

# IFIP WG6.6 & IEEE CNOM Joint Meeting @ NOMS 2020

*IEEE/IFIP Network Operations and Management  
Symposium*

*Budapest, Hungary (Virtual)  
April 20-24, 2020*



# Meeting Overview

- Overview of CNOM and IFIP WG
- Journals and special issues
- Conferences and workshops
- Technical Committee activities

# CNOM

- IEEE organization into Societies
  - IEEE Communication Society composed of Technical Committees
    - **CNOM** (Committee on Network Operations and Management) Technical Committee dealing with network management and operations, and ultimately representing this community in IEEE structure



# CNOM

- CNOM officers (since 04/2019)
  - Chair: Filip De Turck, Ghent University, Belgium
  - Vice-chair: Marinos Charalambides, University College London, UK
  - TPC chair: Carol Fung, Virginia Commonwealth University, USA
  - Secretary: Carlos Raniery P. dos Santos, Federal University of Santa Maria, Brazil

# CNOM

- How to participate?
  - Subscribing to the CNOM mailing list
    - <http://cnom.committees.comsoc.org> go to "Members"
  - Becoming an *Active Member* by satisfying at least one of these conditions in the last two years:
    - Attended (physically or remotely) at least one CNOM meeting
    - Served as TPC or OC member of NOMS/IM, APNOMS, LANOMS
    - Served as an editorial board member or editorial advisory board member of JNSM, TNSM, or IJNM
  - Representing CNOM on ICC and GlobeCom Symposia
    - ICC 2021, 2022
    - GlobeCom 2021



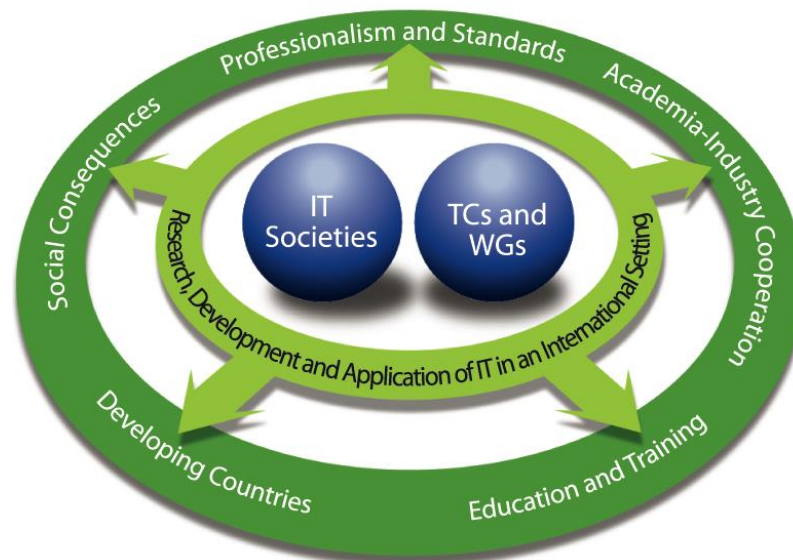
**ifip**  
the leading edge of  
information technology

**TC 6  
WG 6.6  
Network &  
Service  
Management**



# ifip

- Non-governmental, not-for-profit umbrella organization of national learned societies working in the field of Information Technology
- Established in 1960 under the auspices of UNESCO as a result of the first World Computer Congress held in Paris in 1959





# ifip

## Technical Committees

- TC1** Foundations of Computer Science
- TC2** Software: Theory and Practice
- TC3** Education
- TC5** Information Technology Applications

## **TC6 Communication Systems**

- TC7** System Modeling and Optimization
- TC8** Information Systems
- TC9** ICT and Society
- TC10** Computer Systems Technology
- TC11** Security and Privacy Protection in Inf. Processing Systems
- TC12** Artificial Intelligence
- TC13** Human-Computer Interaction
- TC14** Entertainment Computing





