Internet Society

ITU World Telecommunication Standardization Assembly 2024 (WTSA-24) – Outcomes Matrix

18 November 2024

This chart summarizes the changes to Internet-related resolutions (including new resolutions) to identify issues, areas of concern, organizations impacted, and so forth on a best-efforts basis. The matrix is based on the draft proceedings available on the WTSA-24 website.

Key to the matrix tables

Existing Resolutions at WTSA-24
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Regional Proposals are designated by the acronym used by ITU[1]:

AFCP- African Common Proposals (ATU)

IAP - Inter-American Proposal (CITEL)

ACP - Asia-Pacific Common Proposal (APT)

ARB - Arab States Common Proposal (LAS)

ECP - European Common Proposal (CEPT)

RCC - Regional Commonwealth in the field of Communications (RCC)

WTSA-24 key Resolutions on Internet issues

- Internet-related public policy issues
- Key Resolutions dealing with Cybersecurity
- WSIS+10 and SDGs
- Access and infrastructure
- Emerging technologies
- Working Methods
- A-series Recommendations
- New Resolutions
- Index

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[1] The regional organizations responsible for the proposals are designated in parentheses.

Type Acronyms

ADD	-	New Resolution approved
MOD	-	Revised Resolution
NOC	-	No change made to Resolution at this WTSA
SUP	-	Resolution Suppressed at this WTSA
NA	-	Proposal for new Resolution Not Approved

Outcomes for Existing Resolutions at WTSA-24

Type	RES	Title	Contribution Origin Number and Key Points	Comments
Internet related public policy issues: Key resolutions dealing with Internet development, governance, etc., and IP-based networks. 				
MOD	20	Procedures for allocation and management of international telecommunication numbering, naming, addressing and identification resources	**WTSA-24 Outcome** **Summary:** The main substantive change to Resolution 20 is to acknowledge the impact of services such as M2M, IoT, eSIM, and non-telecommunications services on number, naming, addressing, and identification (NNAI) and to include the provision of non-telecommunication services in Study Group 2's studies on the allocation and management of international telecommunication NNAI resources.	This revision does not include new work related to the Internet nor should it directly affect Internet operation; it is scoped to international telecommunication NNAI resources. SG2 is already studying the use of E.164 in M2M/IoT. Any organization planning to use ITU-defined telecommunication NNAI resources (e.g., E.164, E.212) as identifiers other than telecommunications should monitor this work and potentially engage.
MOD	29	Alternative calling procedures on international telecommunication networks	**WTSA-24** **Summary:** The modifications to Resolution 29 continue the ITU-T's struggle to deal with alternative calling procedures, including over the Internet, that might bypass international telephony tariffs and taxes. The main changes include: • Adds text in resolves clarifying that alternative calling procedures are relative to traditional calling procedures and are defined by Study Group 2. • In Study Group 2 and 3 studies, changes "over-the-top (OTT) telephone applications" to "over-the-top (OTT) applications" that use telephone numbers. • Adds Calling Party Number (CPN) to the studies. • Invites Member States "3 to share their best practices in developing the minimum requirements and methods to differentiate the alternative calling procedures from traditional calling procedures" Note that defining alternative calling procedures doesn't appear in the Study Group 2 mandate (Resolution 2) or Questions, but it does appear in Study Group 3 (Q8/3)	These changes should not affect Internet routing and operations. However, the change from OTT telephone applications to OTT applications that use telephone numbers expands the scope of work in SG2 and SG3 to any application on the Internet that uses telephone numbers. Any provider that offers services over the Internet that use telephone numbers and especially interconnects with the PSTN should monitor this work carefully.

Type	RES	Title	Contribution Origin Number and Key Points	Comments
MOD	44	Bridging the standardization gap between developing and developed countries	**WTSA-24** **Summary:** This resolution focuses on capacity building and assisting developing countries to participate in standards activities and implement standards. The revisions: • Support and encourage participation of next generations and developing countries in standards development via mentorship programs, training courses, fellowships • Invite the TSB Director "to collaborate with relevant standards-development organizations (SDOs) to assist developing countries in implementing telecommunication/ICT standards to address their challenges and priorities;"	This revision focuses on capacity building and should not affect Internet routing and operations.
NOC	47	Country code top-level domain names	**WTSA-24** **Summary:** No change to this resolution.	
MOD	48	Internationalized Domain Names	**WTSA-24** **Summary:** The main change is to support and promote universal acceptance of IDNs. Emphasizes cooperation with the BDT Director and relevant regional and international organizations (e.g., Coalition for Digital Africa) to promote internationalized domain names, universal acceptance and Universal Acceptance Day.	These changes could affect the Internet positively by encouraging initiatives that increase availability of internationalized domain names (IDN). No standardization related to IDNs in ITU-T is proposed.
NOC	49	ENUM	**WTSA-24** **Summary:** No proposals were submitted on this resolution. Note that no proposals have been submitted on this resolution in the last two WTSAs.	
MOD	60	Responding to the challenges of the evolution of the identification/ numbering system and its convergence with IP-based systems/networks	**WTSA-24** **Summary:** The main changes to Resolution 60 emphasize Study Group 2's lead role in studying the evolution of the telecommunication numbering, naming, addressing, and identification (NNAI) system and convergence with IP-based systems/networks. It also invites Member States to exchange experiences and best practices. WTSA-24 also approved a "WTSA Action" related to IoT identifiers: **COM4/3:** WTSA-24 instructs ITU-T Study Groups 2 and 20 to establish a joint coordination or agreement mechanism between the study groups to determine a demarcation line for IoT identification and NNAI aspects, and report to TSAG.	These changes should not substantively change ITU-T's work related to the Internet. However, given that the work under this resolution concerns IP-based networks, it should be monitored (e.g., SG2, SG3, SG13).

