

DAILY Manual Check

This report is done to detect any fraudulent activity or bypass missed by normal running processes. Below are the scripts used to check today's traffics summary and their diversity.

SCRIPTS:

```
/* Formatted on 4/12/2022 3:43:25 PM (QP5 v5.185.11230.41888) */
SELECT *
FROM (SELECT detection_date,
             min_date,
             max_date,
             msisdn,
             distinct_bnum,
             diversity,
             total_calls,
             totalminutes
FROM ( SELECT /*+ parallel(rt,16) */
        SYSDATE detection_date,
        MIN (tm_start_time) min_date,
        MAX (tm_start_time) max_date,
        rt.id_originated_number AS msisdn,
        COUNT (DISTINCT SUBSTR (rt.id_destination_number, -
8))
        AS distinct_bnum,
        ROUND (
            (COUNT (
                DISTINCT SUBSTR (rt.id_destination_number,
-8)))
            / COUNT (rt.tm_start_time),
            5)
        AS diversity,
        COUNT (rt.tm_start_time) AS total_calls,
        ROUND (SUM (rt.tm_duration) / 60, 5) AS totalminutes
FROM rt_mv2 rt
LEFT JOIN fraud_dev.mvw_brbp_subs_snap sub
ON rt.id_originated_number = sub.msisdn
LEFT JOIN fraud_dev.mvw_brbp_dealer_distrib dist
ON rt.id_originated_number = dist.MSISDN
WHERE      rt.tm_start_time >= TRUNC (SYSDATE)
AND rt.tm_start_time < SYSDATE
AND rt.id_originated_number LIKE '509%'
AND (      (      LENGTH (rt.id_destination_number) < 11
AND LENGTH (rt.id_destination_number) >= 8)
OR (      LENGTH (rt.id_destination_number) <= 11
AND rt.id_destination_number LIKE '509%'))
AND rt.id_destination_number NOT LIKE '%37000000'
AND rt.id_destination_number NOT LIKE '070%'
AND gn_record_type = '0'
/* MSISDN Type is either NULL or Prepaid Subscriber
*/
AND (      UPPER (sub.traffic_case_desc) = 'PREPAID'
OR UPPER (sub.traffic_case_desc) IS NULL)
/* MSISDN Activation Date is NULL or within 90 Days
*/
AND (      sub.activationd_date IS NULL
```

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OR sub.activationd_date >= TRUNC (SYSDATE -
90))

/* MSISDN was not previously DEPLETED */
AND NOT EXISTS
    (SELECT 1
     FROM unbar_history u
     WHERE      u.msisdn =
                rt.id_originated_number
                AND u.flag = 'D')
/* MSISDN was not previously DEPLETED in the last 7
Days */
AND NOT EXISTS
    (SELECT 1
     FROM unbar_history u
     WHERE      u.msisdn =
                rt.id_originated_number
                AND u.flag = 'U'
                AND u.datetime > TRUNC (SYSDATE))
/* MSISDN was not previously DEPLETED in the last 7
Days */
AND NOT EXISTS
    (SELECT 1
     FROM SUB_VALIDATION_STATE_TBL v
     WHERE v.msisdn = rt.id_originated_number)
/* MSISDN was not previously Detected and found in
Detection Table in the last 7 Days
AND NOT EXISTS
    (SELECT 1
     FROM tb_onnet_bp_detect_sum_long d
     WHERE      d.msisdn =
                rt.id_originated_number
                AND detection_date >
                TRUNC (SYSDATE - 2))
/* MSISDN is not Whitelisted */
AND NOT EXISTS
    (SELECT 1
     FROM brbp_ht_digi_whitelist w
     WHERE w.msisdn = rt.id_originated_number)
/* Based on checkhotsite flag - check if MSISDN has
calls on Hotlist Sites
AND (    0 = 0
    OR EXISTS
        (SELECT 1
         FROM tb_onnet_bp_hotsites hot
         WHERE hot.locationinfo =
                rt.nt_location_id))
/* Based on checkhotsite flag - check if MSISDN has
calls on Hotlist Sites */
AND (    0 = 0
    OR EXISTS
        (SELECT 1
         FROM tb_onnet_bp_hot_dealers hot
         WHERE      TRIM (hot.DEALER_CODE) =
                    TRIM (dist.DEALER_CODE)
                    AND hot.START_DATE >=
                    rt.TM_START_TIME
                    AND hot.ACTIVE = 1))

```

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/* Based on checkhotvoucher flag - check if MSISDN
has calls on Hotlist Vouchers */
AND ( 0 = 0
OR EXISTS
(SELECT 1
FROM ( SELECT id_originated_number
COUNT (*) cnt
FROM
tb_onnet_bp_hot_voucher_users
GROUP BY id_originated_number)
WHERE hot.msisdn =
rt.id_originated_number
AND hot.cnt >= 0))
GROUP BY rt.id_originated_number)
WHERE diversity >= 0.95 AND total_calls >= 8);

SELECT *
FROM TB_HOURLY_MANUAL_SUM
WHERE DETECTION_DATE >= TRUNC (SYSDATE - 1)
ORDER BY 1 DESC;

