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| ITU logo | INTERNATIONAL TELECOMMUNICATION UNION  **TELECOMMUNICATION STANDARDIZATION SECTOR**  STUDY PERIOD 2017-2020 | | | TSAG-TD1039 |
| **TSAG** |
| **Original: English** |
| **Question(s):** | | N/A | | E-Meeting, 25-29 October 2021 |
| **TD (Ref.:** [SG2-LS217](http://handle.itu.int/11.1002/ls/sp16-sg2-oLS-00217.docx)) | | | | |
| **Source:** | | ITU-T Study Group 2 | | |
| **Title:** | | ITU-T SG2 Lead Study Group Report | | |
| **Purpose:** | | Information | | |
| **LIAISON STATEMENT** | | | | |
| **For action to:** | | | - | |
| **For comment to:** | | | - | |
| **For information to:** | | | TSAG | |
| **Approval:** | | | ITU-T Study Group 2 management (11 October 2021, by correspondence) | |
| **Deadline:** | | | N/A | |
| **Contact:** | | | Phil Rushton UK | Tel: +44 1206 729738 E-mail: [philrushton@rcc-uk.uk](mailto:philrushton@rcc-uk.uk) |

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/sp16-sg2-oLS-00217.docx>.

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| **STUDY GROUP 2** | |
| **Original: English** | |
| **Question(s):** | | All/2 | |  | |
| **(Ref.:** [**SG2-TD1493/GEN**](https://www.itu.int/md/T17-SG02-211108-TD-GEN-1493/en)**)** | | | | | |
| **Source:** | | ITU-T Study Group 2 | | | |
| **Title:** | | LS on ITU-T SG2 lead study group activities (December 2020 to May 2021) | | | |
| **LIAISON STATEMENT** | | | | | |
| **For action to:** | | | - | | |
| **For comment to:** | | |  | | |
| **For information to:** | | | TSAG | | |
| **Approval:** | | | ITU-T Study Group 2 management (11 October 2021, by correspondence) | | |
| **Deadline:** | | | N/A | | |
| **Contact:** | | | Phil Rushton UK | | Tel: +44 1206 729738 E-mail: [philrushton@rcc-uk.uk](mailto:philrushton@rcc-uk.uk) |

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| --- | --- |
| **Keywords:** | Numbering, Naming, Identifiers, Services, Routeing, Telecommunications Management, Fraud Management. |
| **Abstract:** | This liaison contains the report of the ITU-T SG2 on lead study group activities (December 2020 to May 2021). |

# Background

According to Resolution 2 of WTSA-16, ITU-T SG2 is the lead study group on:

– Lead study group on numbering, naming, addressing, identification and routing

– Lead study group on service definition

– Lead study group on telecommunications for disaster relief/early warning, network resilience and recovery

– Lead study group on telecommunication management

# Report of ITU-T SG2 on lead study group activities (December 2020 to May 2021)

## 2.1 Allocation of Global Resources

These resources are assigned by the Director of the TSB in accordance with the criteria detailed in the relevant ITU-T Recommendations that are under the responsibility of ITU-T SG2. These criteria are both service based and network based.

The activity in support of allocations for service based allocations, for the period between SG2 meetings (December 2020 to May 2021), is as follows:

|  |  |
| --- | --- |
| **Number of processed requests for UIFN =**  (A) - Number of Assigned and implemented UIFN = 320  (C) - Number of Cancelled UIFN = 22  (D) - Number of Disconnected UIFN = 216  (M) - Number of Modified UIFN’s Details = 76  (O) - Number of UIFN Operated by a secondary operator = 142  (X) - Number of UIFN Disconnected by a secondary operator = 12  (R) - Number of Reserved UIFN = 275  (S) - Number of Temporary Reserved UIFN = 74  (Y) + (Z) - Number of Transferred UIFN to another ROA = 31 | **1168** |
| **Number of processed requests for Universal International Premium Rate Number** | **0** |
| **Number of processed requests for Universal International Shared Cost Number** | **0** |
| **Number of processed requests for ITU International Network Designator ATM End System Address** | **0** |

