

Call for Papers

ACM SIGCOMM Workshop on Information-Centric Networking (ICN-2012)

<http://www.neclab.eu/icn-2012>

The rapid development of Information-Centric Networking (ICN) concepts in the last few years is one of the significant results from multiple international Future Internet research activities. Based on the ICN concepts, the principal communication paradigm is no longer end-to-end data delivery between hosts as in the current Internet architecture. Instead, ICN-based network architectures focus directly on retrieving information objects securely, reliably, scalably, and efficiently. These architectural design efforts aim to directly address the network challenges that arise from the increasing demand for highly scalable content distribution, from accelerated growths of mobile devices, and from wide deployment of Internet-of-things (IoT).

The resulting network architectures are expected to leverage in-network storage, multiparty communication through replication and interaction models to provide effective and efficient data distribution in the communication services, and to provide effective solutions in securing the network infrastructure as well as user data.

Important research topics for ICN include: naming and addressing (how to name information objects, how to represent location information), routing and resolution (deciding on how to forward "interest" in information and actual information objects, whether and how to resolve information object names to lower layer identifiers during that process), resource management (implications of in-network caching and paradigms such as receiver-orientation to resource sharing, congestion control etc.) and security (privacy, data protection and key distribution have to be adapted to the new communication models).

This workshop invites original contributions on Information-Centric Networking architecture topics, specific algorithms and protocols, as well as on results from implementations and experimentation.

ICN-2012 topics of Interest

- Naming and addressing
- Routing and name resolution
- Routing and name resolution scalability
- Support for mobility
- Support for / avoidance of middle boxes
- Models and/or compensation schemes for user contribution to network resources (bandwidth, storage for caching, battery, processing, name resolution, etc.)
- Resource management (caching strategies, congestion control)
- Security, privacy and trust
- Testbeds and simulations frameworks
- Metadata and network extensions
- Real-time traffic over ICN (voice, video, etc)
- PDUs, fragmentation and “packet size” implications on design
- Should ICN be an overlay or an underlay
- Performance evaluation
- Inter-domain operations (protocols, policies, etc.)
- Limitations of ICNs

Submissions

All submissions must be original work that has not been submitted to any other workshop, conference, or journal. The workshop will accept papers describing completed work as well as work-in-progress and ongoing experiments. Papers describing practical experiments are especially invited. Submissions must be no greater than 6 pages in length and must be in PDF format. Reviews will be single-blind: please include authors name and affiliation in the submission.

Submission website: <http://www.easychair.org/conferences/?conf=acmsigcommicn2012>

Important Dates

Abstract registration: ~~March 18, 2012~~ **(extended to March 22, 2012)**

Submissions due: ~~March 25, 2012~~ **(extended to April 1, 2012)**

Notification: May 7 2012

Camera ready due: May 25, 2012

Date of Workshop: August 17, 2012

Committee Information

Steering committee

- Dirk Kutscher, NEC Laboratories Europe
- Giacomo Morabito, University of Catania
- Börje Ohlman, Ericsson
- George C. Polyzos, AUEB
- Ignacio Solis, PARC
- Lixia Zhang, UCLA

Technical Program Committee Chairs

- Dirk Kutscher, NEC Laboratories Europe
- Börje Ohlman, Ericsson
- Ignacio Solis, PARC

Technical Program Committee

- Bengt Ahlgren, SICS
- Hitoshi Asaeda, Keio University
- Tohru Asami, The University of Tokyo
- Jun Bi, Tsinghua University
- Nicola Blefari-Melazzi, U Rome
- Giovanna Carofiglio, ALU
- Yanghee Choi, Seoul Nat. U
- Dave Clark, MIT
- Costas Courcoubetis, AUEB
- Andrea Detti, U Rome
- Stephen Farrell, Trinity College Dublin
- Volker Hilt, ALU
- Jussi Kangasharju, Helsinki University
- Holger Karl, Universitaet Paderborn
- Gunnar Karlsson, KTH
- Teemu Koponen, Nicira
- Anders Lindgren, SICS
- Daniel Massey, Colorado SU
- Christos Papadopoulos, Colorado SU
- George Pavlou, UCL
- Dave Oran, Cisco
- Joerg Ott, Aalto University
- Max Ott, NICTA
- Jarno Rajahalme, NSN
- Thomas Schmidt, HAW Hamburg
- Scott Shenker, ICSI
- Karen Sollins, MIT
- Sasu Tarkoma, University of Helsinki
- Dirk Trossen, Cambridge Univ.
- Ryuji Wakikawa, Toyota ITC
- Lan Wang, U Memphis
- George Xylomenos, AUEB
- Tomohiko Yagyu, NEC
- Edmund Yeh, Yale University
- Beichuan Zhang, U Arizona