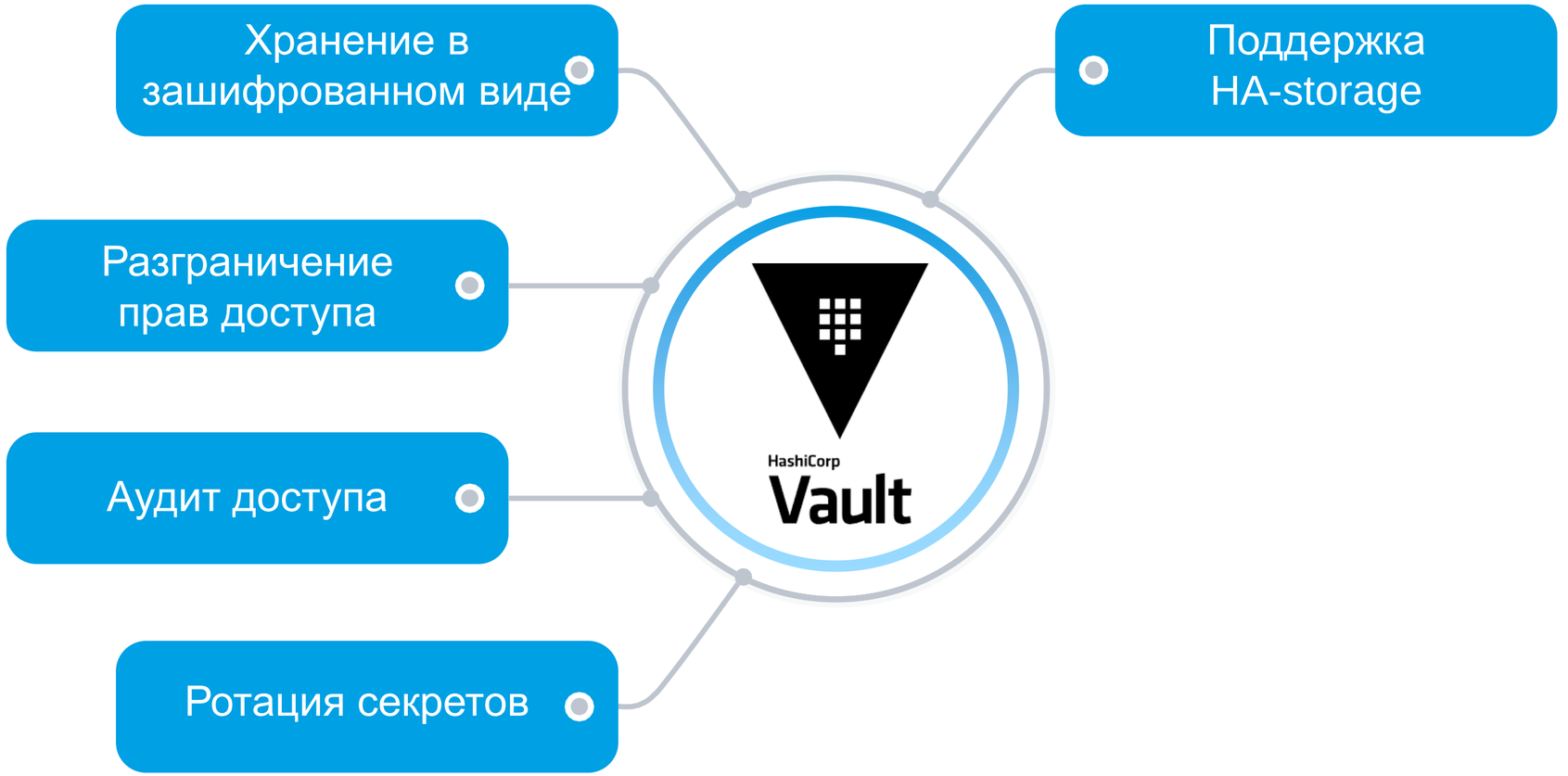
Hashicorp Vault



Hashicorp Vault



Hashicorp Vault