In addition, the following applications for global NNAI resources were received and their status is given below:

Applications for E.164 and E.212 shared codes – Assigned

The TSB Director has made the following assignments:

|  |  |  |  |
| --- | --- | --- | --- |
| **Applicant** | **Request/Application** | **Assigned/extended code** | **Assignment date** |
| Nokia | Request for an E.164 shared CC and IC and an E.212 shared MCC and MNC for Nokia | **E.164 shared CC and IC 883 5190** and **E.212 shared MCC** and **MNC 901 79** | 6 April 2021 |
| Halys SAS | Request for a 2-digit MNC under the shared E.212 MCC for trials MCC 991 | **E.212 shared MCC** and **trial-MNC 991 03** | 6 April 2021 |
| Telecom Italia Sparkle S.p.A. | Request for an E.164 shared CC and IC and an E.212 shared MCC and MNC for Telecom Italia Sparkle S.p.A. | **E.164 shared CC and IC 883 360** and **E.212 shared MCC and MNC 901 78** | 6 April 2021 |
| Afinna One Srl | Request for an E.164 shared CC and IC for Afinna One Srl | **E.164 shared CC** and **IC 883 350** | 5 February 2021 |
| MFA | Request for an E.212 shared MCC and MNC for MFA | **E.212 shared MCC**  and **MNC 902 01** | 19 January 2021 |

Application for change of assignment – Granted

The TSB Director has granted the following change of assignment:

|  |  |  |  |
| --- | --- | --- | --- |
| **Applicant** | **Request/Application** | **Assigned code** | **Grant date** |
| Deutsche Telekom AG and Inmarsat Ltd. | Request for the change the assignment of shared E.212 MCC and MNC 901 53 from Deutsche Telekom AG to Inmarsat Ltd. | **E.212 shared MCC** and **MNC 901 53** | 16 March 2021 |

Applications for E.118 (IIN) – Assigned

|  |  |  |  |
| --- | --- | --- | --- |
| **Applicant** | **Request/Application** | **Assigned code** | **Assignment date** |
| Podsystem Ltd | Request for an E.118 code for Podsystem Ltd | **E.118 IIN 89 883 08** | 5 February 2021 |

Applications for E.164 and E.212 shared codes – in process

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Applicant** | | **Request/Application** | **Date of request** | **Status** |
| iBasis Netherlands B.V. | Request for an E.212 shared MCC and MNC for iBasis Netherlands B.V. | | 27 April 2021 | Numbering applications mailing list review period. |
| Airnity | Request for an E.164 shared CC and IC for Airnity | | 13 April 2021 | Further clarification is required. |
| A1 Telekom Austria AG | Request for an E.164 shared CC and IC for A1 Telekom Austria AG | | 6 April 2021 | Further clarification is required. |
| Airnity | Request for an E.212 shared MCC and MNC for Airnity | | 26 March 2021 | Request has been approved. Assignment letter is being prepared. |
| Flo Live Limited | Request for an E.212 shared MCC and MNC for Flo Live Limited | | 30 November 2020 | Request has been approved. Assignment letter is being prepared. |

Applications for E.164 and E.212 shared codes referred to Study Group 2 meeting (Virtual, 31 May – 11 June 2021)

SG2 has decided to refer the following applications to this SG2 meeting for discussion.

|  |  |  |  |
| --- | --- | --- | --- |
| **Applicant** | **Request** | **C/TD** | **Status** |
| Athalos Global Services BV. | Request for an E.164 Shared Country Code and Identification Code for Athalos Network: +888xy number range assignment application | [SG2-C312](https://www.itu.int/md/T17-SG02-C-0312/en) | Submitted to the SG 2 meeting (Virtual, 31 May – 11 June 2021) |
| Athalos Global Services BV. | Request for an E.164 Shared Country Code and Identification Code for Athalos Network: +882 number range assignment application | [SG2-C313](https://www.itu.int/md/T17-SG02-C-0313/en) | Submitted to the SG 2 meeting (Virtual, 31 May – 11 June 2021) |
| Athalos Global Services BV. | Request for an E.164 Shared Country Code and Identification Code for Athalos Network: +878xy number range assignment application | [SG2-C314](https://www.itu.int/md/T17-SG02-C-0314/en) | Submitted to the SG 2 meeting (Virtual, 31 May – 11 June 2021) |

\* Following the ITU-T SG2 meeting (virtual, 31 May – 11 June 2021), Athalos withdrew all three applications for numbering resources (see [SG2-C332](https://www.itu.int/md/T17-SG02-C-0332/en)).