Type	RES	Title	Contribution Origin Number and Key Points	Comments
MOD	61	Countering and combating misappropriation and misuse of international telecommunication numbering, naming addressing and identification resources	**WTSA-24** **Summary:** The main change to Resolution 61 is to expand its scope of work to telecommunication numbering, naming, addressing, and identification (NNAI) from just E.164 telephone numbers. It also encourages administrations to review their national regulations and share best practices toward countering and combating misappropriation and misuse of international telecommunication NNAI resources.	These changes are limited to telecommunication NNAI and don't explicitly expand the scope into Internet-related activities. Providers offering services over the Internet that utilize ITU-T telecommunication NNAI resources (e.g., E.164, E.212, Q.708) should especially monitor work under this resolution (e.g., SG2).
MOD	64	~~Internet Protocol address allocation and~~ Promoting, facilitating and accelerating the transition to and deployment of Internet Protocol version 6	**WTSA-24** **Summary:** The changes to Resolution 64 focus on promoting best practices, collaboration, and discussions to facilitate the deployment of IPv6, including • Encouraging stakeholder consultations and discussions between Member States, Sector Members and relevant regional and international organizations on promoting deployment of IPv6 and dual-stack network and customer premises equipment. • Promoting best practices of government programs, such as procurement • Encouraging enhancement and use of ITU website providing information about global activities related to IPv6. In addition, the changes add an explicit recognition that "regional Internet registries (RIRs) are key players in establishing coherent policies and promoting best practices for the Internet,"	These changes don't initiate any new standards activities in ITU-T regarding the Internet. This WTSA effectively completes ITU-T's transition away from focusing on IP address allocation and toward supporting constructive activities to encourage the deployment of IPv6.
NOC	69	(Rev. Hammamet, 2016) Non-discriminatory access and use of Internet resources and telecommunications / information and communication technologies	**WTSA-24** **Summary:** No changes were agreed at WTSA-24	Note that this resolution hasn't been revised since 2016.

Type	RES	Title	Contribution Origin Number and Key Points	Comments
Key Resolutions dealing with Cybersecurity 				
MOD	50	Cybersecurity	**WTSA-24** **Summary:** Perhaps the most interesting part of the work on Resolution 50 is that WTSA-24 completed its work on all cybersecurity-related resolutions at the Working Group level, indicating an unprecedented level of cooperation and agreement on cybersecurity at a WTSA. The main changes to Resolution 50 include: • Clarifies that the scope of work is telecommunications/ICTs. • Adds data and PII protection to cybersecurity work throughout resolution • Emphasizes SG17's lead role in security in relation to other Study Groups (note discussion at WTSA-24 between SG17 and SG20 and SG17 and SG13) • Emphasizes and adds work to SG17 including • Data and PII protection, supporting CIRTs, enhancing cybersecurity for minors • Leading joint coordination activities on cybersecurity • Explicitly includes in the development lifecycle: requirements, design, implementation, verification, release and maintenance, of information system/network/application/service products • the impact of new and emerging telecommunications/ICTs, identifying gaps and recommending strategies for secure adoption and use, • Emphasizes TSB Director's support of ITU-D and BDT activities and collaboration with regional telecommunications organizations. In addition, WTSA-24 approved two related Actions: **COM4/1**: WTSA-24 instructs Study Groups 17 and 20 to establish a joint coordination or agreement mechanism between the study groups to determine a demarcation line on the topic of IoT security, and report to TSAG. **COM4/2:** WTSA-24 instructs ITU-T study groups, inter alia Study Groups 13, 17 and 20, to establish a coordination mechanism amongst the study groups in order to deliberate on the topic of "trust" (including trusted information) and "trustworthiness", and report to TSAG.	These changes don't propose any new, specific protocol work in ITU-T related to the Internet, they do support ongoing work. Although WTSA-24 adds data and PII protection and enhances cybersecurity for minors, SG17 already includes work on these topics in its work plan. (Resolution 2) The changes to Resolution 50 reinforce SG17 as the home for developing Recommendations on cybersecurity in ITU-T; however, WTSA-24 declined to explicitly move M2M/IoT security work from SG20 to SG17 and consented to the more vertically aligned study groups continuing security work. Internet organizations should continue monitoring and engaging in ITU-T cybersecurity work (depending on the topic), especially SG17. In addition, the discussions under COM4/2 on trust and trustworthiness should be watched closely.
MOD	52	Countering and combating spam	**WTSA-24** **Summary:** The changes to Resolution 52 at WTSA-24 include: • Emphasizes SG17's lead role regarding spam and includes • SMS, voice call spam, multimedia messaging. • Calls to update definitions and terminology	Note that this resolution hasn't been revised since 2016. Most work related to Resolution 52 is carried out in Study Group 17 (Q4/17).

