



Julien  
Vermillard

**IoT Architect**

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## About me

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### Software Architect with 20+ years of experience:

- ★ Holistic view of IoT: cloud, embedded software, hardware, security, protocols and customer business transformation
- ★ Strong communication skill and public speaking experience
- ★ At scale backend and embedded software hands-on experience
- ★ Years of experience in leading and developing opensource software project

## Work experience

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- Since August 2022 • **IoT Architect**  
**Self-Employed** Remote  
**Tado (contract)**
  - CoAP/DTLS server scalability and performance optimization (AWS, Kotlin, Thread/Matter)**EdgelQ (contract)**
  - SaaS product design running on AWS (Java, Go, Kubernetes, Apache Kafka)
  - IoT: Lightweight M2M integration and hardening, MQTT, IoT security
- Since 2021 • **Sr. Director Architecture**  
**Sierra Wireless** Toulouse, France  
Lead the global IoT platform architecture team:
  - **AWS and Azure cloud architecture leadership**
  - **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
  - **Management:** Globally distributed engineering team (Canada, France, Vietnam)
- From 2011 to 2017 • **Principal Engineer, IoT Cloud**  
**Sierra Wireless** Toulouse, France
  - **Principal Engineer:** In charge of the design, development and operation of multiple device management server: OMA-DM, Lightweight M2M, CoAP, MQTT. Managing up to 5 millions of devices.
  - **Technical leadership:** device to cloud communication and security: PKI HSM TLS
  - **DevOps:** Hosted and operated on premise and AWS cloud
  - **Thought leadership:** public speaking and leading open-source projects (Eclipse Leshan, Californium, Wakaama), standard body contribution (OMA)
- 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, build on Java and embedded Linux (Buildroot) and Audio Digital Signal Processing
  - **Innovation:** New low latency (sub 10ms) voice streaming system for fire safety, based on CELT, SPEEX, MP3, ALSA, µC Linux on Blackfin DSP processor
- 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

## Education

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- 2003 ● Bachelor's degree (DEST)  
**Conservatoire National des Arts et Metiers** Toulouse, France
- 1999 ● DUT  
**Univeristy of Toulouse III** Toulouse, France

## Other

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### 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:

Thingmonk 2017: "What the M2M grandpas can teach the IoT kids"

EclipseCON EU 2016: "Hands-on: Manage your devices with Lightweight M2M and connect them to your cloud"

OMA LWM2M Workshop 2016 (San-Diego): "Running a LWM2M client on Arduino Yun, MangOH & Qualcomm"

Virtual IoT meetup: "Building and managing IoT apps with LWM2M"

Toulouse IoT meetup: "The 5th Elements of IoT Security"

EclipseCON FR 2015: "The 5th Elements of IoT Security"

EclipseCON FR 2015: "Hands-on with Lightweight M2M: run a smartwatch on the IoT"

EclipseCON NA 2015: "The 5th Elements of IoT Security"

OMA LWM2M Workshop 2015: "Eclipse IoT & Lightweight M2M"

Oracle JavaONE 2014: "Powering your next IoT application with MQTT"

Oracle JavaONE 2014: "Find your way through the IoT protocol jungle with Java"

IoTConf Berlin 2014: "M2M, IoT One Protocol to rule them all?"

EclipseCON France 2014: "Hands-on with CoAP"

Eclipse Day Florence: "M2M, IoT One Protocol to rule them all?"

Toulouse IoT meetup: "Introduction to MQTT"

EclipseCON NA 2014: "M2M, IoT One Protocol to rule them all?"

EclipseCON NA 2014: "Powering your next IoT application with MQTT"

EclipseCON FR 2013: "The CoAP protocol"

**Blog:** <https://medium.com/@vrmvrm>

**Slides:** <https://www.slideshare.net/jvermillard>

**Github:** <https://github.com/jvermillard/>

## Languages

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**French**

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**English**

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**Spanish**

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## Social networks

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**in** @jvermillard

**🐦** @vrmvrm