Reservation for assigned codes

|  |  |  |  |
| --- | --- | --- | --- |
| **Applicant** | **Request/Application** | **Date of request** | **Status** |
| OCHA (United Nations Office for the Co-ordination of Humanitarian Affairs) | Reservation of E.164 CC 888 and E.212 MCC and MNC 901 88 for humanitarian purposes to OCHA | 5 February 2019 | The experts participating in the ITU-T SG2 meeting (virtual, 31 May – 11 June 2021) advised the TSB Director to write to OCHA noting the country code 888 and MCC MNC 901 88 have been reserved for 2 years and that they will be returned to spare by the next SG meeting. The participants further recommended the TSB Director to ask OCHA if they have any comment on this change of status. |

Among the applicants for codes are five new SG2 Associates who joined between January and May 2021.

## 2.2 Reports of misuse

Since the last ITU-T Study Group 2 meeting (virtual, 18 December 2020), and as of 25 May 2021, no report on activities related to misuse of numbering resources was received via the official submission channels. Official reports of misuse can be accessed at:  
<https://www.itu.int/net/ITU-T/misuse/table.aspx>.

In March 2021, ITU-T SG2 experts received information ([Q1/2-TD5 (210308)](https://extranet.itu.int/meetings/ITU-T/T17-SG02RGM/Q1-210308/TDs/T17-SG02RGM-Q1-210308-TD-0005.docx) and its [attachment](https://extranet.itu.int/meetings/ITU-T/T17-SG02RGM/Q1-210308/TDs/T17-SG02RGM-Q1-210308-TD-0005-A01.PDF)) regarding potential misuse of E.164 shared CC and IC 878 10. The experts discussed this report and the conclusions are found in clause 3.2.10 of the Q1/2 RGM meeting report ([SG2-TD1334](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1334/en)). The Q1/2 experts participating in the ITU-T SG2 meeting (virtual, 31 May – 11 June 2021) agreed that, ahead of the next SG2 meeting in November 2021, VisionNG should clarify:

– the amount of numbers that are in use under 878 10;

– what specific services they are being used for; and

– the number of third parties to whom numbers have been allocated by Vision NG, and the amount of numbers assigned to each.

## 2.3 Recommendations

At its last meeting (virtual, 31 May – 11 June 2021), SG2 took the following decisions with respect to:

Recommendations Approved

|  |  |  |
| --- | --- | --- |
| Rec. # | Rec. title | Documents |
| E.157 | International calling party delivery | Text for Approval: [SG2-TD1397R2](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1397/en)  Consultation: [TSB Circular 287](https://www.itu.int/md/T17-TSB-CIR-0287/en) Consultation result: [SG2-TD1291](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1291/en) |

Recommendations Determined under TAP

|  |  |  |
| --- | --- | --- |
| Rec. # | Rec. title | Documents |
| None |  |  |

Recommendations Consented under AAP

|  |  |  |
| --- | --- | --- |
| Rec. # | Rec. title | Document |
| X.785 (ex X.rest) | Guidelines for defining REST-based managed objects and management interfaces | [SG2-TD1435R1](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1435) |
| Q.838.1 (2004) Amd.1 | Requirements and analysis for the management interface of Ethernet Passive Optical Networks (EPON) - Amendment 1: Replace the reference to IEEE 802.1D by IEEE 802.1Q | [SG2-TD1423](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1423) |
| Q.834.1 (2004) Amd.1 | ATM-PON requirements and managed entities for the network and network element views - Amendment 1: Replace the reference to IEEE 802.1D by IEEE 802.1Q | [SG2-TD1421](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1421) |
| Q.834.4 (2003) Amd.2 | A CORBA interface specification for Broadband Passive Optical Networks based on UML interface requirements - Amendment 2: Replace the reference to IEEE 802.1D by IEEE 802.1Q | [SG2-TD1422](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1422) |
| M.3365 (ex M.rvqms) | Requirements for QoE management of video in visual surveillance | [SG2-TD1417](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1417) |

