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| **8 May 2019** |
| **English only** |
| Note by the Secretary-General | |
| report on Numbering MisuSe | |

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| Summary  Following the instruction of WTSA Resolution 20 (Rev. Hammamet, 2016), the Director of TSB informs the ITU Council about the misuse cases of ITU telephone numbers and the numbering misuse report received recently.  Action required  This report is transmitted to the Council for information. |

# 1 Background

Resolution 20 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly (WTSA) resolves to instruct “the Director of TSB, in close collaboration with Study Group 2, and any other relevant study groups, to follow up with the administrations involved on the misuse of any international telecommunication NNAI resources, and inform the ITU Council accordingly”.

The TSB director and his representative have been in close collaboration with Study Group 2 experts in investigating the misuse case of one particular ITU telephone number and the received misuse reports.

# 2 Case Analysis

**2.1 Misuse cases occurred to ITU telephone numbers**

One TSB telephone number published as contact number on the ITU website has experienced misuse since the middle of March 2019. Calls were generated outside Switzerland to the users in different countries across Asia, Middle East, Africa, and Europe with the TSB number as Calling Party Number and left missed call notifications to these users. Then these users called back the TSB number. In many cases, these users had been called 4 or 5 times, with the Calling Line Identification (CLI) showing the TSB number. The users did not know about ITU or TSB.

Initially TSB received 2 to 3 such calls per day, but during the first week of April 2019 the volume increased dramatically, to tens of calls per day. The peak was reached on 5 April when TSB received 80 calls. The ITU call logs from 1 to 8 April (14h31) show that the ITU number received 301 calls with the CLI from 46 countries. ITU has implemented a temporary solution to route the calls to the TSB number from callers outside ITU to the Interactive Voice Response (IVR) system since 4 April. But still some callers who did not understand English reached the TSB user of the telephone number.

The ITU PBX was checked and it was confirmed that the calls did not originate there. Swisscom (ITU’s service provider) was notified and reported that there is no indication that the TSB number is being used by others in Switzerland. In fact, the calls to the TSB number are legitimate calls from the victims of the spoofed calls with the ITU number shown as CLI. The national regulator was consulted and provided advice. Placing of a voice prompt system is considered as one of the most effective measures in limiting the number of answering such call-back calls.

Following consultation with ITU-T Study Group 2 experts, it was advised that these are malicious calls and not for revenue generation. There is no apparent reason for this misuse except to create a nuisance for the user of this number, who has to answer the calls and explain the situation.

Tracing back the spoofed calls from the terminating operators of the calls in different countries would be the key for further investigation on where the spoofed calls were generated. The national regulator and service provider are not in a position to assist this further investigation since the spoofed calls occurred outside Switzerland and no operator based in Switzerland is involved in the spoofed calls.

Another ITU telephone number (from ITU Telecom) experienced a similar situation but with a lower number of calls received.

The same situation existed in July and August 2018 when most of the phone numbers on the “Contact us” page of ITU got such calls. The calls eventually stopped.

The ITU telephone numbers are published for business purposes and cannot be changed or removed from the website since they are well known worldwide by ITU partners, regulators, delegates, and others.

**2.2 International Premium Rate Numbers and number misuse/misappropriation**

One report on the unauthorized use of the numbering range “248 9 5XX XXX” was received from the Administration of Seychelles represented by the Department of ICT (the Department) of the Government of Seychelles (GOS) in April 2019. The numbering resource “248 9 5XX XXX” was assigned to the local telecommunication operator Cable & Wireless (Seychelles) Ltd (CWS) to be used for international audiotext services. In 2018. However, after extensive testing, CWS has found that the range was unstable as it has been already blocked by most international carriers due to illegitimate services being advertised on the range. Their understanding is that the whole “248 9 XXX XXX” range is being used by an unauthorized international unknown network operator.

In addition, it was reported that in 2004, Mediatech International Limited-Smartcom (Mediatech), which is an audiotext and advertising company based in Lebanon, was granted authorization to utilize the numbering resource “248 98X XXX”. As per the agreement between the GOS and Mediatech, the latter was to provide interactive SMS-based services and Interactive Voice Response (IVR) services on a worldwide basis. Consequently, after the agreement with Mediatech expired in 2015, the GOS decided not to renew it and as a result the numbering resource “248 98X XXX” was retracted from Mediatech. ITU was also notified of the change in the National Numbering Plan, and ITU published the changes in the ITU Operational Bulletins No. 1073 (1.IV.2015) and No. 1076 (15.V.2015).

Study Group 2 experts were consulted. PITA fraud advisor, Mr Colin Yates, has kindly provided some analysis on this case. It was found that Seychelles numbers advertised as International Premium Rate Numbers (IPRN) have been increasing over the past year. As of 6 April 2019, there are 3731 Seychelles numbers advertised on 72 IPRN websites. Out of 229 countries with IPRN’s being advertised on that date, the Seychelles were number 35 on the list with number 1 being the highest. In March 2018, they were number 113 so their risk profile has increased significantly over the past year. Of the 3731 Seychelles numbers advertised, 595 of these are in the +248 9 XXX XXX range and these are advertised by 59 IPRN Providers. If this range is no longer valid, then all 59 IPRN Providers are advertising these numbers with no authority, and any use of them for revenue share purposes would have to involve misuse (or misappropriation). So in this case, some international operators/carriers are blocking the numbers under the Country Code 248 because of the high fraud risk associated with them.

Use of IPRN for numbering misuse/misappropriation was discussed at ITU-T Study Group 2. There was a contribution (SG2-C70) from the Pacific Islands Telecommunications Association on “Comments re Pacific Number Misappropriation” at the ITU-T Study Group 2 meeting of 27 November - 1 December 2017. Following the discussion in that contribution, the TSB Director was advised to publish an announcement “ITU supports Operators taking action to remove numbers being advertised without authority on IPRN websites. Such use of numbers does not comply with Recommendation ITU-T E.190.”. The announcement was published in [ITU Operational Bulletin No. 1144](https://www.itu.int/pub/T-SP-OB.1144-2018).

# 3 Conclusion

It is noted that Member States are encouraged tocontribute to the implementation of PP Resolution 190 (Busan, 2014) “Countering misappropriation and misuse of international telecommunication numbering resources”, in particular, ”to continue to study ways and means to improve the understanding, identification and resolution of misappropriation and misuse of ITU-T E.164 telephone numbers through activities of ITU-T and ITU-D study groups” and “develop national legal and regulatory frameworks that are sufficient to ensure best practices in ITU-T E.164 telephone numbering management in order to counter telephone number misappropriation and misuse”.

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