

**ITU Regional Seminar on Costs and Tariffs for Member
Countries of the Regional Group for Asia and Oceania
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**Numbering misuse and fraud:
Overview of current practices, what is
currently done and what are the issues**

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Background

- Pacific Island administrations are well aware that the unauthorised hijacking of number ranges and country codes of some Pacific Islands and the use of these numbers for IRSF and other fraudulent activities is occurring.
- Hijacked calls are calls that do not terminate in the called country because some-one, for fraudulent reasons, has filtered the calls away from the routing to the intended country
 - Usually the fraudsters filter the calls to porn sites without the knowledge of the home operator to collect the terminate fee (remember there are millions of minutes involved)
 - Gives rise to GSM roaming International Revenue Share Fraud (IRSF) involving losses of hundreds of thousands of dollars
 - This has caused some operators to block calls to the Pacific Islands to avoid getting caught by the fraud.

Number Hijacking: What's known

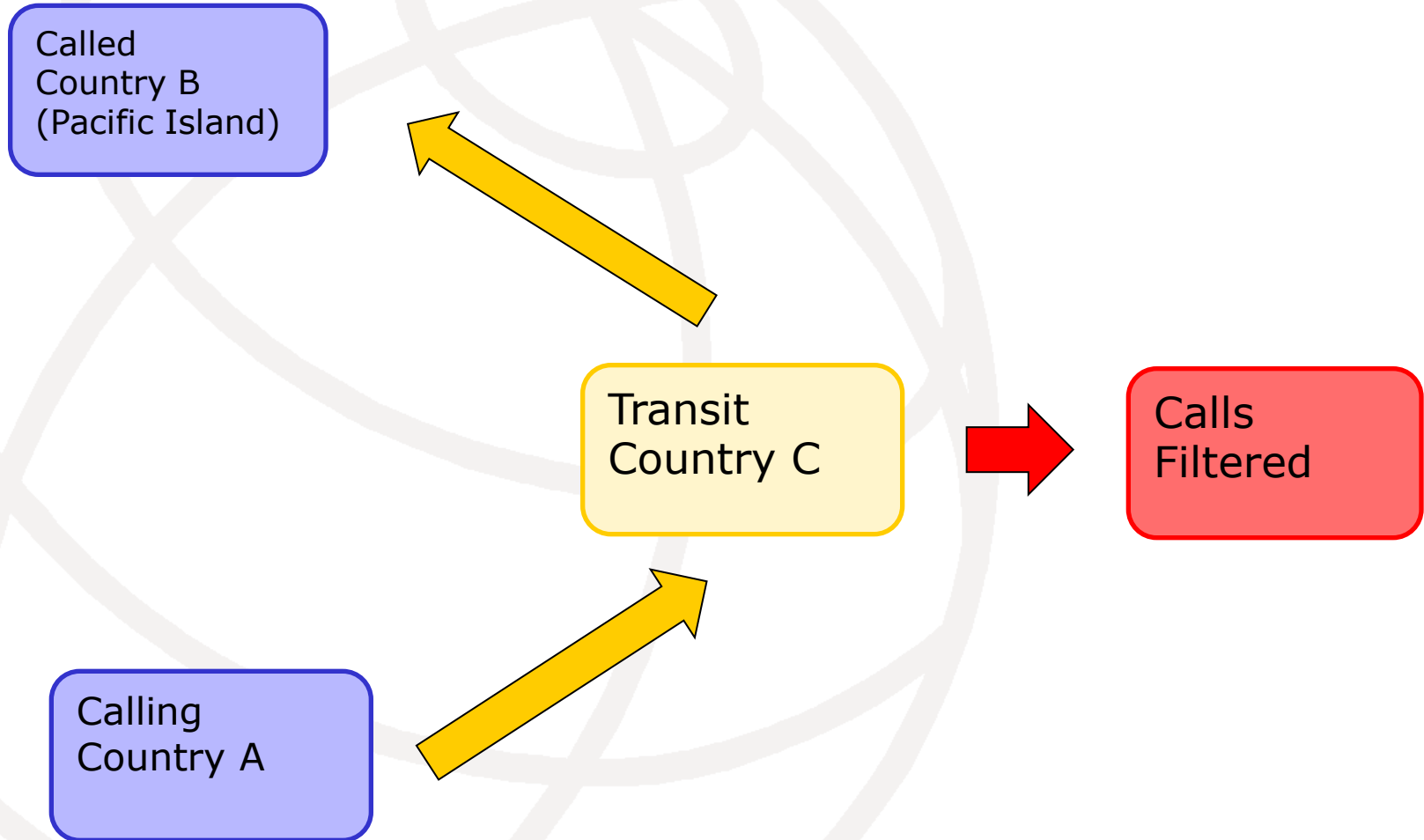
- The perpetrators, do it for financial gain, they have no concern for impact on the country or regional economies
- Some operators block the country codes as a prevention control:
- It's an aggressive approach, contrary to the ITU recommendation (E.156) on blocking of country codes and stops all traffic to the affected country causing many other problems.
- *(Recommendation ITU-T E.156, sets out guidelines for ITU-T action on reported misuse of E.164 numbering resources, and Recommendation ITU-T E.156 Supplement 1, which provides a best practice guide on countering misuse of E.164 numbering resources)*
- Fails to address the true cause of this globally organised criminal activity and stop the perpetrators