Type	RES	Title	Contribution Origin Number and Key Points	Comments
			- Considering risk-based approaches aimed at countering spam - Moves work on the spam study from TSB Director to SG17. - Instructs TSB Director to contribute to the development of the informational resource platform based on Council Decision 630 (C23) https://www.itu.int/md/S23-CL-C-0124/ - Promotes collaboration and cooperation with international organizations, work with Member States to implement global initiatives coordinating with government/industry partnerships, outreach to civil society and consumers and collaboration with ITU-D, including partnerships with beneficiary Member States and other stakeholders, such as network operators, Internet service providers and online service providers, the Internet technical community, business associations and civil society	Multimedia messaging (and RCS), social networking, and Artificial Inteligince (AI) are already part of work under Q4/17, so the definition of spam has already moved beyond email. Organizations involved in any form of online messaging should monitor this activity.
MOD	58	Encouraging the creation and enhancement of national computer incident response teams, particularly for developing countries	**WTSA-24** **Summary:** Extensive changes were made to Resolution 58. The most significant change is to explicitly include work on existing CIRTs instead of focusing on creating CIRTs, including: - To promote and support the enhancement and related operating framework of CIRTs in Member States, including developing tools to support CIRTs in improving information sharing for cybersecurity incident response - To engage the ITU regional office. The changes also include a new section emphasizing Study Group 17's lead role in this area and instructs it to: - continue to develop Recommendations, supplements and potentially tools that guide the creation of CIRTs and promote a CIRT operating framework including studies on national CIRT frameworks; - explore partnerships and promote collaboration with other standards-development organizations and forums to develop these tools and collaborate with ITU-D in its work;	This activity could directly affect the Internet and should continue to be monitored, mostly in SG17 (Q3/17). This proposal expands the scope of this resolution's work from the creation of CIRTs to their operations, which is already under discussion in SG17. Note also that SG17's work plan in Resolution 2 goes beyond this resolution, including work on Cyber defense centers (CDC), Security Operations Centers (SOCs), etc.

Type	RES	Title	Contribution Origin Number and Key Points	Comments
WSIS+10 and SDGs 				
NOC	75	The ITU Telecommunication Standardization Sector's contribution in implementing the outcomes of the World Summit on the Information Society, taking into account the 2030 Agenda for Sustainable Development	**WTSA-24** **Summary:** No change to Resolution 75 was agreed at WTSA-24.	The ITU-T will continue its work related to WSIS under the existing version of Resolution 75, including activities preparing for the WSIS+20 review.
Working Methods 				
NOC	1	Rules of procedure of the ITU Telecommunication Standardization Sector	**WTSA-24** **Summary:** WTSA-24 did not agree to change Resolution 1, however it approved a "WTSA Action": **COM3/4:** WTSA-24 requests TSAG to discuss possible revision of Resolution 1 in the upcoming Study Period and submit the updates that reach consensus to next Assembly in 2028 taking into consideration the proposals submitted to WTSA-24 to revise Resolution 1 (ATU/35A1/1, APT/37A1/1and RCC/40A30/1) as well as their related discussions found in WTSA-24 TD-140	Most Member States agreed that changes to Resolution 1 should be discussed at TSAG and that agreed changes should be submitted to WTSA 2028. Most changes proposed to Resolution 1 do not affect the Internet directly. The main concern at WTSA-24 was the proposal to allow regional groups of Study Groups to develop regional Recommendations.

