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**Contact/focal points:**

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**Resolution 77 proposals side-by-side**

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| **PROPOSAL 1 (MOD,** [**WTSA C-037\_APT\_Add18**](https://www.itu.int/dms_pub/itu-t/md/17/wtsa.20/c/T17-WTSA.20-C-0037%21A18%21MSW-E.docx)**) (APT)** | **Proposal 2 (SUP,**[**WTSA-C-039\_IAP\_Add03**](https://www.itu.int/dms_pub/itu-t/md/17/wtsa.20/c/T17-WTSA.20-C-0039%21A3%21MSW-E.docx)**) (CITEL)** |
| MOD APT/37A18/1**#84**RESOLUTION 77 (Rev. Geneva, 2022)Enhancing the standardization work in the ITU Telecommunication Standardization Sector for software-defined networking(Dubai, 2012; Hammamet, 2016; Geneva, 2022)The World Telecommunication Standardization Assembly (Geneva, 2022), considering*a)* that, with the development and trend towards maturity of software-defined networking (SDN) and other related programmable network technologies, more and more organizations are involved in these technologies’ standardization, which can be collectively known as network softwarization;*b)* that, apart from SDN, network softwarization technologies include, but not limited to, network function virtualization (NFV), intent-based networking, network virtualization, network slicing, computing power networking, big data driven networking;*c)* the fact that SDN and other network softwarization technologies are profoundly changing the telecommunication and information and communication technology (ICT) industry's landscape and will continue to do so in the decades to come, and may bring multiple benefits to the telecommunication/ICT industry;*d)* the rapidly growing interest of a significant number of ITU members in the application of SDN and other network softwarization technologies in the telecommunication/ICT industry;*e)*that the SDN and other network softwarization orchestrator provides the important bond between a wide range of technologies that enable cloud-based network and telecommunication services, at the same time recognizing the work of other organizations such as the European Telecommunications Standards Institute (ETSI) Network Functions Virtualisation Industry Specification Group (NFV ISG), the Open Network Automation Platform (ONAP) and the ETSI Open-Source NFV Management and Orchestration (MANO) project (OSM);*f)* Several ITU Telecommunication Standardization Sector (ITU‑T) study groups including SG11, SG13, SG15, SG16, SG17 have made significant standardization achievements on SDN and other network softwarization technologies ranging from functional requirements, architecture, signalling/protocols, data models to security and multimedia application, and still have many standardization issues to deal with;*g)* Resolution 139 (Rev. Busan, 2014) of the Plenipotentiary Conference, on telecommunications/ICT to bridge the digital divide and build an inclusive information society;*h)* Resolution 199 (Busan, 2014) of the Plenipotentiary Conference, on promoting efforts for capacity building on SDN in developing countries,noting*a)* that ITU‑T should play a prominent role in the development of the above-mentioned system of deployable SDN and other network softwarization technologies standards;*b)* that a standards ecosystem should be enhanced, with ITU‑T at its centre,recognizing*a)* that ITU‑T has unmatched advantages when it comes to requirements and architecture standards;*b)* that a solid foundation is required to continue developing and enhancing SDN and other network softwarization technologies requirements, architecture signalling/protocol, data model and security standards, so that the whole set of standards may be built through an industry-wide synergy,resolves to instruct study groups of the ITU Telecommunication Standardization Sector1 to continue and enhance collaboration and cooperation with different standards development organizations (SDOs), industry forums, and open-source software projects on SDN and other network softwarization technologies;2 to continue to expand and accelerate the work on SDN and other network softwarization technologies standardization, especially carrier SDN, ranging from functional requirements, architecture, signalling/protocols, data models to security and multimedia application;3 to study and research the advancements in network softwarization technologies;4 to derive use cases for application of current and emerging network softwarization technologies to future networks, including those that are beneficial to developing countries;5 to continue to develop standards to coordinate the network orchestrator layer and ITU‑T operation supporting system (OSS) related work,instructs the Telecommunication Standardization Advisory Groupto examine the matter, consider the input of study groups and take the necessary actions, as appropriate, with a view to deciding on the necessary SDN and other network softwarization technologies standardization activities in ITU‑T, with the following actions: • to continue coordination and assistance in SDN and other network softwarization technologies standardization across different ITU‑T study groups effectively and efficiently;• to continue collaboration with other network softwarization technologies -related standards bodies and forums; • to coordinate the work on technical issues of SDN and other network softwarization technologies across the study groups according to their areas of expertise;• to define a clear strategic vision for SDN and other network softwarization technologies standardization and an important active role that ITU‑T should play,instructs the Director of the Telecommunication Standardization Bureau1 to provide the necessary assistance with a view to expediting such efforts, in particular using any opportunity within the allocated budget to exchange opinions with the telecommunication/ICT industry, including through the chief technology officer (CTO) meetings under Resolution 68 (Rev. Hammamet, 2016) of this assembly, and in particular to promote participation of the industry in SDN and other network softwarization standardization work in ITU‑T;2 to conduct workshops, with other relevant organizations, for capacity building on SDN and other network softwarization technologies, so that the gap in technology adoption in developing countries may be bridged at the early stages of implementation of SDN and other network softwarization technologies based networks, and to organize the annual SDN and other network softwarization technologies workshop with open-source solutions representation to share the progress in SDN and other network softwarization technologies standards and real experience in the current carrier network,invites Member States, Sector Members, Associates and academia to submit contributions for developing SDN and other network softwarization standardization in ITU‑T. | SUP IAP/39A3/1**#44**RESOLUTION 77 (Rev. Hammamet, 2016)Enhancing the standardization work in the ITU Telecommunication Standardization Sector for software-defined networking(Dubai, 2012; Hammamet, 2016)The World Telecommunication Standardization Assembly (Hammamet, 2016),  |

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