# IEEE Network Special Issue on
## "Open Source for Networking: Development and Experimentation"

Open source plays an increasingly important role in the software and communications industries. For example, open source implementations are widely available for most of Internet protocols, from TCP/IP in kernel space (such as Linux, Android and BSD-based systems), down to MAC/PHY in hardware such as Ethernet and WLAN transceivers, and up to applications in user space such as WWW clients, servers and proxies. Open sourced applications are arguably becoming more prevalent than proprietary closed software. Hundreds of open source networking packages have played important roles in our daily life. The same open source spirit also goes to the development platforms for simulation, rapid prototyping, software defined radio, and software defined networking (with ns-3, NetFPGA, GNU radio and OpenFlow being examples in each category respectively).

This special issue aims to provide a platform for sharing experiences on developing network-related open sources from various aspects for a diverse community of professionals from academia, industry and independent hackers. Solicited articles include works reporting development experiences, experimental studies, and enhancement works on important or new packages. Open source packages of interest include, but are not limited to, the following:

- Development platforms: ns-3 (network simulator), NetFPGA (rapid prototyping), OpenFlow (software defined networking), GNU radio (software defined radio)
- Utilities: Wireshark (packet sniffer), NIST Net (WAN emulator)
- Hardware: DES/AES (crypto), OFDM and MIMO (modulation)
- Protocol stacks: TCP/IPv4/IPv6 (Linux- and BSD-based protocol stacks), bridging, drivers, socket, tc (traffic control for Linux), ipfw/dummynet (traffic control for FreedBSD and Linux)
- Daemon and library: Zebra, Quagga, Xorp (routing), RTP/RTCP library (real-time protocol)
- Network security: Snort (IDS), IPsec (VPN), Netfilter and iptables (TCP/IP firewall), FWTK (application firewall), ClamAV (anti-virus), SpamAssassin (anti-spam), Nessus (vulnerability scanner)
- Network applications: bind (DNS), qmail (Mail), apache (HTTP), Darwin (Streaming), Bit Torrent (P2P), Diaspora (social networking)

## Submission

With regard to both the content and formatting style of the submissions, prospective contributors should follow the IEEE Network guidelines for authors that can be found at http://www.comsoc.org/netmag/paper-submission-guidelines. Authors should submit their manuscripts through ScholarOne for IEEE Network. Choose "Special Issue — Open Source for Networking: Development and Experimentation" from the drop down menu on the submission page.

## Schedule

Manuscript Submission: August 1, 2013
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Final Manuscript Due: January 15, 2014
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