Type	RES	Title	Contribution Origin Number and Key Points	Comments
Access and Infrastructure (top)(index)				
MOD	92	Enhancing the standardization activities in the ITU Telecommunication Standardization Sector related to non-radio aspects of international mobile telecommunications	**WTSA-24** **Summary:** A theme that ran through multiple resolutions (e.g., 93) was how to refer to IMT-related work. It was generally agreed that "IMT" or "IMT systems" referred to all generations of IMT work (including future work). In this resolution "IMT-2020 and beyond" was replaced with "IMT-2020 and IMT-2030." The main changes were to add sustainability to the work and instructs to the study groups, including: • All: support verticals, such as intelligent manufacturing, improving energy efficiency and reducing network complexity • Study Group 2: Continue current studies • Study Group 13: network performance; digital twins; autonomous networks; and the application of artificial intelligence in addition to machine learning • Study Group 17: maintain the IMT security standardization roadmap • Study Group 20: continue work on IoT including SSC&C. • Study Group 21 (was SG9 and SG16): impact of future vehicular multimedia systems	This resolution supports ongoing and new work across ITU-T Study Groups related to IMT. While mobile wireless evolution stimulates it, it can also affect network services offered over other access technologies (e.g., wireline, cable). Much of this work should also be monitored for its effect on the Internet. See the study group page for more information on IMT-2030. This resolution introduces some themes that should be common in the next study period, including: IMT-2030, intelligent manufacturing, energy efficiency, fixed/mobile/satellite convergence, network performance, digital twins, autonomous network, future vehicular multimedia system, and AI. As the definition of IMT-2030 evolves, the work under this resolution could expand.
MOD	93	Interconnection of ~~4G, IMT-2020~~ International Mobile Telecommunications networks ~~and beyond~~	**WTSA-24** **Summary:** WTSA-24 agreed to consolidate references to all the different generations of Mobile telecommunications into "International Mobile Telecommunications (IMT)." The agreed changes add quality of service and network performance to the work under this resolution. They also instruct Study Group 3 to study charging options for IP-based voice and video interconnection of IMT networks.	These changes should not affect Internet operations; however, they will concern IMT network operators. ETSI/3GPP is already studying charging options, and ITU-T SG11 has published Recommendation Q.3640 on the interconnection of VoLTE, which considers charging.

Type	RES	Title	Contribution Origin Number and Key Points	Comments
NOC	95	ITU Telecommunication Standardization Sector initiatives to raise awareness on best practices and policies related to service quality	**WTSA-24** **Summary:** WTSA-24 agreed to no change to Resolution 95.	
Emerging Technologies (top)(index)				
MOD	97	Combating mobile telecommunication device theft	**WTSA-24** **Summary:** The changes to Resolution 97 add recognition that theft of mobile devices could also include theft of user data. They also invite Member States and sector members to share use cases and best practices to combat and prevent mobile telecommunication device theft and protect user information.	The changes to Resolution 97 should not directly affect Internet operations.
MOD	98	Enhancing ~~the~~ standardization of Internet of Things, digital twins, and smart sustainable cities and communities for global development	**WTSA-24** **Summary:** This revision of Resolution 98 adds digital twins and changes Smart Cities and Communities (SC&C) to Smart, *Sustainable* Cities and Communities (SSC&C) throughout as well as the following • Study application to metaverse and the concepts and frameworks of citiverse to enhance urban planning, sustainability, and citizen engagement; • Add collaboration with UN entities • Add training programs, continuing DTD webinars to capacity building efforts • Invites ITU-T membership to participate in U4SSC initiatives and the Global Initiative on Virtual Worlds – Discovering the CitiVerse • Encourages leveraging the use of open source • Continues development of ITU-T Recommendations, frameworks, guidelines and other mechanisms including for development of smart communities and to enhance the deployment, accessibility, and usability of IoT, digital twins, and SSC&C, with the aim to make cities and communities inclusive for persons with disabilities and persons with specific needs • SG2, 17, 20 - develop ITU-T Recommendations on security, privacy, trust, and identification standards to address specific requirements for IoT, digital twins, and SSC&C • Encourages the development of eco-friendly, and efficient IoT solutions that promote environmental sustainability in urban and rural communities,	The work under this resolution overlaps multiple organizations and could affect the Internet; therefore, it should be monitored with a view to engagement. The most significant addition to the resolution is the addition of "digital twins" to the title, and throughout the resolution, co-equal with SSC&C and IoT. This is consistent with the change of title and mandate for SG20 in Resolution 2 The proposal also instructs SG17 and SG20 to work on "security, privacy, trust, and identification" standards. Note that proposals on Resolution 50 reinforce SG17's lead role in security. See WTSA Action COM4/1 and COM4/2 (Res. 50). See the Global Initiative on Virtual Worlds and Digital Transformation Dialogues (DTD) for information.

