Angelo **Failla**

STAFF SITE RELIABILITY ENGINEER

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"The best way to complain is to make things."

Summary

Engineering leader with 25+ years of experience, including 14 years at Meta/Facebook. Expert in large-scale systems, infrastructure automation, and organizational leadership. Proven track record of delivering high-impact projects and leading high-performing teams.

Experienced in system architecture, incident management (IMOC), and cross-functional collaboration. Strong background in both hands-on technical work and strategic leadership. Expeienced in public speaking at technical conferences (view talks).

Seeking senior leadership role to leverage expertise in team development, technical strategy, and infrastructure reliability.

Skills

People & leadership	Hiring, mentoring and growing teams/individuals.
Stakeholder management	Communication with executives, product owners and engineering teams.
Strategic Planning	Roadmap definition, SLIs, SLOS, OKRs and cross-functional alignment.
Operational Excellence	Incident management, on-call processes, SLA enforcement.
System Administration	UNIX (Solaris, FreeBSD, OpenBSD), Linux (Redhat base systems, Debian based systems), `systemd`
Programming and scripting	`Python`, `Go`, `Rust`, `C++`, `LaTeX`, `Shell`, `Sed`, `Awk`, `Perl`, `Ruby`
Infrastructure & Tools	Containerization, IaaS, Automation, Version control (`git`, `mercurial`), Monitoring and Observability
Languages	English, Italian

Experience

Meta(Facebook)
Dublin, Republic of Ireland

STAFF PRODUCTION ENGINEER (IC6) — *March 2011 - Present*

Progressed from IC3 to IC6, leading critical datacenter automation and bare metal provisioning initiatives. Recently, led efforts to transform OS management for Meta's custom network switch infrastructure (FBOSS), focusing on scalability, reliability, and time-to-provision improvements.

October 2022
April 2025

PRODUCTION ENGINEER (IC6) - TEAM(S): NETWORK OS

Initially collaborated with US engineers to develop an immutable image-based OS management system for the compute fleet, then led initiative to adapt and transform this approach for Meta's network switch infrastructure (FBOSS).

- **Advocated and established dedicated team** for implementing the new OS management approach, securing buy-in across organizational levels in the neteng organisation.
- **Achieved 87% reduction in network switches' provisioning time** (from 2 hours to 15 minutes) with initial prototype.
- **Improved operational efficiency** in rack ingestion, moves, and repair workflows.

April 2014
October 2022

PRODUCTION ENGINEER (IC4->IC6) - TEAM(S): CLUSTEROPS -> CLUSTERINFRA -> HOST PROVISIONING ENGINEERING -> DC BOOTSTRAP

After SRO team automation success, I transitioned to ClusterOps team, managing core infrastructure services (DNS, LDAP, NTP, DHCP, TFTP) and bare metal provisioning systems. During this period, I achieved several key milestones:

- **DHCP Infrastructure Modernization**: Led redesign of Meta's DHCP infrastructure using ISC KEA. Presented at SRECON EMEA 2015.
- **IPv6-only Initiative**: Led PXEboot adaptation for IPv6-only datacenters (Internet Society case study).
- **`dhcplb`**: Designed and led development of a high-performance DHCP load balancer in Go, later open-sourced and widely adopted. Still powering Meta's infrastructure. The dhcp libary made it to the opensource tinkerbell project
- **PXEboot stack modernization**: Designed and led the rewrite of the PXEboot infrastructure from Python to Go for improved scalability.
- **Ramdisks and OS installer**: Led the team responsible for design and develop a custom installer to replace RedHat anaconda/kickstart, using u-root based initrd.

March 2011	Site Reliability Engineer (IC3->IC4) - Team(s): SRO
April 2014	

As Site Reliability Engineer in the SRO team, I managed critical infrastructure operations and developed automation tools while working in a follow-the-sun model with the Palo Alto team.

- Participated in developing key internal tools including FBAR, HostChangeLog
- Performed hotfixes of WWW during EMEA day time
- Led critical maintenance operations including kernel updates, OS updates, and host reprovisioning
- Participated in fleet migration from `cfengine2` to `chef`
- Designed scalable `netconsole` monitoring system for kernel diagnostics, laid the foundation for netconsd

NewBay Software   *Dublin, Republic of Ireland*

Senior Deployment Engineer   *February 2008 - March 2011*

Managed software deployment and customer integration projects for telecommunication clients (e.g., T-Mobile, Telstra), providing digital content services like photo storage, blogging, and social aggregator platforms. Responsibilities included advanced troubleshooting, developing deployment tooling, executing front-end deployments, and configuring VPNs for secure SMS/MMS gateways. Proficient with a diverse technology stack including Cisco, Oracle/MySQL, Java Messaging Systems, F5 BigIP, Red Hat/Solaris, and Tomcat/JBoss.

