

IRSF check

This is a hourly basis check for IRSF. IRSF, or International Revenue Share Fraud, is a telecom scam where criminals exploit systems to drive calls to their premium-rate numbers, illegally profiting from the inflated call charges. Below is the script used to check suspicious numbers and the respective steps for the analysis.

Script:

```

/***** SPAM CALLS CHECKING *****/
/*****/

SELECT SYSDATE AS DETECTION_DATE, A.*
      FROM (  SELECT msisdn dial_code,
                    anumber,
                    call_type,
                    country,
                    COUNT (*) call_count,
                    ROUND (SUM (CHARGEABLEDURATION / 60), 2) duration
      FROM (SELECT TM_START_TIME DATE_OF_CHARGE,
                  CASE GN_RECORD_TYPE
                    WHEN '0' THEN 'MOBORIG'
                    WHEN '2' THEN 'MOBTERM'
                    WHEN '3' THEN 'MOBTRAN'
                  END
            AS call_type,
            NT_OUTGOING_ROUTE OUTGOINGROUTE,
            ID_ORIGINATED_NUMBER anumber,
            TRANSLATED_NUM TRANSLATED_NUMBER,
            LOCATIONNUMBER ORIGINATINGLOCATIONNUMBER,
            TM_DURATION CHARGEABLEDURATION,
            TM_DURATION / 60 DUR_MINUTES,
            GSMCALLREFERENCE networkcallreference,
            c.msisdn,
            c.LENGTH_s LENGTH,
            c.country_s country
      FROM rt_mv2@fmsdb1_ln b, high_risk_dial_codes_new c
 WHERE      TM_START_TIME >= TRUNC (SYSDATE)
 AND SUBSTR (b.TRANSLATED_NUM, 1, c.LENGTH_s) =
            c.msisdn
 AND c.msisdn NOT LIKE '%37000000'
 AND NT_OUTGOING_ROUTE IN ('DHSMI2I',
                           'DHSMIAI',
                           'DHORANI',
                           'DHSNY2I',
                           'TRILO1I',
                           'TRILO2I',
                           'TRILO3I',
                           'DHSNYTI',
                           'HACCNYYI',
                           'HCA2MII',
                           'HCA2NYI',
                           'HCA3MII',
                           'HCA3NYI',

```

```

        'HCA5MII' ,
        'HCA5NYI' ,
        'DHSNXTI' ,
        'DHSNY3I' ,
        'SBCMIXI' ,
        'SBCNYI' ,
        'DHSNYTO' ,
        'DHORANO' ,
        'HCA5NYO' ,
        'HCA3NYO' ,
        'DHSNY3O' ,
        'HACCMII' ,
        'HACCNYO' ,
        'DHSMI2O' ,
        'TRILO2O' ,
        'TRILO3O' ,
        'HCA3MIO' ,
        'HCA2NYO' ,
        'HCA5MIO' ,
        'DHSNY2O' ,
        'HCA2MIO' ,
        'DHSMIAO' ,
        'HACCMIO' ,
        'TRILO1O' ,
        'SBCMIAI' ,
        'SBCMIAO' ,
        'SBCNYO' ,
        'SBCMIXO' ,
        'SBCNYKO' ,
        'SBCNYKI' ,
        'SBCNYO' ,
        'SBCNYI' ,
        'TRILO3I' ,
        'HACCMII' ,
        'DHSNYTO' ,
        'DHSNYTI' ,
        'SBCMIXO' ,
        'SBCMIXI' ,
        'SBCNY1O' ,
        'SBCNY1I' ,
        'SBC2MO' ,
        'SBCMI' ,
        'SBCNYI' ,
        'SBCNY1I' ,
        'SBC2MI' ,
        'SBCNYKI' ,
        'SBCMO' ,
        'SBC2NYO' ,
        'SBC2NYI' ))

GROUP BY msisdn,
         anumber,
         call_type,
         country
        HAVING (ROUND (SUM (CHARGEABLEDURATION / 60), 2) > 15)
ORDER BY msisdn) A;

```

Steps :

- 1- Copy the number in the list from the latest hourly email alert. Check them in the above query or run the query to check the whole day
- 2- Copy and paste the result in an excel file.

