Gérald Colangelo

Hands on R&D manager and CISO

42 years old, father of 2.
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Skills

Development

Good knowledge in software architecture (embedded and client/server).

Expertise in system C development under GNU/Linux.

Good knowledge of Python, Perl, sh/bash scripting, LaTeX.

Basic knowledge of C++, PHP, Java, HTML, CSS, and Javascript.

Systems

Expertise in GNU/Linux systems and their security.

Good knowledge of datacenter environments and their constraints (high availability, density).

Expertise in L3 administration of GNU/Linux systems in server context.

Basic knowledge of Windows, *BSD, and Unix systems (Solaris, AIX, and HP-UX).

Networks

Good knowledge in LAN and WAN network architecture.

Excellent understanding of cybersecurity constraints and threats.

Good knowledge of various protocols from layers 3 to 7 of the OSI model.

Strong knowledge of VPN protocols (IPSec, OpenVPN).

Basic understanding of some layer 2 protocols of the OSI model (802.1x, Wifi, etc. . .).

Good knowledge in network equipment administration (Fortiage, Cisco, HP, etc. . .).

Security

Good theoretical and practical knowledge of common pentesting techniques (network mapping, vulnerability discovery and exploitation, access maintenance).

Good knowledge of the most common network protocols and their weaknesses (packet capture and analysis, replay, interception, and spoofing).

Excellent theoretical and practical knowledge of system and network security methods and mechanisms.

Basic knowledge of hardware exploitation techniques and secure hardware (TEE, Fuse, key)

Soft Skills

Hands-on approach while maintaining a strategic vision.

Strong ability to perform under pressure and time constraints.

Excellent ability to abstract and take a step back from technical problems.

Strong leadership with the ability to inspire and guide teams.

Ability to balance business priorities with technical excellence.

Ability to mentor and develop technical talent.

Professional Experience

Feb. 2024 – Current **Chief Information Security Officer (CISO)**, *Weblib*, Paris (full-remote)

As part of Weblib's global cybersecurity initiative:

- Drafting and maintenance of cybersecurity governance documentation (Security Policy, PAS, PSSI).
- Conducting comprehensive risk analyses on Weblib's products, SaaS platforms, and internal assets.
- Providing guidance and recommendations on the design and implementation of security-sensitive features (Security by Design).
- Establishing, maintaining, and leading the cybersecurity roadmap and associated action plans.
- Supervision of internal and external security audits, and follow-up of corrective actions.
- Implementation of asset and threat mapping, and continuous vulnerability tracking (OpenVAS, CVE feeds, SonarQube).
- Integration of security-by-design principles within product development cycles and DevSecOps processes.
- Organization of cybersecurity awareness sessions for technical and non-technical staff.
- Close collaboration with R&D, DevOps, and operations teams to ensure alignment between business goals and security requirements.

Sep. 2021 – Current **R&D Manager**, *Weblib*, Paris (full-remote)

After Weblib's acquisition of Ucopia and significant turnover:

- Taking over the product R&D: team and processes
- Management of the team (7 to 10 people).
- Management of the Ucopia product lifecycle (Jira, GitLab).
- As part of a major release, restructuring of the source code and participation in the code upgrade.
- Complete refactoring of build makefiles.
- Development of a standalone upgrader (minimal Linux based on Buildroot).
- Design, deployment, and operational maintenance of the SaaS version of the Ucopia product, Ucopia Cloud (KVM, libvirt, IPSec).
- Oversight of the development of a new messaging-oriented middleware (ZMQ, Python3).
- Supervision of the development of new features based on this middleware and code refactoring.
- Supporting the development team in architecture and specification work (Confluence, PlantUML).
- Occasionally, advanced development (Linux driver, C software).
- Implementation of monitoring and quality assurance tools (Kimai, SonarQube, OpenVAS).