WTSA-24 A-series Recommendations

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Type	Rec.	Title	Contribution Origin Number and Key Points	Comments
NOC	A.1	Working methods for study groups of the ITU Telecommunication Standardization Sector	**WTSA-24** **Summary:** WTSA-24 agreed to no change to Recommendation A.1. Changes to Recommendation A.1 will continue to be discussed at TSAG.	No Change

New WTSA-24 Resolutions

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Type	Resolution	Title	Contribution Origin Number and Key Points	Comments
ADD	COM4 /SDT	Enhancing standardization activities on sustainable digital transformation	**WTSA-24** (Sources: TSAG/25/1, APT/37A44/1, ARB/36A29/1) **Summary:** This resolution supports and encourages ITU-T activities related to Sustainable Digital Transformation (SDT), including: • Develop and promote Recommendations, implementation guidelines and best practices to help membership, especially developing countries, leverage new and emerging digital technologies, applications, services, and platforms related to telecommunications/ICTs in order to drive sustainable digital transformation • Consolidate guidelines, Recommendations, technical reports, best practices and use cases developed by ITU-T which could facilitate global SDT • Share knowledge and best practices on standardization aspects of SDT • Build capacity in implementation of Recommendations related to SDT • continue RG-DT • coordinate and collaborate with other groups within and without ITU in the area of SDT • encourages and invites members to participate in the above activities.	This new resolution does not present specific work items for ITU-T, but it supports ongoing contribution-driven standards work in the Study Groups related to sustainable digital transformation. SDT and digital public infrastructure are closely related (See below). There are also several UN-related initiatives. ITU-D is also working on digital transformation. Given the uncertainty concerning what this work entails, TSAG RG-DT should probably be monitored in addition to digital public infrastructure.
ADD	COM4 /DPII	Enhancing standardization activities on digital public infrastructure	**WTSA-24** (Sources: ARB/36A8/1, ATU/35A33/1, IND/48/1) **Summary:** This resolution supports and encourages ITU-T activities related to digital public infrastructure, including:	An ITU reference to Digital Public Infrastructure (DPI) can be found here. Digital public infrastructure is a wide-ranging endeavor that covers many technologies (including the Internet) and overlaps with the work of many UN

Type	Resolution	Title	Contribution Origin Number and Key Points	Comments
			• Promotes cooperation and collaboration with relevant stakeholders to share knowledge and best practices, and explore common understandings on the technical requirements and standardization aspects of digital public infrastructure • Instructs study groups to compile existing work relevant to digital public infrastructure and to develop ITU-T Recommendations and other deliverables that can lead to adoption of digital public infrastructure. • instructs TSB Director • Compile a repository of technical requirements use cases and standardization aspects related to digital public infrastructure. • Perform a Gap Analysis to identify work for ITU-T study groups on the telecommunication/ICT standardization aspects of digital public infrastructure and report to TSAG • Promote and invites the participation of membership, through the integration of dialogues to share experiences and lessons learned and to engage in standards development, participate in capacity building • Promote collaboration with other relevant United Nations agencies, academia, organizations with responsibility for standards development, and other international and regional multistakeholder and intergovernmental organizations assisting countries in implementing digital public infrastructure and supporting membership in developing and deploying digital public infrastructure initiatives • organize workshops • Instructs TSAG to coordinate standards development across SGs in light of the results of the gap analysis	initiatives (SDT, SDGs, WSIS) and non-UN organizations; therefore, this activity should be closely monitored. This new resolution doesn't initiate specific work in ITU-T Study Groups; however, the gap analysis could generate such work. Work on digital public infrastructure is closely related to SDT (as seen in the <u>UNDP framework on digital transformation</u>), but WTSA-24 developed two separate resolutions. Digital public infrastructure and SDT will likely be discussion topics at Plenipotentiary 2026. Three specific areas to watch for are • Digital identity: • Data exchange (including Cross border) • Digital Payment systems Note that "digital public infrastructure" is not capitalized in the operative clauses of this resolution.
ADD	COM3 /APT-NG	Enhancing the engagement of next-generation experts in the standardization activities of the ITU Telecommunication Standardization Sector	**WTSA-24** (Source: APT/37A39/1) **Summary:** This new resolution encourages the engagement of the next generation of experts in its work via, for example, capacity building, inclusion in delegations, recognition programs, etc., while minimizing the impact on the TSB budget through the re-use of materials and voluntary contributions.	This new resolution does not propose any new technical work in ITU-T and should not affect the Internet.
NA	PQC	Promoting implementation of and migration to Post-Quantum Cryptography	**WTSA-24** (Source: APT/37A42/1) **Summary:** WTSA-24 did not approve this proposal, but did approve a "WTSA Action":	This "WTSA Action" does not initiate any work on crypto algorithms. It focuses on migrating to and utilization of PQC. The key word in the action is "continue"