# ifip

## Technical Committee TC6

**WG 6.1** Architectures and Protocols for Distributed Systems

**WG 6.2** Network and Internetwork Architectures

### **WG 6.6 Management of Networks and Distributed Systems**

**WG 6.7** Smart Networks

**WG 6.8** Mobile and Wireless Communications

**WG 6.9** Communications Systems for Developing Countries

**WG 6.10** Photonic Networking

**WG 6.11** Communication Aspects of the E-World

**WG 6.12** Services-Oriented Systems



# WG6.6 Activities

- Joint work with IEEE CNOM
- Open platform for community building, animation, promotion and structure setting
- Co-organizing of conferences
- Promoting of journals
- Sponsoring excellence
  - Best paper awards (3-4 per year)
  - Student travel grants (+/- 10 per year)
- IFIP fees paid by the supported workshops and conferences are « re-invested » in our conferences for our community
- All the WG6.6 and CNOM involvement is volunteered
- On the IFIP WG6.6 side: encouraging the alignment of the WG6.6 supported conferences to the TC6 strategy on the Open Digital Library



# What does « WG6.6 Member » mean?

- IFIP WG 6.6 Officer
  - Chair: Rémi Badonnell – TELECOM Nancy, France (since 04/2019)
- Actively volunteer to
  - Contribute to reviews of the community conferences, workshops and journals
  - Encourage and do submissions to the community events and journals
  - Join TPCs and OCs
  - Be active in the mailing-lists
  - Participate to our conferences and meetings

# How to get involved?

- Participate to the WG6.6 meetings in our conferences
  - NOMS, IM, CNSM, TMA
- React and talk on the mailing list (222 pers.)

**[ifip\\_nm@lists.utwente.nl](mailto:ifip_nm@lists.utwente.nl)**

- Visit our IFIP WG6.6 website

**[wg66.ifip.org](http://wg66.ifip.org)**

- Follow us on twitter

**[@ifipwg66](https://twitter.com/ifipwg66)**



# IFIP WG6.6 and CNOM Report

**Overview of journals, their impact factors,  
special issues and upcoming calls**

# IEEE Transactions on Network and Service Management (TNSM)

- EiC: Prof. Filip De Turck
- Journal with the highest impact factor within our community
  - Indexed by Scopus and many others
- <http://www.comsoc.org/tnsm/>

IEEE TRANSACTIONS ON  
**NETWORK AND  
SERVICE MANAGEMENT**  
A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY

	2011	2012	2013	2014	2015	2016	2017	2018
SJR	0.291	0.577	0.369	0.717	0.649	0.663	0.63	0.846
SNIP	0.889	1.719	1.241	1.662	2.322	2.251	2.056	2.440
Citations	104	136	152	153	385	474	683	1181

# IEEE Transactions on Network and Service Management (TNSM)

- Submission format: updated page charges
- Regular calls + special issues + extended versions of best papers selected from conferences
- Current issue: Volume 17, Issue 1
- Thomson Reuters Impact factor: 4.682
- **H-index: 35** (as of 03/20)

<http://www.tnsm-overview.org>

TNSM Searchable Index

www.tnsm-overview.org/search

IEEE Transactions on Network and Service Management

I.F. 3.286

About TNSM

Submit a paper

Contact

Searchable index

Search entry

Use quotation marks (" ") for exact matches

2019 (48)

2018 (126)

2017 (86)

2016 (71)

2015 (45)

2014 (40)

2013 (33)

2012 (38)

2011 (31)

2010 (23)

2009 (20)

2008 (20)

2007 (16)

2006 (9)

2005 (5)

2004 (10)