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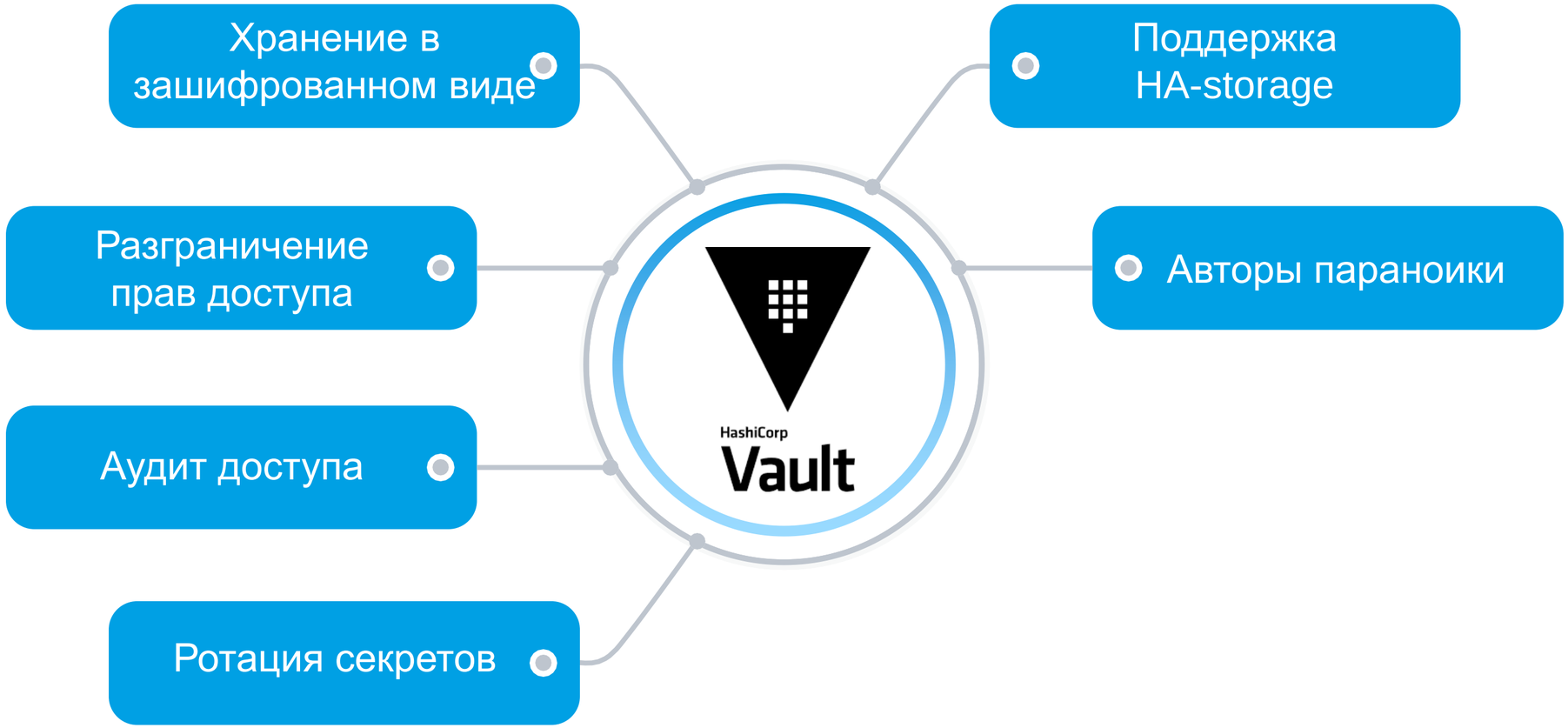