Type	Resolution	Title	Contribution Origin Number and Key Points	Comments
			COM4/8: Recognizing the importance of promoting the migration to, and utilization of Post- Quantum Cryptography (PQC) within telecommunication/ICT networks, presented in APT/37A42/1, WTSA-24 instructs ITU-T SG17 to continue to develop the necessary Recommendations, Technical Reports and other ITU-T publications (including guidelines and best practices) to promote the migration to, and utilization of PQC within the remit of the Resolution 2 mandate as the lead study group on Security; and invites Membership to actively contribute to this work.	since SG17 has already added PQC to its work plan in Resolution 2 for the next study period; see Q11/17 and Q15/17. This work should be monitored for compatibility with Internet protocols.
NA	DI	Promoting standardization work for digital identities and credentials	**WTSA-24** (Source: APT/37A40/1) **Summary:** WTSA-24 did not approve this new resolution but it did approve a "WTSA Action" supporting ongoing work. **COM4/5:** With reference to the APT contribution, APT 37A40, that acknowledges the importance of ongoing work and standardization efforts for digital identities and credentials occurring in a number of SDOs and standards bodies, including ITU-T, WTSA-24 instructs Study Group 17, as part of its Resolution 2 mandate as the Lead Study Group for Identity Management (IdM), to continue to develop the necessary Recommendations, Supplements, and Technical Reports for identity management and verifiable credentials. WTSA-24 also encourages Study Group 17 to further study new areas of identity management and verifiable credential standardization topics and to coordinate and promote standardization activities. This action may help to ensure synergies, enhance coordination, and minimize duplicative efforts between ITU-T and other SDOs.	Though a resolution wasn't approved, this activity (SG17 and SG20) should continue to be monitored for active participation since it overlaps with work in multiple Internet-related standards groups.
ADD	COM4/MV	Promoting and strengthening metaverse standardization	**WTSA-24** (Sources: APT/37A41/1, ARB/36A30/1, ATU/35A37/1, ECP/C38A21/1, IAP/39A19/1, RCC/40A10/1) **Summary:** All regions submitted proposals related to Metaverse and Citiverse. The key points from this new resolution include calling for: • Standardization work considering the output of the FG-MV on the telecommunications/ICT components as well as enabling technologies, systems, applications, services, protocols, security, accessibility and sustainability for metaverse keeping in mind safety, security, and trust. • Collaboration and cooperation with other SDOs, recognized external organizations, industry and relevant entities in the development of international standards	This new resolution covers a wide range of technologies across all protocol layers. Independent of this resolution, almost all study groups have included work on Metaverse and Citiverse for the next study period. Given the potential overlap, Internet organizations should monitor this activity closely, particularly SG20, SG21 (merged SG16, SG9), and SG17 (security aspects). Monitoring the JCA-MV could also help track the activity across study groups.

Type	Resolution	Title	Contribution Origin Number and Key Points	Comments
			• Establishing a joint coordination activity on metaverse (JCA-MV) under the TSAG and charters it to maintain a standardization roadmap • ITU workshops and forums to gather inputs and present status of work • Continuing collaboration in the context of the ITU-UNICC-Digital Dubai Global Initiative on Virtual Worlds – Discovering the CitiVerse • Sharing use cases and best practices	
ADD	COM4/VC	Promoting and Strengthening Standardization Activities for Vehicular Communications	**WTSA-24** (Source: APT/37A45/1) **Summary:** This new resolution provides direction for ITU-T's work on vehicular communications, including • Continue to support the Collaboration on ITS Communication Standards (CITS), and collaborate with ITU-D and other standards development organizations (SDOs), UNECE and other stakeholders • Organize workshops, fora, seminars, etc. • *Instructs study groups* to foster standardization in their areas of expertise (specifically SG2, SG12, SG17, SG20 and SG21). • *Instructs Member States, Sector Members, Associates and Academia* to participate in ITU-T activities, exchange use cases and best practices, organize workshops, fora, etc. • Clarifies ITU-T's role in automated driving as vehicular communications to support it.	ITU-T has been active in vehicular communications and intelligent transportation systems for many years. This new resolution doesn't add new work items already underway in the study groups (see Resolution 2). But, since this area overlaps activities across multiple standards (and other) organizations, monitoring this activity is recommended.
NA	OTT	OTTs	**WTSA-24** (sources ARB/36A31/1, ATU/35A35/1) **Summary**: These proposals were not approved at WTSA-24; however, a "WTSA Action" was approved. **COM4/9**: With reference to the ARB and ATU contributions, ARB/36A31/1 and ATU/35A35/1, WTSA-24, in line with Resolution 68, requests the Director of TSB to convene workshops preferably back to back with relevant Study Group meetings that bring together stakeholders in the OTT ecosystem, aiming to facilitate collaboration, knowledge sharing, and consideration of diverse stakeholders' interests, while identifying and proposing innovative solutions to address their needs and interests wherever possible and report progress of workshop outcomes to TSAG	The WTSA Actions approved at WTSA-24 don't initiate new standards work in the ITU-T Study Groups. SG3 (Q9/3) will continue its work related to Over-the-top (OTT) and continued engagement is recommended. Proposals will continue to appear (PP-26, WTSA-28) as long as developing countries continue to perceive OTTs as a problem. OTT providers can consider participating in workshops that might be scheduled.

