

## Julien Vehent

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Status

- US Permanent Resident  
- French Citizen

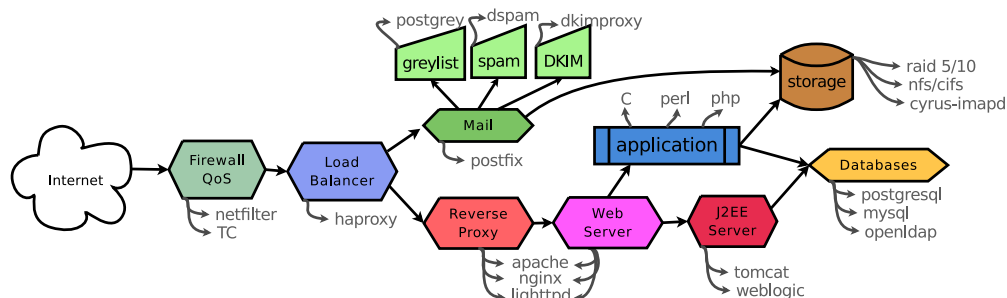
# Internet Security Architect

**OpSec at Mozilla; Linux & network engineer; sometimes programmer; Web hosting security nerd, with a salt of crypto.**

My job is to bring security and reliability to web operations. I do it by building and securing Internet infrastructures from the ground up, from the web browser's javascript to the backend database. I have a Master's Degree in IT Security from University of Poitiers, France, and write from time to time in GNU/Linux Magazine France and on [wiki.linuxwall.info](http://wiki.linuxwall.info). Feel free to check out my [github](#) account for some code and scripts I wrote.

## Technologies

Core skills



## Professional Experience

### Since 04/2013: Operations Security Engineer at Mozilla

I'm a member of Mozilla's Nightwatch. Also known as Security Assurance. I work on securing the servers and networks that power Mozilla.

- WebOps Security: All things related to hosting web applications securely. SSL/TLS, web servers, databases, ...
- Netfilter/Iptables: if it runs on Linux, and needs a firewall rule, I'm interested
- Security Automation: I develop a framework for Test Driven Security, that evaluates operating systems and infrastructure to find nodes that are not compliant with Mozilla's security policies
- Risk and Security Review: part of doing OpSec at Mozilla requires assessing the security of existing and future platform. It's similar to pentesting, but at the platform level. We find the holes in the platforms, and help IT teams fix them.
- and a bunch of others security stuff related to the internet in general, and Mozilla in particular

### 11/2011 to 04/2013: Systems & Security Architect at AWeber Communications

AWeber is an email marketing service provider for small businesses worldwide. I design and implement the security of AWeber's web stack, engineer scalable web hosting infrastructure on Linux.

- Opscode Chef: Actively participated in the automation effort. Wrote security & web architecture provisioning scripts for Opscode Chef, in Ruby (Advanced FireWall (AFW), Ossec, Keymaster, ...).
- Web infrastructure: designed new hosting infrastructure without single points of failures. Load balancing using Haproxy, Nginx tuning, Varnish... all running on Linux.
- Core Networking: lead architect on the redesign of the OSPF/BGP/VPN edge network. Replaced outdated Cisco routers with 10Gbps Linux routers. OSPF/BGP with Quagga, Openvpn, Keepalived, Contrackd, ... Entirely provisionned by Opscode Chef.
- Sysadmin: participate in day to day operations. Systems & network management, datacenter operations and KVM hypervisors. Level 2 on-call rotation.
- HIDS: deployment/maintenance of OSSEC for systems security monitoring
- GeoIP: developped and implemented a set of geolocation algorithms, in Python, to detect suspicious activities.
- Pentests: internal/external pentests (arachni, nmap, metasploit, ...)
- Education: Prepared and taught security & automation classes internally.

keywords: *ossec, iptables, chef, python, ruby, geolocation, cryptography, log monitoring*

### 03/2011 to 11/2011: Systems Engineer at Greenlink Networks

Greenlink Networks provides rewards programs for local businesses and TV stations. I was in charge of building a bigger, faster and more reliable hosting infrastructure for the 30+ websites of the company.

- Transform the single node architecture into a load balanced cluster.
- Migrate from the datacenter hosted system to Amazon's cloud (AWS).
- Maintain the production and corporate infrastructure on a day-to-day basis.

keywords: *lighttpd, haproxy, tomcat, jboss, postgresql, solaris, centos, EC2*

## **01/2008 to 05/2010: Security Engineer at Axians - Vinci Energies Group**

Project

System Architect of the Knowledge Base, designed and build with Alfresco and Debian

Missions

### ***La Banque Postale - eBanking Security Engineer (7 months)***

Member of the Architecture team: web front-ends security, cryptography, strenghtening of ebanking operations.

### ***ALD International - Business Continuity Engineer (9 months)***

Member of the Security team: BCM developement and testing, IT Disaster Recovery Plan (40+ locations worldwide and 2 datacenters).

### ***Societe Generale - eBanking Security Engineer (1 year)***

eBanking architecture team: web front-ends security and performance, cryptography usage in applications and communications, security audit.

## **04/2007 to 12/2007: Research Engineer at University of Maryland**

Programming of a TCP/UDP proxy in C on Linux 2.6 for connection redirection inside honeypots networks.

## **04/2006 to 08/2006: Assistant to the Chief Security Officer at MAAF Assurances**

Member of the Information System team: Perl programming for security log processing, application of the privation protection law.

## **Since 04/2005: Linux Engineer / Sysadmin at Microgate**

Architecture design and maintenance of the email infrastructure.

## **09/2002 to 09/2004: Tech Support at URSSAF**

Helpdesk and Administration/Maintenance of Windows NT/2000 based networks

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## **Education**

### **2005 to 2007: Master Degree - Information Security Management**

IRIAF - University of Poitiers - GPA: 16.3/20 - Honor: Summa Cum Laude

### **2005: Bachelor Degree - Security and Quality of Telecommunications**

University of Tours - GPA: 13.5/20 - Honor: Cum Laude

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## **Public speaking & Teaching**

2013 - AFW: Firewalling dynamic infrastructures with Chef and Netfilter - Netfilter Workshop 2013 / Open Source Days in Copenhagen, Denmark

2012 - AFW: Firewalling dynamic infrastructures with Chef and Netfilter - Security BSides Delaware 2012

2012 - Workshop: Advanced Netfilter & Iptables - Fosscon Philadelphia

2012 - Netfilter & Iptables Elements - AWeber Communications

2012 - Certificates & Public Key Infrastructures - AWeber Communications

2011 - QoS & Traffic Control in the Linux Kernel - Philadelphia Linux User Group (PLUG)

2010 - Database Security Teacher - IRIAF - University of Poitiers

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## **Writing**

Mozilla Server Side TLS guidelines

Postfix Postscreen: The Zombie Exterminator - GNU/Linux Magazine #147 - April 2012

Web Development with Perl and Mojolicious - GNU/Linux Magazine #138 - May 2011

Fighting Spam with DSPAM - GNU/Linux Magazine #132 - November 2010

QoS and Traffic Control in the Linux Kernel - GNU/Linux Magazine #127 - May 2010

DKIM Email signature and verification with DKIMProxy - GNU/Linux Magazine #125 - March 2010