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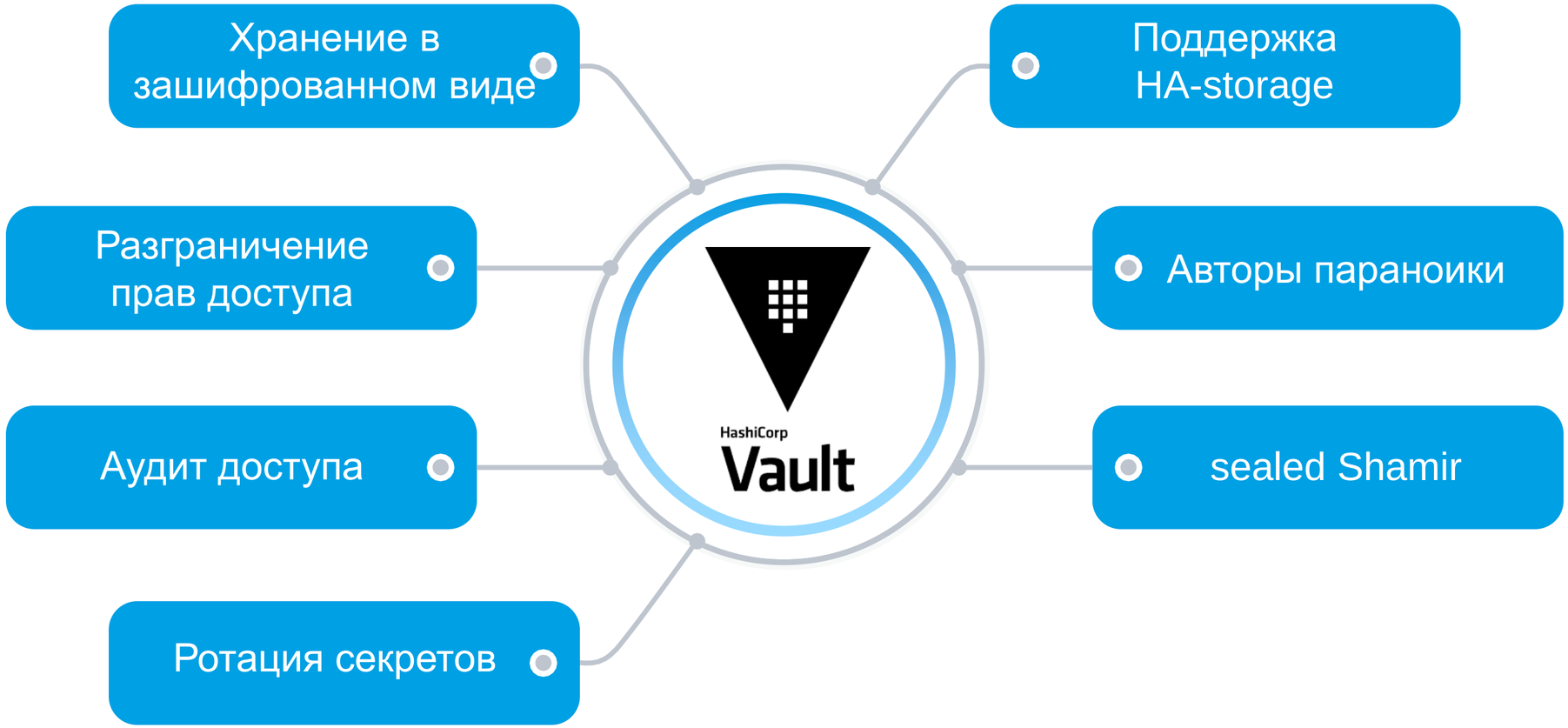


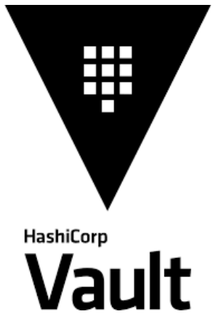
Hashicorp Vault

- Хранение в зашифрованном виде
- Разграничение прав доступа
- Аудит доступа
- Ротация секретов
- Поддержка HA-storage
- Авторы параноики
- sealed Shamir
- sealed Cloud KMS