Type	Resolution	Title	Contribution Origin Number and Key Points	Comments
NA	NGSO	Enhancing Global Connectivity through Non Geo Stationary Orbit Satellite Networks: A Unified Approach to Interoperability, Performance, Security, and Inclusivity	**WTSA-24** (Source: ATU/35A34/1) **Summary:** WTSA-24 did not agree to approve this new resolution; however, it approved two WTSA-24 Actions: **COM4/10:** Recognizing the contribution that NGSO satellite systems can make to global connectivity, especially for regions lacking traditional internet infrastructure, raised in, ATU/35A34/1, WTSA-24 invites TSAG to examine areas of overlap between work of the ITU-T and the work of other ITU sectors and international bodies over the next study period and provide guidance as to how ITU-T should address telecommunications standardization matters related to NGSO satellite systems within the mandates of its study groups outlined in WTSA Resolution 2 (Rev. New Delhi, 2024) and consistent with WTSA Resolution 18 (Rev. New Delhi, 2024) on allocation of work among the sectors. **COM4/11:** Recognizing the contribution that NGSO satellite systems can make to global connectivity, especially for regions lacking traditional internet infrastructure, raised in, ATU/35A34/1, WTSA-24 invites Member States, Sector Members, Associates and Academia to actively contribute in the relevant study groups on standardization matters related to NGSO satellite systems-based telecommunication services, consistent with WTSA-24 Action COM4/10 towards a more connected and inclusive world.	This proposal was not approved, and the two WTSA Actions don't initiate specific technical work. Organizations interested in NGSOs should monitor and consider engaging the TSAG activity in COM4/10. Work in TSAG and the study groups will be contribution-driven. The study groups currently working on aspects of satellite communications that could affect the Internet will continue to do so. For example, for protocol and architecture work, see Q23/13, Q1/11, and Q3/11, and for policy discussions, see Q6/3. Note that none of the satellite-related work in Resolution 2 nor in the Questions for the next study period mentions NGSOs. Also, work on satellite systems in the ITU has been the purview of ITU-R (see SG4, Space Services Department)
ADD	COM3/SP	Strategic planning in ITU Telecommunication Standardization Sector	**WTSA-24** (Sources: ARB/36A32/1, ATU/35A36/1) **Summary:** This new resolution focuses on enhancing strategic planning and mainstreaming results-based management In ITU-T.	This new resolution is focused on internal ITU-T operations and planning and should not affect Internet operations.
ADD	COM4/CLI-CL	Provision of handset-derived caller location information for emergency communications	**WTSA-24** (Source: ECP/38A9/1) **Summary:** This new resolution promotes work in ITU-T and specifically Study Group 2 on handset-derived caller location information for emergency communications, including: • studying the necessary requirements for establishing and transmitting handset-derived caller location information to emergency services • considering a gap analysis of standardization activities at other SDOs • developing operational recommendations for the deployment of technical solutions	Given that the IETF develops some of the protocols involved, this activity should be closely monitored. Mobile handset manufacturers should also monitor this activity. For background, see EENA Recommendation on emergency caller location information criteria for mobile-originated emergency communication

Type	Resolution	Title	Contribution Origin Number and Key Points	Comments
			• promoting collaboration and cooperation with other ITU-T study groups, in particular Study Groups 11 and 17, with organizations with specific expertise in this area, ITU-D, the ITU Radiocommunication Sector and with other entities within the United Nations	

ADD	COM4/AI	Standardization activities of the ITU Telecommunication Standardization Sector on artificial intelligence technologies in support of telecommunications/information and communication technologies	**WTSA-24**
			(Sources: APT/37A43/1, RCC/40A9/1, AUS/CAN/USA/51/1)
			Summary: WTSA-24 approved a new resolution on the use of Artificial Inteligence (AI) in support of telecommunications/ICT, including:
			• to continue work on applying AI to telecommunications/ICTs when developing and updating ITU-T Recommendations, guidelines, best practices and assessment procedures
			• to facilitate information-sharing among ITU membership
			• to support the work of the AI for Good platform
			• identify opportunities to cooperate in international standardization efforts and for collaboration with relevant stakeholders on AI in relation to telecommunications/ICTs;
			• to provide technical guidance, in particular to developing countries, on implementing international standards on AI in telecommunications/ICTs,
			• For Members
			  o to share experiences and contribute to international multistakeholder standardization efforts on AI technologies,
			  o to engage in the ITU Council Working Group on WSIS and SDGs, providing guidance on capacity-building efforts for the use of AI in achieving the SDGs,
				Although several proposals suggested a broad scope in developing Artificial Intelligence standards, the approved Resolution limits its scope to using AI technologies in support of telecommunications/ICT, e.g., operation, management, energy aspects, reliability, and security.
				