```

STEPS:

- 1- Run the queries above to retrieve numbers with high diversity for today and last day.
- 2- Copy and paste the results in the appropriate excel file in the sheet “SUMMARY_One_day”.

DETECTION_DATE	MIN_DATE	MAX_DATE	MSISDN	DISTINCT_BNUM	DIVERSITY	TOTAL_CALLS	TOTALMINUTES	MSISDNs
3/5/2023 19:16	3/5/2023 18:07	3/5/2023 19:13	50938268161	32	0.94118	34	6.25	'50938268161',
3/6/2023 10:40	3/6/2023 9:01	3/6/2023 10:20	50936388043	30	0.90909	33	27.3	'50936388043',
3/5/2023 21:50	3/5/2023 20:18	3/5/2023 21:13	50931693627	27	0.9	30	4.65	'50931693627',
3/5/2023 14:04	3/5/2023 13:01	3/5/2023 14:01	50934786410	27	0.93103	29	19.73333	'50934786410',
3/6/2023 10:40	3/6/2023 9:32	3/6/2023 10:35	50931794307	21	0.91304	23	12.73333	'50931794307',
3/6/2023 10:40	3/6/2023 9:32	3/6/2023 10:33	50936733620	21	0.95455	22	9.48333	'50936733620',
3/5/2023 17:16	3/5/2023 16:05	3/5/2023 17:10	50938752632	20	0.90909	22	28.05	'50938752632',
3/5/2023 16:13	3/5/2023 15:18	3/5/2023 16:04	50947807703	21	0.95455	22	10.85	'50947807703',
3/6/2023 11:06	3/6/2023 8:16	3/6/2023 10:39	50946941399	20	0.95238	21	19.03333	'50946941399',
3/5/2023 15:13	3/5/2023 14:07	3/5/2023 15:03	50946133689	20	0.95238	21	15.6	'50946133689',
3/6/2023 10:40	3/6/2023 9:00	3/6/2023 9:36	50948936465	18	0.9	20	12.88333	'50948936465',
3/6/2023 10:40	3/6/2023 9:00	3/6/2023 10:03	50937357592	19	0.95	20	21.01667	'50937357592',
3/5/2023 10:52	3/5/2023 9:11	3/5/2023 10:43	50947236984	18	0.9	20	58.28333	'50947236984',
3/6/2023 10:40	3/6/2023 9:02	3/6/2023 10:38	50934088627	18	0.94737	19	34.06667	'50934088627',
3/6/2023 6:08	3/6/2023 5:02	3/6/2023 5:21	50938518290	19	1	19	0.91667	'50938518290',
3/5/2023 13:04	3/5/2023 12:00	3/5/2023 12:58	50934887227	18	0.94737	19	29.93333	'50934887227',
3/6/2023 10:23	3/6/2023 9:50	3/6/2023 10:22	50938695757	17	0.94444	18	9.38333	'50938695757',
3/6/2023 9:08	3/6/2023 8:19	3/6/2023 8:59	50947345426	17	0.94444	18	17.63333	'50947345426',
3/5/2023 18:16	3/5/2023 17:29	3/5/2023 18:10	50934466961	18	1	18	16.81667	'50934466961',
3/5/2023 13:04	3/5/2023 12:01	3/5/2023 12:55	50938043594	17	0.94444	18	36.91667	'50938043594',
3/5/2023 10:52	3/5/2023 9:12	3/5/2023 10:25	50937682522	17	0.94444	18	41.96667	'50937682522',
3/6/2023 10:40	3/6/2023 9:06	3/6/2023 10:31	50931831196	17	1	17	15.31667	'50931831196',
3/6/2023 10:40	3/6/2023 9:05	3/6/2023 10:36	50931220417	17	1	17	14.71667	'50931220417',
3/6/2023 10:40	3/6/2023 9:22	3/6/2023 10:05	50937542523	17	1	17	16.9	'50937542523',
3/5/2023 22:58	3/5/2023 21:00	3/5/2023 22:10	50934446683	16	0.94118	17	47.5	'50934446683',
3/6/2023 10:40	3/6/2023 9:01	3/6/2023 10:27	50948125945	15	0.9375	16	19.9	'50948125945',
3/5/2023 21:50	3/5/2023 20:25	3/5/2023 21:18	50937330486	15	0.9375	16	10.33333	'50937330486',
3/5/2023 19:16	3/5/2023 18:14	3/5/2023 18:48	50936777974	15	0.9375	16	15.63333	'50936777974',
3/5/2023 19:16	3/5/2023 18:01	3/5/2023 19:13	50937055401	15	0.9375	16	13.75	'50937055401',

