

Peter Bourgon

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I'm a distributed systems and infrastructure engineer with 20 years of experience building large, fast, and reliable software. I'm an expert Go programmer, with multiple large-scale projects to my credit, and a commitment to education and mentoring. I'm also active in the open-source community. Some projects include [Go kit](#), a sort of standard library for microservices in Go; and [OK Log](#), a distributed log management system.

My areas of interest include CRDTs and coordination-free systems, observability, microservices, dev/ops and infrastructure tools, and Go best practices, including mentoring and training.

2022 – now

Stealth-mode startup, Berlin

I'm leading the core engineering team for a stealth-mode startup in the crypto space.

2017 – 2021

[Fastly](#), Berlin/San Francisco

On the Data team, I maintained and hardened the infrastructure that powers billing, real-time and historical stats, and customer logging.

On the Production Engineering team, I led a company-wide migration from a heterogeneous mix of monitoring tools to [Prometheus](#).

Most of my time was in the Office of the CTO, where I worked on a research project related to distributed state. I spoke about the project at QCon London: [Infinite Parallel Universes: State at the Edge](#).

2015 – 2017

[Weaveworks](#), Berlin/London

Weaveworks acquired my infrastructure mapping and monitoring side project, which became [Weave Scope](#). At Weaveworks, I continued to develop Scope, bootstrapped [Weave Cloud](#) on AWS with Kubernetes, maintained and improved the gossip and CRDT library [Weave Mesh](#), and developed initial versions of the change management tool [Weave Flux](#).

2012 – 2015

[SoundCloud](#), Berlin

On the Discovery team, I was the lead architect and engineer for search. I migrated us from Solr to Elasticsearch, rebuilt the indexing and query pipelines, and integrated machine learning models for ranking and relevance. I focused on latency KPIs, operational (dev/ops) simplicity, and scalability. That infrastructure continues to power the search product today.

On the Activities team, I rebuilt the infrastructure that powers most of SoundCloud's event feeds to meet orders-of-magnitude increases in growth. At the core is [Roshi](#), an open-source, CRDT-based distributed system for events. Several major product features, including the SoundCloud stream, were powered by Roshi.

On the Infrastructure team, I was the technical lead for a (pre-Kubernetes) containerized application platform based on [The Datacenter as a Computer](#). It included a container supervisor, a cluster scheduler, a service discovery system based on Consul, and the necessary glue components for them to interact.

2010 – 2012

IPTEGO, Berlin

IPTEGO was a small company that made a network monitoring product called PALLADION. I contributed several protocol analyzers, including RTCP, MEGACO, DIAMETER, and RTP. In time, I moved to the core technology group, and built several distributed systems that scaled the product to continent-sized installations at major telecoms. Eventually, I became a product manager for that group, and (among other things) was responsible for build and release management.

I left when IPTEGO was acquired by Acme Packet. Around a year later, Acme Packet was acquired by Oracle.

2009 – 2010

Sabbatical, Johannesburg

I spent a year in Johannesburg, South Africa, volunteering for several NGOs, and contributing to open-source and personal projects.

2006 – 2009

Bloomberg, New York City

Bloomberg is an information services company, focusing on financial data. I was an engineer on the BLAW team, which provided research tools for corporate lawyers. I focused on BBLS, a federated (distributed) legal document search engine. I scaled BBLS from dozens to thousands of concurrent users, and from tens- to hundreds-of-millions of documents. My job involved defining and maintaining strict SLAs, system health monitoring, and code quality control measures.

2002 – 2006

ADTRAN, Huntsville

ADTRAN manufactures network equipment for carriers and the enterprise. I was a co-op student engineer (like a recurring internship) on several different teams. I implemented SNMP and TFTP features on embedded-class hardware, and developed multiple new features for ADTRAN's routers and switches, with an emphasis on security and VPN technologies.

2001 – 2006

Clemson University, Clemson

I earned a Bachelor of Science (B.S.) in Computer Engineering, which is a mix of pure Computer Science and Electrical Engineering. I emphasized software engineering and network (distributed) programming. I graduated with honors, and a minor in mathematics.