IEEE ComSoc Standards: Background, and some specific examples of relevance/interest to TCCN

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Structure of IEEE Standards

Hierarchy

- IEEE Standards Association (IEEE-SA)
  - Also Committees therein, e.g., NesCom, RevCom, PatCom, AudCom, ICCom, ProCom
- Standards Sponsoring Committees. Sponsored by a IEEE technical society or council, with the exception of Standards Coordinating Committees
  - IEEE 802—Computer Society
  - IEEE COM/SDB—Communications Society
- Working groups (develop standards)
  - Baseline standards
  - Amendments
  - Further standards in scope of WG (not built on baseline standard)
  - Recommended practices, corrigenda, etc.

IEEE ComSoc Standards

Name	Designator ▲	Contact
IEEE Aerospace and Electronic Systems Society	AES	
IEEE Antennas and Propagation Society	APS	
IEEE-SA Board of Governors	BOG	
IEEE Broadcast Technology Society	BTS	
IEEE Computer Society	C	
IEEE Consumer Electronics Society	CES	
IEEE Computational Intelligence Society	CIS	
IEEE Communications Society	COM	
Access and Core Networks Standards Committee	COM/AccessCore-SC	Alexander Gelman
Dynamic Spectrum Access Networks Standards Committee	COM/DySPAN-SC	Hiroshi Harada
Edge, Fog, Cloud Communications with IOT and Big Data Standards Committee	COM/EdgeCloud-SC	Robert Fish
Green ICT Standards Committee	COM/GreenICT-SC	Jaafar M.H. Elmirghani
Mobile Communication Networks Standards Committee	COM/MobiNet-SC	Oliver Holland
Virtualized and Software Defined Networks, and Services Standards Committee	COM/NetSoft-SC	Mehmet Ulema
Power Line Communications	COM/PLC	Jean Philippe Faure
Standards Development Board	COM/SDB	Mehmet Ulema
IEEE Council on RFID	CRFID	
IEEE Dielectrics and Electrical Insulation Society	DEI	

IEEE ComSoc Standards—Development of Hierarchy

SCs	WGs
COM/NetSoft	1903 - Next-Generation Service Overlay Network
	1913 - Software-Defined Quantum Communication
	1915 - Security for Virtualized Environments
	1916 - Performance for Virtualized Environments
	1917 - Reliability for Virtualized Environments
	1921 - Software-Defined Networking Bootstrapping Procedures
	1930 - SDN based Middleware for Control and Management of Networks
COM/GreenICT	1922 - GICT Emissions
	1923 - Energy Efficient Comm Hardware
	1925 - COM/SDB/Energy Efficient ICT
COM/MobiNet	1914 - Next Generation Fronthaul Interface
	1918 - Tactile Internet
	1920 - Aerial Communications and Networking Standards
	1931 - ROOF Computing
	1932 –Licensed/Unlicensed Spectrum Interoperability in wireless mobile networks
	1933 - Hybrid ARQ for High Throughput Applications
COM/EdgeCloud	2410 - Biometrics Open Protocol
	1912 - Privacy and Security Architecture for Consumer Wireless Devices
	P2413 (Co-Sponsor)
COM/AccessCore	1904 - Access Networks Working Group
	1911 - HDBaseT 5Play Working Group
	1910 - Loop-Free Switching and Routing
COM/SDB	1652 - Working Group on Communication Electroacoustics
	1908 - Indic Virtual Keyboards
	1906 - Nanoscale and Molecular Communications

Of Relevance (my own personal opinion!)

Mobile Communication Networks Standards Committee

- Tactile Internet: AI to assist low latency comms
- Licensed/Unlicensed Spectrum Interoperability in wireless mobile networks
- + Generally of interest if wish to define (cognitive) mobile network standards (this is a Sponsoring Committee)

Virtualized and Software Defined Networks, and Services Standards Committee

- SDN based Middleware for Control and Management of Networks
- Software-Defined Networking Bootstrapping Procedures
- (others?)

Power Line Communications

- Perhaps the “smart grid” ones, dependent on how “smart” and the nature/scope of the “smart”?

Of Relevance (my own personal opinion!)

Communications Society Standards Development Board (COM/SDB)

- Network-Adaptive Quality of Experience (QoE) Management Scheme for Real-Time Mobile Video Communications
- Access Networks Working Group
- COM/SDB/Energy Efficient ICT
  - Standard for a Functional Architecture of Distributed Energy Efficient Big Data Processing

And of course, DySPAN-SC/1900→leads to next presentation on IEEE DySPAN-SC/IEEE 1900

DySPAN-SC/1900 to follow…