3- Remove the duplicates then copy the numbers and past in the query below to check diversity for yesterday and today:

```

SELECT /*+ parallel(DWHMO,4) parallel(DWHMTCALL,4) parallel(DWHCD,4) */
DWHMO.CALL_TYPE AS CALL_TYPE,
  MIN (
    TO_DATE (DWHMO.DATE_CODE || DWHMO.TIME_CODE, 'YYYYMMDD
HH24MISS'))
    AS FIRSTCALLED,
  MAX (
    TO_DATE (DWHMO.DATE_CODE || DWHMO.TIME_CODE, 'YYYYMMDD
HH24MISS'))
    AS LASTCALLED,
  ROUND (
    ( MAX (
      TO_DATE (DWHMO.DATE_CODE || DWHMO.TIME_CODE,
        'YYYYMMDD HH24MISS'))
      - MIN (
        TO_DATE (DWHMO.DATE_CODE || DWHMO.TIME_CODE,
          'YYYYMMDD HH24MISS'))
      * 24,
    0)
    HOURS,
  DWHMO.CALLINGPARTYNUMBER,
  COUNT (DWHMO.DATE_CODE) AS TOTAL_CALLS,
  COUNT (DISTINCT SUBSTR (DWHMO.CALLEDPARTYNUMBER, -8)) AS UNIQUE_B,
  ROUND (
    (COUNT (DISTINCT SUBSTR (DWHMO.CALLEDPARTYNUMBER, -8)))
    / COUNT (DWHMO.DATE_CODE),
    2)
    AS DIVERSITY,
  FMSCD.FLAG AS DETECTION_STATE,
  FMSCD.DCODE,
  FMSCD.DETECTION_DATE,
  FMSCD.RELEASED_DATE,
  COUNT (DISTINCT DWHMO.CALLINGSUBSCRIBERIMEI) AS UNIQUE_IMEI,
  COUNT (DISTINCT DWHMO.FIRSTCELLLOCATIONINFO) AS UNIQUE_SITES,
  ROUND (SUM (DWHMO.CHARGEABLEDURATION) / 60, 0) AS TOTAL_MINUTES,
  ROUND (AVG (DWHMO.CHARGEABLEDURATION) / 60, 2) AS ALOC,
  DWHMTCALL.TOTAL_IBCALLS,
  DWHMTCALL.TOTAL_IBMOU,
  DWHMTCALL.FIRST_IB_CALLED,
  DWHMTCALL.LAST_IB_CALLED,
  DWHMTCALL.UNIQ_IBCALLING,
  DWHCD.CDSERVCLASSID,
  DWHCD.CDACTIVATIOND,
  DWHMTCALL.ALOC_IB
FROM (SELECT DISTINCT filename,
  CALL_TYPE,
  DATE_CODE,
  TIME_CODE,
  CALLINGPARTYNUMBER,
  CALLEDPARTYNUMBER,
  FIRSTCELLLOCATIONINFO,
  CHARGEABLEDURATION,
  CALLINGSUBSCRIBERIMEI,

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```

        OUTGOINGROUTE
        FROM CDRMSC.ST_CDRMSC_IMPORT@exae) DWHMO
LEFT OUTER JOIN ( SELECT /*+ parallel(DWHMT,4) */
        DWHMT.CALLEDPARTYNUMBER,
        COUNT (DWHMT.DATE_CODE) AS TOTAL_IBCALLS,
        ROUND (SUM (DWHMT.CHARGEABLEDURATION) /

60, 0)

        AS TOTAL_IBMOU,
        MIN (
        TO_DATE (
        DWHMT.DATE_CODE || DWHMT.TIME_CODE,
        'YYYYMMDD HH24MISS'))
        AS FIRST_IB_CALLDATE,
        MAX (
        TO_DATE (
        DWHMT.DATE_CODE || DWHMT.TIME_CODE,
        'YYYYMMDD HH24MISS'))
        AS LAST_IB_CALLDATE,
        COUNT (DWHMT.CALLINGPARTYNUMBER)
        AS UNIQ_IBCALLING,
        ROUND (AVG (DWHMT.CHARGEABLEDURATION) /

60, 2) AS ALOC_IB

        FROM (SELECT DISTINCT filename,
        CALL_TYPE,
        DATE_CODE,
        TIME_CODE,
        CALLINGPARTYNUMBER,
        CALLEDPARTYNUMBER,
        FIRSTCELLLOCATIONINFO,