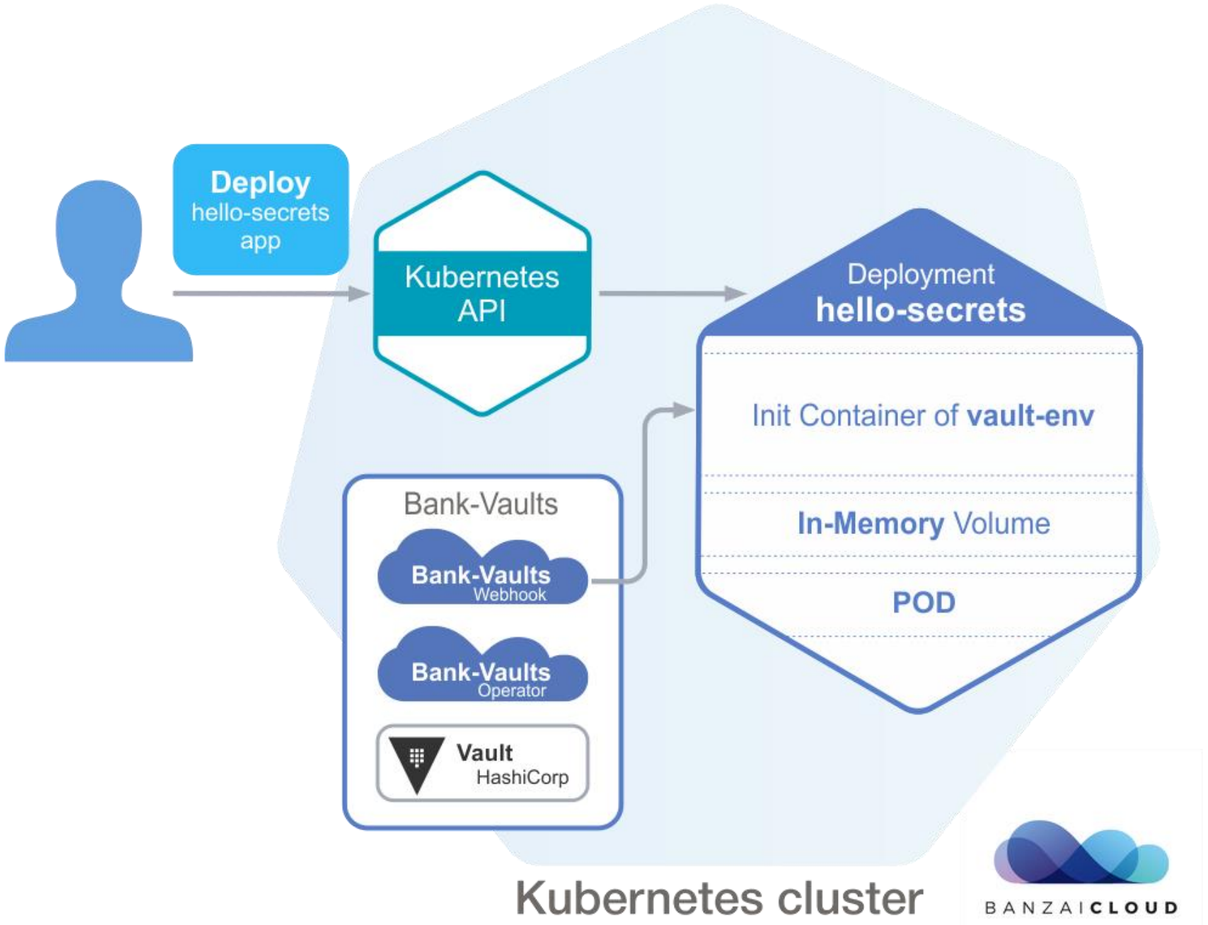
HashiCorp Vault

Способы использования

- Обращаться в Vault сразу из приложения
- Периодически получать информацию из Vault и обновлять secret в kubernetes
- В момент запуска приложения предоставлять ему настройки из Vault