Author	Title	Year ↓	Issue	Keywords
C. Dong and W. Wen and T. Xu and X. Yang	Joint Optimization of Data-Center Selection and Video-Streaming Distribution for Crowdsourced Live Streaming in a Geo-Distributed Cloud Platform	2019	Early Access	Data centers Streaming media Optimization
W. Xiao and X. Zhu and W. Bao and L. Liu and J. Yao	Cooperative Data Sharing for Mobile Cloudlets under Heterogeneous Environments	2019	Early Access	Peer-to-peer computing Mobile handsets Mobile nodes
K. Zhao and Z. Tu and F. Xu and Y. Li and P. Zhang and D. Pei and L. Su and D. Jin	Walking without Friends: Publishing Anonymized Trajectory Dataset without Leaking Social Relationships	2019	Early Access	Trajectory Correlation Privacy
L. Yang and N. Yang	An Integrated Event Summarization Approach for Complex System Management	2019	Early Access	Correlation Histograms Hidden Markov models
J. F. Gómez and P. Martínez-Galán and A. J. Guillén and A. Crespo	Risk-Based Criticality for Network Utilities Asset Management	2019	Early Access	Companies Asset management Reliability
A. Zakrzewska and D. Lopez-Perez and L. Ho and H. Clausen and H. Gacanin	Cell ID Management in Multi-vendor and Multi-RAT Heterogeneous Networks	2019	Early Access	Long Term Evolution 3GPP Interference
O. L. Barakat and D. Koll and X. Fu	Gavel: A Fast and Easy-to-Use Plain Data Representation for Software-defined Networks	2019	Early Access	Writing Task analysis Relational databases
S. Abedin and M. B. Ghorbel and J. Hossain and B. Berscheid and C. Howlett	A Novel Approach for Profile Optimization in DOCSIS 3.1 Networks Exploiting Traffic Information	2019	Early Access	Hybrid fiber coaxial cables Loading Signal to noise ratio
J. Zhang and D. Guo and K. Li and H. Qi and X. Tao and Y. Jin	CoFlow Scheduling in the Multi-resource Environment	2019	Early Access	Middleboxes Processor scheduling Scheduling
S. Zhao and D. Li and K. Han and Z. Zhu	Proactive and Hitless vSDN Reconfiguration to Balance Substrate TCAM Utilization: From Algorithm Design to System Prototype	2019	Early Access	Substrates Virtualization Heuristic algorithms
C. Sonmez and A. Ozgovde and C. Ersoy	Fuzzy Workload Orchestration for Edge Computing	2019	Early Access	Edge computing Cloud computing Fuzzy logic

Matching entries: 621

1 - 621 of 621

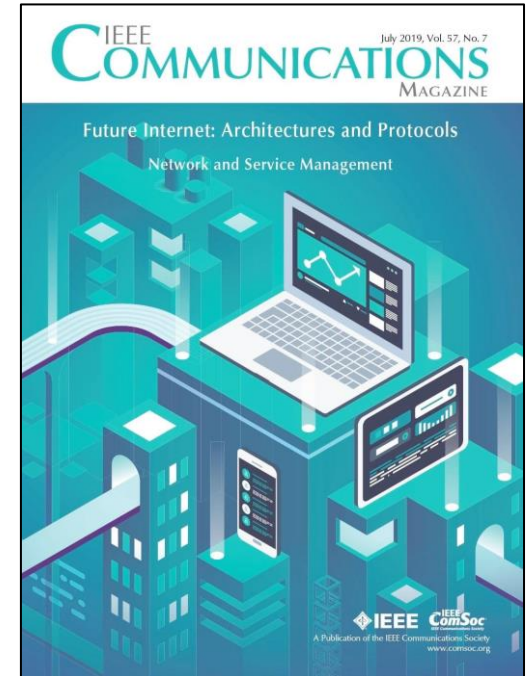
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# IEEE ComMag - Network and Service Management Series

- Magazine Series Editors
  - Prof. George Pavlou  
*g.pavlou@ee.ucl.ac.uk*  
University College London, UK
  - Prof. Jürgen Schönwälder  
*j.schoenwaelder@jacobs-university.de*  
Jacobs University Bremen, Germany
- Submission format: 7 pages
- <http://www.comsoc.org/publications/magazines/ieee-communications-magazine>



# IEEE ComMag - Network and Service Management Series

Issue	Published	Submitted	Accepted	Acc. ratio
1	October 2005	21	4	19%
2	March 2006	23	5	22%
3	October 2006	17	4	24%
4	April 2007	23	4	17%
5	October 2007	14	4	29%
6	April 2008	32	5	16%
7	October 2008	23	4	17%
8	July 2009	29	4	14%
9	November 2009	21	1	5%
10	July 2010	21	3	14%
11	December 2010	22	3	14%
12	July 2011	22	4	18%
13	December 2011	35	4	11%
14	July 2012	20	5	25%
15	December 2012	13	3	23%

