



# Nico Berlee

LEAD SITE RELIABILITY ENGINEER · SOFTWARE ARCHITECT

♂ Male | 🇳🇱 Dutch

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## Summary

Current Lead Site Reliability Engineer at Cyber Security Specialist ON2IT. Over 15 year of experience in system administration, network management and application management. In recent years, assumed a position in architecture, design and operation of ON2IT's datacenters and public cloud environments, responsible for my team, the day-to-day operation and innovative development of new architecture and environments. Broad knowledge of innovative technologies and extensive automation of day-to-day tasks are my focus and strength.

Before joining ON2IT, I was responsible for the day-to-day IT environment of a mid-sized educational organisation, managing a small team. In addition, I am a contributor to various open-source projects and co-organiser of meetups.

Socially engaged, always looking for innovation. Analytically strong, persistent, ambitious professional, pragmatic, open in contact and can quickly read and interact in new fields.

## Skills (design, implementation & operation)

<b>DevOps</b>	Docker, Google Cloud, Gitlab, Grafana, Istio, Jaeger, K3S, Kubernetes, Prometheus, Rook
<b>Database/Queues</b>	Beanstalkd, CouchDB, Elasticsearch, Etcd, Galera, NATS
<b>Networking</b>	BGP, ECMP, IGMP, Ipsec, IPv6, MLAG, MSTP, OSPF, PIM, VRRP
<b>Products/Vendors</b>	AVI Networks, Brocade Switches, Citrix Netscaler, Cumulus Networks, MS ADFS, MS Exchange, MS SQL, MS Sharepoint, Nginx, Palo Alto Networks, PowerDNS, VMWare vSphere/Horizon
<b>Script-/Programming</b>	Bash, C#, Golang, Javascript, Python, PHP, Powershell, SQL, VBScript

## Work Experience

### ON2IT B.V.

Waardenburg

LEAD SITE RELIABILITY ENGINEER - SOFTWARE ARCHITECT

juni 2016 - now

- Provisioned an easily manageable infrastructure in Google Cloud connected redundant using ECMP iBGP terminated on Palo Alto Firewalls (running in GCE) for GKE among others.
- Built a fully automated CI/CD pipelines on Gitlab for gitops deployments in all Kubernetes clusters using Kustomize, Kubesecc, Kubeval, Clair, Git-sync and Kube-applier amongst others.
- Deployed separate production clusters in 3 DCs with Kubernetes using, Containerd, Cilium (directly routed, with eBPF forwarding to Istio), Istio (with mTLS, RBAC and SDS), Metallb (iBGP), Fluentd, VPA, Rook-ceph (only for non GKE clusters).
- Created a monitoring infrastructure for container-metrics, with various Prometheus-exporters, Prometheus rules, Alert Manager and Grafana.
- Created a Kubernetes shared informer controller in Golang for dynamic ip and Kubernetes labels registration in Palo Alto Firewalls to enable finegrained egress policies per label/namespace.
- Deployed MariaDB/Galera cluster (multi-master) inside Kubernetes, spanning 3 DCs, with automated recovery of complete cluster failure (Galera cluster bootstrapping) and events less radical using etcd for maintaining cluster node state.
- Setup high-available IPAM with automated DNS registration to PowerDNS (automated DNSSEC signing) on a Galera cluster.
- Anycasted internal DNS resolvers (with healthchecks) using OSPF.
- Deployed a centralized logging environment with Graylog and Elasticsearch cluster for high log ingestion.

### Udens College

Uden

SYSTEM ADMINISTRATOR

oct. 2005 - may 2016

- Managed +/- 1200 clients using MS Configuration Manager.
- Responsible for the architecture, implementation and operation of the whole network and server infrastructure, without outside help.
- Made multiple templates and webparts in C# for Sharepoint.
- Implemented IPv6 on the BYOD network and Netscaler.
- Kerberos Constrained Delegation for SSO to all webservers.
- Made a MS NPS (radius) plugin for IP-username combination sync to the Palo Alto Firewall for UserID.

### Udens College

Uden

PROJECT LEAD

jan. 2004 - aug. 2005

- Migrated Novell Netware environment to Active Directory (completely scripted for clients).
- Implemented Microsoft ISA 2000/2004.
- Migration of IP subnets.
- Intra-domain migration.
- Implemented Windows 2003 domaincontrollers.

# Certificates

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- 2018-12 **Certified Kubernetes Administrator**, The Linux Foundation  
2018-12 **Certified Kubernetes Application Developer**, The Linux Foundation

CKAD-1800-0317-0100  
CKA-1800-001225-0100

# Social

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## ON2IT Cyber Security Meetups

Waardenburg

CO-ORGANISER

may 2018 - now

- Azure security with Network Virtual Appliances (NVA)
- Capture the flag workshop: Hack your way out of / Be hacked from a container - do we need gVisor?
- GNS3 meets Cumulus Networks
- Introduction to Kubernetes
- Kubernetes & ISTIO
- Fast-Paced-CTF (family style)

## G1000 Uden

Uden

CORE TEAM MEMBER

apr. 2014 - apr. 2016

- The G1000 is a working method to achieve deliberative and participatory structures in representative population by lottery. I was part of the G1000 core team from the start.
- During the G1000 event in Uden on October 4, 2014 I was the program manager.

## Municipality council Uden

Uden

MUNICIPALITY COUNCIL COMMITTEE MEMBER FOR D66

apr. 2014 - apr. 2016

- Council committee member General Affairs.
- Member of the Audit Committee.
- Reserve at Spatial and Economic Development Committee.
- Reserve at Public Affairs Committee.

## D66 Uden

Uden

LOCAL ELECTIONS CAMPAIGN COORDINATOR

jan. 2014 - apr. 2014

## Homeowners association Oranjestraat 14B T/M Z

Uden

CHAIRMAN

jan. 2011 - sept. 2014

- Cut structural costs of the HOA.
- Improved communication between residents and management & between management and hired maintenance contractors.
- First Home Owners Association in Uden to realize solar panels on an appartement building, by reaching consensus among the owners.