

2017 International Conference on Networked Systems (NetSys 2017)

**Goettingen, Germany
13-16 March 2017**



**IEEE Catalog Number: CFP17NSD-POD
ISBN: 978-1-5090-4395-8**

**Copyright © 2017 by the Institute of Electrical and Electronics Engineers, Inc
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP17NSD-POD
ISBN (Print-On-Demand):	978-1-5090-4395-8
ISBN (Online):	978-1-5090-4394-1

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Adaptive ICN Multipath Forwarding for Hybrid Access	1
<i>Navdeep Uniyal, Jan Seedorf, Jeremias Blending</i>	
I(FIB)F: Iterated Bloom Filters for Routing in Named Data Networks	9
<i>Cristina Munoz, Liang Wang, Eduardo Solana, Jon Crowcroft</i>	
Performance Comparison of Node-Redundant Multicast Distribution Trees in SDN Networks	17
<i>Miroslav Popovic, Ramin Khalili, Jean-Yves Le Boudec</i>	
Consistent Retrospective Snapshots in Distributed Event-sourced Systems	25
<i>Benjamin Erb, Dominik Meißner, Gerhard Habiger, Jakob Pietron, Frank Kargl</i>	
gAUDIT: A Group Communication-capable Request-Response Middleware for Auditing Clouds	33
<i>Matthias Flittner, Alexander Weigel, Martina Zitterbart</i>	
Semantic Models for bridging Domains in Automated IT Management: Lessons Learned	41
<i>Andreas Textor, Reinhold Kroeger, Kurt Geihs</i>	
VNF modeling towards the Cloud-RAN implementation	49
<i>Veronica Quintana Rodriguez, Fabrice Guillemin</i>	
Game-Theoretic Analysis of Markovian Play Order in Wireless Networks	57
<i>Peyman Teymouri, Toktam Ramezanifarkhani</i>	
Adaptive Task-Oriented Message Template for In-Network Processing	65
<i>The An Binh Nguyen, Christian Meurisch, Stefan Niemczyk, Doreen Bohnstedt, Kurt Geihs, Max Muhlhauser, Ralf Steinmetz</i>	
Replication Probability-based Routing Scheme for Opportunistic Networks	73
<i>Salem Sati, Andre Ippisch, Kalman Graffi</i>	
Simulating a City-Scale Community Network: From Models to First Improvements for Freifunk	81
<i>Tobias Hardes, Falko Dressler, Christoph Sommer</i>	
The Human Factor: A Simulation Environment for Networked Mobile Social Applications	88
<i>Nils Richerzhagen, Bjorn Richerzhagen, Dominik Stingl, Ralf Steinmetz</i>	
FaVe: Modeling IPv6 Firewalls for Fast Formal Verification	96
<i>Claas Lorenz, Sebastian Kiekheben, Bettina Schnor</i>	
RAIM: Redundant Array of Independent Motes	104
<i>Dominik Schürmann, Felix Büsching, Sebastian Willenborg, Lars Wolf</i>	
Ant Colonies for Efficient and Anonymous Group Communication Systems	112
<i>Tim Grube, Sascha Hauke, Jorg Daubert, Max Muhlhauser</i>	
Decentralized Data Fusion for Urban Micro-scale Monitoring Using Mobile Sensor Network	120
<i>M. Milojevic, J. A. Barria</i>	
Measuring and Predicting Cellular Network Quality on Trains	127
<i>Fabian Kaup, Florian Fischer, David Hausheer</i>	
LEACH-SC: A Spatial Correlation-Based Protocol for Energy-Efficient Data Collection in Wireless Sensor Networks	135
<i>Oualid Demigha, Slimane Bedda, Mossab Chabane</i>	
Leveraging SDN for Collaborative DDoS Mitigation	142
<i>Sufjan Hameed, Hassan Ahmed Khan</i>	
Beyond the Core: Enabling Software-defined Control at the Network Edge	148
<i>Jens Heuschkel, Michael Stein, Lin Wang, Max Muhlhauser</i>	
A Priori State Synchronization for Fast Failover of Stateful Firewall VNFs	154
<i>Nicholas Gray, Claas Lorenz, Alexander Mussig, Steffen Gebert, Thomas Zinner, Phuoc Tran-Gia</i>	
Towards an SDN-based Bandwidth on Demand Service for the European Research Community	160
<i>Alaitz Mendiola, Jasone Astorga, Jordi Ortiz, Jovana Vuleta-Radoicic, Artur Juszczak, Kostas Stamos, Marivi Higuero, Eduardo Jacob</i>	
Towards Resource-aware Flow Delegation for Software-defined Networks	166
<i>Robert Bauer, Addis Dittebrandt</i>	
Benefits of Conditional FPGA Provisioning for Virtualized Network Functions	172
<i>Leonhard Nobach, Benedikt Rudolph, David Hausheer</i>	
Author Index	