				This resolution does not include any new specific work items related to the Internet. However, since this is a new field and work is contribution-driven, the work in the study groups should continue to be monitored, especially in existing areas of interest (e.g., cybersecurity, IMT).

NA	DRM	Use of telecommunications/ information and communication technologies for emergency and disaster risk management and preparedness, for early warning, risk reduction, mitigation and relief	**WTSA-24**
			(Source: ARB/36A33/1)
			Summary: WTSA-24 did not approve this proposal but did approve related "WTSA Actions":
			  COM4/6: With reference to the ARB contribution, ARB/36A33/1, WTSA-24 instructs the TSB Director to inform Study Groups about:
			    – the interoperability challenges faced with the implementation of disaster risk management for all types of systems and devices, including but not limited to user equipment, IMT technologies, IoT, and multi-modal telecommunications;
			    – the rapid growth of real-time data collection and communication in early warning systems;
			    – new emerging technologies related to telecommunications/ICTs, including AI, support emergency and disaster risk management and preparedness for early warning, risk reduction, mitigation, and relief.
				The "WTSA Action" doesn't advance any specific work on Internet protocol or operations; however, the general area of study could encompass work related to the Internet or the use of the Internet and should be monitored.
				
				The ITU-T has been involved in emergency communications and disaster relief work for many years, including a Focus Group on disaster relief systems, network resilience, and recovery, which concluded in 2014. SG2 is the lead study group on telecommunications for disaster relief/early warning, network resilience, and recovery.

Type	Resolu tion	Title	Contribution Origin Number and Key Points	Comments
			COM4/7: With reference to the ARB contribution, ARB/36A33/1, WTSA-24 invites Member States, Sector Members, Academia and Associates to contribute to the development of standards to address the points above.	

Note on ITU resolutions[2]: ITU resolutions generally follow the form of UN resolutions. They consist of a heading, preamble clauses, and operative clauses. See https://research.un.org/en/docs/resolutions. The preamble clauses start with a verb in the present participle (for example, *recognizing*, *noting*), provide background and context for the resolution, and set the stage for the actions in the operative clauses. They are not numbered and letters are used to order the sub-clauses. The operative clauses indicate what the conference decides to do. They generally begin with a verb (for example, *resolves*, *instructs*, *invites*), use numbered sub-clauses, and provide actions to be taken. Although the preamble clauses don't contain actions to be taken, they can be referenced as justification in arguments to initiate work or take action in other meetings (for example, study groups) and can also be interpreted as agreement on the text in the clause.

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[2] Drafting Resolutions

69	Non-discriminatory access and use of Internet resources and telecommunications/information and communication technologies	NOC
75	The ITU Telecommunication Standardization Sector's contribution in implementing the outcomes of the World Summit on the Information Society, taking into account the 2030 Agenda for Sustainable Development	NOC
92	Enhancing the standardization activities in the ITU Telecommunication Standardization Sector related to non-radio aspects of international mobile telecommunications	MOD
93	Interconnection of 4G, IMT-2020 networks and beyond	MOD
95	ITU Telecommunication Standardization Sector initiatives to raise awareness on best practices and policies related to service quality	NOC
97	Combating mobile telecommunication device theft	MOD
98	Enhancing the standardization of Internet of things and smart cities and communities for global development	MOD
A.1	Working Methods	NOC
COM4/AI	Standardization activities of the ITU Telecommunication Standardization Sector on artificial intelligence technologies in support of telecommunications/information and communication technologies	ADD
COM3/APT-NG	Enhancing the engagement of next-generation experts in the standardization activities of the ITU Telecommunication Standardization Sector	ADD
COM4/CLI-CL	Provision of handset-derived caller location information for emergency communications	ADD
COM4/DPII	Enhancing standardization activities on digital public infrastructure	ADD
COM4/MV	Promoting and strengthening metaverse standardization	ADD
COM4/SDT	Enhancing standardization activities on sustainable digital transformation	ADD
COM3/SP	Strategic planning in ITU Telecommunication Standardization Sector	ADD
COM4/VC	Promoting and Strengthening Standardization Activities for Vehicular Communications	ADD
DI	Promoting standardization work for digital identities and credentials	NA
DRM	Use of telecommunications/ information and communication technologies for emergency and disaster risk management and preparedness, for early warning, risk reduction, mitigation and relief	NA
NGSO	Enhancing Global Connectivity through Non Geo Stationary Orbit Satellite Networks: A Unified Approach to Interoperability, Performance, Security, and Inclusivity	NA
OTT	OTTs	NA
PQC	Promoting implementation of and migration to Post-Quantum Cryptography	NA