MOVIA SpA   *Catania, Italy*

Unix System and Network Administrator, Programmer and IT Consultant   *September 2005 - January 2008*

Administered and maintained corporate network infrastructure across three Italian offices, including intranet security (OpenVPN, Cisco), web presence, mail servers, and version control systems. Provided IT consultation to major clients like Nokia Italy and Vodafone Italy.

ComputerLine SRL   *Catania, Italy*

Unix Sysadmin and Network Administrator   *December 2004 - September 2005*

Provided web hosting, web design, and IT consulting services. Responsibilities included maintenance of internet services (DNS, Web, FTP, Mail), DNS domain registration, and technical support.

UZED@ SRL   *Catania, Italy*

L.A.M.P. Web developer and system administrator   *December 2004 - September 2005*

Provided web hosting, web design, and IT consulting services. Responsibilities included maintenance of internet services (DNS, Web, FTP, Mail), DNS domain registration, technical support, and web application development using PHP and MySQL.

University of Catania, Department of Engineering   *Catania, Italy*

L.A.M.P. Web developer   *January 2001 - December 2002*

I was responsible for building and maintaining the students e-learning portal.

Infozoo Project   *Catania, Italy*

Visual Basic developer   *January 2001 - March 2002*

Small software house developing software for the retail sector. I have worked as a Visual Basic coder, my mainly responsibility was writing drivers to enable communication between electronic scales (on RS232).

Publications

Public talks

2016	**[link] FBTFTP: Facebook's open source python3 framework for dynamic TFTP servers**, EuroPython 2016	*Bilbao, Spain*
2015	**[link] DHCP Infrastructure Evolution at Facebook**, SRECon EMEA 2015	*Dublin, Ireland*
2014	**[link] Python @ Facebook**, Pycon Ireland 2014	*Dublin, Ireland*

Other publications & mentions

2019	**[link] Extending DHCPLB: The path from load balancer to server**	*Online*
2016	**[link] DHCPLB: An open source load balancer**	*Online*
2015	**[link] Interview on the ISC's blog: How Facebook is Using Kea in the Datacenter**	*Online*
2015	**[link] Using ISC Kea DHCP in our data centers**	*Online*
2014	**[link] Looking back on "Look Back" video**	*Online*

Education

Università degli studi di Catania   *Catania, Italy*
B.S. in Computer Science and Engineering   *1999 - 2005*

Completed 10 out of 30 exams while gaining invaluable industry experience through concurrent full-time tech positions. Transitioned to full-time professional roles to pursue hands-on learning opportunities in the field.

I.T.I.S. "Guglielmo Marconi" (High school)   *Catania, Italy*
Diploma in Computer Science Technician   *1994 - 199*

Five-year technical program with focus on Computer Science in final three years. Gained strong foundation in C/C++, RDBMS, and UNIX systems. Graduated with highest honors (110/110).

Publicly accessible projects

Yubiswitch   *github*
Objective-C, C
A macOS status bar app to toggle Yubikey's OTP functionality. Mentioned in YubiCo's blog post. Initially a personal project, it gained popularity among users and tech employees at Meta, Apple, Google, and other big tech companies.

dhcplb   *github*
Golang
A DHCP load balancer and server running at Meta's datacenters. For the full story of how the project was born and went from hack-a-thon project, to summer internship to production read this post in Meta's engineering blog.

fbtftp   *github*
Python
fbtftp is Facebook's implementation of a dynamic TFTP server framework. It lets you create custom TFTP servers and wrap your own logic into it in a very simple manner. Facebook used it in production, and was deployed at global scale across all of data centers before being replaced by a golang implementation first, and a rust implementation later.

Extracurricular Activity

Long distance cycling (aka randonneuring/audax)
I have completed several 200km, 300km, 400km, and 600km rides. I have particpated to the 1200km Paris-Brest-Paris twice: once in 2019 (had to scratch after 600km) and in 2023 (finished with a few hours to spare).

Volunteered to local LinuxUser Group
In the early 2000s, I volunteered at the Linux User Group in Catania, Italy. I helped organize events to promote Open Source/Free Software, gave talks about Linux and open source software in schools and at the university, and helped setting up labs with Linux computers in schools using cheap hardware and free software.