May 2021 – Sept. 2021 **SOC Coordinator**, *Sopra Steria*, Toulouse / Toulon

For a major client, coordination of shared SOC activities:

- Back office / Client relationship
- L1 analysis (Splunk Enterprise Security).
- Review and validation
- Incident management

Feb. 2020 – May 2021 **Software and Cybersecurity Architect**, *ECA Group*

On large-scale military projects:

- Analysis of cybersecurity constraints and requirements (ANSSI recommendations).
- Drafting of resulting software specifications (Confluence).
- Study of technical solutions to be implemented (Linux, LXC, C, C++).
- Lead in the design of embedded Linux firmware (Yocto).
- Lead in infrastructure design (drone internal networks, virtualization infrastructure for integration/testing).
- Intellectual property protection consultancy.

Sept. 2016 – Feb. 2020 **Software Architect**, *Neotion*

- Definition and technical specification of the middleware software components of the OTTSpot product (C, Python).
- Selection of Open Source components in accordance with quality, security, and legal requirements.
- Definition and specification of an API-based management service (configuration, update, rights) for deployed devices.
- Definition of a secure protocol for exchange between the service and deployed devices (replay resistance, ...).
- Rationalization and cleanup of the firmware build system (Yocto).
- Support for developers on the most technical issues regarding Linux and security.
- Development, primarily on critical issues (C, Python).
- Client trips (Russia, Asia) for technical supervision of field tests.

Jan. 2016 – Sept. 2016 **Security Architect**, *WyPlay*

- Design of a build security platform for firmware.
- Virtualization of build environments, containerization by functional group (KVM, Qemu, LXC).
- Generic rewriting of build scripts for various projects (Bash, Makefiles)
- Development of a web-based application for build management (python-django).

Aug. 2012 – Jan. 2016 **Software Engineer**, *WyPlay*

- Contribution to DVB software stack (C).
- Development of the CAS management component (C, generic design, multi-CAS).

June 2011 – Aug. 2012 **Owner**, *Ospow*

SaaS company project:

- Implementation of a scalable hosting infrastructure (Linux, Virtualization).
- Development of tools for deployment industrialization (shell, git).
- Development of a cloud-based HR application (python-django).

Oct. 2010 – June 2011 **Software Engineer**, *MailInBlack*

- Responsible for operating system of the company's antispam solution.
- System rewrite for high availability (bash).
- Development of MX synchronization system (perl).
- Level 3 support for critical incidents.

Feb. 2008 – Aug. 2008 **System and Network Engineer**, *Orange Business Services via Clesys*

- Datacenter network compliance.
- Traffic study and platform migration.
- Nortel equipment (switches and load balancers), Quagga/keepalived routers.

Aug. 2007 – Feb. 2008 **System and Network Engineer**, *Orange Business Services via Clesys*, Paris Region, France

- System (Debian, OpenBSD, Red Hat) and network (Cisco, HP ProCurve) administration of the IT system.
- System and equipment upgrades.
- Deployment of OpenVPN, Squid and SMTP anti-spam proxy.

May 2007 – Aug. 2007 **System Architect**, *Orange Business Services via Clesys*

- Log centralization design for PCI Mastercard certification.
- Deployment of high availability log collect (MySQL master/master, syslog-ng).
- MySQL/syslog connector (C)

Nov. 2006 – May 2007 **System Engineer**, *Colt Technology Services via Clesys*

- L2/L3 system administration (Linux, Solaris, AIX).
- LAMP architecture, Tomcat, Websphere, MySQL cluster administration.
- Critical and complex environments.

Aug. 2005 – Nov. 2006 **Security Software Engineer**, *DenyAll*

- C/Apache development on web application firewall (C, Makefile, sh).

Jan. 2004 – Aug. 2005 **System Software Engineer**, *Lexsi*

- Development of integrated security solution for SMEs.
- SMTP filtering, IPSEC VPN, HTTP proxy filtering.
- Solution statistics tool (Perl).
- Occasional security consulting for GNU/Linux systems.

Sept. 2003 – Jan. 2004 **Technical Support**, *Nexen Services*

- Technical support for hosting users (dedicated, shared web, mail).
- Deployment of new DNS servers.
- Bugfix in QMail.

June 2003 – Sept. 2003 **Freelance Translator**, *O'Reilly*

- Translation of the 4th edition of "Linux in a Nutshell" from English to French.

Education

June 2003 **DUT in Computer Engineering (specialized in Networks)**, *IUT Amiens*