Peter Jönsson - Site Reliability Engineering - Freelancer

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About me

I have been bridging the gap between development and operations for nearly twenty years and have a passion for developing and operating distributed systems that run with minimal issues. My experience spans embedded systems to large-scale Internet systems, always prioritizing high site reliability and backend development with a focus on operability. I enjoy working with distributed systems, system languages, and the warm, fuzzy feeling that comes with complete automation.

Career history

Site Reliability Engineer (Freelance) — **Hippo Technologies LLC**
New York City, Remote — **March 2023–Current**

I am part of a three-person team that maintains the infrastructure and service reliability for Hippo Technologies' pharmacy and prescription drug services. This involves the continuous development of our AWS infrastructure, where we aim to leverage as many hosted services as possible while maintaining a strong security posture to protect our PHI and PII data. I specialize in observability to make our systems easy to manage, monitor, and maintain without requiring large staff. I have yet to encounter a problem that my Terraform "hammer" can't solve. When needed, I fine-tune our Go services to improve performance and behavior.

Application stack: AWS, Terraform, Prometheus, Grafana, Go

Site Reliability Engineer (Freelance) — **LogDNA Inc / Mezmo Inc**
Mountain View, Remote — **September 2019–January 2023**

I was the second hire in the EU and helped build and shape the EU SRE team while addressing constant fires in our production environments. During my years at LogDNA (now rebranded to Mezmo), some of the key initiatives I worked on included:

- Owned the production environment consisting of 1,500 servers across more than 10 data centers globally, running hundreds of Elasticsearch clusters. These clusters stored several petabytes of data for our customers.

- Fully automated the infrastructure and application stack creation using Terraform, enabling us to rebuild all production clusters on new hardware. Previously, all steps had been performed manually.

- Developed an automated upgrade procedure for over 1,000 bare-metal nodes running Kubernetes, allowing for 100% automation in all clusters without human intervention. This was a challenge due to the stateful workloads and data stored on local SSD drives.

- Took ownership of our CI setup; while developing the existing solution, I prototyped a completely new system to enable fully automatic application stack deployments. After the prototype phase, I transitioned ownership to a newly formed Release Engineering team.

- Embedded with development teams working on infrastructure-related features.

Application stack: Kubernetes, Terraform, Elasticsearch, IBM Cloud, AWS

Systems Engineer (Freelance) **Aetion Inc**
New York City, Remote **July 2019–August 2019**

Performed an architecture review of the AWS infrastructure to enhance security and compliance.

Application stack: AWS, Terraform and Go

Systems Engineer (Freelance) **Hippo Technologies LLC**
New York City, Remote **December 2018–April 2019**
As a member of the small but efficient Systems Engineering team, I co-owned the entire AWS infrastructure, our Terraform codebase, and several supporting utilities, while participating in the on-call rotation to ensure 24/7 operations.

I introduced Prometheus and Grafana to enhance the observability of our Kubernetes infrastructure and applications. I also developed Go-based Lambda functions to integrate various AWS services and ensure our CI/CD pipelines were top-notch.

To improve security, I implemented Docker image scanning as part of the pipeline and transitioned the secret store to HashiCorp Vault.

Application stack: AWS, Terraform, Kubernetes, Vault, Prometheus, Grafana, Go

Senior IT Devops Engineer **Bigpoint**
Hamburg, Germany **July 2016–November 2018**
Responsible for developing and managing the infrastructure for Bigpoint's browser games, including setting up build and deployment pipelines, as well as metric and event log aggregation for both server backend applications and game applications. Managed operations across approximately 3,000 virtual machines, while participating in a 24/7 on-call rotation.

Led the Docker and Kubernetes initiatives by eliminating technical debt that hindered the transition to modern infrastructure systems for our games. Introduced Terraform for managing our AWS environments and implemented a new metrics setup based on Prometheus and Grafana.

Also responsible for the development and maintenance of Bigpoint's authentication systems in PHP and Java, supporting our 100 million registered users.

