



Security for the Next Wave of Cyber and Social Networks



The computer networking landscape is subject to a multitude of changes that occur very rapidly. First, paradigm shifts such as fog computing, mobile edge computing, Named Data Networking (NDN) and emerging open networking technologies such as Software-Defined Networking (SDN), Network Function Virtualization (NFV), and Programmable Networks are reshaping the way networks are designed, deployed, and managed. The benefits are manifold, including an unprecedented flexibility for network operation and management, and a favorable environment for delivering innovative network applications and services. However, those paradigm shifts bring a multitude of security challenges that have to be addressed in order to provide secure, trustworthy, and privacy-preserving data communication and network services. Second, large scale and distributed deployment of mobile communications, Internet-of-Things (IoT), Intelligent Transport Systems, smart grids or industrial systems has become real but also emphasizes particular privacy and security issues to be overcome, especially when interconnected with Internet.

Addressing all these challenges may require not only revisiting existing solutions (e.g., for intrusion detection, privacy preserving, and resilience against attacks), but also designing novel security and resilience schemes tailored to the specific design of open networking technologies and infrastructures. New types of attacks and threats also appear against usual services over Internet such as DNS or routing. DISSECT 2020 follows the track of its four previous editions, and will put focus on security issues and challenges arising with the emergence of novel networking technologies and paradigms but also on new threats emerging against former services and technologies, towards a secure cognitive management in a cyber-world. The workshop will shed light on new challenges and present state-of-the-art research on the various security aspects of next-generation networking technologies and service management frameworks.

DISSECT will offer a venue for bringing together students, researchers, and professionals from academia and industry sharing common interest on security challenges related to the design and management of the distributed networks and infrastructures. DISSECT is intended to (1) discussing these challenges as well as future trends on security management, (2) presenting and discussing work-in-progress security-related research on cutting-edge technologies, and (3) strengthening collaboration and research ties among peers.

TOPICS OF INTEREST

The industry and academia research community will be invited to contribute with manuscripts describing novel, work-in-progress research on the design of solutions to relevant security issues on a wide variety of next generation networking technologies. The topics of interest of the workshop include, but are not limited to

Secure and resilient design and deployment	Security and availability management
Privacy-preserving solutions	Security for Internet of Things
Security models and threats	Intrusion detection, tolerance, and prevention
Security and privacy properties and policies	Honeypots
Trust and identity management	Network forensics and auditing
SDN or NFV-based security functions and services	Detection and resilience against large-scale distributed attacks
Security of software-defined infrastructures, protocols and interfaces	Security of programmable components
Threat modeling	Security-related business and legal aspects
Security measurement and monitoring	Security challenges and trends for open networking technologies
Industrial Control System security	Secure programmable data plane
Denial of service mitigation	Collaborative intrusion detection
Cloud network security	Blockchain and distributed consensus

AUTHOR INSTRUCTIONS

Paper submissions must present original, unpublished research or experiences. Papers under review elsewhere must not be submitted to the workshop. All contributions must be submitted in PDF format via https://submissoes.sbc.org.br/noms2020_dissect.

All papers must be limited to 6 pages in an IEEE 2-column style and will be subject to a peer-review process. The accepted papers will be submitted for publication in the IEEE Xplore Digital Library. Papers will be withdrawn from IEEE Xplore in case the authors do not present their paper at the workshop.

Authors of the best papers in DISSECT2020 will be invited to submit an extended version of their papers to a Special Issue of the International Journal on Network Management (IJNM).

IMPORTANT DATES

Paper Submission Deadline
Jan 5th, 2020

Notification of Acceptance
Jan 26th, 2020

Camera-ready papers
Feb 16th, 2020

Registration Deadline
Mar 1st, 2020

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For more information, please visit
<http://www.inf.ufrgs.br/dissect/2020>