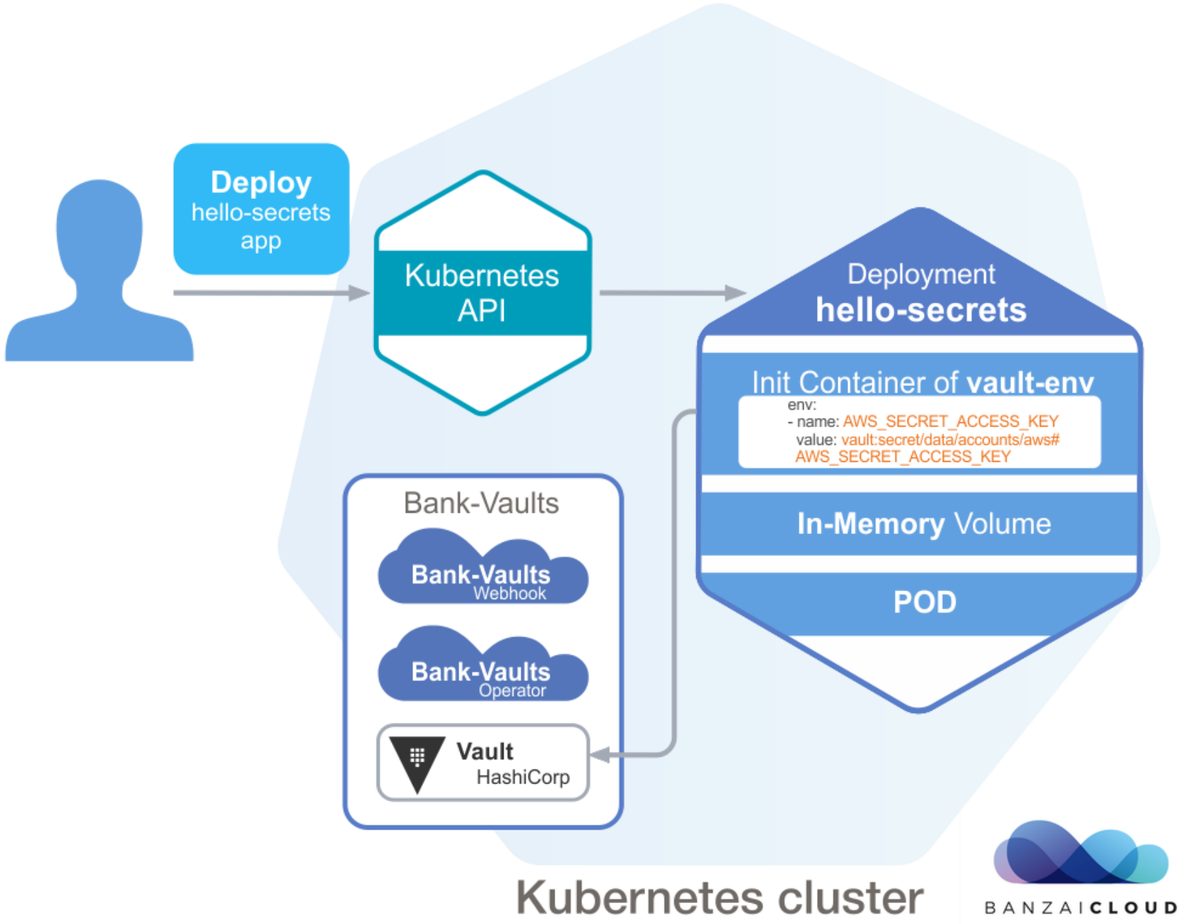


Banzaicloud



https://github.com/banzaicloud/bank-vaults

Banzaicloud



