Julien Vermillard

IoT Architect

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🔗 https://vermillard.com

About me

Software Architect with 25 years of experience:

★ Holistic view of IoT: cloud, embedded software, hardware, security, protocols and customer business transformation
★ Public speaking and leading open-source software projects
★ At scale backend and embedded software hands-on experience

Work experience

Since August 2022

IoT Consulting: Architecture and development

Self-Employed Remote

IoT architecture:
- connectivity selection: cellular, wifi, thread, CoAP, MQTT, LWM2M, WebSocket
- cyber security: secure boot, key storage, (D)TLS hardening

Cloud engineering:
- performance and scaling solution to multiple millions of devices
- Java, Kotlin, Go, Typescript, AWS, Kafka, Kubernetes Devops, CI/CD

Embedded software:
- bare-metal, Zehpyr RTOS, Linux (Yocto, Debian)
- C, Rust, NRF, STM32

EU/US Customers: Tado°, EdgeIQ, AetherRF, Astrohaus, EDF R&D

From 2021 to July 2022

Sr. Director Architecture

Sierra Wireless Toulouse, France

Lead the global IoT platform architecture team: **AWS, Azure, Embedded software (Linux/RTOS) architecture**

From 2017 to 2021

Principal Engineer: System Architect and R&D manager

Sierra Wireless Toulouse, France

- **Principal Architect for Sierra Wireless Octave:** New Leading Device-to-Cloud IoT Platform
- **Technical leadership:** From incubating the idea to Minimum Viable Product

From 2011 to 2017

Principal Engineer, IoT Cloud

Sierra Wireless Toulouse, France

- **Principal Engineer:** design, development and operation of device management SaaS: OMA-DM, Lightweight M2M, CoAP, MQTT. Managing up to 10 millions of devices on AWS.
- **Technical leadership:** device to cloud communication and security: PKI X509 HSM TLS
- **Thought leadership:** public speaking and open-source projects (Eclipse Leshan)

From 2005 to 2011

Software Engineer - R&D Leader

Archean Technologies Montauban, France

- **Management:** Team of 4 engineers, Java server, Embedded software and Electronic design
- **Engineering:** Development of public address sound management appliance, built on Java and embedded Linux (Buildroot) and Audio Digital Signal Processing (CELT, SPEEX, MP3, ALSA, μC Linux on Blackfin)

From 2002 to 2005

Software Engineer

Tyco Fire and Security / Bouyer Montauban, France

In charge of the public address SCADA system development (Java, C++)

From 2001 to 2002

Software Engineer

Technicoffice Toulouse, France

Car fleet management software development, Java/PHP/Oracle.

From 2000 to 2001

Project Manager

R-Système Toulouse, France

From 1999 to 2000

Software Developer

Xperts Toulouse, France

Education

2003 — Bachelor's degree (DEST)
Conservatoire National des Arts et Metiers Toulouse, France

1999 — DUT
Univeristy of Toulouse III Toulouse, France

Other

Opensource:
- Founder of Eclipse Leshan: https://www.eclipse.org/leshan/ the leading LWM2M implementation
- Member of the Apache Software Foundation (Apache MINA, Directory and mentoring)

Public speaking:
List and recording at: https://vermillard.com/publicspeaking/

Blog: https://vermillard.com

Slides: https://www.slideshare.net/jvermillard

Github: https://github.com/jvermillard

Languages

French

English

Spanish

Social networks

in @jvermillard

🐦 @vrmvrm