# IEEE ComMag - Network and Service Management Series

Issue	Published	Submitted	Accepted	Acc. ratio
16	July 2013	21	4	19%
17	December 2013	22	5	23%
18	July 2014	22	4	18%
19	January 2015	18	3	17%
20	July 2015	16	4	25%
21	January 2016	28	4	14,3%
22	July 2016	16	3	18,8%
23	January 2017	18	2	11,1%
24	July 2017, Vol 55, No.7	23	4	17,4%
25	January 2018, Vol 56, No.1	19	3	15,8%
26	July 2018, Vol 56, No. 7	19	4	21%
<b>27</b>	<b>January 2019, Vol 57, No. 1</b>	<b>21</b>	<b>4</b>	<b>19%</b>
<b>28</b>	<b>July 2019, Vol 57, No. 7</b>	<b>18</b>	<b>3</b>	<b>16,7%</b>
<b>29</b>	<b>March 2020, Vol 58, No. 3</b>	<b>16</b>	<b>3</b>	<b>18,8%</b>

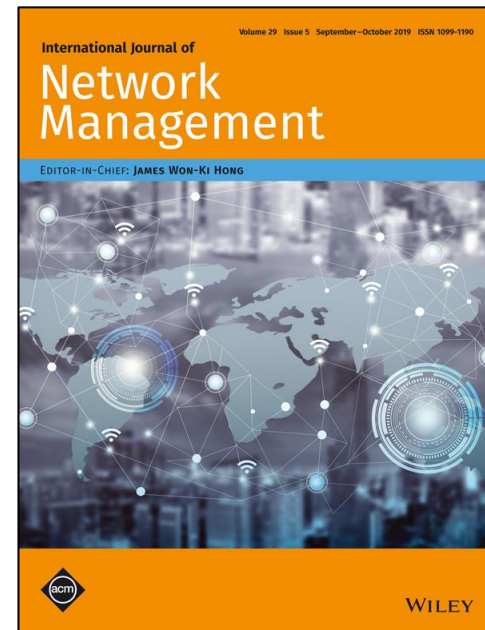
# Journal of Network and Systems Management (JNSM)

- EiC: Prof. Luciano P. Gasparry
- International journal published by Springer / 4 x year
- Current issue: Volume 28, Issue 2
- ISI impact factor:
  - 0.685 (2008)
  - 0.450 (2010)
  - 0.432 (2012)
  - 0.796 (2014)
  - 1.588 (2016)
  - **1.676 (2018)**
- **H-index: 30**
- **Usage: 34288 downloads**
- <https://www.springer.com/journal/10922>



# International Journal of Network Management (IJNM)

- EiC: Prof. James Won-Ki Hong
- AEiC: Lisandro Z. Granville, Jérôme François
- Journal published by Wiley / 6 x year (since 2011, online only)
- Current issue: Volume 30, Issue 2
- Virtual issues published every year
  - Open access for the most cited papers
- ISI impact factor:
  - 0.323 (2010)
  - 0.510 (2012)
  - 0.283 (2014)
  - 0.681 (2015)
  - 1.118 (2016)
  - 1.340 (2017)
  - **1.231 (2018)**
- <https://onlinelibrary.wiley.com/journal/10991190>



# IEEE Journal on Selected Areas in Communications (JSAC)

- EiC: Prof. Raouf Boutaba
- International journal published by IEEE
- Current issue: Volume 38, Issue 2
- ISI impact factor:
  - 4.138 (2013)
  - 3.453 (2014)
  - 3.672 (2015)
  - 8.085 (2016)
  - 7.172 (2017)
  - **9.302 (2018)**

