ITU-T Liaison

Summary

Work related to IETF

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v2

IETF Impact

- Technical Impact
  - Liaisons on various topics
    - OTNT
    - Packet Loss Measurement
    - Service Function Chaining
    - End-to-End Network Slicing
    - Machine Learning
    - Autonomous Networks
    - IPtv
  - ITU-T Focus for 2022-2024
    - Quantum
    - Digital Twins
    - AI/ML – ML Dataset
    - Network and Computing Convergence
    - TestBeds

- Policy Impact
  - Procotol Consolidation
  - Green
  - Privacy/Trust

- Geo-political Impact
  - Influence of Regions and Regional Standards

Liaisons from 2022

Date	From	To	Deadline	Title
7/21/2022	ITU-T-SG-11	IETF		LS on the initiation of a new work item Q.Scvh-iopt "Interoperability testing between SDN and hypervisor based computing virtualization"
7/21/2022	ITU-T-SG-11	IETF		LS on the creation of a new work item TR.MPLRA "Technical report on requirements and architecture for monitoring packet loss caused by network congestion"
7/21/2022	ITU-T-SG-11	IETF		LS on the creation of a new work item Q.RI_PISRM "Requirements and reference model of resource integration and protocol independent methods for source routing measurements"
7/21/2022	ITU-T-SG-11	opsawg		LS on the consent of draft new Recommendation ITU-T Q.3406 (ex Q.telemetry-VBNS)
7/20/2022	ITU-T-SG-13	IETF		LS on the consent of Recommendation ITU-T Y.3181 (ex-Y.ML-IMT2020-sandbox):"Architectural framework for Machine Learning Sandbox in future networks including IMT-2020"
7/20/2022	ITU-T-SG-13	IETF		LS on the approval of a new ITU-T Supplement on use cases for autonomous networks
2/8/2022	ITU-T-SG-16	IESG		LS on the creation of new work items H.IPTV-OpMcast and F.ILMTS-Reqs [to ITU-T SG9, SG13, IRG-AVA; IEC TC100, IETF IESG, ASTAP EG-MA]
1/18/2022	ITU-T-SG-13	IETF		LS on the new work item on "Requirements and framework of Service Function Orchestration based on SFC (Y.SFO)"
1/5/2022	ITU-T-SG-15	IETF	2022-09-01 Action needed	LS on OTNT Standardization Work Plan Issue 30
1/5/2022	ITU-T-SG-15	IETF		LS on Coordination of information and data modelling work
1/4/2022	ITU-T-SG-13	IETF	2022-03-31 Action needed	LS on consideration of a new work on ITU-T Y.trust-tla:"Framework of trust-level assessment for trustworthy networking"

Recent Drafts related to Trust and Quantum

- Trust Related
  - Draft Recommendation ITU-T Y.TRUST-TLA: "Framework of trust-level assessment for trustworthy networking"
  - Draft Technical Report ITU-T TR-trust-an-cpr: "Concepts and principles of trust for autonomous networks including IMT-2020 and beyond"
- Quantum Related
  - Draft new Supplement ITU-T Y.supp.QKDN-roadmap: "Standardization roadmap on Quantum Key Distribution Networks"
  - Draft Technical Report ITU-T TR.QEFN: "ITU-T's Views for Quantum-Enabled Future Networks"
  - Draft Recommendation ITU-T Y.QKDN-rsfr: "Quantum key distribution networks - resilience framework"
  - Draft Recommendation ITU-T Y.QKDN-ml-fra: "Quantum key distribution networks - functional requirements and architecture to enable machine learning"
  - Draft Recommendation ITU-T Y.QKDN-iwrq: "Quantum key distribution networks - interworking requirements"
  - Draft Recommendation ITU-T Y.QKDN-iwfr: "Quantum key distribution networks - interworking framework"

SG13 Activities

- JCA-IMT2020 (5G and Beyond)

- JCA-IdM (Identity Management)

- FG-AN (Focus Group on Autonomous Networks) (Status)

- Correspondance Group on ML Datasets
  - A standardization approach for datasets applicable for AI/ML in networks (including allied aspects such as data models, metadata and impact on the networks of AI/ML techniques in relation with this study)

- AI standard roadmap (Y.sup.aisr)

SG13 New Work Items (2022-07)