        CHARGEABLEDURATION,
        OUTGOINGROUTE,
        CALLINGSUBSCRIBERIMEI
        FROM CDRMSC.ST_CDRMSC_IMPORT@exae)

DWHMT

        WHERE DWHMT.CALL_TYPE = 'MOBTERM'
        AND DWHMT.DATE_CODE BETWEEN TO_CHAR (
        SYSDATE-1,
        'YYYYMMDD')
        AND TO_CHAR (
        SYSDATE,
        'YYYYMMDD')

--TO_DATE('20140322 170000','YYYYMMDD HH24MISS') and TO_DATE('20140322
235959','YYYYMMDD HH24MISS')
        GROUP BY DWHMT.CALLEDPARTYNUMBER) DWHMTCALL
        ON DWHMO.CALLINGPARTYNUMBER = DWHMTCALL.CALLEDPARTYNUMBER
LEFT OUTER JOIN (SELECT DCLCD.MSISDN AS CDMSISDN,
        DCLCD.SERVCLASSID AS CDSERVCLASSID,
        DCLCD.ACTIVATION_DATE AS CDACTIVATIOND
        FROM VW_BRBP_SUBS_SNAP DCLCD) DWHCD
        ON DWHCD.CDMSISDN = DWHMO.CALLINGPARTYNUMBER
LEFT OUTER JOIN (SELECT DISTINCT
        FVMSISDN,
        CASE FLAG
        WHEN 'U' THEN 'RELEASED'
        WHEN 'D' THEN 'BARRED'
        WHEN 'V' THEN 'VALIDATION'
        WHEN 'NF' THEN 'NF'

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        WHEN NULL THEN 'NONE'
        WHEN '' THEN 'NONE'
    END
    AS FLAG,
    DCODE,
    DETECTION_DATE,
    RELEASED_DATE
FROM (SELECT FVUBH.MSISDN AS FVMSISDN,
            FLAG AS FLAG,
            DCODE,
            FVUBH.DATETIME AS DETECTION_DATE,
            FVUBH.UDATETIME AS RELEASED_DATE
    FROM UNBAR_HISTORY@FMSDB1_LN FVUBH
    WHERE NOT EXISTS
        (SELECT 1
         FROM
SUB_VALIDATION_STATE_TBL@FMSDB1_LN
                                WHERE MSISDN = FVUBH.MSISDN)
    UNION
    SELECT FVSVS.MSISDN AS FVMSISDN,
            'V' AS FLAG,
            DCODE,
            FVSVS.DATETIME AS DETECTION_DATE,
            NULL AS RELEASED_DATE
    FROM SUB_VALIDATION_STATE_TBL@FMSDB1_LN
FVSVS)) FMSCD
    ON FMSCD.FVMSISDN = DWHMO.CALLINGPARTYNUMBER
WHERE      DWHMO.DATE_CODE BETWEEN TO_CHAR (SYSDATE-1, 'YYYYMMDD')
        AND TO_CHAR (SYSDATE, 'YYYYMMDD')
AND DWHMO.CALL_TYPE = 'MOBORIG'
AND (      (      LENGTH (DWHMO.CALLEDPARTYNUMBER) < 11
            AND LENGTH (DWHMO.CALLEDPARTYNUMBER) >= 8)
    OR (      LENGTH (DWHMO.CALLEDPARTYNUMBER) <= 11
        --AND DWHMO.CALLEDPARTYNUMBER LIKE '509%'
    ))
AND DWHMO.CALLEDPARTYNUMBER NOT LIKE '%37000000'
AND DWHMO.CALLEDPARTYNUMBER NOT LIKE '070%'
AND DWHMO.CALLINGPARTYNUMBER IN
(
)
GROUP BY DWHMO.CALL_TYPE,
DWHMO.CALLINGPARTYNUMBER,
DWHMTCALL.TOTAL_IBCALLS,
DWHMTCALL.TOTAL_IBMOU,
DWHMTCALL.FIRST_IB_CALLDATE,
DWHMTCALL.LAST_IB_CALLDATE,
DWHMTCALL.UNIQ_IBCALLING,
DWHCD.CDSERVCLASSID,
DWHCD.CDACTIVATIOND,
DWHMTCALL.ALOC_IB,
FMSCD.FLAG,
FMSCD.DCODE,
FMSCD.DETECTION_DATE,
FMSCD.RELEASED_DATE;