3- Filter to select only High Destination rate Countries.

- Check for High Volume

4- Run query below to check cdrs.

```
SELECT TO_DATE (date_code || time_code,
                'yyyymmddhh24miss')
        DATE_OF_CHARGE,
        call_type,
--          INCOMING_TKGP,
        OUTGOINGROUTE,
--          callingpartynumber anumber,
--          bnumber,
        TRANSLATED_NUMBER,
        ORIGINATINGLOCATIONNUMBER,
        CHARGEABLEDURATION,
        CHARGEABLEDURATION / 60 DUR_MINUTES,
--          OUTGOING_TKGP,
        vendor,
        GSMCALLREFERENCENUMBER,
        networkcallreference,
        node msc_id,
        c.msisdn,
        c.LENGTH_s LENGTH,
        c.country_s country
FROM   CDRMSC.ST_CDRMSC_IMPORT@exae b,
        high_risk_dial_codes_new c
WHERE  date_code = TO_CHAR (SYSDATE, 'yyyymmdd')
        AND TO_DATE (date_code || time_code,
                'yyyymmddhh24miss') >=
                SYSDATE - 3 / 24 --and
        call_type='MOBORIG'
        AND SUBSTR (b.translated_number, 1,
        c.LENGTH_s) =
                c.msisdn
        AND c.msisdn NOT LIKE '%37000000'
        AND OUTGOINGROUTE IN
                ('DHSMI2I',
                'DHSMIAI',
                'DHORANI',
                'DHSNY2I',
                'TRILO1I',
                'TRILO2I',
                'TRILO3I',
                'DHSNYTI',
```

```

'HACCNYI',
'HCA2MII',
'HCA2NYI',
'HCA3MII',
'HCA3NYI',
'HCA5MII',
'HCA5NYI',
'DHSNXTI',
'DHSNY3I',
'SBCMIXI',
'SBCNYI',
'DHSNYTO',
'DHORANO',
'HCA5NYO',
'HCA3NYO',
'DHSNY3O',
'HACCMII',
'HACCNYO',
'DHSMI2O',
'TRILO2O',
'TRILO3O',
'HCA3MIO',
'HCA2NYO',
'HCA5MIO',
'DHSNY2O',
'HCA2MIO',
'DHSMIAO',
'HACCMIO',
'TRILO1O',
'SBCMIAI',
'SBCMIAO',
'SBCNYO',
'SBCMIXO',
'SBCNYKO',
'SBCNYKI',
'SBCNYO',
'SBCNYI',
'TRILO3I',
'HACCMII',
'DHSNYTO',
'DHSNYTI',
'SBCMIXO',
'SBCMIXI',
'SBCNY1O',
'SBCNY1I',
'SBC2MO',
'SBCMI',
'SBCNYI',
'SBCNY1I',
'SBC2MI',
'SBCNYKI',
'SBCMO',
'SBC2NYO',
'SBC2NYI')
GROUP BY TO_DATE (date_code || time_code,
                  'yyyymmddhh24miss'),
         call_type,

```

```

-- INCOMING_TKGP,
OUTGOINGROUTE,
callingpartynumber,
-- bnumber,
TRANSLATED_NUMBER,
ORIGINATINGLOCATIONNUMBER,
CHARGEABLEDURATION,
CHARGEABLEDURATION / 60,
-- OUTGOING_TKGP,
vendor,
    GSMCALLREFERENCENUMBER,
networkcallreference,
node,
c.msisdn,
c.LENGTH_s,
c.country_s
HAVING (ROUND (SUM (CHARGEABLEDURATION / 60), 2) > 15)
ORDER BY 1 desc;

```

- Check for range on TRANSLATEDNUMBER.
- Check for International In-Roamers on Anumber

5- For TRANSLATEDNUMBER ranges pick the summary of calls from all numbers calling the range with the range followed by the % sign. If there is no range or numbers in the range being called are less than 3 or for, just take the Bnumber and the total of calls received.

For The international Anumber send them for blocking:

6- Send Email to Intl Team to block (in/out) calls for the High Rate Destination numbers or ranges