**Supplements or other non-normative texts approved**

|  |  |  |
| --- | --- | --- |
| Supp.# | **Supp. Title** | **Document** |
| TR.EENM | Guidelines for effective and efficient national E.164 numbering plan administration | [SG2-TD1331R2](http://www.itu.int/md/T17-SG02-210531-TD-GEN-1331) |
| TR.spoofing | Countering Spoofing | [SG2-TD1355](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1355/en) |

# WTSA-20 preparations

Part I of the study group report to WTSA-20, which contains a report of work carried out during the current study period and the proposed future mandate of the study group, has not been changed since it was submitted for information to TSAG in September 2020 ([TSAG-TD901](https://www.itu.int/md/T17-TSAG-200921-TD-GEN-0901/en)). It is expected that Part I of the report to WTSA-20 will be updated before the TSAG meeting in January 2022 to reflect progress made.

Part II of the study group report, which contains proposed updates to the Question texts, was submitted to the January 2021 meeting of TSAG ([TSAG-TD973-R1](https://www.itu.int/md/T17-TSAG-210111-TD-GEN-0973/en)). The TSAG meeting endorsed the new Question texts, which are now in force, and can be found here:  
<https://www.itu.int/net4/ITU-T/lists/loqr.aspx?Group=2&Period=16>.

The Chairman did not expect to discuss any updates to the proposed SG2 mandate or the list of Questions under study before WTSA-20.

# Progress

The SG2 meeting (virtual, 31 May – 11 June 2021) agreed that Part I for the report of SG2 to WTSA ([TSAG-TD901](https://www.itu.int/md/T17-TSAG-200921-TD-GEN-0901/en)) should be updated before the TSAG meeting in January 2022 to reflect progress made, but that no further updates were necessary to the proposed SG2 mandate in WTSA Resolution 2. The meeting also agreed that no updates were necessary to Part II of the report because the Question texts endorsed at the January 2021 meeting of TSAG ([TSAG-TD973R1](https://www.itu.int/md/T17-TSAG-210111-TD-GEN-0973/en)) were considered sufficient to continue the work. Agreed changes are:

* **WP1/2**: Introduce IoT/M2M into Question texts; balance Number Portability between Q1/2 (NNAI) and Q2/2 (Routing and interworking plan for fixed and mobile networks).
* **WP2/2**: Consolidate existing work assignments, and integrate AI/ML into mandate.

Discussions on the assignment of global resources continues to address emerging requirements. Since the previous ITU-T Study Group 2 meeting (Virtual, 18 December 2020), the Numbering Coordination Team (NCT) held six meetings and carried out further consultations through email correspondence. The NCT has worked on 13 new or pending applications as well as a request related to a change of operator. Details can be found in [SG2-TD1284](https://www.itu.int/md/T17-SG02-210531-TD-GEN-1284/en).

The revision to Recommendation ITU-T E.157, "International Calling Delivery" was approved. The updated version reflects developments that have been seen globally as well as national decisions that could be seen as best practice. Comments were received on the Determined text from Pakistan, Russian Federation and United States during the TAP consultation phase. These issues were resolved by the SG2 experts and an updated version of the text was Approved at the closing plenary.

Two technical reports were approved by agreement: TR.spoofing, which provides information that could assist in implementing measures to counter spoofing, and TR.EENM, which sets out guidelines for effective and efficient national E.164 numbering plan administration.

