# NRT+ Fraud Alert(IMSI)

This is an alert received from NextGen that mentions IMSIs are making Suspicious call (hot numbertraffic (voice, data, sms) to some destination while roaming into another Network. Below are the scrips and different steps followed to investigate this case if it's related to a Digicel Haiti IMSI range.

## STEPs:

1- Once received the mail Fraud Alert IMSI, first identify if it's a Digicel Haiti IMSI range and secondly run the below script with the IMSI.

   **This query allow to retrieve the msisdn.**
   ```sql
   SELECT DISTINCT MSISDN, IMSI
    FROM DWH_HLR.ST_HLR_IMPORT@EXAE
   WHERE date_code >= TRUNC (SYSDATE - 3)
   AND imsi IN ('');
   ```

2- Run below query on CCN with msisdn to check:

   - **check roamin position**
   - **check sgsnadress to choose roaming**
   - **check location**
   - **check the volume**
   - **check if it is main account or DA**
   - **if it is Dedicated Account check if the plan bought allows to do data in the location found**

   **Fields to check and values meaning**
   ```
   ROAMINGPOSITION = 1 – Voice roaming
   SERVICEIDENTIFIER =0 voice local
   SERVICEIDENTIFIER =4 sms
   ROAMINGPOSITION = 20 – sms roaming
   (Data roaming is based on SGSN address
   SGSNADDRESS '%200.113.210%'
   SGSNADDRESS '%200.113.211%'  Local usage- anything else aside this
   is roaming

   /**************** DATA CDRs from CCN ************/
   ```

```sql
SELECT DATE_CODE,
       TIME_CODE,
       SUBSCRIBERNUMBER,
       CALLINGPARTYNUMBER,
       CALLEDPARTYNUMBER,
       LOCATIONAREACODE,
       LOCATIONMCCMNC,
       ROAMINGPOSITION,
```

```sql
            SERVICEIDENTIFIER,
            TOTALOCTETSUNIT1,
            SERVICECLASSID,
            ACCOUNTVALUEBEFORE,
            ACCOUNTVALUEAFTER,
            DEDACC1ID,
            DEDACC1VALUEBEFORE,
            DEDACC1VALUEAFTER,
            DEDACC1CHANGE,
            GGSNADDRESS,
            SGSNADDRESS,
            SERVICEOFFERINGS,
            ACCUMULATEDCOST,
            ACCOUNTVALUEDEDUCTED,
            AGGREGATEDVALUEAFTER AS RATE
    FROM CCN.ST_CDRCCN_IMPORT@EXAE
   WHERE DATE_CODE BETWEEN '20250130' AND '20250131' --       AND
SERVICEIDENTIFIER > 4
        AND CALLINGPARTYNUMBER IN (

        ''
        )
        ORDER BY 1 DESC, 2 DESC;
```

**3- if nothing is found in CCN we should check in GGSN using the query below.**

```sql
        SELECT DATE_CODE,
        TIME_CODE,
        MARKET_ID,
        SERVEDIMSI,
        GGSNADDRESS,
        CHARGINGID,
        SGSNADDRESS,
        ACCESSPOINTNAMENI,
    PDPTYPE,
    SERVEDPDPADDRESS,
    DATAVOLUMEGPRSUPLINK,
    DATAVOLUMEGPRSDOWNLINK,
    DURATION,
    APNSELECTIONMODE,
    SERVEDMSISDN,
    CHARGINGCHARACTERISTICS,
    SGSNPLMNIDENTIFIER,
    SERVEDIMEISV,
    USERLOCATIONINFORMATION,
    FILENAME,
    FILENAME_ORIG,
    FILENAME_EMM,
    DATE_LOADED
   FROM DATA.ST_EGSN_IMPORT@EXAE
        WHERE DATE_CODE BETWEEN '20250113' AND '20250114' AND SERVEDIMSI IN
        ('');
```

**if session is found check if customer has balance (minsat).**