Q	Title
Q6	New draft Recommendation ITU-T Y.QKDN-qos-mmq "Quantum key distribution Networks - Measurement methodology for QoS parameters"
Q20	Draft new Recommendation ITU-T Y.IMT2020-DCN "Future networks including IMT-2020: requirements and functional architecture of distributed core network"
Q20	Draft new Technical Report ITU-T TR.Reqts-SAN "Requirements of semantic-aware networking for future networks "
Q20	Draft new Recommendation ITU-T Y.IMT2020-NFC-req "Use cases and requirements for network function communication between 5G Public Networks and Non Public Networks in IMT-2020"
Q20	Draft new Recommendation ITU-T Y.CNAO "Requirements and functional framework for Customer-oriented Network Quality Auto Optimization with Artificial Intelligence"
Q21	New draft Recommendation ITU-T Y.MMC "Requirements and framework for traffic flow coordination of multi-modality communication in IMT-2020 networks and beyond"
Q21	New draft Recommendation ITU-T Y.NAEC "Network accelerating for edge computing in IMT-2020 networks and beyond"
Q21	Revision ITU-T Y.Supplement 59 "IMT-2020 standardization roadmap."
Q22	New draft Recommendation Y.ICN-UP "Information-centric networking in networks beyond IMT-2020: Requirements and functional framework of ICN-enabled user plane"
Q22	New draft Recommendation Y.ICN-INP "Information-centric networking networks beyond IMT-2020: Requirements and capabilities of ICN node to support in-network processing"
Q23	New draft Recommendation ITU-T Y.FMSC-ABC-req "Fixed, mobile and satellite convergence - Requirements of supporting airborne broadband communication in IMT-2020 networks and beyond"
Q23	New draft Recommendation Y.FMSC-HAP-req "Fixed, mobile and satellite convergence - Requirements of supporting High Altitude Platform in IMT-2020 network and beyond"
Q23	New draft Recommendation ITU-T Y.FMSC-PC "Fixed, mobile and satellite convergence - Policy control for IMT-2020 and beyond"
Q23	New draft Recommendation ITU-T Y.FMSC-LDS "Fixed, mobile and satellite convergence - Local data switching for IMT-2020 and beyond"
Q23	New draft Recommendation ITU-T Y.FMSC-P2P "Fixed, mobile and satellite convergence - Peer-to-Peer services for IMT-2020 network and beyond"
Q23	New draft Recommendation ITU-T Y.FMSC-SFC "Fixed, mobile and satellite convergence - Service Function Chaining for IMT-2020 and beyond"

Upcoming Meetings

- SG20 (Internet of things (IoT) and smart cities and communities (SC&C))
  - https://www.itu.int/en/ITU-T/studygroups/2022-2024/20/Pages/default.aspx
  - Lead Study Group Roles
    - Internet of Things and its applications
    - Smart cities and communities and related digital services
    - Internet of Things identification
    - Digital health related to Internet of Things and smart cities and communities
- SG17 (Security)
  - https://www.itu.int/en/ITU-T/studygroups/2022-2024/17/Pages/default.aspx
  - Lead Study Group Roles
    - Security
    - Identity management (IdM)
    - Languages and description techniques
- SG15 (Networks, technologies and infrastructures for transport, access and home)
  - https://www.itu.int/en/ITU-T/studygroups/2022-2024/15/Pages/default.aspx

Joint Collaboration Agreements

- JCA-IMT2020 (IMT2020 and Beyond)
  - https://www.itu.int/en/ITU-T/jca/imt2020/Pages/default.aspx
  - JCA IMT2020 Roadmap
- JCA-IoT and SC&C (Internet of Things and Smart Cities and Communities)
  - https://www.itu.int/en/ITU-T/jca/iot/Pages/default.aspx
- JCA-IdM (Identity Management)
  - https://www.itu.int/en/ITU-T/jca/idm/Pages/default.aspx

FG-QIT4N (Quantum Information Technology for Networks) Deliverables

#	Title of deliverable	Download
D1.1	Quantum information technology for networks terminology: Network aspects of quantum information technologies	PDF
D1.2	Quantum information technology for networks use cases: Network aspects of quantum information technologies	PDF
D1.4	Standardization outlook and technology maturity: Network aspects of quantum information technologies	PDF
D2.1	Quantum information technology for networks terminology: Quantum key distribution network	PDF
D2.2	Quantum information technology for networks use cases: Quantum key distribution network	PDF
D2.3	Quantum key distribution network protocols: Quantum layer	PDF
D2.3	Quantum key distribution network protocols: Key management layer, QKDN control layer, and QKDN management layer	PDF
D2.4	Quantum key distribution network transport technologies	PDF
D2.5	Standardization outlook and technology maturity: Quantum key distribution network	PDF

Document with suggested way forward: link

WTSA Outcomes

- Proceedings: https://www.itu.int/dms_pub/itu-t/opb/reg/T-REG-LIV.1-2022-PDF-E.pdf

- All Resolutions and Opinions: https://www.itu.int/pub/T-RES

- Hot Topics
  - Open Networks including Standardization of Open Access Networks
    - No agreement on text or resolution

- No Russian delegates in leadership positions

WTDC Outcomes

- IPv6+
- A Chinese proposal to include reference to "define IPv6+" in Res 63 (deployment of IPv6 in developing nations) was not approved.
  - Point repeated by many Member Statis is that IP is defined by IETF.
- An Arab proposal for a New Resolution entitled "Promotion of global development and adoption of Open Radio Access Networks"
  - This was a carry over of attempts to get an Open RAN resolution at ITU-T
  - A new resolution was rejected
  - Open RAN language was added to Res 37 "Bridging the Digital Divide" was agreed, the following language was added:
    - instructed BDT to increase awareness and understanding about disaggregated, open, and interoperable networks and to facilitate information sharing about open network technologies.
- No Russian delegates in leadership positions

PP-2022 Themes and Hot Topics

- ITU: https://pp22.itu.int/en/

- Host: https://bucharestpp22.gov.ro/

- Topics
  - Internet Governance
    - https://www.urdupoint.com/en/technology/russia-china-advocate-equal-rights-to-regula-1462822.html
  - AI
    - Desire for a resolution
  - Open RAN
    - Continued discussion although there doesn't seem to be regional support from Americas
  - Cybersecurity

Upcoming meetings

- SG20 (Underway the same week as IETF 114)
- SG17 (August 2022)
- SG15 (September 2022)
- PP-2022 (October 2022)
- TSAG (December 2022)
- WRC-2023 (November 2023)