

Julien Vermillard





IoT Architect

About me

Software Architect with 20+ years of experience:

- ★ Holistic view of IoT: cloud, embedded software, hardware and customer business transformation pain points
- ★ Expert in network protocols and IoT security
- ★ 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

Since 2021
Sr. Director Architecture

Sierra Wireless Toulouse, France

Lead the global IoT product architecture team:

- o AWS and Azure cloud
- Embedded software (Linux/RTOS)
- o Cellular network architecture

From 2017

Principal Engineer: System Architect and R&D manager

to 2021 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)
- Thought leadership: Subject matter expert on IoT protocols (LWM2M, CoAP, MQTT) and security

From 2011

to 2017

Principal Engineer, IoT Cloud Sierra Wireless Toulouse, France

- o 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

Software Engineer - R&D Leader

to 2011

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
- o 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

Software Engineer

to 2005

Tyco Fire and Security / Bouyer Montauban, France

In charge of the public address (audio broadcasting) SCADA system development (Java, C++) and managing external contractors

From 2001

Software Engineer

to 2002

Technicoffice Toulouse, France

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

From 2000

Project Manager

to 2001

R-Système Toulouse, France

From 1999

Software Developer

Xperts Toulouse, France to 2000

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:

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

<u>EclipseCON EU 2016:</u> "Hands-on: Manage your devices with Lightweight M2M and connect them to your cloud" <u>OMA LWM2M Workshop 2016 (San-Diego):</u> "Running a LWM2M client on Arduino Yun, MangOH & Qualcomm"

<u>Virtual IoT meetup:</u> "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 —————	Social networks
French	in @jvermillard
English	y @vrmvrm
Spanish	