

Ferris Labs - Platform

Agenda

- Overview
- Deployment
- Usage
- Discussion

1. Overview

Components

GitHub

- ferris-gcp/deployment-manager
(deployment-manager modules -
base gcp infra)
- platform-docs
(documentation)
- ferris-core
(core open source software)
- ferris-app
(core custom ferris software)
- <tenant-repos>
(all tenant owned code and software)
- TBA: ferris-premiums

GCP Deployment manager

- top level configs
- networks
- firewall rules
- service account
- controller VM
- GKE

Kubernetes

- namespaces
- core 3rd party software
- ferris apps
- tenant apps
- custom Helm chart for dev
- GPU ready (on demand)
- custom controllers
- TBA: policies, sec contexts

1.1 GitHub

ferris-gcp/deployment-manager
(gcp templates)

- k8s-ferris-labs.yaml
- ambari-ferris-labs.yaml
- TBA: openvpn-ferris-labs.yaml

ferris-connect - to be relocated
(instructions)

- OpenVPN
- environment overview
- dnsmasq dependency removed

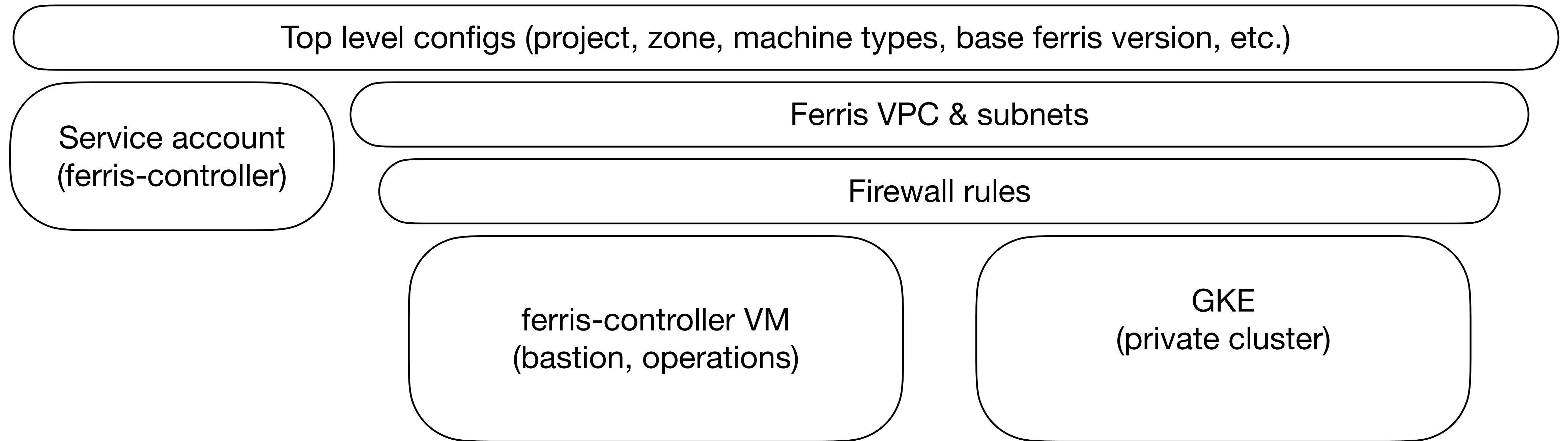
ferris k8s repos
(k8s manifests)

- ferris-core (releases)
core 3rd party software
- ferris-app (releases)
ferris apps

<tenant-repos>
(k8s manifests)

- tenant / use case specific
components

1.2 GCP Deployment manager



1.3 Kubernetes

Namespaces

argocd

- argo components

ingress-nginx

- nginx reverse proxy

core

- keycloak
- postgres
- consul
- etc

ferris

- control center
- scheduler
- etc

app

- client apps
- use cases
- etc

monitoring

- prometheus stack (dashboards ready)

logging

- EFK

TBAs

network policies

security contexts

custom controllers

custom operators

2. Deployment

Steps

Prerequisites (cloud console)

