|  |  |  |
| --- | --- | --- |
| Title: ITU logo | INTERNATIONAL TELECOMMUNICATION UNION**TELECOMMUNICATION STANDARDIZATION SECTOR**STUDY PERIOD 2022-2024 | TSAG-TD377 |
| TSAG |
| **Original: English** |
| **Question(s):** | N/A | Geneva, 22-26 January 2024 |
| **TD(Ref.:** [SG2-LS71](http://handle.itu.int/11.1002/ls/sp17-sg2-oLS-00071.docx)**)** |
| **Source:** | ITU-T Study Group 2 |
| **Title:** | LS/i on SCV activity in SG2 [from ITU-T SG2] |
| **LIAISON STATEMENT** |
| **For action to:** | SCV, ITU-T SG3, SG5, SG9, SG11, SG12, SG13, SG15, SG16, SG17, SG20, TSAG |
| **For information to:** | - |
| **Approval:** | ITU-T Study Group 2 meeting (Geneva, 17 November 2023) |
| **Deadline:** | - |
| **Contact:** | Dmitry CherkesovVocabulary rapporteur | Tel: +7 985 239 06 00E-mail: dcherkesov@gmail.com  |

A new liaison statement has been received from SG2.

This liaison statement follows and the original file can be downloaded from the ITU ftp server at <http://handle.itu.int/11.1002/ls/sp17-sg2-oLS-00071.docx>.

|  |  |  |
| --- | --- | --- |
|  | INTERNATIONAL TELECOMMUNICATION UNION**TELECOMMUNICATIONSTANDARDIZATION SECTOR**STUDY PERIOD 2022-2024 | **SG2-LS71** |
| **STUDY GROUP 2** |
| **Original: English** |
| **Question(s):** | All/2 | Geneva, 8-17 November 2023 |
| **(Ref.:** [**SG2-TD364/GEN**](https://www.itu.int/md/T22-SG02-231108-TD-GEN-0364/en)**)** |
| **Source:** | ITU-T Study Group 2 |
| **Title:** | LS on SCV activity in SG2  |
| **LIAISON STATEMENT** |
| **For action to:** | SCV/CCV/CCT, TSAG, ITU-T SG3, SG5, SG9, SG11, SG12, SG13, SG15, SG16, SG17, SG20 |
| **For information to:** | - |
| **Approval:** | ITU-T Study Group 2 meeting (Geneva, 17 November 2023) |
| **Deadline:** | - |
| **Contact:** | Dmitry CherkesovVocabulary rapporteur | Tel: +7 985 239 06 00E-mail: dcherkesov@gmail.com  |

|  |  |
| --- | --- |
| **Abstract:** | This Liaison Statemnet outlines the current terms and definitions activities within ITU-T SG2. |

ITU-T SG2 thanks CCT/SCV/CCV and SGs for their work in aligning terms and definitions.

SG2 follows the formal structure of definitions as described in the Author's Guide for drafting ITU‑T Recommendations (June 2023), Annex B, Guidance on the development of definitions. An extract from Annex B Authors Guide:

A formal definition is a concise, logical statement that comprises three essential elements:

i) The term (word or phrase) to be defined;

ii) The class of object or concept to which the term belongs; and

iii) The characteristics that distinguish it from all others of its class.

Definitions with more than one explanation should be separated with semicolons.

Where abbreviations are used within a definition, an explanation or expansion of those abbreviations must be included. Standard symbols for measurement units should not be defined

At the ITU-T Study Group 2 meeting (Geneva, 8-17 November 2023) the experts discussed new or amended terms and definitions being developed in the study group’s draft Recommendations.