Application stack: Chef, VMWare, Prometheus, AWS, Docker, Kubernetes, Terraform.

Experienced Developer / Infrastructure Engineer **Spotify**
Stockholm, Sweden **Nov 2014–June 2016**
Worked on CI/CD for Spotify client software, developing, automating, and maintaining the infrastructure and tooling to enable faster feedback loops for Windows, OS X, Linux, Android, and iOS applications.

Managed the Spotify build and test cluster for client software, which consisted of hundreds of machines across different operating systems. Fully automated the provisioning of new Windows build agents. Developed internal tooling in Python to simplify and enhance the monitoring and logging infrastructure.

Contributed to the development of an internal service in Java for ingesting test results into Elasticsearch.

Application stack: Puppet, AWS, TeamCity, Github, Artifactory, Logstash, Elasticsearch, Kibana

Technical Lead Engineering Support **Klarna**
Stockholm, Sweden **Nov 2013–Oct 2014**
Technical Lead for a team focused on building a cross-department DevOps culture. This team was responsible for maintaining and developing core software development and deployment services, including Git, Jenkins, Chef, and Nexus.

Oversaw the architecture of existing services, managing technical debt while introducing new tooling. The main focus was to empower development teams by building easy-to-use, self-service tooling.

Senior Build Automation Engineer **Klarna**
Stockholm, Sweden **May 2013–Oct 2013**
The role involved a wide variety of tasks, as there was a significant amount of technical debt to address. Developed automation for Jenkins using Groovy, resolved performance bottlenecks in Git hosting, and introduced dedicated build servers for building native OS packages. Wrote deployment documentation for new services while improving the documentation for existing services to ensure they could be operated in a 24/7 environment.

Senior Build and Delivery Engineer **Ericsson**
Kista, Stockholm, Sweden **October 2011–May 2013**
Responsible for developing and maintaining the build, packaging, and delivery pipeline for a large software development organization with global teams. This included software version control, the build environment, content tracking, and the integration of all tools into a unified platform.

Initiated and served as the technical lead for a project to migrate 1,200 developers from a proprietary environment to a Git, Gerrit, and Jenkins-based setup.

Solutions Integration Engineer **Ericsson**
Kista, Stockholm, Sweden **October 2007–September 2011**
Worked on the build, integration, packaging, and delivery of a software platform for radio access and core network applications. Developed a fully automated nightly build, integration, packaging, and delivery process. This involved both the development of new tools and the integration of existing ones into a unified framework.

Systems Developer/Consultant **Combitech**
Älvsjö, Stockholm, Sweden **September 2006–October 2007**
Worked as a consultant stationed at Ericsson, where responsibilities included regression testing of an embedded distributed system, test result analysis, providing support to software developers during troubleshooting, and developing the test platform using TCL/Expect.

Publications

Sigrid Eldh, Sasikumar Punnekkat, Hans Hansson, and Peter Jönsson, Component Testing Is Not Enough – A Study of Software Faults in Telecom Middleware. In 19th IFIP International Conference on Testing of Communicating Systems TESTCOM/FATES 2007, Tallinn, Estonia, June 2007. Springer Lecture Notes in Computer Science.

Education

Computer Science, 2001–2007
Mälardalens University, Västerås and Eskilstuna

Master's thesis conducted at Ericsson during the spring and summer of 2006. The project involved examining a large collection of bug reports and classifying them according to a scheme developed for the thesis. The results formed the basis for a paper published by my thesis supervisor.

Skills

- Natural languages: Swedish, English and German
- Programming languages: Python, Java, Go and C
- Source Control: Git, Svn and Perforce
- Configuration Management: Terraform, Puppet, Chef and Ansible
- Cloud hosting: AWS, DigitalOcean
- Container Orchestration: Kubernetes, ECS
- Build Engines: Jenkins, CircleCI, TeamCity and Gitlab CI
- Operating Systems: Linux, MacOS X, Solaris, Windows

References

- Available upon request.