

Julien Berton

Systems & network architect · trainer

Cisco CCDP & CCNP · VMware vExpert 2017-2022 · Co-author, ENI Editions

julien@berton.me

cv.julienberton.fr

linkedin.com/in/julienberton

EXPERTISE

Network architecture & integration

VMware to Proxmox VE migration

Cybersecurity & Zero Trust architecture

IT infrastructure audit

Technical training

Smart building & digital twin

TECHNOLOGIES

Infrastructure

Proxmox VE VMware vSphere
VMware vSAN VMware vRops
VMware Horizon View PowerCLI
Cisco IOS Cisco Nexus
Cisco Meraki Citrix XenApp
Citrix XenDesktop Debian
Veeam Zabbix Puppet
PowerShell Python
Clustering & HA Ceph NFS
iSCSI

Cybersecurity

Zero Trust VLAN VXLAN
VMware NSX Proxmox SDN
Firewall & DMZ pfSense
Wazuh (SIEM) PKI VPN
IDS / IPS ANSSI ISO 27001

Smart building & digital twin

BMS control Unreal Engine 5
Datasmith KNX BACnet
Modbus MQTT ESP32
Python BIM IFC

Teaching

Certification tracks
Train-the-trainer On-site
Remote Hybrid
Skills assessment

PROFILE

13 years designing, securing and migrating **Cisco, VMware and Proxmox** infrastructures on Debian GNU/Linux, and training the teams who run them. Systems and network architect at CESI since 2018, former **Technical Director France for Cisco Networking Academy** and co-author of *VMware vSphere 6 - Concevez votre infrastructure de virtualisation* (ENI Editions, in French). I run projects from audit to handover, documentation and knowledge transfer included.

RECENT HIGHLIGHTS

Architecture

of a smart building, restored to service

Cisco, VMware and Debian infrastructure taken over, Wi-Fi migrated to Cisco Meraki, Zabbix monitoring, Wazuh SIEM, Veeam backup.

800M+

rows collected and analyzed, multi-protocol BMS control

Control of heat pumps, air handling units and lighting, Python data collection (BACnet, Modbus, DyNet, TCP/IP), real-time digital twin on Unreal Engine 5.

50+

VLANs in Zero Trust

Over 1,000 firewall rules, end-to-end segmentation.

5-30 min

downtime per VM

Full migration from vSphere 8 to Proxmox VE.

≈€200k

Cisco × CESI project

APIPA project led from design to deployment.

EXPERIENCE

CESI École d'Ingénieurs

Nov. 2018 - present

Systems and network architect, national partnerships manager

- **Complete redesign** (systems, network, storage) of a smart building to bring it back to nominal operation, from the physical layer to the application layer: Cisco, VMware vSphere, Debian GNU/Linux.
- **Smart building**: control of the equipment (heat pumps, air handling units, lighting) and data collection in **Python** across a heterogeneous environment (BACnet, Modbus, DyNet, TCP/IP); management and analysis of more than 800 million rows (collection, database storage, maintenance).
- **Zero Trust firewalling**: more than 1,000 rules, 50+ VLANs, VXLAN. Wi-Fi migrated from a WLC / Aironet architecture to **Cisco Meraki**.
- **Zabbix monitoring, Veeam Backup & Replication** backups, compliance and mass deployment with **Puppet**.
- Building cybersecurity following ISO 27K, ANSSI and GDPR, security and compliance monitoring with **Wazuh**, training for staff and students.
- **Migration from VMware vSphere 8 to Proxmox** with 5 to 30 minutes of downtime per resource: architecture, configurations, backup, documentation, security policy and load-shedding procedures adapted.
- **Digital twin** of the building on **Unreal Engine 5**, mirroring its sensors and actuators in real time, with the associated API.
- Led the **APIPA project** between Cisco and CESI (≈€200k): schedule, budget, team, stakeholders, custom development and deliverables.
- Designed teaching modules and delivered engineering courses (CDIO method): systems, networks, architecture, smart building, interoperability, industrial control. Technology transfer to industrial companies.

CERTIFICATIONS

Cisco

- **CCIE** Routing & Switching (written exam)
- **CCDP** (Design)
- **CCNP** Routing & Switching
- **CCDA** (Design)
- **CCNA** Routing & Switching, Security, Wireless
- **CCENT** Routing & Switching
- Data Center Support Specialist: Application Services, Storage Networking, Unified Fabric
- Unified Fabric Technology Support Specialist
- Certified Academy Instructor and Instructor Trainer CCNA & CCNA Security

VMware

- **VCP5-DCV** Data Center Virtualization
- **vExpert** 2017-2022

Other

- IPv6 Forum Certified Network Engineer and Network Trainer, **Gold** level
- ETS **TOEIC** Gold level (885/990)

EDUCATION

SUPINFO International University

International Master of Science in Computer Science, 2008 - 2013

Software development (C, C++, C#, Java), Linux and Windows Server systems, Cisco networking, Oracle (SQL, PL/SQL, Data Warehouse), management. Ran the campus Linux lab (OpenVZ, VMware ESXi), VPN and VoIP workshops for students.

EXPERIENCE (CONTINUED)

Cisco Systems, Cisco Networking Academy

Jul. 2015 - Nov. 2018

Technical Director France, regional manager for Île-de-France, Grand-Est, Bourgogne-Franche-Comté

- Technical lead of the **Cisco Networking Academy** program in France within the country's digital transformation plan (Country Digitization Acceleration), the first of its kind worldwide for Cisco.
- Memorandum of understanding between Cisco France and the French Ministry of Education: contribution to training **200,000 students in 3 years**, 174% program growth.
- Processes, strategies and platform adapted to the plan's objectives.
- Designed **three new networking courses** with the US teams for 165,000 middle-school students (French middle-school reform), and trained 1,500 teachers on them.
- Train-the-trainer and **Instructor Trainer** (CCNA R&S, CCNA Security, CCNA CyberOps, CCNP R&S): more than **500 instructors** trained.
- Business and technical talks on IoT and cybersecurity.
- As regional manager: **24%** growth in FY18, top regions of the program.

SUPINFO International University

Feb. 2014 - Jul. 2015

Lead instructor

- Managed the academy's Cisco courses: CCNA R&S, CCNA Security, IoT / IoE. Taught CCNA and CCNA Security.
- Trained CCNA and CCNA Security instructors at the instructor training center, managed certified instructors and partners.
- Built teaching automation tools (SubjectGenerator, QuizGenerator, MailParser).

Virtuali

Apr. 2013 - Feb. 2014

Systems and network architect

- Designed and deployed **Cisco Nexus** data centers (2K, 3K, 5K, 7K), wired and wireless infrastructures (ISR G1/G2, Catalyst, Aironet).
- Deployed **Exchange 2010/2013** and migrated from Exchange 2003.
- Integrated **VMware vSphere 5 and View** for large accounts, sizing server and desktop virtualization.
- Fully automated a **Citrix XenApp** deployment with VMware PowerCLI and Citrix PowerShell.
- Presented the company's solutions at industry events.

ACTIVITIES

- **Proxmox HomeLab** maintained continuously: 65 virtual machines in production.
- TV appearances with Cisco (BFM Business), FFIE and other industry partners.
- IoT tools for home automation (Raspberry Pi, ESP8266, ESP32).

PUBLICATION

Co-author of **VMware vSphere 6 - Concevez votre infrastructure de virtualisation**, ENI Editions (ISBN 978-2-409-00031-7), in French.

LANGUAGES

French, native
English, professional (TOEIC 885/990)