1. E.dit: Deemed impermissible traffic in [SG2-TD299/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0299).
	1. **Deemed impermissible traffic:** It is an international traffic that may be unlawful on a country by country basis which may include OTT applications, Simbox, call refilling and unauthorised changes to CLI (call masking)
2. E.ACP: Alternative calling procedures in [SG2-TD300R1/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0300).
	1. **Alternative calling procedures** it is routing the voice calls in any other way but PSTN/PLMN
	2. Variant. **Alternative calling procedures** means routing of voice calls outside PSTN/PLMN at any stage during end-to-end call flow.
3. E.212: The international identification plan for public networks and subscriptions in [SG2-TD327R1/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0327).
	1. **home network**: The network responsible for the subscription identified by the elements within the IMSI.
	2. **international mobile subscription identity (IMSI)**: The IMSI is a string of decimal digits, up to a maximum length of 15 digits, which identifies a unique subscription. The IMSI consists of three fields: the mobile country code (MCC), the mobile network code (MNC), and the mobile subscription identification number (MSIN).
	3. **mobile country code (MCC)**: The MCC is the first field of the IMSI and is three digits in length and identifies a country. The Director of TSB may assign more than one MCC to a country. MCCs in the 90x range are non-geographic MCCs (country-agnostic) and are administered by the Director of TSB.
	4. **mobile network code (MNC)**: The MNC is the second field of the IMSI, it is two or three digits in length and is administered by the respective national numbering plan administrator. MNCs under MCC ranges 90x are administered by the Director of TSB. The MNC, in combination with the MCC, provides sufficient information to identify the home network.
	5. **mobile subscription identification number (MSIN)**: The MSIN is the third field of the IMSI, it is up to 10 digits in length, and is administered by the relevant MNC assignee to identify individual subscriptions.
4. E.164.1: Criteria and procedures for the reservation, assignment and reclamation of E.164 country codes and associated identification codes (ICs) in [SG2-TD328R1/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0328).
	1. **other global services**: A service, not specified by ITU-T, that has and agrees to comply with recognized and accepted international standards and is provisioned on the public telecommunications network by one or more Recognized Operating Agencies (ROA) [or an operator that qualifies under the regulations applicable within Member States where they will provide services] using ubiquitous network identifiers in two or more countries that are in addition to the global services as defined in clause 6.02.
	2. **multi-use international Networks**: An international network of internationally interconnected physical nodes that enables one or more Recognized Operating Agencies (ROAs) or qualifying operator to provide several significantly different services simultaneously in two or more countries and where sub-assignment of numbering resources is allowed.
5. E.101: Definitions of terms used for identifiers (names, numbers, addresses and other identifiers) for public telecommunication services and networks in the E-series Recommendations in [SG2-TD330R1/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0330).
	1. **global resource**: A name, number, address or identification (NNAI) resource that is administered, allocated and assigned by the Director of TSB according to relevant Recommendations in the ITU-T E-, ITU-T F-, ITU-T Q- and ITU-T X-series. Global resource can be assigned by the Director of TSB to either Member States, and administered according to national regulations, or to eligible entities according to relevant ITU-T recommendations.
	2. **sub-assignment**: The assignment of a global resource by an eligible entity (other than a Member State) to an entity that is not an end-user. The assignment conditions for the global resource for the eligible assignee shall also apply for the sub-assignee.
	3. **sub-assignment** *Alt 1:* The eligible assignee can sub-assignee the global resource to an affiliated company (any entity that directly or indirectly control or is controlled by, or is under common control (direct or indirect ownership of more than fifty per cent (50%) of the voting interests) by the eligible assignee) without this being considered a sub-assignment
	4. **sub-assignment** *Alt 2:* The eligible assignee who forms part of a group of companies, under common control (direct or indirect ownership of more than fifty per cent (50%) of the voting interests by the eligible assignee), can use the global resource across such companies without being considered sub-assignment
	5. **transfer**: The assignment of the right of use for a global resource, issued by the Director of TSB, is transferred from the present assignee to a new eligible entity (other than a Member State) for the purposes for which the global resource is currently assigned. Such activity requires the agreement of, and notification to the Director of the TSB, in discussion with the relevant SG Chair, and experts.
6. E.164.2: "ITU-T E.164 numbering resources for trials" in [SG2-TD332/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0332).
	1. **trial**: The temporary implementation of a proposed new international service implemented in more than one country, for the purpose of determining its technical, operational and business viability.
	2. **non-commercial trial**: The service provided in the trial accessible to a limited set of users, and is not intended for commercial offerings, and may incur a charge to the users.
7. E.IoT-NNAI: Internet of Things Naming Numbering Addressing and Identifiers in [SG2‑TD368/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0368)
	1. **Applicant**: The petitioner applying for the assignment of a resource derived from a number, naming, addressing, or identification plan. Applicants must be Sector Members of ITU or Associates of ITU-T Study Group 2 and must remain members or associates as long as they are assignees.
	2. **NRIA**: (Numbering Resource for IoT Applications) enables access to telecommunication services for the operation of global IoT applications.

The NRIA uniquely identifies the global service subscriber of the IoT application/service.

The NRIA will also facilitate access to IoT applications/services provided at the global level, thereby enabling subscribers of that global application/service to participate in a defined set of subscribed services on the basis of a unique, network-transparent NRIA across multiple networks from any fixed terminal and or mobile terminal, irrespective of geographical location, limited only by network capabilities and restrictions imposed by the network operator.

