



# IEEE NFV-SDN

2016 IEEE Conference on Network Functions Virtualization & Software Defined Networks

Palo Alto, California, USA

November 7-9, 2016

#IEEE #NFV #SDN

## CALL FOR PAPERS

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Network Functions Virtualization (NFV) and Software Defined Networks (SDN) enable rapid network and service innovation for all participants in the ecosystem. Decoupling network functions from the underlying physical infrastructure using virtualization technologies enables service innovation. SDN allows programmability of the NFV infrastructure to support the deployment of new network functions in a variety of environments including campus and enterprise networks, data centers, Internet service providers (ISPs), cloud providers, and over-the-top (OTT) application and service providers. NFV enables network capacity and functionality to be decoupled, allowing network functions to be dynamically deployed whenever they are required and wherever they can be hosted. The dramatic industry transformation implied by NFV and SDN will not only impact network computing platforms and network architecture, but will also open up new avenues of research. Further, it enables the deployment of new network functions that enable smart cities/homes/cars/businesses, green infrastructures, new types of user interfaces and cyber physical system realizations. The 2016 IEEE NFV-SDN conference focuses in addition to the latest NFV concepts and mechanisms on first operational results on studies related to virtualized networks functions (VNFs) as well as new applications of VNFs, which smartens networks and their usage.

## IMPORTANT DATES

June 14, 2016	Paper submission deadline
April 10, 2016	Workshop proposal deadline
June 15, 2016	Demo/tutorial/panel/
September 21, 2016	Acceptance notification
October 7 2016	Camera-ready papers

## TOPICS

The IEEE NFV-SDN conference aims at bringing researchers all around the world together to share ideas that can impact the evolution and operation of NFV and SDN technologies. We encourage submission of innovative work on NFV and SDN. The following is a non-exhaustive list of topics:

- NFV and SDN architectures, protocols, application programming interfaces, and programming languages
- Design of NFV and SDN-based forwarding elements (switch/router, optical, wireless, gateway)
- Control plane architectures and network operating systems in NFV and SDN
- New forwarding abstractions and programmability paradigms
- NFV infrastructure architectures including hardware acceleration technologies
- Hardware switches for NFV
- Software switches for NFV architectures
- Open vSwitch (OVS)-related research
- Data and control plane conformance, interoperability, scalability, and performance studies
- Performance evaluation, optimization, isolation, tradeoffs with NFV workloads
- Operational experiences for NFVs
- VNFs designed around architectures for Cloud-native microservices
- Use and performance of container techniques for NFVs
- Design guidelines for scalable, available, composable, and modular VNFs
- Re-architecting the VNFs to advance interoperability and increase performance
- Dynamic service function chaining
- OPNFV-related research & explorations
- Orchestration API
- Service chaining/orchestration and traffic steering in NFV and SDN
- App store management for NFV and SDN
- Tools for validating network services and automated deployment and management
- Applying compositional patterns for parallelism, control logic, performance, and reliability of network services
- Reliability, verification, resiliency, and fault management in NFV and SDN
- Autonomic management technologies in NFV and SDN
- Security functions and services in NFV
- Application of machine learning, big data analytics to NFV and SDN
- Scalable distributed and hierarchical controller architectures
- Software-based integration of computing, storage, and networking
- Commercial models and implications for NFV and SDN ecosystems
- Applications and usage scenarios enabled by NFV and SDN
- Applications of NFV/SDN in IoT, CPS, Smart Cities
- Behavior of combined NFV and SDN control plane
- Operational experiences
- RAN for NFV & SDN architecture options
- NFV & SDN on public/private clouds

**Call for Demos:** The IEEE NFV-SDN conference also invites demonstration papers in the NFV and SDN realms addressing (but not limited to) the topics above. The demonstrations should be configured to run in a cloud environment accessible via Internet and presented from the exhibition space floor on the demonstrator's laptop. Also, an author of an accepted demo is required to register for the conference at the full or limited rate and present the demo at the IEEE NFV-SDN 2016 conference. For information on submission, please visit <http://www.ieee-nfvsdn.org/authors/call-for-demos/>

**Call for Tutorials:** The organizing committee invites proposals for tutorials to be held prior to the main conference. Tutorials should serve one or more of the following objectives: introducing students and newcomers to major topics of NFV and SDN research; providing instructions on established practices and methodologies; surveying a mature area of NFV and SDN research and/or practice; motivating and explaining an NFV and SDN topic of emerging importance; introducing expert non-specialists to an NFV and SDN research area. Proposals should be submitted by electronic mail to the Tutorial Program Co-Chairs. For information on submission, please visit <http://www.ieee-nfvsdn.org/authors/call-for-tutorials/>

**Call for Workshop Proposals:** The committee solicits proposals for one full-day or two half-day workshops to be held on Nov 7, 2016 at the Start of the main technical program. The Scope of the workshops is to complement the main conference program with forums for exchange of technical expertise, development, integration and standardization efforts on particularly focused areas of interest within the frame of the NFV/SDN. Proposals from industry and academia are welcome. Proposals should be submitted by electronic mail to the Workshop Program Co-Chairs. For information on submission, please visit <http://www.ieee-nfvsdn.org/authors/call-for-workshop-proposals/>

**Author & Submission Guidelines:** Prospective authors are invited to submit original technical papers for publication in the IEEE NFV-SDN 2016 Conference Proceedings and for presentation in the technical sessions. We solicit submission of high-quality full papers reporting original and novel research results on all above topics.

Papers must be written in English, unpublished and not submitted elsewhere. Full papers must be formatted as the standard IEEE double-column conference template. All final submissions should have a maximum paper length of six (6) printed pages (10-point font), including figures, without incurring additional page charges (maximum 1 additional page with over length page charge of USD100 if accepted). Papers exceeding 7 pages will not be accepted at EDAS. Submissions should be uploaded on <http://edas.info/N22175>.

To be published in the IEEE NFV-SDN 2016 Conference Proceedings and to be eligible for publication in IEEE Xplore, an author of an accepted paper is required to register for the conference at the FULL (member or non-member) rate and the paper must be presented by an author of that paper at the conference. For authors with multiple accepted papers, one FULL registration is valid for up to 3 papers. Accepted and presented papers will be published in the IEEE NFV-SDN 2016 Conference Proceedings and submitted to IEEE Xplore®.

The IEEE reserves the right to exclude a paper from distribution after the conference (including its removal from IEEE Explore) if the paper is not presented at the conference. Papers are reviewed on the basis that they do not contain plagiarized material and have not been submitted to any other conference at the same time (double submission). These matters are taken very seriously and the IEEE Communications Society will take action against any author who engages in either practice.