

JSAC Special Issue on “Deep Packet Inspection: Algorithms, Hardware, and Applications”

Deep packet inspection (DPI) examines packet payloads to search for signatures of network applications, signs of intrusions, and leaks of sensitive information. It has been applied to broad applications related to content-aware policy control, as well as network security monitoring and network management of Internet traffic. It remains a challenge to (1) combine protocol parsing and contexts to precisely interpret the results of DPI, (2) analyze packet payloads while preserving the privacy of their content, (3) operate the high speeds of broadband links, (4) conduct content-aware policy control, network planning and network management, (5) combat evasion techniques to keep DPI effective, and (6) implement scalable algorithms and architectures to address the above issues. This special issue aims to bring together the state-of-the-art studies done by researchers and practitioners in respect to an extensive range of topics about DPI for *network communications*. The topics of interest include, but are not limited to the following:

- Protocol parsing and semantic analysis for network applications
- Privacy and utility preservation for DPI
- Content-aware policy control, network planning and network management
- High-speed hardware or multi-core assisted DPI at or above 10 Gbps
- Network traffic classification and application identification with DPI
- Network intrusion detection/prevention with DPI
- Network forensics and behavior analysis with DPI
- Scalable pattern matching algorithms for DPI
- Anti-evasion methods for DPI
- Data leak prevention with DPI
- Benchmark and testing methodologies of network devices with DPI
- Automatic signature generation for DPI

Submission Guidelines

Authors must follow the IEEE Journal on Selected Areas in Communications guidelines regarding the manuscript and its format. For details, please refer to the author guide at the IEEE JSAC Web site at <http://www.jsac.ucsd.edu/submit.html>. All papers should be submitted through EDAS (<http://www.edas.info>) according to the following schedule:

- Initial paper submission: 12/15/2013
- First reviews complete: 4/1/2014
- Second reviews complete/acceptance letters sent: 6/1/2014
- Final to publisher: 8/1/2014
- Publication: Fourth Quarter 2014

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