A NRIA enabled global service subscriber may have more than one NRIA (for example, a business NRIA for business IoT applications and a private NRIA for private IoT applications).

* 1. **Service Provider Switching**: The ability for an IoT/M2M Service Provider to change the provider of connectivity for the service it is providing while using the same number.
1. E.164: The international public telecommunication numbering plan in [SG2-TD382/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0382).
	1. **country code (CC) for geographic areas**: The combination of one, two or three digits identifying a specific country, countries in an integrated numbering plan, or a specific geographic area**.**
	2. **country code (CC) for global services**: A 3-digit country code used to identify the global service.
	3. **country code (CC) for groups of countries**: A shared 3-digit country code used in combination with a group identification code to identify a group of countries.
	4. **country code (CC) for networks**: A shared 3-digit country code used in combination with an identification code to identify an international Network.
	5. **country code (CC) for trials**: A shared 3-digit country code used in combination with a 3-digit trial identification code to identify a trial.
	6. **destination network (DN) code**: An optional code field within the international ITU-T E.164-numbering plan which identifies the destination network serving the destination subscriber. It performs the destination network selection function of the NDC. In some instances, it can be combined with a trunk code to form the NDC. The DN code can be a decimal digit or a combination of decimal digits (not including any prefix).
	7. **global service**: A service defined by ITU-T, provisioned on the public switched network, to which ITU-T has assigned a specific country code to enable the provision of that international service between two or more countries and/or integrated numbering plans.
	8. **global subscriber number (GSN)**: The portion of the international ITU-T E.164-number that identifies a subscriber for a particular global service.
	9. **group identification code (GIC)**: A one-digit identification code assigned to a group of countries.
	10. **group identification code administrator (GICA)**: The organization entrusted by the assignee with the administration and management of the numbering resources behind a specific CC+GIC.
	11. **groups of countries (GoC)**: Several ITU- or UN-recognized countries sharing the same CC+GIC.
	12. **identification code (IC)**: The code subsequent to a country code for Networks that uniquely identifies an international Network.
	13. **Network**: Internationally interconnected physical nodes and operational systems operated and maintained by one or more ROAs to provide public telecommunications services. Private networks are not included in this definition. Note that the use of capital "N" in Networks indicates that this definition applies.
	14. **trial identification codes**: Three-digit identification codes that uniquely identify international public correspondence service trial participants.
	15. **trials**: The temporary implementation of a proposed new international public correspondence service for the purpose of determining its technical, operational, and business viability.
2. M.fcnhe: Framework of communication network health evaluation in [SG2-TD352/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0352).
	1. **Communication network health**: Operating state of a communication network based on availability, reliability, security, and maintainability.
	2. **Communication network health index**: a single summary indicator expressed in quantitative terms indicating the degree of communication network health.
	3. **Network toughness:** the anti-destroy ability of a network to keep a normal operating state.
	4. **Network toughness index:**  a single summary indicator expressed in quantitative terms indicating the degree of network toughness.
	5. **Supply Availability:** products or equipment is available at a given time in supply chain under the risks of weather, earthquake etc.
3. M.fkmtom: Framework of knowledge management for telecom operation and management in [SG2-TD354/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0354).
	1. **knowledge management**: The realization and mechanization, in software or hardware, of one or more functions dedicated to performing a specific task related to knowledge.
4. M.fidtom: Framework of intent driven telecom operation and management in [SG2-TD355/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0355).
	1. **intent**: A set of requirement from internal layers users and external customers of AITOM without specifying how to achieve or implement them input.
	[NOTE]: Reference IETF [RFC 9315]. Intent: A set of operational goals (that a network should meet) and outcomes (that a network is supposed to deliver) defined in a declarative manner without specifying how to achieve or implement them.
	2. **intent driven management**: A management function set that provides the capability for internal users and external customers.to achieve desired operational goals and outcomes.
	[NOTE]: The relationship between intent driven and intent based management will be added in this chapter in the next meeting.
5. M.fmcdns: Framework for management of cross-domain network slices in IMT-2020 network and beyond in [SG2-TD356R3/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0356).
	1. **cross-domain network slice**: an end-to-end network slice composed of multiple network slice subnets that belong to different administrative domains.
	2. **cross-domain network slices management**: managing the lifecycle of cross-domain network slices by a set of network slicing management components in collaborative manner.
	3. **cross-domain network slices interworking**: the capability of fulfilling seamless connection of cross-domain network slice subnet instances that belong to the same network slice instance.
	4. **interworking identifier**: a kind of network slice subnet instance mapping identification used by packet encapsulation to realize cross-domain network slices interworking.
6. M.3386 (M.rmnoc-AI): Requirements for the management of network operation cost within AI enhanced Telecom Operation and Management(AITOM) in telecommunication operational aspects in [SG2-TD357R2/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0357).
	1. **consumable material:** All supplies used in the performance of maintenance work which is disposable after use and must be replaced regularly to continue with the performance of maintenance work.