Impact of Number Hijacking

Noting that the Pacific Islands operators often do not know the Number Hijacking is taking place:

- The hijacking of a countries country code means that people cannot ring that Pacific Island. This seriously affects the economy of Pacific Island country affecting all areas of social activity and trade including the mainstay tourism
- Gives the Pacific Islands a bad reputation when it is not their fault – they are the innocent party
- The hijacking (and blocking) of calls has a severe effect on the fragile economy of small Pacific Island countries who, because of their isolation, are totally reliant on telecommunications for trade etc. (Most Pacific Islands rely heavily on the highly competitive tourist market).
- Reduces inbound traffic which directly affects the revenue of the operator
- Makes it very difficult to establish roaming agreements with fellow GSMA members

How the hijacking occurs



Call Routing

A person in country A (Calling Country) wishes to ring some-one in Country B (Called Country)

- If there is no direct circuit (the usual situation) the call must transit a third country, Country C (Note number hijacking can also occur via a transit point in the same country (Country B))
- In Country C, the transit exchange is programmed to filter the calls out to another destination (usually to a Porn Call Centre).
- Country B does not receive the call and is unaware the call has been "Hijacked".
- Country A receives the revenue from the call from the customer and passes the termination fee to country C who is supposed to take out the transit fee and pass the termination fee to country B.
- Country C keeps the transit fee and the termination fee. Remember there are millions of minutes involved

INTERNATIONAL REVENUE SHARE FRAUD (IRSF)

IRSF is a variation of the number hijacking. The basic steps are as follows:

- The fraudster commits identity fraud and obtains a international roaming SIM Card using a false name and address from a Mobile operator.
- He then travels/sends the SIM Card to another country where it is usually cloned
- Calls are then made from that overseas country back to the home operator using the international roaming service

INTERNATIONAL REVENUE SHARE FRAUD (IRSF) Cont.

- They generate thousands of calls using the cloned SIM Cards and SIM boxes
- The call is “hijacked” as with the number misappropriation fraud
- The home operator was liable for the calls and had to pay the originating carrier and the transit carrier
- The place where the calls are filtered out collects the transit fee and termination fee.
- The home carrier is unable to collect the retail price of the call from the customer as he has disappeared and therefore suffers a loss.
- GSMA have implemented a system known as NRTRDE (Near Real Time Roaming Data Exchange) to counter this fraud.

Resolution 61

Resolution 61 – Misappropriation of international telecommunication numbering Resources was adopted by ITU-T at WTSA-08 that was held in Johannesburg, South Africa 2008.

resolves to invite Member States

1 to consider providing a mechanism to allow their national regulator to request carriers to release routing information in cases of fraud, within the constraints of national laws and regulatory frameworks;

Resolution 61

Attachment (to Resolution 61)

**Suggested guidelines for regulators,
administrations and operating agencies
authorized by Member States for dealing
with number misappropriation**

Approach to managing the problem

- Promotion of awareness of Number Hijacking to Regulatory bodies and to require operators to provide information on circuit routing in cases of fraud (**Operators quoting confidentiality of how they route their calls is the biggest single issue in tracking Number Hijacking**)
- Use of WTSA-08 (Johannesburg) Recommendation 61 and Attachment
- Making Pacific Islands operators aware of Subscriber Identity Fraud which is a vital component of IRSF

Proposal To WCIT for Number Misuse

The misuse of numbering resources continues to be an important issue for APT member countries and members are of the view that more should be done to mitigate the problem. The problem persists and continues to affect several APT countries in particular, the small island countries of the Pacific. APT members want this issue be addressed in the WCIT process in the form of a new article.

- In this regard, APT Members propose the following clause to be added to the relevant part of ITR, for instance, a new article 3.7

Proposal To WCIT for Number Misuse Cont.

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- *New article 3.7:*
- *Member States shall encourage the appropriate use of numbering resources so that they are used only by the assignees and only for the purposes for which they were assigned. In accordance with the relevant ITU-T Recommendations, Member States shall endeavor to ensure that unassigned resources are not used.*

WCIT

- Attended the APT Preparatory meeting for the WCIT

APT Preparatory Meetings for WCIT and WTSA

APT has already held three preparatory meetings for WCIT-12 and WTSA-12

- 4th Meeting of the APT Preparatory Group for WTSA (**WTSA-12**) is to be held 2-4 August 2012 in Bangkok Thailand
- 4th Meeting of the APT Preparatory Group for WCIT (**WCIT-12**) is to be held 6-8 August 2012 in Bangkok Thailand

Other Measures

Other measures include:

- Education of the Regulators to make them aware of the problem and Operators to seek their assistance to help trace how the calls are being routed (Resolution 61).
- Preventing Subscriber Identity fraud - targeting the provision of SIM cards
- Installation of NRTRDE



Pacific Islands





Thank You

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