Progress continues to be made on revising Recommendation ITU-T E.118, "The international telecommunication charge card", which specifies the Issuer Identification Number that is used on SIM cards and has been in demand for mobile connections for emerging technology. The current amendments reflect the development of an expansion of the NNAI resource by embedding the current structure in a new structure administered by the industry for use within embedded SIMS.

Two new Recommendations were consented: ITU-T X.785 (ex X.rest), " Guidelines for defining REST-based managed objects and management interfaces", which has been developed jointly with 3GPP SA5, and ITU-T M.3365 (ex M.rvqms), "Requirements for QoE management of video in visual surveillance". In addition, three amendments were consented in order align Q-series Recommendations with the latest version of IEEE 802.1:

– ITU-T Q.838.1 (2004) Amd.1, *Requirements and analysis for the management interface of Ethernet Passive Optical Networks (EPON) - Amendment 1: Replace the reference to IEEE 802.1D by IEEE 802.1Q*.

– ITU-T Q.834.1 (2004) Amd.1, *ATM-PON requirements and managed entities for the network and network element views - Amendment 1: Replace the reference to IEEE 802.1D by IEEE 802.1Q*.

– ITU-T Q.834.4 (2003) Amd.2, *A CORBA interface specification for Broadband Passive Optical Networks based on UML interface requirements - Amendment 2: Replace the reference to IEEE 802.1D by IEEE 802.1Q*.

Six new work items were initiated:

– E.nphs, *Application of E.164 Numbering Plan for Humanitarian Services*.

– M.il-AITOM, *Intelligence Levels of AI enhanced Telecom Operation and Management*.

– M.rfmls, *Management Requirements for Federated Machine Learning Systems*.

– M.rla-AI, *Requirements for Log Analysis with AI-enhanced Management System*.

– M.rmnoc-AI, *Requirements for the management of network operation cost within AITOM in telecom operational aspects*.

– TR.MMWF, *Methodologies to mitigate Wangiri fraud*.

# Cooperation with other SGs

Cooperation with other study groups continues, specifically ITU-T SGs 5, 12, 13, 16, 17 and 20. The highlights of the cooperation are:

– Liaisons were sent to ITU-T SG13 informing of the start of work on new work item M.rla-AI, "Requirements for Log Analysis with AI-enhanced Management System", and the Consent of ITU-T M.3080 (ex. M.AI-tom), "Framework of AI enhanced Telecom Operation and Management (AITOM)". In addition, SG2 provided feedback to SG13 on the AI roadmap standardization activities, new work item Y.IMT2020-IBNMO, "Intent-based network management and orchestration for network slicing in IMT-2020 and beyond", and Y.SCid-fr, "Requirements and Converged Framework of Self-Controlled Identity based on Blockchain"

– A liaison was sent to SG16 and JCA-AHF providing an update on the status of work on international numbering resources for the provision of services of a humanitarian nature.

– A liaison was sent to SG17 informing about the use of fixed-line numbers for OTT services, its possible fraudulent use, and possible mitigations strategies. In addition, SG2 provided feedback on Y.DTN-ReqArch, “Requirements and Architecture of Digital Twin Network”, confirming the desire to cooperate with SG17 on this work item in future.

– Liaison were sent to ITU-T SG20 informing them of the Consent of ITU-T X.785 (ex X.rest), "Guidelines for defining REST-based managed objects and management interfaces", and the initiation of new work item M.rfls, "Management Requirements for Federated Learning Systems".

# SG2 regional groups

A joint meeting of ITU-T SG2 Regional Group for Africa (SG2RG-AFR) and ITU-T SG2 Regional Group for the Arab Region (SG2RG-ARB) was held fully virtual on 17 May 2021. The meeting report can be found in [SG2RG-AFR-R4](https://www.itu.int/md/T17-SG02RG.AFR-R-0004/en) / [SG2RG-ARB-R4](https://www.itu.int/md/T17-SG02RG.ARB-R-0004/en). The next meeting of [SG2RG-AMR](https://www.itu.int/en/ITU-T/studygroups/2017-2020/02/sg2rgamr/Pages/default.aspx) is expected to take place fully virtual on 7 September 2021.

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