NOTE - Some typical consumable materials are patch cords, pigtail, connector, registered jack, etc.

* 1. **maintenance support services:** Services provided by the original equipment manufacturer or provider in order to support the operator's maintenance work according to the maintenance contract.

NOTE - Maintenance support services include technical support in case of operational failures, regular inspection and repairing of the device, etc.

* 1. **network operation cost**: Human and other resources spent during operation and maintenance of a network .
	2. **spare parts**:Extra components or devices prepared in advance for replacing the ones in use according to maintenance work needs.
1. M.3387 (M.rfmls): Management Requirements for Federated Machine Learning Systems in [SG2-TD358R2/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0358).
	1. **federated machine learning management system (FMLMS):** A management system that can manage the node resources and model training services of federated machine learning systems.
	2. **federated machine learning service:** An artificial intelligence model training service that uses the federated machine learning method and outputs a globally trained model.
	3. **federated machine learning service client (FMLSC)**: An application entity that initiates the federated machine learning service request and receives trained federated machine learning models.
	4. **federated machine learning system (FMLS):** A system that involves multiple training nodes which collaboratively build and use machine learning models without disclosing the raw and private data owned by the participants.
2. M.rsmti-uav: Requirements for smart maintenance of telecommunications infrastructure based on unmanned aerial vehicles in [SG2-TD361/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0361)
	1. **smart maintenance system of telecommunications infrastructure based on UAVs**: A system consisting of UAVs and UAV-based smart patrol system, which uses UAVs to patrol the telecommunications infrastructure and its surrounding environment.
	2. **UAV-based smart patrol system**: A system that working with UAVs to provide the capability of smart patrol.
3. M.rsds: Requirement for telecommunications service design within SOMM in [SG2-TD363/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0363).
	1. **capability:** Capability is a management function which composed of object and management action.

NOTE - Examples of capability in this recommendation are creation, deletion and modification.

* 1. **child node:** The point which is descendant of any point in the tree structure.
	2. **object structure:** The layout structure and relationship of object in telecommunication service layer and telecommunication sub-service layer of telecommunication service design structure. Object in resource layer of telecommunication service design structure does not have object structure.
	3. **parent node:** The point which is a predecessor of any point in the tree structure.
	4. **root node**: The point at the top of the tree in the tree structure, and it does not have a parent node.
	5. **telecommunication sub-service**: A constitution of telecommunication service. And telecommunication sub-service is provided by the same network domain. In the telecommunications service design view, sub-service is composed of one or multiple resources and the telecommunication service is composed of one or multiple sub-services.
	6. **telecommunication service design structure:** The complete structure of a specific telecommunication service. It contains telecommunication service layer, telecommunication sub-service layer and resource layer. It is displayed in tree structure.

NOTE - Telecommunication service design structure is not an object structure. The former is a complete structure of all objects in three layers of a specific telecommunication service. The latter is a structure of one object in telecommunication service layer or telecommunication sub-service layer. Object structure is part of telecommunication service design structure.

* 1. **tree structure**: A graphical representation method used to illustrate hierarchical or branching connections. It originates from a root node, and each node can connect to multiple child nodes, forming a tree-like structure where each node represents an object.
1. M.xr-tosiep: X interface requirement for telecom operation system and internet e-commerce platform in [SG2-TD366/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0366).
	1. **internet e-commerce platform**: internet e-commerce platform is an implementation of performing e-commerce activities.
2. M.xmsnr: X-interface for management of shared network resources - Protocol neutral requirements in [SG2-TD379/PLEN](https://www.itu.int/md/T22-SG02-231108-TD-PLEN-0379)
	1. **Dedicated Network Element:** The network element that only be used and managed by the owner operator.
	2. **Shared Network Element:** The network element whose usage and access are shared by multiple operators, and the management of which requires the collaboration of multiple operators.

SG2 looks forward to collaborating closely with all the relevant parties.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_