```

4- Copy the result and paste in the sheet “SUMMARY_ONE_DAY1”

MANUAL_CHECK_HOURLY_24H - Excel													
CALL_TYPE													
CALL_TYPE	FIRSTCALLDATE	LASTCALLDATE	HOURS	CALLINGPARTYNUMBER	TOTAL_CALLS	UNIQUE_B	DIVERSITY	ACTIV_MONTH	LOCATION_ID	LOCATIONS	ACTION	TOTAL_SUSPICIOUS_PE	
MOBORIG	2/19/2023 8:18	3/6/2023 9:12	361	50931687122	183	37	0.2	2	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:01	3/6/2023 11:14	364	50934722639	428	76	0.18	0	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 18:15	3/5/2023 20:41	338	50936777974	140	43	0.31	177	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/20/2023 8:04	3/5/2023 21:18	325	50937330486	70	28	0.4	56	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 11:44	3/6/2023 11:13	359	50937357592	374	102	0.27	200	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 16:24	3/5/2023 17:16	337	50938752632	74	38	0.51	19	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:45	3/6/2023 10:39	363	50946941399	321	164	0.51	2	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:39	3/6/2023 11:12	364	50931220417	697	341	0.49	36	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/23/2023 20:08	3/6/2023 10:07	254	50931693627	90	43	0.48	19	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/20/2023 17:23	3/5/2023 23:40	318	50931745736	27	19	0.7	2	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/24/2023 10:06	3/6/2023 11:11	241	50931794307	44	38	0.86	69	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 9:49	3/6/2023 10:53	361	50934004773	576	74	0.13	1	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:46	3/6/2023 11:02	363	50934088627	998	523	0.52	8	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 5:59	3/6/2023 10:57	365	50934230694	657	155	0.24	93	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 9:05	3/6/2023 9:49	361	50934446683	206	97	0.47	80	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/20/2023 9:22	3/6/2023 11:17	338	50936183071	725	477	0.66	0	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 8:20	3/6/2023 10:06	362	50937259010	604	201	0.33	201	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	3/2/2023 17:03	3/6/2023 10:13	89	50938053276	90	31	0.34	0	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 5:02	3/6/2023 11:08	366	50938518290	305	81	0.27	140	3103315223	JACMEL	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:57	3/6/2023 11:17	363	50938695757	763	511	0.67	4	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:08	3/6/2023 10:24	363	50947236984	133	49	0.37	85	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 6:47	3/6/2023 11:02	364	50948125945	667	151	0.23	63	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:41	3/6/2023 10:00	362	50931788469	389	62	0.16	1	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:54	3/6/2023 10:31	363	50931831196	238	104	0.44	8	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:30	3/6/2023 9:36	362	50934466961	650	404	0.62	18	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	3/4/2023 15:33	3/6/2023 10:56	43	50934854754	65	24	0.37	0	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 11:46	3/6/2023 10:49	359	50936733620	85	64	0.75	51	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 7:52	3/5/2023 21:53	350	50937682522	53	31	0.58	100	#N/A	#N/A	NOT SUSPICIOUS		
MOBORIG	2/19/2023 8:19	3/6/2023 11:16	363	50934004773	369	13	0.3	4	#N/A	#N/A	NOT SUSPICIOUS		
SUMMARY_One_day		SUMMARY_ONE_DAY1	locations	SUMMARY_LAST_7_DAYS	SUMMARY_Last_15_days	summary_fv	manual_nat						

- In the ACTION field in the current sheet, We already set many conditions using the total of calls, the diversity, the usage in received calls, the activation date to evaluate whether a number should be sent to validation, depleted or considered as not suspicious. Select the depleted and validation rows. And run a summary for 7 days.
- In the results, for diversity over 90% sent them to depletion. For diversity from 80% to 89% Send them to validation.
- Sent the report to the team