IEEE JOURNAL ON  
**SELECTED AREAS IN  
COMMUNICATIONS**

- <https://www.comsoc.org/publications/journals/ieee-jsac>

# Special Issues

- **TNSM**
  - May 1, 2020: Data Analytics and Machine Learning for Network and Service Management
  - May 15, 2020: Advanced Management of Softwarized Networks
  - October 2020: Latest Developments for Security Management of Networks and Services
  - November 2020: Design and Management of Reliable Communication Networks
- **COMMAG**
  - Move from a deadline-driven system to a rolling open call system
  - Series on Network and Service Management
  - Series on Telecom Software, Network Virtualization, and Software-Defined Networks
- **IJNM**
  - May 2020: Security, Trust and Privacy in Internet of Things: Challenges and solutions
- **JNSM**
  - April 30, 2020: Intelligent and Trustworthy Internet Edge
- **TNSM, IJNM and JNSM**
  - **Are accepting submissions for Special Issues!**

# JSAC Special Issues

- **October 1, 2020: UAV Communications in 5G and Beyond Networks**
- **July 1, 2020: Age of Information in Real-time Systems and Networks**
- **June 1, 2020: Latest Advances in Optical Networks for 5G Communications and Beyond**
- **May 1, 2020: TeraHertz Communications and Networking**
- **January 15, 2020: Massive Access for 5G and Beyond**
- **December 1, 2019: 5G Wireless Communications with High Mobility**
- **December 1, 2019: Wireless Networks Empowered by Reconfigurable Intelligent Surfaces**
- **December 1, 2019: Internet of Things for In-Home Health Monitoring**



# IFIP WG6.6 and CNOM Report

## **Overview and Statistics of Current and Future Conferences**

# 2019 Conferences

	Submitted	Accepted	A.R.	Attendees	Proceedings
IM 2019	131	39	29,7%	~170	IFIP DL, Xplore
TMA 2019	64	25	36,9%	144	IFIP DL, Xplore
NETSOFT 2019	103	20	19,2%	151	Xplore
LANOMS 2019	25	10	40%	~60	IFIP DL, Xplore
CNSM 2019	127	21	16,5%	~134	IFIP DL, Xplore

# 2020 Conferences

	Submitted	Accepted	A.R.	Attendees	Proceedings
NOMS 2020	243	72	29.6%	285	IFIP DL, Xplore
TMA 2020	54	18	33.3%		IFIP DL, Xplore
NETSOFT 2020	90	18	20.5%		Xplore
APNOMS 2020	Call open				Xplore
CNSM 2020	Call open				IFIP DL, Xplore

# NOMS 2020

- 20-24 April, 2020, Budapest, Hungary
- Run as a virtual conference for the first time
- Chairs



<https://noms2020.ieee-noms.org>

- General Chairs
  - Pal Varga, Doug Zuckerman
- TPC Chairs
  - Imen Grida Ben Yahia, Alex Galis, Istvan Godor



# NOMS 2020

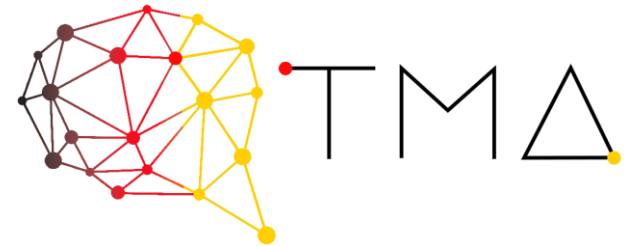
- Conference Program
  - *Theme: Management in the Age of Softwarization and Artificial Intelligence*
  - 20 Technical Sessions (72 papers), 3 Keynotes, 3 Tutorials
  - 2 Experience Sessions, 2 Dissertation Sessions, 3 Demo Sessions
  - 6 Co-located Workshops
    - Analytics for Network and Service Management (AnNet)
    - Security for Emerging Distributed Network Technologies (DISSECT)
    - Graph-based Network Security (GRASEC)
    - Intelligent Transportation and Connected Vehicles Technologies (ITCVT)
    - Management for Industry 4.0
    - Orchestration for Software Defined Infrastructures (O4SDI)

