

Boris Guimberteau

Network Engineer, IP Architect

 Bordeaux, France

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 [LinkedIn](#)

Languages

French

Native speaker

English

C2 Level (Cambridge CAE 202/210 points; TOEIC 975/990 points, expires Dec 2025; TOEFL 108/120 points, expires Dec 2027)

Spanish

B2 level (7 years of study)

Volunteering

Fédération des Associations de Télécom Saint-Étienne (FATSE)

Academic tutor

April 2024

Saint-Etienne, France

- Taught Physics and Chemistry to high school students preparing for competitive engineering school entrance examinations
- Prepared comprehensive solutions in LaTeX for distribution to all participants

Université Jean-Monnet-Saint-Étienne

Scientific partner for the class (Partenaire scientifique pour la classe)

November 2023 - January 2024

Saint-Etienne, France

- Taught electricity concepts to 4th/5th grade students at Jean Ravon primary school through hands-on experimentation
- Designed age-appropriate activities to introduce scientific thinking

MUNASC (Model United Nations)

Head of Finances

September 2019 - September 2020

Bordeaux, France

- Secured sponsorships and managed event budget
- Liaison between school administration and event management team

Graduate engineer with practical experience in datacenter network architecture and strong academic foundations in telecommunications. Having deployed VxLAN EVPN fabrics in production environments and achieved top results at Politecnico di Milano (30/30 cum laude) and Télécom Saint-Étienne (ranked 1st in Routing & Switching), I am pursuing advanced study in cybersecurity to deepen my theoretical understanding of systems and network security, with the aim of contributing to the design of robust, secure network infrastructures.

Education and Relevant Coursework

Imperial College London

London, United Kingdom

September 2026 - September 2027

MSc Computing (Security & Reliability)

Télécom Saint-Etienne

Saint-Etienne, France

Summa Cum Laude

September 2022 - September 2025

Diplôme d'Ingénieur (Master of Engineering)

Specialization: **Networks and Telecommunications - Graduated with highest honours** (Summa Cum Laude) - Top 3% of Class

Specialized Networking Coursework:

- Routing and Switching (Switching, Routing, Ethernet, IP, IEEE 802.11, IPsec VPN)
- Systems (Operating Systems, Servers and Protocols, Computer Architecture)

Politecnico di Milano

Milan, Italy

September 2024 - February 2025

Master's degree in engineering

Telecommunications engineering student as part of the Erasmus exchange program.

Specialized Telecommunications Coursework:

- Optical and Transport Networks (SDH, PDH, PON, Network Synchronization, IEEE 1588 PTP, NTP)
- Network Automation (SDN, SD-WAN)
- Wireless Communications (Channel modelling, MIMO, Beamforming)

Lycée Michel Montaigne

Bordeaux, France

September 2020 - September 2022

Classes Préparatoires aux Grandes Ecoles (PCSI - PC)

Highly selective two-year undergraduate preparatory programme for admission to French Grandes Écoles (elite engineering schools). Intensive curriculum in Mathematics, Physics, Chemistry and Engineering Sciences, broadly equivalent to first two years of undergraduate study with significantly increased rigour and depth. Admission to this programme is highly competitive.

Experience

SII Group consulting for Bouygues Telecom (major French ISP) March 2025 - September 2025

IP Architect

Vélizy-Villacoublay, France

- Designed and specified OSPF/BGP underlay architectures, including vPC redundancy, link aggregation and rigorous IP addressing schemes, for NX-OS IP fabrics across six sites comprising ten production environments supporting 5G mobile infrastructure
- Integrated third-party operator infrastructure (Orange, Free, SFR) through RAN sharing arrangements on shared mobile platforms, requiring careful coordination of routing and isolation boundaries
- Managed IPsec VPN tunnel reconfigurations and implemented firewall policies for inter-operator connectivity, where misconfiguration could impact service continuity and security at national scale
- Decommissioned legacy equipment and modeled new infrastructure in client configuration management databases, ensuring consistency between documented and deployed network states.