Set project metadata

- controller_id_rsa
- controller_id_rsa_pub
- enable_oslogin = TRUE

Configure DM service account

- IAM -> cloudservices.gserviceaccount.com
- add “security admin” role

Deployment manager

- Configure top level properties
- 1 click deployment

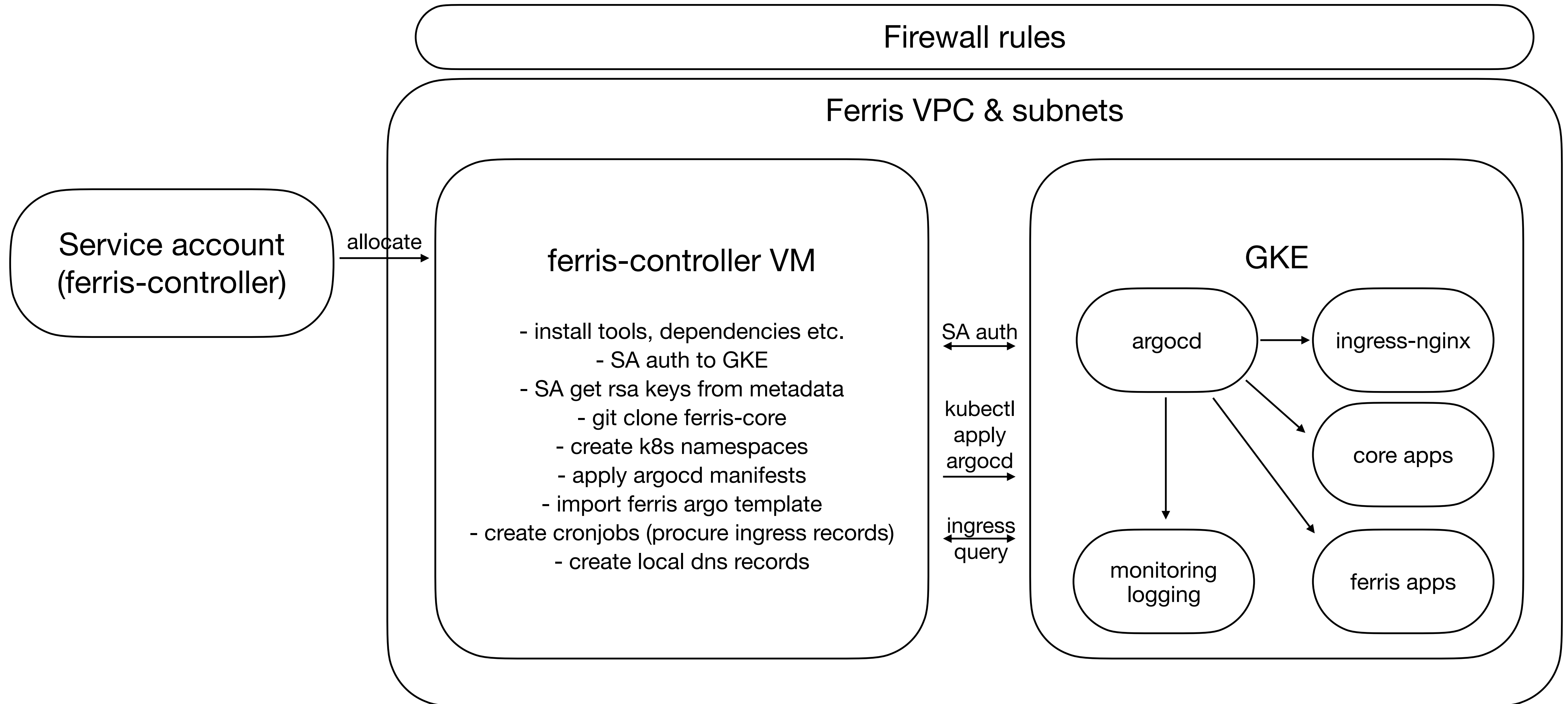
Kubernetes (software components)

- Automated via ferris-controller startup script and argocd

OpenVPN

- Manual deployment from GCP marketplace atm
- TBA: deployment manager integration

2.1 Deployment manager & Kubernetes resources



3. Usage

