

# Ray Patrick Soucy

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## Highlights:

- Featured by **Cisco** [1] and **InformationWeek** [2] for IPv6 deployment topics.
- Full Stack Technologist with combination of Networking, System Administration, and Application Development skills.
- **5+ years experience** as a Network Engineer:
  - ISP for **1,000+** public schools (K-12) and libraries
  - Build-out of facilities-based state-wide DWDM optical network, MaineREN [3]
  - Enterprise and Datacenter networking (500+ switches, 1,000+ wireless access points, 1,000+ IP phones)
- **5+ years experience** as a software developer (full stack LAMP development)
  - Linux Administration (15+ years)
  - Multi-process and multi-threaded network daemon development
  - Web Application development (Network Switch management, DNS and DHCP management, customer database and portal)
  - MySQL performance scaling
  - Author of **Cisco for PHP** [4] for CLI device access over Telnet and SSH (GPL)
  - Creator of **RAMBOOT** project [5] a diskless Ubuntu Core powered Linux distribution.

## Experience:

2012 -

### Network Engineer

University of Maine System

- Datacenter and Enterprise Security Architecture
- BGP peering configuration
- Provide after-hours support for occasional On-Call escalation (24-7)
- Previous Communication Specialist Responsibilities

2007 - 2012

### Communications Specialist

University of Maine System

- Project Leader for IPv6 deployment and Linux-based CPE deployment
- Development of internal applications: web-based switch management, customer database, security logging.
- Design, provisioning, and deployment of new network services
- Physical build-out of Optical Network
- Customer Outreach and Training
- Occasional physical install of network connections and equipment.
- Assist in the design of configuration templates, policies, and procedures for network services.
- Providing Level-3 support to Network Operations Center
- Assisting in On-Call rotation for after-hours coverage

2005 - 2007

### Student Network Operations Center Technician

University of Maine System

- Providing Level-2 support for enterprise network issues.
- Monitoring connection status events and working with communications providers to resolve problems.
- Configuration, troubleshooting, and support of Cisco routers used to service remote sites.

## Education:

2004 - 2007     **University of Maine at Fort Kent**  
Computer Applications, B.S. (75% complete)  
Concentration: Information Assurance and Security

**Note:** Hired before completing degree.

## Skills:

### Networking:

IP routing: (policy routing, RIP, OSPF, EIGRP, IS-IS, BGP, MBGP), IP multicast (PIM-SM, IGMP), IPv6; LAN switching: 802.1Q VLAN trunking, STP (and variants), port-security, DHCP snooping, and ARP inspection; QoS and Traffic Engineering; Security: Policy, Cisco ACL configuration, SPI and DPI firewall design and configuration (Cisco, Linux), IPS (snort), and VPN (IPsec, L2TP, OpenVPN); Metro-Ethernet: MPLS, QinQ tagging, VRF-lite, PBB-TE; VoIP: Cisco Call Manager, SIP trunking, VoIP QoS; Wireless: Cisco WCS and Access Points; Legacy WAN: Frame-Relay, ATM, SONET, DSL, ISDN, Dial-Up; Fiber Optic Cabling and Termination; Cat-6 Cabling and Termination; DC power systems.

### Hardware Experience:

Cisco Catalyst 2940,2950,2960,2960X,3500XL,3550,3560,3560X,3750,3750X,4948,6500(Supervisor II, 720), Cisco 7200 VXR, 7600, ASR 9000, Nexus 5000, Ciena CN4200.

### Application Development:

LAMP (Linux, Apache, MySQL, PHP) stack development; Languages: C, C++, Java, PHP, Python; Markup: XHTML, HTML5, CSS, Javascript; Database: Oracle, MySQL, PostgreSQL;

### Operating Systems, Applications, and Tools

Cisco IOS, NX-OS (Nexus), and IOS-XR (ASR), Vyatta, JunOS, Linux-based systems (Red Hat and Debian), Apple Mac OS X, Microsoft Windows Family, Limited experience with BSD variants (OpenBSD, FreeBSD) and Solaris. Wireshark (also tcpdump and other PCAP tools). Microsoft Visio, Microsoft Office, Fiber Optic Termination tools, Fiber Optic Scope, Fiber Optic Light Meter, Fiber Optic OTDR, Fiber Optic Fusion Splicer, Coaxial and Cat-6 termination and testing. DC power system assembly.

## Volunteer Work:

2013             **Head Judge**  
Northeast Collegiate Cyber-Defense Competition [6]

2010 - 2011     **Network Architect and Co-Organizer**  
Northeast Collegiate Cyber-Defense Competition

2000 - 2004     **Webmaster**  
GNU project, Free Software Foundation [7]



## Links:

1. Cisco Education Webcasts: IPv6 Overview & Challenges  
[https://web.archive.org/web/20120703043555/http://www.cisco.com/web/strategy/education/us\\_education/webcasts.html](https://web.archive.org/web/20120703043555/http://www.cisco.com/web/strategy/education/us_education/webcasts.html)
2. Archive of 2010 article for InformationWeek Analytics [http://soucy.org/ipv6/doc/S210210\\_InformationWeek\\_SOUICY.pdf](http://soucy.org/ipv6/doc/S210210_InformationWeek_SOUICY.pdf)
3. MaineREN, Maine's Research and Education Network <http://www.maineren.net/>
4. Cisco for PHP <http://soucy.org/project/cisco/>
5. RAMBOOT <http://ramboot.org/>
6. NECCDC <http://neccdc.net/> (northeast regional for CCDC, <http://nationalccdc.org/>)
7. <http://www.gnu.org/people/past-webmasters.html>