

JONAS GOVAERTS

Technical Lead & Architect | Red Hat OpenShift and Kubernetes

Herenthout, Belgium | jonas@jonasgovaertsconsultancy.com | linkedin.com/in/jonas-govaerts/ | github.com/jonasgovaerts

PROFILE

Technical lead and architect working in telecom since 2017 and with Red Hat OpenShift since 2019. At Telenet I architected the OpenShift platform for virtualised network functions on HPE bare metal, built its install automation and set up its GitOps model with OpenShift GitOps (Argo CD). At Proximus I operated a multi-tenant OpenShift platform and deployed a highly available Red Hat Quay registry. Red Hat Certified Specialist in OpenShift Administration.

SKILLS

Red Hat OpenShift

- Agent-based bare-metal installs
- MachineConfigs, PerformanceProfiles
- Virtualization, SR-IOV, NMState, ODF
- Red Hat Quay, OpenShift 3 and 4

GitOps and automation

- OpenShift GitOps (Argo CD)
- Kustomize and Helm
- Flux CD
- Terraform and Ansible

Networking and storage

- OVN-Kubernetes, Cilium, Calico
- SR-IOV, DPDK, LACP bonding
- Ceph and ODF, HPE CSI
- Backup with OADP and Velero

Security and observability

- cert-manager, External Secrets
- OIDC single sign-on and RBAC
- OpenShift Logging, Splunk, Elastic
- OpenTelemetry, Prometheus, Grafana

Kubernetes and tooling

- Kubernetes, Google Anthos, GKE
- GitLab CI/CD and Jenkins
- Bash, Python and Go
- HPE ProLiant, iLO Redfish, MAAS

Architecture and leadership

- Platform architecture and design
- Technical roadmaps and standards
- Mentoring and code review
- Product teams, operations, vendors

EXPERIENCE

Senior Telco Cloud Engineer

Apr 2022 - present

Telenet | Telco Cloud team

OPENS SHIFT PLATFORM

- Architected the OpenShift 4 platform for virtualised network functions on HPE bare metal.
- Built the install automation around the agent-based installer, with gcomplate templates, Bash and one variable file per cluster.
- Automated node boot through HPE iLO Redfish virtual media. Added day-2 worker scale-out with the Bare Metal Operator.
- Designed the cluster network: compact three-node control planes, OVN-Kubernetes, and LACP bonds and storage networks set through NMState.
- Bootstrapped OpenShift GitOps (Argo CD) with single sign-on group RBAC and a least-privilege controller role.
- Set up the GitOps repository model: an app-of-apps repository per cluster and a repository per reusable component.
- Deployed and configured operators through Argo CD: OpenShift Virtualization, SR-IOV, OpenShift Data Foundation, HPE CSI, OADP, cert-manager, External Secrets and OpenShift Logging.
- Wrote shared GitLab CI templates that track upstream operator releases and tag component versions.

KUBERNETES AND BARE-METAL AUTOMATION

- Designed a self-service portal on MAAS where telco cloud customers provision bare-metal servers.
- Wrote Kubernetes Operators on Google Anthos to onboard and deploy 5G cloud-native network functions (CNFs).
- Automated the HPE hardware lifecycle: firmware upgrades, bare-metal provisioning and capacity planning.
- Configured SR-IOV and DPDK for low-latency telco workloads.
- Review merge requests and agree platform conventions with the team.

OpenShift · Argo CD · Kustomize · Kubernetes · Anthos · Flux · Cilium · Python · Bash · HPE

OpenShift Engineer

Apr 2019 - Mar 2022

Proximus | OpenShift Engineering team

- Operated the multi-tenant OpenShift 3 and 4 platform used by internal development teams.
- Designed and deployed a highly available Red Hat Quay registry for the platform.
- Introduced GitOps with Argo CD for platform and application deployments.
- Wrote runbooks and platform standards, and mentored engineers on day-2 operations.

OpenShift · Red Hat Quay · Argo CD

Networks and Telephony Operations Engineer

Jun 2017 - Apr 2019

Proximus | Intelligent Network Operations team

- Built Splunk dashboards and Python scripts for preventive maintenance.
- Operated the platforms behind emergency call services, including on-call duty.

Splunk · Python

SELECTED PROJECTS

TELENET

Bare-metal OpenShift for network functions

Architecture and install automation for OpenShift 4 on HPE ProLiant servers. A script renders the agent-based installer configuration from a variable file, builds the ISO and boots the nodes through Redfish virtual media. Performance tuning and worker scale-out follow as day-2 steps.

OpenShift · NMState · Redfish · Bash

TELENET

GitOps for OpenShift clusters

Each cluster has an app-of-apps repository that pulls in reusable component repositories built with Kustomize. Argo CD installs the operators in sync waves, and patches set the values per environment. CI scans every change for leaked secrets.

Argo CD · Kustomize · GitLab CI

PROXIMUS

Highly available Red Hat Quay

Designed and deployed Red Hat Quay in a highly available setup. It served as the container image registry for the development teams on the multi-tenant OpenShift platform.

Red Hat Quay · OpenShift

TELENET

5G CNF onboarding on Anthos

Custom Kubernetes Operators that onboard and deploy 5G cloud-native network functions on Google Anthos. SR-IOV and DPDK provide the low-latency networking these workloads require.

Anthos · Cilium · SR-IOV

CERTIFICATIONS AND EDUCATION

Certifications

- | | |
|--|----------|
| - Red Hat Certified Specialist in OpenShift Administration | Aug 2020 |
| - Red Hat Certified System Administrator (RHCSA) | Feb 2019 |
| - Red Hat Delivery Specialist, Platform-as-a-Service | Jun 2018 |
| - Cisco CCENT | May 2017 |

Education

Bachelor in IT, Systems and Network Administration

Thomas More Hogeschool | 2013 - 2016

Specialisation in Linux systems administration and computer networking.