Network engineer
Devops

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Skills and abilities

Network

Excellent knowledge of IP networks. Important experience of day-to-day network management. Good knowledge of security best practices.
- Ethernet. IPv4, IPv6 and upper layers.
- Redundancy and high availability.
- Routing protocols like OSPF, BGP and PIM-SM.
- VPN IPsec, L2TP/IPsec, PKI.
- Wireless networks.
- Cisco (6500, 7200, CSS). Nortel (55x0, 8610), Radware (Alteon), F5 (BigIP LTM et GTM), Spirent (Avalanche), Juniper (EX, SRX, ISG), Extreme (Black Diamond). Linux (Netfilter, Quagga, Keepalived, tc).

Programming

Two favourite languages: C and Python.
- C, Objective-C, Java.
- Python, Perl, shell.
- Javascript (JSON, Ajax, JQuery), HTML, CSS.
- SQL (MySQL et PostgreSQL).
- Software configuration management using Git, SVN and CVS.

System

GNU/Linux expert.
- Debian and RHEL distributions.
- Centralized configuration management with CFEngine or Puppet.
- Virtualization: Xen, KVM, VirtualBox, LXC, VServers.
- Applications: OpenLDAP, Apache, nginx, Postfix, Dovecot (POP+IMAP), OpenSSH, PostgreSQL, MySQL, Bind (DNS), FreeRadius, Squid, Zabbix and many others.

Misc

- ITIL certification (ITIL® version 3 Foundation)
- French (native)
- English (fluent, including technical)
- German (basic)

Experience

Since 2008

Orange Portails   **Network engineer**

Member of the network team in the entity hosting the Orange web portal. Orange is the leading telecom and Internet operator in France. Three datacenters. Multi-layer redundancy. Heterogenous environment. Some achievements:
- Many VPN setups including redundant IPsec VPN using BGP for communication between datacenters as well as L2TP/IPsec VPN for roadwarrior access.
- Development of numerous tools to help day-to-day management like a layer-2 network cartography tool.
- Maintainance and development of various needed Linux software components. Monitoring.
- Network architecture evolutions. For example, setup of IPv6 or design of new routing solutions.

2006 — 2008

Wallix   **System and network engineer**

Wallix is a French security editor. IT consultant. Product development. Pre-sales engineering. Some achievements:
- Log concentrator and analyzer Wallix Logbox. Conception and development of the second version. Modular architecture. Support of most logging solutions.
- Monitoring with Zabbix. Adaptation and installation of the solution for an important client in real estate industry.
- Access control through a mandatory server for equipment administration with Wallix Adminbastion. RDP protocol implementation (client and server).

2006	**DSI - ÉNS de Cachan**	**System and network administrator**

Head of network. Responsable réseau à l'École Normale Supérieure de Cachan. CISO. Administration of a NEC TX 7 supercomputer.

2001 — 2006	**CRANS - ÉNS de Cachan**	**System and network administrator**

Technical advisor at CRANS, a non-profit organization managing the student network at École Normale Supérieure de Cachan.

- Network management.
- Large wireless network roll-out based on OpenWRT.
- IP television service roll-out.

2002 — 2006	**Computer science department - ÉNS de Cachan**	**Teaching assistant**

C++, C. Network programming. Compilation and static analysis.

Personnel projects

Since 2009	**GNU/Linux Magazine France**	**Auhor**

Occasional author.

- « Python et le C » (Python and C), Novembre 2010
- « La séparation de privilèges en C » (privilege separation with C), Septembre 2009
- « Python et le réseau » (Python and network) Janvier 2009

Since 2007	**Opensource projects**	**Developer**

Various opensource projects available on GitHub. Mostly C or Python. A few examples:

- lldpd, a 802.1ab daemon with SNMP support.
- Wiremaps, a layer-2 network discovery application.
- snimpy, an interactive SNMP tool with Python.
- Keepalived, healthchecking and high-availability (VRRP).

Since 2007	**Debian**	**Developer**

Official maintainer of various packages in Debian GNU/Linux distribution.

Education

2002 — 2006	**LSV - ÉNS de Cachan**	**PhD in computer science**

Intruder theories for the verification of cryptographic protocols. With highest honors.

2001 — 2002	**ÉNS de Cachan / Université Paris VII**	**Master's degree in computer science**

Vérification. Cryptography. Automata. Complexity. With highest honors.