Touton S.A (international agri-commodity trading group)

Network administrator

May 2023 - June 2023

Bordeaux, France

- Coordinated firmware upgrades across international firewall infrastructure during scheduled off-peak maintenance windows
- Conducted exhaustive wireless coverage analysis and designed Wi-Fi 6E deployment strategy to eliminate dead zones at headquarters while minimizing capital expenditure
- Provisioned Windows Server 2022 virtual machines for machine learning applications and maintained DNS and IP address databases
- Diagnosed critical network outage affecting all headquarters operations and coordinated with vendor support engineer to restore full connectivity

Projects

VxLAN L2VNI Fabric Deployment

2025

Personal project

Designed and deployed complete VxLAN MP-BGP EVPN fabric comprising 2 spines, 3 leaf switches and 1 border-leaf. Implemented both PIM multicast and ingress replication for BUM traffic handling. Configured vPC redundancy, OSPF underlay routing, inter-backbone connectivity with firewall integration. Produced professional-grade Low-Level Design (LLD) documentation covering architecture, configuration templates, and validation procedures.

VxLAN, L2VNI, MP-BGP, EVPN, OSPF, PIM, BUM, LLD

Production-Scale Homelab

2018 - Present

Personal project

Enterprise-grade compute cluster: 128 cores, 229GB RAM across 4 servers; Dell PowerVault MD3660f Fibre Channel SAN. Production services include Active Directory, Exchange Server (on-premises), SharePoint Server (on-premises), Centreon monitoring, automated Veeam backup, locally hosted On-Demand Video and Music streaming, secure SMB file sharing, web hosting.

VMware ESXi, Windows Server, Linux, Fortinet Fortigate

Overengineered Bulletin Board System (BBS) hosting

2025

Personal project

Reproduced carrier-grade MPLS architecture using 7 Cisco devices (3 Label Switching Routers, 2 Label Edge Routers). Implemented automatic LDP label distribution, MP-BGP sessions for VPNv4 route exchange and per-client VRF isolation. Validated MPLS packet encapsulation via real-time packet monitoring. Application: Telnet BBS hosting across "geographically separated" sites via Layer 3 VPN.

MPLS, LER, LSR, LDP, OSPF, MP-BGP, VPNv4, BBS

Certlab - Network Lab Management Platform

In Development (Beta)

Personal Project

Full-stack web application for network inventory and interactive topology visualization. Features include canvas-based topology editor, port-to-port connections and equipment tagging system (CCNA, CCNP, MPLS, VxLAN). Technology stack: Node.js, React, SQLite/MySQL

Node.js, SQL, React, Lab

Technical Writing at guimberteau.org

2020 - Present

Personal project

Personal technical blog exploring technology, network protocols, and computing history. Article series "The Dance of Protocols" provides pedagogical exploration of networking fundamentals including OSI model and Ethernet

Skills

Networking & Telecommunications

Advanced

VxLAN, EVPN, MP-BGP, IBGP, EBGP, OSPF, MPLS, LDP, PIM, VRF, vPC, VLAN, SDH, PDH, NTP, WiFi, 4G LTE, SD-WAN, SDN, RAN Sharing, Routing, Switching, Synchronisation, Cisco IOS & NX-OS, Cisco Nexus, Fortinet FortiOS, FortiGate, Nokia TiMOS, F5 BIG-IP, IPsec VPN, Network Segmentation, Firewall Policies

Systems & Virtualisation

Advanced

VMware ESXi, Proxmox (PVE), Active Directory, DNS, DHCP, SMB, Fibre Channel SAN, Veeam Backup, Centreon, Linux, Windows Server, Exchange Server 2019 (on-premises), Sharepoint Server SE (on-premises)

Project management

Advanced

Agile methodology, Classical methods (V-model; waterfall; incremental), Jira

Synchronisation & Optical Networks

Advanced

NTP, PTP (Precision Time Protocol), SDH, SONET, PDH, Optical Transport Networks, Network Timing, Clock Synchronisation, Latency Analysis, Jitter, Wander, Allan Variance, Hadamard Variance, Noise Characterisation

Tools & Development

Intermediate to Advanced

Nautobot IPAM, Wireshark, EVE-NG, Python (network automation), Node.js, React, Git, Technical Documentation (HLD/LLD), Visio, Jira