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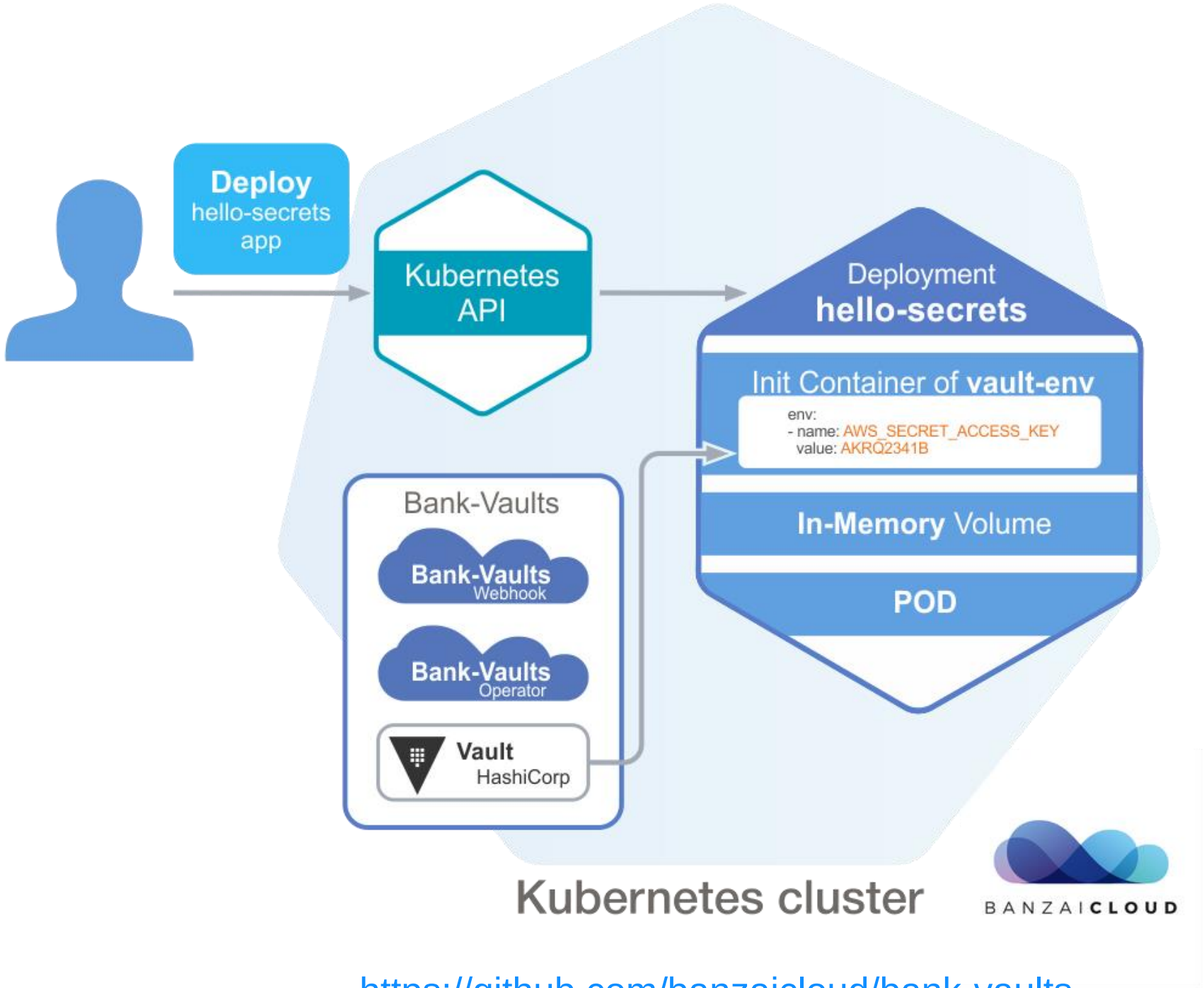
Banzaicloud



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