# Future Conferences

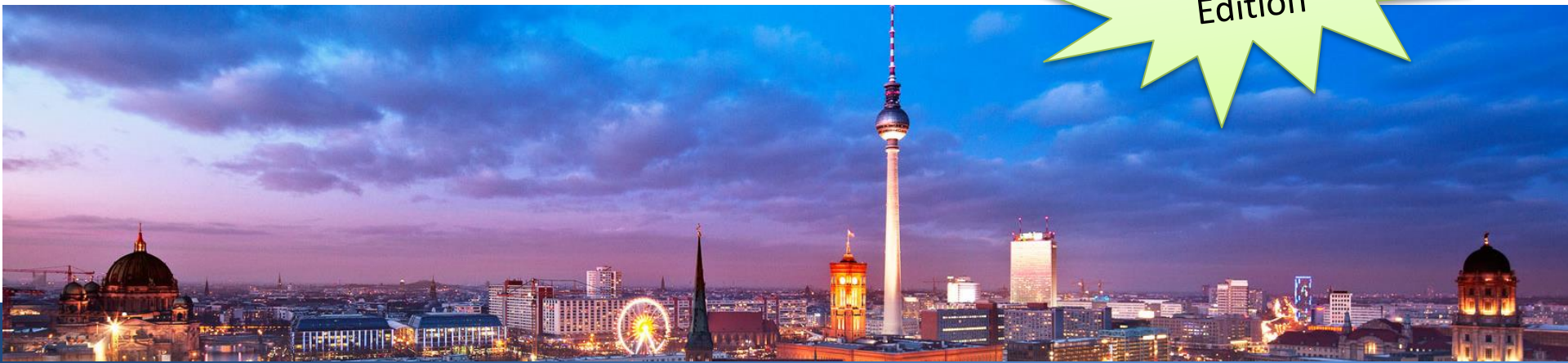
- TMA 2020 (IFIP)
  - June 10-12, 2020, Berlin, Germany
- TC6: Networking 2020 (IFIP/IEEE)
  - June 22-26, 2020, Paris, France
- NetSoft 2020 (IEEE)
  - June 29-July 3, 2020, Ghent, Belgium
- CNSM 2020 (IFIP/IEEE COMSOC/ACM SIGCOMM)
  - November 2-6, 2020, Izmir, Turkey
- IM 2021 (IFIP/IEEE)
  - May 17-21, 2021, Bordeaux, France

# TMA 2020

- 10-12 June, 2020, Berlin, Germany
- Chairs
  - General Chairs
    - Georgios Smaragdakis, Anja Feldmann
  - TPC Chairs
    - Anna Brunström, Gareth Tyson



<http://tma.ifip.org/2020>





# Networking 2020

- 22-26 June, 2020, Paris, France
- Chairs
  - General Chairs
    - Guy Pujolle, Raouf Boutaba
  - TPC Chairs
    - Xiaoming Fu, Silvia Giordano, Christian Jacquenet



<https://networking.ifip.org/2020/>





# Netsoft 2020

- 29 June - 3 July, 2020, Ghent, Belgium
- Chairs
  - General Chairs
    - Filip De Turck, Prosper Chemouil
  - TPC Chairs
    - Tim Wauters, Mohamed Faten Zhani, Walter Cerroni



<https://netsoft2020.ieee-netsoft.org/>

Virtual 2020  
Edition



# CNSM 2020

- 2-6 November, 2020, Izmir, Turkey
- Chairs
  - General Chairs
    - Nur Zincir-Heywood, Mehmet Ulema
  - TPC Chairs
    - Muge Sayit, Stuart Clayman



<http://cnsm-conf.org/2020>

**Paper Submission: June 21, 2020**



# IM 2021

- 17-21 May, 2021, Bordeaux, France
- Chairs
  - General Chairs
    - Toufik Ahmed, Olivier Festor
  - TPC Chairs
    - Yacine Ghamri-Doudane,



<http://www.ieee-im.org>



# Call for Symposium Chairs and Nominations

- IEEE Globecom 2021
  - Madrid, Spain
  - 7-11 December, 2021
- IEEE ICC 2022
  - Seoul, South Korea
  - 16 - 20 May, 2022

# IFIP WG6.6 and CNOM Report

## **Community-wide Activities**

# CNOM Recertification

- Requested by the ComSoc TC Board to all TCs
- Submission of document to mention the achievements and vision
- Positive evaluation is required to continue the TC
- Successfully approved for CNOM!

# CNOM P&P Document

- Defines TC structure and operation
- New P&P document requested by TC Board
  - <https://cnom.committees.comsoc.org/about-cnom/policies-procedures/>
- Main changes:
  - Clearly defined objectives (clause 2)
  - TC Member definition, subcommittees and SIGs (in clause 3)
  - Activities and responsibilities of CNOM officers (clause 4)
  - Further election procedures, awards (in clause 6)
- Feedback is welcome (email CNOM officers) until **May 5, 2020**



# CNOM BPA

- Newly established CNOM Best Paper Award
- Eligibility:
  - Papers published in CNOM conferences (2018 and 2019)
    - IM, NOMS, CNSM, APNOMS, LANOMS, NetSoft, ICIN, NoF, DRCN, ITC, BRAINS, ICC, GLOBECOM
  - Self-nomination is allowed
  - Nominations by TPC chairs of supported/endorsed events
- Chair:
  - Carol Fung (Virginia Commonwealth University, USA)



# IEEE Distinguished Lecturers

- Nomination of DLs on behalf of the TC. Each TC is encouraged to nominate up to 4 DLs.
  - <https://www.comsoc.org/about/memberprograms/distinguished-lecturers>
- Some important facts about the process:
  - DLs must be a Senior Member of IEEE or higher.
  - DLs must be a member of ComSoc.
  - DLs must be willing to create a conference tutorial if requested.
  - A nominee may be nominated by either a person or a TC, but a TC nomination is preferred.
  - Nominators must be IEEE ComSoc members and IEEE Senior Member or higher, TC chair preferred.
  - Nominations are due each year by September. The Distinguished Lecturers Selection Committee will begin processing nominations at that time.

# IEEE Student Competition

The Competition is open to graduate and undergraduate students, who are members of the IEEE Communications Society.

Its purpose is to recognize students or teams of students who demonstrate the capacity to improve the lives of people, through the application of communication technology and the development of projects that meet the human needs of people.

The First Prize consists of \$2000 + plaque.

Winner(s) will be invited to receive it at IEEE GLOBECOM.

See all details at:

<http://www.comsoc.org/communications-technology-changing-world>

The deadline for submissions is each year in September.

The IEEE ComSoc Student Competition has been a great success since its first edition in 2013.

# Network and Service Management Taxonomy

- Jeroen van der Hooft, et al. **Updated Taxonomy for the Network and Service Management Research Field.** *Journal of Network and Systems Management*, Volume 26, Issue 3, July 2018, pp. 790–808

[https://en.wikipedia.org/wiki/  
network\\_and\\_service\\_management\\_taxonomy](https://en.wikipedia.org/wiki/network_and_service_management_taxonomy)

- The taxonomy is being updated
- Contact: Carlos Raniery Paula dos Santos (UFSM, Brazil)
  - csantos@inf.ufsm.br

# Young researchers: contributions to organizational tasks in community

- Please contact CNOM / IFIP WG 6.6 officers
- Open to contributions at future conferences
- Meet experts and broaden your network
- Build your CV

# Recently established TC Newsletter

- **IEEE ComSoc Technical Committees: educate, promote and accelerate the technological advancements in communications and networking**
- IEEE ComSoc TCN Editorial Team: Nelson Fonseca , Muhammad Zeeshan Shakir , and Lisandro Zambenedetti Granville
- <https://www.comsoc.org/publications/tcn>
- Appeared in November 2019
- The newsletter also presents reports from IEEE ComSoc Technical Committees and Emerging Technologies Initiatives to share their past, ongoing and future planned technical activities and views, findings, and advancements.

# Any Other Business

- All suggestions are welcome!

# IFIP WG6.6 & IEEE CNOM Joint Meeting @ NOMS 2020

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Symposium*

*Budapest, Hungary (Virtual)  
April 20-24, 2020*

